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APPENDIX A

Attachment Facilities and System Upgrade Facilities

The following facilities are required pursuant to this Agreement:

I. ATTACHMENT FACILITIES

A. Developer's Attachment Facilities

The Developer's Attachment Facilities for the Existing Facility and Expansion Project described in Appendix C of this Agreement are diagramed in Figure 1 of this Appendix A, and include:

1. Existing Attachment Facilities for the Existing Facility

- (2) 20/26.66/33.33 MVA, 115kV wye-grounded to 6.6 kV delta transformers ("TB #1" and "TB #2")
- (1) 300 KVA, 6.6 kV delta/575 V delta station service transformer ("TB #7")
- (1) 112 KVA, 13.2 kV wye-grounded/ 575 V delta station service transformer ("TB #10") (Former TB #9)
- (1) 115 kV, 2000 A SF6 breaker ("R-17")
- (2) 115 kV, 600 A motor operated switches ("6177" and "6277")
- (6) 115 kV surge arresters
- (1) 115 kV gang operated disconnect switch ("1788")
- (2) 6.9 kV stick operated disconnect switch ("5177" and "5299")
- (1) 13.2 kV gang operated disconnect switch ("7942")
- (4) 7.2 kV, 500 MVA, 1200 A breakers (spring charged) ("R-22", "R-23", "R-24", and "R-25")
- (3) 13.2 kV fuse cutouts ("7943")
- Key interlock system
- (2) Interlock disconnect switches ("6777" and "6799")

2. New Attachment Facilities for the Expansion Project (Shown in Bold in Figure 1)

- (1) 1.5 MVA, 4.1kV delta to 6.64 kV delta transformer, 5.74% impedance ("TB #6")
- (1) 225 KVA, 13.2 kV wye-grounded/ 4.16 kV delta transformer ("TB #9")

Issued by: Stephen G. Whitley, President
Issued on: March 27, 2009

Effective: March 11, 2009

- (1) 225 KVA, 4.16 kV wye-grounded/ 575 V delta station service transformer ("TB #61")
- (1) 4.16 kV Breaker ("R-26")
- (1) 6.9 kV Breaker ("R-21")
- (1) 4.16 kV power fuse ("J688")
- (1) 6.9 kV power fuse ("J699")
- (1) 4.16 kV gang operated air switch ("688")
- (1) 6.9 kV gang operated air switch ("699")
- (1) 4.16 kV fused disconnect switch ("J6")
- (1) 4.16 kV fused disconnect switch ("J988")
- (2) 13.2 kV fused disconnect switches ("J999" and "J1099")
- (1) 13.2 kV fused disconnect switch operated at 575 V ("J1088")
- (3) 4.16 kV fuse cutouts ("J661")
- GSU transformer protection and generator protection to be coordinated with the Connecting Transmission Owner's 115kV supply
- Telecommunications equipment to interface with existing HDCS RTU and Metering Equipment

The Developer shall design and construct the Developer's new Attachment Facilities in accordance with the applicable requirements of the Connecting Transmission Owner, as set out in the National Grid Electric Service Bulletin 756, dated May 2007, to the extent not inconsistent with the terms of this Agreement or the NYISO OATT, and in accordance with the Connecting Transmission Owner's project specific electrical requirements as documented in the project's Connection Facilities Specifications dated February 23, 2009 and appended to the Facilities Study Report, dated February 23, 2009, to the extent not inconsistent with the terms of this Agreement or the NYISO OATT.

B. Connecting Transmission Owner's Attachment Facilities

1. Existing Attachment Facilities for the Existing Facility

- Approximately 900 ft (300 ft per phase) overhead conductor and associated equipment
- (2) CL20 Quad 4 meters
- Steel tower ("T511")

2. New Attachment Facilities for the Expansion Project

- (4) GE Type JCB-4 (8700 V), 2000:5 CTs (replacing the (4) GE Type JCB-4, (8700 V), 1500:5 CTs)

With respect to the Connecting Transmission Owner's Attachment Facilities, the Developer will: (i) procure and install the four new CTs, but will deliver them to the Connecting

Transmission Owner for testing prior to installation, and will (ii) reprogram the revenue meters, in accordance with the applicable requirements of the Connecting Transmission Owner, as set out in the National Grid Electric Service Bulletin 756, dated May 2007, to the extent not inconsistent with the terms of this Agreement or the NYISO OATT, and in accordance with the Connecting Transmission Owner's project specific electrical requirements as documented in the project's Connection Facilities Specifications dated February 23, 2009 and appended to the Facilities Study Report, dated February 23, 2009, to the extent not inconsistent with the terms of this Agreement or the NYISO OATT.

With respect to the Connecting Transmission Owner's Attachment Facilities, the Connecting Transmission Owner will: (i) review and approve all design documents, including but not limited to, equipment specifications, drawings, relay settings, and test reports, will (ii) complete modifications to the RTU and the relays, and will (iii) test and commission the metering and CTs, and RTU modifications.

II. SYSTEM UPGRADE FACILITIES

The interconnection was originally designed and constructed to accommodate a capacity of 66.6 MVA. With the 8.45 MW Expansion Project, the aggregate nameplate capability of the Large Generating Facility will be 37.25 MW or 45.39 MVA. The Interconnection Studies conducted as of the date of this Agreement have not identified any System Upgrade Facilities that are required for the Expansion Project. This assessment may, or may not, change as a result of the 2008 Facilities Study, as discussed in Section VI of this Appendix A.

III. SYSTEM DELIVERABILITY UPGRADES

The System Deliverability Upgrades required for the Expansion Project, if any, will be identified in the Class Year 2008 Deliverability Study, as discussed in Section VI of this Appendix A.

IV. COST ESTIMATES

A. Connecting Transmission Owner's New Attachment Facilities

1.	Engineering Review and compliance, including all required drawing and equipment specification reviews, relay settings, construction and testing assistance by engineers:	\$53,160
2.	Meter and test labor and materials for the metering:	\$13,440
3.	EMS updates to accommodate the new units:	\$26,640
4.	Project Management & Coordination:	\$21,360
	Total Estimated Cost	\$114,600

V. O&M EXPENSES

In accordance with Article 10.5 of this Agreement, the Developer shall be responsible for all reasonable expenses associated with the operation, maintenance, repair and replacement of all existing and new Connecting Transmission Owner's Attachment Facilities ("O&M Expenses"), as such facilities are detailed in Appendix A. The Developer shall have the option to pay such O&M Expenses either under the procedure described in Option 1 or in Option 2 below.

A. Option 1: Fixed On-Going Charge Payment

The Connecting Transmission Owner will invoice and Developer shall pay an annual payment to the Connecting Transmission Owner equal to the product of the Gross Plant Investment cost associated with the Connecting Transmission Owner's Attachment Facilities and the Annual Transmission Ongoing Charge Factor, for the term of this Agreement.

All payments due to be made by the Developer shall be made within thirty (30) days after receiving an invoice from the Connecting Transmission Owner.

The Project's Gross Plant Investment cost associated with Connecting Transmission Owner's Attachment Facilities shall be established in writing by the Connecting Transmission Owner no later than 90 days following Commercial Operation.

The Annual Transmission Ongoing Charge Factor shall be calculated annually each July based on the Connecting Transmission Owner's most recently filed FERC Form 1 data and will equal the sum of the Revenue Requirement Components as identified in O&M Attachment 1 divided by the Total Gross Plant of the Connecting Transmission Owner. Total Gross Plant shall equal the sum of Item Nos. A(1)(a), (b) and (c) in O&M Attachment 1.

B. Option 2: Annual Actual O&M Expenses

The Developer shall pay for all actual O&M Expenses incurred by the Connecting Transmission Owner, which expenses shall be billed by the Connecting Transmission Owner quarterly as accumulated during the calendar quarter for which they were incurred. All payments due to be made by the Developer shall be made within thirty (30) days after receiving an invoice from the Connecting Transmission Owner, which invoice shall be issued after the end of each calendar quarter for the most recent calendar quarter.

C. Selection by Developer

The Developer shall select an option for paying O&M Expenses by providing written notice to the Connecting Transmission Owner within thirty (30) days after receiving from the Connecting Transmission Owner the Gross Plant Investment cost associated with Connecting Transmission Owner's Attachment Facilities and the most recent Annual Transmission Ongoing Charge Factor. If the Developer fails to provide timely notice to the Connecting Transmission Owner of the option selected, the Developer will be deemed to have selected Option 2: Annual Actual O&M expenses.

O&M ATTACHMENT 1

Capitalized terms used in this calculation will have the following definitions:

Allocation Factors

- (1) General Plant Allocation Factor shall equal Electric General Plant divided by the sum of Electric General Plant plus gas general plant as reported in the Annual Report filed with the New York State Public Service Commission.
- (2) Gross Transmission Plant Allocation Factor shall equal the total investment in Transmission Plant in Service divided by the sum of the total Transmission Plant in Service plus the total Distribution Plant in Service, excluding Intangible Plant, General Plant and Common Plant.
- (3) Transmission Wages and Salaries Allocation Factor shall equal the ratio of Connecting Transmission Owner Transmission-related direct electric wages and salaries including any direct wages or salaries charged to Connecting Transmission Owner by a National Grid Affiliate to Connecting Transmission Owner's total electric direct wages and salaries including any wages charged to Connecting Transmission Owner by a National Grid Affiliate excluding any electric administrative and general wages and salaries.

Ratebase and Expense items

Administrative and General Expense shall equal electric expenses as recorded in FERC Account Nos. 920-935.

Amortization of Investment Tax Credits shall equal electric credits as recorded in FERC Account No. 411.4.

Distribution Plant in Service shall equal the gross plant balance as recorded in FERC Account Nos. 360 – 374.

Electric Common Plant shall equal the balance of Common Plant recorded in FERC Account Nos. 389-399 multiplied by the General Plant Allocation Factor.

General Plant shall equal electric gross general plant balance recorded in FERC Account Nos. 389-399.

Materials and Supplies shall equal electric materials and supplies balance as recorded in FERC Account No. 154.

Payroll Taxes shall equal those electric payroll tax expenses as recorded in FERC Account Nos. 408.100, 408.110 and 408.130.

O&M ATTACHMENT 1 (continued)

Prepayments shall equal electric prepayment balance as recorded in FERC Account No. 165.

Real Estate Tax Expenses shall equal electric transmission-related real estate tax expense as recorded in FERC Account No. 408.140 and 408.180.

Transmission Operation and Maintenance Expense shall equal electric expenses as recorded in FERC Account Nos. 560, 562-573.

Transmission Plant in Service shall equal the gross plant balance as recorded in FERC Account Nos. 350-359.

Transmission Revenue Credits shall equal the revenue reported in Account 456

Transmission Related Bad Debt Expense shall equal Bad Debt Expense as reported in Account 904 related to transmission billing.

Wholesale Metering Cost shall equal any costs associated with any Revenue or Remote Terminal Unit (RTU) meters and associated equipment located at an internal or external tie at voltages equal to or greater than 23V. The cost shall be determined by multiplying the number of wholesale meters in FERC Account No. 370.3 by the average cost of the meters plus the average costs of installation.

In the event that the above-referenced FERC accounts are renumbered, renamed, or otherwise modified, the above sections shall be deemed amended to incorporate such renumbered, renamed, modified or additional accounts.

Revenue Requirement Components

The Revenue Requirement Components shall be the sum of Connecting Transmission Owner's (A) Return and Associated Income Taxes, (B) Transmission Related Real Estate Tax Expense, (C) Transmission Related Amortization of Investment Tax Credits, (D) Transmission Related Payroll Tax Expense (E) Transmission Operation and Maintenance Expense, (F) Transmission Related Administrative and General Expenses, less (G) Revenue Credits, plus (H) Bad Debt Expense.

A. Return and Associated Income Taxes shall equal the product of the Transmission Investment Base as identified in A(1) below and the Cost of Capital Rate.

1. Transmission Investment Base shall be defined as

Transmission Related General Plant plus Transmission Related Common Plant plus Transmission Related Regulatory Assets plus Transmission Related Prepayments plus Transmission Related Materials and Supplies plus Transmission Related Cash Working Capital.

O&M ATTACHMENT 1 (continued)

- (a) Transmission Plant in Service shall equal the balance of Total investment in Transmission Plant plus Wholesale Metering Cost.
- (b) Transmission Related General Plant shall equal the balance of investment in General Plant multiplied by the Transmission Wages and Salaries Allocation Factor.
- (c) Transmission Related Common Plant shall equal Electric Common Plant multiplied by the Gross Transmission Plant Allocation Factor and multiplied by the Transmission Wages and Salaries Allocation Factor.
- (d) Transmission Related Regulatory Assets shall equal balances in FERC Account Nos. 182.3 and 254 for state and federal regulatory assets and liabilities related to FAS109, and excess AFUDC multiplied by the Gross Transmission Plant Allocation Factor
- (e) Transmission Related Prepayments shall equal the electric balance of Prepayments multiplied by the Gross Transmission Plant Allocation Factor.
- (f) Transmission Related Materials and Supplies shall equal the balance of Materials and Supplies assigned to Transmission added to the remainder of Material and Supplies not directly assigned to either Transmission or Distribution multiplied by the Gross Transmission Plant Allocation Factor.
- (g) Transmission Related Cash Working Capital shall be a 12.5% allowance (45 days/360 days) of the Transmission Operation and Maintenance Expense (less FERC Account 565: Transmission of Electricity by Others) and Transmission-Related Administrative and General Expense.

2. Cost of Capital Rate

The Cost of Capital Rate shall equal the proposed Weighted Costs of Capital plus Federal Income Taxes and State Income Taxes.

O&M ATTACHMENT 1 (continued)

- (a) The Weighted Costs of Capital will be calculated for the Transmission Investment Base using Connecting Transmission Owner's actual capital structure and will equal the sum of (i), (ii), and (iii) below:
- (i) the long-term debt component, which equals the product of the actual weighted average embedded cost to maturity of Connecting Transmission Owner's long-term debt then outstanding and the actual long-term debt capitalization ratio.
 - (ii) the preferred stock component, which equals the product of the actual weighted average embedded cost to maturity of Connecting Transmission Owner's preferred stock then outstanding and the actual preferred stock capitalization ratio;
 - (iii) the return on equity component, shall be the product of the allowed ROE of 11.9% plus a 50 basis point adder (per FERC Order 697 and 697A) and Connecting Transmission Owner's actual common equity capitalization ratio.

- (b) Federal Income Tax shall equal

$$\frac{A \times \text{Federal Income Tax Rate}}{(1 - \text{Federal Income Tax Rate})}$$

where A is the sum of the preferred stock component and the return on equity component, each as determined in Sections 2.(a)(ii) and for the ROE set forth in 2.(a)(iii) above

O&M ATTACHMENT 1 (continued)

(c) State Income Tax shall equal

$$\frac{(A + \text{Federal Income Tax}) \times \text{State Income Tax Rate}}{(1 - \text{State Income Tax Rate})}$$

Where A is the sum of the preferred stock component and the return on equity component as determined in A.2.(a)(ii) and A.2.(a)(iii) above and Federal income Tax is determined in 2.(b) above.

B. Transmission Related Real Estate Tax Expense shall equal the Real Estate Tax Expenses multiplied by the Gross Plant Allocation Factor.

C. Transmission Related Amortization of Investment Tax Credits shall equal the electric Amortization of Investment Tax Credits multiplied by the Gross Transmission Plant Allocation Factor.

D. Transmission Related Payroll Tax Expense shall equal Payroll Taxes multiplied by the Transmission Wages and Salaries Allocation Factor.

E. Transmission Operation and Maintenance Expense shall equal the Transmission Operation and Maintenance Expense as previously defined.

F. Transmission Related Administrative and General Expenses shall equal the sum of the electric Administrative and General Expenses multiplied by the Transmission Wages and Salaries Allocation Factor.

G. Revenue Credits shall equal all Transmission revenue recorded in FERC account 456.

H. Transmission Related Bad Debt Expense shall equal Transmission Related Bad Debt Expense as previously defined.

VI. ADDITIONAL REQUIREMENTS

The 37.25 MW Large Generating Facility to be covered by this Agreement will be comprised of an existing 28.8 MW hydroelectric facility (the "Existing Facility") and a 8.45 MW hydroelectric expansion project, with a Queue Position numbered 233 (the "Expansion Project"). The Large Generating Facility is described in greater detail in Appendix C of this Agreement. Upon its execution, this Agreement covering the 37.25 MW Large Generating Facility shall, as to the Existing Facility, supersede the interconnection agreement dated February 4, 1999, between Developer and Connecting Transmission Owner that has covered the Existing Facility.

The Interconnection Studies completed as of the date of this Agreement have not identified any System Upgrade Facilities that are required for the Expansion Project. The Developer's Expansion Project is included in Class Year 2008 for purposes of interconnection cost allocation under Attachment S to the NYISO OATT. The Expansion Project will commence Commercial Operation in accordance with the Milestones set forth in Appendix B of this Agreement, and before the final settlement of the Class Year 2008 Facilities Study that includes Developer's Expansion Project.

The Developer shall accept the cost allocation for any Connecting Transmission Owner Attachment Facilities and System Upgrade Facilities for its Expansion Project from the Class Year 2008 Facilities Study, and shall post any Security as required by this Agreement or Attachment S to the NYISO OATT. The Developer shall also make any Headroom payments required by the Class Year Facilities Study pursuant to Attachment S. If the Attachment Facilities and System Upgrade Facilities for the Developer's Expansion Project differ in any material way from those identified in this Agreement, the Parties shall amend this Agreement, pursuant to Sections 29.11 and 29.12 to reflect the Attachment Facilities and the System Upgrade Facilities identified in the Class Year 2008 Facilities Study.

The Developer's 8.45 MW Expansion Project is comprised of two hydroelectric units, one with a capacity of 7.2 MW and the other with a capacity of 1.25 MW. As discussed above, the Expansion Project is being evaluated for interconnection and cost allocation as a member of Class Year 2008. The Developer will only become eligible to supply Unforced Capacity to the New York Control Area from the hydroelectric units comprising the Expansion Project, to the extent of the deliverable capacity of those units, after the Developer has complied with any deliverability requirement applicable to Class Year 2008 projects, including acceptance of any cost allocation related to deliverability upgrades and posting any required security or making any required payments. After the hydroelectric units comprising the Expansion Project commence Commercial Operation, and before the Developer complies with the deliverability requirement applicable to Class Year 2008 projects, the Developer will only be eligible to supply Energy and applicable Ancillary Services to the New York Control Area from the hydroelectric units comprising the Expansion Project.

The Developer's 28.8 MW Existing Facility is comprised of four 7.2 MW hydroelectric units. Upon execution of this Agreement, the Developer will be eligible to supply Energy, applicable Ancillary Services and Unforced Capacity to the New York Control Area from the hydroelectric units comprising the Existing Facility.

Sherman Island Facility (Queue #233)



Effective: **March 11, 2009**

Appendix B

Milestones for Expansion Project (28.8 MW Existing Facility Continues Commercial Operation Under This Agreement)

In-Service Date: Unit #6: March 2009
 Unit #1: March 2009

Critical milestones and responsibility as agreed to by the Parties:

	Responsible	Milestone
Order metering CT's	Developer	completed
Submit final design and equipment specs to Connecting Transmission Owner	Developer	completed
Complete review of final design and return comments	Connecting Transmission Owner	completed
Submit relay coordination study, ground grid design calculations and corrected design.	Developer	completed
Complete review of the relay coordination study, ground grid design calculations, and revised final design	Connecting Transmission Owner	completed
Submit energization sequence and complete all functional tests and verifications for Unit #6	Developer and Connecting Transmission Owner	completed
Unit #6 In Service	Developer and Connecting Transmission Owner	03/09
Unit #6 Initial Synchronization and Commercial Operation	ALL	03/09
Submit six week notice of functional testing	Developer and Connecting Transmission Owner	03/09
Complete communication circuits and install metering	Connecting Transmission Owner	03/09
Complete construction	Connecting Transmission Owner	03/09
Submit energization sequence and complete all functional tests and verifications for Unit #1	Developer and Connecting Transmission Owner	03/09
Unit #1 In Service	Developer and Connecting Transmission Owner	03/09
Unit #1 Initial Synchronization and Commercial Operation	ALL	03/09

Issued by: Stephen G. Whitley, President
 Issued on: March 27, 2009

Effective: March 11, 2009

Appendix C

Interconnection Details

1. Description of Large Generating Facility including Point of Interconnection

Developer's existing Sherman Island Hydroelectric Generating Facility (the "Existing Facility") is located near Glens Falls, in the Town of Queensbury in Warren County, New York. The Existing Facility consists of four 7.2 MW hydroelectric generating units, with a total combined capacity of 28.8 MW.

The Developer is expanding its Existing Facility with a 8.45 MW project, Queue Position numbered 233 (the "Expansion Project") consisting of one 7.2 MW hydroelectric generating unit and one 1.25 MW hydroelectric generating unit. The two hydroelectric units included in the Expansion Project will commence Commercial Operation in accordance with the milestones listed in Appendix B of this Agreement. The combined capacity of the Existing Facility and the Expansion Project (together the "Large Generating Facility") will total 37.25 MW. Upon its execution, this Agreement covering the 37.25 MW Large Generating Facility shall, only as to the Existing Facility, supersede the interconnection agreement dated February 4, 1999 between Developer and Connecting Transmission Owner that has covered the Existing Facility.

The Point of Change of Ownership, as shown on Figure 1 in Appendix A, is at the line side of Developer's Disconnect Switch #1788, in the Sherman Island Substation. The Point of Interconnection, as shown on Figure 1 in Appendix A, is at a point where Connecting Transmission Owner's Attachment Facility, a 300-foot 115 kV tap line, taps Connecting Transmission Owner's Spier-Queensbury #17 115 kV transmission line. This Point of Interconnection is located 3.84 miles from Connecting Transmission Owner's Spier Falls Substation and 4.97 miles from Connecting Transmission Owner's Queensbury Substation.

See Appendix A, Figure 1 for additional details, including the power factor of each hydroelectric generating unit.

2. Developer Operating Requirements

- (a) Developer must comply with all applicable NYISO tariffs and procedures, as amended from time to time.
- (b) Developer must comply with Connecting Transmission Owner's operating instructions and requirements as referenced in Article 9.3 of this Agreement, which requirements shall include the dedicated data circuits, including system protection circuits, to be maintained by Developer in accordance with Article 8.1 of this Agreement.
- (c) The Developer must comply with relevant provisions of the Connecting Transmission Owner's Electric System Bulletin 756, including appendices, as amended from time to time, to the extent not inconsistent with the terms of this Agreement or the NYISO OATT.

Appendix D

Security Arrangements Details

Infrastructure security of New York State Transmission System equipment and operations and control hardware and software is essential to ensure day-to-day New York State Transmission System reliability and operational security. The Commission will expect the NYISO, all Connecting Transmission Owners, all Developers and all other Market Participants to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities will be expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

Appendix E

Commercial Operation Date

[Date]

New York Independent System Operator, Inc.
3890 Carman Road
Schenectady, NY 12303
Attn: Vice President, Operations

Niagara Mohawk Power Corporation
300 Erie Blvd W
Bldg # F2
Syracuse, NY 13202
Attn: Manager, National Grid
And Manager, System Power Control

Re: _____ Large Generating Facility

Dear _____:

On [Date] [Developer] has completed Trial Operation of Unit No. _____. This letter confirms that [Developer] commenced Commercial Operation of Unit No. _____ at the Large Generating Facility, effective as of [Date plus one day].

Thank you.

[Signature]

[Developer Representative]

Issued by: Stephen G. Whitley, President
Issued on: March 27, 2009

Effective: March 11, 2009

Appendix F

Addresses for Delivery of Notices and Billings

Notices:

NYISO:

Before Commercial Operation of the Large Generating Facility:

New York Independent System Operator, Inc.
Attention: Vice President, System and Resource Planning
10 Krey Boulevard
Rensselaer, NY 12144
Phone: (518) 356-6000
Fax: (518) 356-6118

After Commercial Operation of the Large Generating Facility:

New York Independent System Operator, Inc.
Attention: Vice President, Operations
3890 Carman Road
Schenectady, NY 12303
Phone: (518) 356-6000

Connecting Transmission Owner:

Niagara Mohawk Power Corporation d/b/a National Grid
Attn: Mr. William Malee
Manager, Transmission Commercial Services
300 Erie Blvd W
Building # F2
Syracuse, NY 13202
Phone: (508) 389-2062
Fax: (315) 428-6114

Developer:

Mr. Thomas Uncher
General Manager
Brookfield Renewable Power
339B Big Bay Rd.
Queensbury, NY 12804
Phone: (518) 743-2018
Fax: (518) 745-4292
thomas.uncher@brookfieldpower.com

Billings and Payments:

Connecting Transmission Owner:

Niagara Mohawk Power Corporation d/b/a National Grid
Attn: Mr. Douglas Fuess
300 Erie Blvd W
Building # F2
Syracuse, NY 13202
Phone: (315) 428-5326
Fax: (315) 460-8607

Developer:

Mr. Thomas Uncher
General Manager
Brookfield Renewable Power
339B Big Bay Rd.
Queensbury, NY 12804
Phone: (518) 743-2018
Fax: (518) 745-4292
thomas.uncher@brookfieldpower.com

Alternative Forms of Delivery of Notices (telephone, facsimile or email):

NYISO:

Before Commercial Operation of the Large Generating Facility:

New York Independent System Operator, Inc.
Attention: Vice President, System and Resource Planning
10 Krey Boulevard
Rensselaer, NY 12144
Phone: (518) 356-6000
Fax: (518) 356-6118

After Commercial Operation of the Large Generating Facility:

New York Independent System Operator, Inc.
Attention: Vice President, Operations
3890 Carman Road
Schenectady, NY 12303
Phone: (518) 356-6000

Connecting Transmission Owner:

Niagara Mohawk Power Corporation d/b/a National Grid
Attn: Mr. Douglas Fuess
300 Erie Blvd W
Building # F2
Syracuse, NY 13202
Phone: (315) 428-5326
Fax: (315) 460-8607

Developer:

Brookfield Renewable Power
Attn: Mr. Kim Osmars
US Chief Operating Officer
200 Donald Lynch Blvd, Suite 102
Marlborough, MA 01752-4705

APPENDIX G

INTERCONNECTION REQUIREMENTS FOR A WIND GENERATING PLANT

Appendix G sets forth requirements and provisions specific to a wind generating plant. All other requirements of this LGIA continue to apply to wind generating plant interconnections.

A. Technical Standards Applicable to a Wind Generating Plant

i. Low Voltage Ride-Through (LVRT) Capability

A wind generating plant shall be able to remain online during voltage disturbances up to the time periods and associated voltage levels set forth in the standard below. The LVRT standard provides for a transition period standard and a post-transition period standard.

Transition Period LVRT Standard

The transition period standard applies to wind generating plants subject to FERC Order 661 that have either: (i) interconnection agreements signed and filed with the Commission, filed with the Commission in unexecuted form, finally executed as conforming agreements, or filed with the Commission as non-conforming agreements between January 1, 2006 and December 31, 2006, with a scheduled in-service date no later than December 31, 2007, or (ii) wind generating turbines subject to a wind turbine procurement contract executed prior to December 31, 2005, for delivery through 2007.

1. Wind generating plants are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4 – 9 cycles) and single line to

ground faults with delayed clearing, and subsequent post-fault voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system.

The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by the Connecting Transmission Owner for the Transmission District to which the wind generating plant will be interconnected. The maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault shall be 9 cycles at a voltage as low as 0.15 p.u., as measured at the high side of the wind generating plant step-up transformer (i.e. the transformer that steps the voltage up to the transmission interconnection voltage or “GSU”), after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the transmission system.

2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU or to faults that would result in a voltage lower than 0.15 per unit on the high side of the GSU serving the facility.
3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.
4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAR Compensator, etc.) within the wind generating plant or by a combination of generator performance and additional equipment.

5. Existing individual generator units that are, or have been, interconnected to the network at the same location at the effective date of the Appendix G LVRT Standard are exempt from meeting the Appendix G LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced are required to meet the Appendix G LVRT Standard.

Post-transition Period LVRT Standard

All wind generating plants subject to FERC Order No. 661 and not covered by the transition period described above must meet the following requirements:

1. Wind generating plants are required to remain in-service during three-phase faults with normal clearing (which is a time period of approximately 4 – 9 cycles) and single line to ground faults with delayed clearing, and subsequent post-fault voltage recovery to prefault voltage unless clearing the fault effectively disconnects the generator from the system. The clearing time requirement for a three-phase fault will be specific to the wind generating plant substation location, as determined by and documented by the Connecting Transmission Owner for the Transmission District to which the wind generating plant will be interconnected. The maximum clearing time the wind generating plant shall be required to withstand for a three-phase fault shall be 9 cycles after which, if the fault remains following the location-specific normal clearing time for three-phase faults, the wind generating plant may disconnect from the transmission system. A wind generating plant shall remain interconnected during such a fault on the transmission system for a voltage level as low as zero volts, as measured at the high voltage side of the wind GSU.

2. This requirement does not apply to faults that would occur between the wind generator terminals and the high side of the GSU.
3. Wind generating plants may be tripped after the fault period if this action is intended as part of a special protection system.
4. Wind generating plants may meet the LVRT requirements of this standard by the performance of the generators or by installing additional equipment (e.g., Static VAr Compensator) within the wind generating plant or by a combination of generator performance and additional equipment.
5. Existing individual generator units that are, or have been, interconnected to the network at the same location at the effective date of the Appendix G LVRT Standard are exempt from meeting the Appendix G LVRT Standard for the remaining life of the existing generation equipment. Existing individual generator units that are replaced are required to meet the Appendix G LVRT Standard.

ii. Power Factor Design Criteria (Reactive Power)

A wind generating plant shall maintain a power factor within the range of 0.95 leading to 0.95 lagging, measured at the Point of Interconnection as defined in this LGIA, if the ISO's System Reliability Impact Study shows that such a requirement is necessary to ensure safety or reliability.

The power factor range standards can be met using, for example without limitation, power electronics designed to supply this level of reactive capability (taking into account any limitations

due to voltage level, real power output, etc.) or fixed and switched capacitors if agreed to by the Connecting Transmission Owner for the Transmission District to which the wind generating plant will be interconnected, or a combination of the two. The Developer shall not disable power factor equipment while the wind plant is in operation. Wind plants shall also be able to provide sufficient dynamic voltage support in lieu of the power system stabilizer and automatic voltage regulation at the generator excitation system if the System Reliability Impact Study shows this to be required for system safety or reliability.

iii. Supervisory Control and Data Acquisition (SCADA) Capability

The wind plant shall provide SCADA capability to transmit data and receive instructions from the ISO and/or the Connecting Transmission Owner for the Transmission District to which the wind generating plant will be interconnected, as applicable, to protect system reliability. The Connecting Transmission Owner for the Transmission District to which the wind generating plant will be interconnected and the wind plant Developer shall determine what SCADA information is essential for the proposed wind plant, taking into account the size of the plant and its characteristics, location, and importance in maintaining generation resource adequacy and transmission system reliability in its area.