

**MERCHANT TRANSMISSION FACILITY  
INTERCONNECTION AGREEMENT**

**BY AND AMONG**

**THE NEW YORK INDEPENDENT TRANSMISSION SYSTEM OPERATOR, INC.**

**AND**

**CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.**

**AND**

**HUDSON TRANSMISSION PARTNERS, LLC**

**Dated As Of April 20, 2011**

## TABLE OF CONTENTS

	Page No.
<b>ARTICLE 1. DEFINITIONS .....</b>	<b>1</b>
<b>ARTICLE 2. EFFECTIVE DATE, TERM AND TERMINATION .....</b>	<b>11</b>
<b>2.1 Effective Date. ....</b>	<b>11</b>
<b>2.2 Term of Agreement. ....</b>	<b>11</b>
<b>2.3 Termination. ....</b>	<b>11</b>
<b>2.4 Termination Costs. ....</b>	<b>12</b>
<b>2.5 Disconnection. ....</b>	<b>13</b>
<b>2.6 Survival. ....</b>	<b>13</b>
<b>ARTICLE 3. REGULATORY FILINGS .....</b>	<b>13</b>
<b>3.1 Filing. ....</b>	<b>13</b>
<b>ARTICLE 4. SCOPE OF INTERCONNECTION SERVICE .....</b>	<b>13</b>
<b>4.1 Provision of Service. ....</b>	<b>13</b>
<b>4.2 No Transmission Delivery Service. ....</b>	<b>14</b>
<b>4.3 No Other Services. ....</b>	<b>14</b>
<b>ARTICLE 5. INTERCONNECTION FACILITIES ENGINEERING, PROCUREMENT, AND CONSTRUCTION .....</b>	<b>14</b>
<b>5.1 Options. ....</b>	<b>14</b>
<b>5.2 General Conditions Applicable to Option to Build. ....</b>	<b>16</b>
<b>5.3 Liquidated Damages. ....</b>	<b>17</b>
<b>5.4 Reserved. ....</b>	<b>18</b>
<b>5.5 Equipment Procurement. ....</b>	<b>18</b>
<b>5.6 Construction Commencement. ....</b>	<b>19</b>
<b>5.7 Work Progress. ....</b>	<b>19</b>
<b>5.8 Information Exchange. ....</b>	<b>20</b>

5.9	Limited Operation. ....	20
5.10	Developer’s Attachment Facilities (“DAF”). ....	20
5.11	Connecting Transmission Owner’s Attachment Facilities Construction. ....	21
5.12	Access Rights. ....	21
5.13	Lands of Other Property Owners. ....	22
5.14	Permits. ....	22
5.15	Early Construction of Base Case Facilities. ....	22
5.16	Suspension. ....	22
5.17	Taxes.....	23
5.18	Tax Status; Non-Jurisdictional Entities.....	28
5.19	Modification.....	29
ARTICLE 6. TESTING AND INSPECTION .....		30
6.1	Pre-Commercial Operation Date Testing and Modifications. ....	30
6.2	Post-Commercial Operation Date Testing and Modifications. ....	30
6.3	Right to Observe Testing. ....	30
6.4	Right to Inspect. ....	31
ARTICLE 7. METERING .....		31
7.1	General. ....	31
7.2	Check Meters. ....	31
7.3	Standards. ....	32
7.4	Testing of Metering Equipment. ....	32
7.5	Metering Data. ....	32
ARTICLE 8. COMMUNICATIONS .....		32
8.1	Developer Obligations. ....	32

8.2	Remote Terminal Unit. ....	33
8.3	No Annexation. ....	33
<b>ARTICLE 9. OPERATIONS.....</b>		<b>33</b>
9.1	General. ....	33
9.2	NYISO and Connecting Transmission Owner Obligations. ....	33
9.3	Developer Obligations. ....	34
9.4	Start-Up and Synchronization. ....	34
9.5	Real and Reactive Power Control. ....	34
9.6	Outages and Interruptions. ....	35
9.7	Switching and Tagging Rules. ....	39
9.8	Use of Attachment Facilities by Third Parties. ....	39
9.9	Disturbance Analysis Data Exchange. ....	39
<b>ARTICLE 10. MAINTENANCE.....</b>		<b>39</b>
10.1	Connecting Transmission Owner Obligations. ....	39
10.2	Developer Obligations. ....	40
10.3	Coordination. ....	40
10.4	Secondary Systems. ....	40
10.5	Operating and Maintenance Expenses. ....	40
<b>ARTICLE 11. PERFORMANCE OBLIGATION .....</b>		<b>40</b>
11.1	Developer Attachment Facilities. ....	40
11.2	Connecting Transmission Owner’s Attachment Facilities. ....	40
11.3	System Upgrade Facilities and System Deliverability Upgrades. ....	41
11.4	Special Provisions for Affected Systems. ....	41
11.5	Provision of Security. ....	41

11.6	Developer Compensation for Emergency Services .....	42
11.7	Line Outage Costs. ....	42
<b>ARTICLE 12. INVOICE.....</b>		<b>42</b>
12.1	General. ....	42
12.2	Final Invoice .....	42
12.3	Payment. ....	42
12.4	Disputes. ....	42
<b>ARTICLE 13. EMERGENCIES .....</b>		<b>43</b>
13.1	Obligations. ....	43
13.2	Notice. ....	43
13.3	Immediate Action. ....	43
13.4	NYISO and Connecting Transmission Owner Authority. ....	43
13.5	Developer Authority. ....	44
13.6	Limited Liability. ....	45
<b>ARTICLE 14. REGULATORY REQUIREMENTS AND GOVERNING LAW .....</b>		<b>45</b>
14.1	Regulatory Requirements. ....	45
14.2	Governing Law.....	45
<b>ARTICLE 15. NOTICES .....</b>		<b>45</b>
15.1	General. ....	45
15.2	Billings and Payments. ....	46
15.3	Alternative Forms of Notice. ....	46
15.4	Operations and Maintenance Notice. ....	46
<b>ARTICLE 16. FORCE MAJEURE .....</b>		<b>46</b>
16.1	Force Majeure. ....	46
<b>ARTICLE 17. DEFAULT .....</b>		<b>47</b>

17.1	Default.....	47
<b>ARTICLE 18. INDEMNITY, CONSEQUENTIAL DAMAGES AND INSURANCE .....</b>		<b>47</b>
18.1	Indemnity. ....	47
18.2	No Consequential Damages. ....	49
18.3	Insurance. ....	49
<b>ARTICLE 19. ASSIGNMENT .....</b>		<b>51</b>
19.1	Assignment. ....	51
<b>ARTICLE 20. SEVERABILITY .....</b>		<b>51</b>
20.1	Severability. ....	51
<b>ARTICLE 21. COMPARABILITY .....</b>		<b>52</b>
21.1	Comparability. ....	52
<b>ARTICLE 22. CONFIDENTIALITY .....</b>		<b>52</b>
22.1	Confidentiality. ....	52
<b>ARTICLE 23. ENVIRONMENTAL RELEASES.....</b>		<b>55</b>
23.1	Developer and Connecting Transmission Owner Notice. . ....	55
<b>ARTICLE 24. INFORMATION REQUIREMENT.....</b>		<b>55</b>
24.1	Information Acquisition. ....	56
24.2	Information Submission by Connecting Transmission Owner. ....	56
24.3	Updated Information Submission by Developer. ....	56
24.4	Information Supplementation .....	56
<b>ARTICLE 25. INFORMATION ACCESS AND AUDIT RIGHTS.....</b>		<b>57</b>
25.1	Information Access. ....	57
25.2	Reporting of Non-Force Majeure Events. ....	57
25.3	Audit Rights. ....	57
25.4	Audit Rights Periods.....	58
25.5	Audit Results. ....	58

<b>ARTICLE 26. SUBCONTRACTORS .....</b>	<b>58</b>
<b>26.1 General. ....</b>	<b>58</b>
<b>26.2 Responsibility of Principal. ....</b>	<b>58</b>
<b>26.3 No Limitation by Insurance. ....</b>	<b>59</b>
<b>ARTICLE 27. DISPUTES.....</b>	<b>59</b>
<b>27.1 Submission. ....</b>	<b>59</b>
<b>27.2 External Arbitration Procedures. ....</b>	<b>59</b>
<b>27.3 Arbitration Decisions. ....</b>	<b>59</b>
<b>27.4 Costs. ....</b>	<b>60</b>
<b>27.5 Termination. ....</b>	<b>60</b>
<b>ARTICLE 28. REPRESENTATIONS, WARRANTIES AND COVENANTS.....</b>	<b>60</b>
<b>28.1 General. ....</b>	<b>60</b>
<b>ARTICLE 29. MISCELLANEOUS .....</b>	<b>61</b>
<b>29.1 Binding Effect. ....</b>	<b>61</b>
<b>29.2 Conflicts. ....</b>	<b>61</b>
<b>29.3 Rules of Interpretation. ....</b>	<b>61</b>
<b>29.4 Compliance. ....</b>	<b>62</b>
<b>29.5 Joint and Several Obligations. ....</b>	<b>62</b>
<b>29.6 Entire Agreement. ....</b>	<b>62</b>
<b>29.7 No Third Party Beneficiaries. ....</b>	<b>62</b>
<b>29.8 Waiver. ....</b>	<b>62</b>
<b>29.9 Headings. ....</b>	<b>62</b>
<b>29.10 Multiple Counterparts. ....</b>	<b>62</b>
<b>29.11 Amendment. ....</b>	<b>63</b>
<b>29.12 Modification by the Parties. ....</b>	<b>63</b>

<b>29.13</b>	<b>Reservation of Rights.</b>	<b>.....63</b>
<b>29.14</b>	<b>No Partnership.</b>	<b>.....63</b>
<b>29.15</b>	<b>Other Transmission Rights.</b>	<b>.....63</b>
	<b>Appendices.....</b>	<b>65</b>



## **MERCHANT TRANSMISSION FACILITY INTERCONNECTION AGREEMENT**

### **THIS MERCHANT FACILITY INTERCONNECTION AGREEMENT**

("Agreement") is made and entered into this 20<sup>th</sup> day of April 2011, by and among Hudson Transmission Partners, LLC, a limited liability company organized and existing under the laws of the State of New York ("Developer"), the New York Independent System Operator, Inc., a not-for-profit corporation organized and existing under the laws of the State of New York ("NYISO"), and Consolidated Edison Company of New York, Inc., a corporation organized and existing under the laws of the State of New York ("Connecting Transmission Owner"). Developer, the NYISO, or Connecting Transmission Owner each may be referred to as a "Party" or collectively referred to as the "Parties."

### **RECITALS**

**WHEREAS**, NYISO operates the Transmission System and Connecting Transmission Owner owns certain facilities included in the Transmission System; and

**WHEREAS**, Developer intends to own, lease and/or control and operate the Merchant Transmission Facility identified in Appendix C to this Agreement; and

**WHEREAS**, Developer, NYISO, and Connecting Transmission Owner have agreed to enter into this Agreement for the purpose of interconnecting the Merchant Transmission Facility with the New York State Transmission System;

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein, it is agreed:

### **ARTICLE 1. DEFINITIONS**

Whenever used in this Agreement with initial capitalization, the following terms shall have the meanings specified in this Article 1. Terms used in this Agreement with initial capitalization that are not defined in this Article 1, shall have the meanings specified in Section 30.1.0 or Attachment S of the NYISO OATT.

**Affected System** shall mean an electric system other than the transmission system owned, controlled or operated by the Connecting Transmission Owner that may be affected by the proposed interconnection.

**Affected System Operator** shall mean the entity that operates an Affected System.

**Affected Transmission Owner** shall mean the New York public utility or authority (or its designated agent) other than the Connecting Transmission Owner that (i) owns facilities used for the transmission of Energy in interstate commerce and provides Transmission Service under

the Tariff, and (ii) owns, leases or otherwise possesses an interest in a portion of the New York State Transmission System where System Deliverability Upgrades or System Upgrade Facilities are installed pursuant to Attachment X and Attachment S of the Tariff.

**Affiliate** shall mean, with respect to a person or entity, any individual, corporation, partnership, firm, joint venture, association, joint-stock company, trust or unincorporated organization, directly or indirectly controlling, controlled by, or under common control with, such person or entity. The term “control” shall mean the possession, directly or indirectly, of the power to direct the management or policies of a person or an entity. A voting interest of ten percent or more shall create a rebuttable presumption of control.

**Ancillary Services** shall mean those services that are necessary to support the transmission of Capacity and Energy from resources to Loads while maintaining reliable operation of the New York State Transmission System in accordance with Good Utility Practice.

**Applicable Laws and Regulations** shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority, including but not limited to Environmental Law.

**Applicable Reliability Councils** shall mean the NERC, the NPCC and the NYSRC and to the extent applicable for portions of the Merchant Transmission Facility and Developer Attachment Facilities located beyond the New York Control Area, the PJM Interconnection LLC (“PJM”) and Reliability First Corporation (“RFC”).

**Applicable Reliability Standards** shall mean the requirements and guidelines of the Applicable Reliability Councils, and the Transmission District to which the Developer’s Merchant Transmission Facility is directly interconnected, as those requirements and guidelines are amended and modified and in effect from time to time; provided that no Party shall waive its right to challenge the applicability or validity of any requirement or guideline as applied to it in the context of this Agreement.

**Attachment Facilities** shall mean the Connecting Transmission Owner’s Attachment Facilities and the Developer’s Attachment Facilities. Collectively, Attachment Facilities include all facilities and equipment between the Merchant Transmission Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Merchant Transmission Facility to the New York State Transmission System. Attachment Facilities are sole use facilities and shall not include Stand Alone System Upgrade Facilities or System Upgrade Facilities or System Deliverability Upgrades.

**Base Case** shall mean the base case power flow, short circuit, and stability data bases used for the Interconnection Studies by NYISO, Connecting Transmission Owner or Developer; described in Section 30.2.3 of the Large Facility Interconnection Procedures.

**Breach** shall mean the failure of a Party to perform or observe any material term or condition of this Agreement.

**Breaching Party** shall mean a Party that is in Breach of this Agreement.

**Business Day** shall mean Monday through Friday, excluding federal holidays.

**Byway** shall mean all transmission facilities comprising the New York State Transmission System that are neither Highways nor Other Interfaces. All transmission facilities in Zone J and Zone K are Byways.

**Calendar Day** shall mean any day including Saturday, Sunday or a federal holiday.

**Capacity Region** shall mean one of three subsets of the Installed Capacity statewide markets comprised of Rest of State (Zones A through I), Long Island (Zone K), and New York City (Zone J).

**Capacity Resource Interconnection Service (“CRIS”)** shall mean the service provided by NYISO to interconnect the Developer’s Merchant Transmission Facility to the New York State Transmission System in accordance with the NYISO Deliverability Interconnection Standard, to enable the New York State Transmission System to deliver electric capacity from the Merchant Transmission Facility, pursuant to the terms of the NYISO OATT.

**Class Year Deliverability Study** shall mean an assessment, conducted by the NYISO staff in cooperation with Market Participants, to determine the System Deliverability Upgrades required for each generation and merchant transmission project included in the Class Year Interconnection Facilities Study to interconnect to the New York State Transmission System in compliance with the NYISO Deliverability Interconnection Standard.

**Clustering** shall mean the process whereby a group of Interconnection Requests is studied together, instead of serially, for the purpose of conducting the Interconnection System Reliability Impact Study.

**Commercial Operation** shall mean the status of a Merchant Transmission Facility that has commenced transmitting electricity, excluding electricity transmitted during Trial Operation.

**Commercial Operation Date** of a unit shall mean the date on which the Merchant Transmission Facility commences Commercial Operation as agreed to by the Parties pursuant to Appendix E to this Agreement.

**Confidential Information** shall mean any information that is defined as confidential by Article 22 of this Agreement.

**Connecting Transmission Owner** shall mean the New York public utility or authority (or its designated agent) that (i) owns facilities used for the transmission of Energy in interstate commerce and provides Transmission Service under the Tariff, (ii) owns, leases or otherwise possesses an interest in the portion of the New York State Transmission System at the Point of Interconnection, and (iii) is a Party to the Standard Large Interconnection Agreement.

**Connecting Transmission Owner's Attachment Facilities** shall mean all facilities and equipment owned, controlled or operated by the Connecting Transmission Owner from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to this Agreement, including any modifications, additions or upgrades to such facilities and equipment. Connecting Transmission Owner's Attachment Facilities are sole use facilities and shall not include Stand Alone System Upgrade Facilities or System Upgrade Facilities.

**Control Area** shall mean an electric power system or combination of electric power systems to which a common automatic generation control scheme is applied in order to: (1) match, at all times, the power output of the Generators within the electric power system(s) and capacity and energy purchased from entities outside the electric power system(s), with the Load within the electric power system(s); (2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice; (3) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and (4) provide sufficient generating capacity to maintain Operating Reserves in accordance with Good Utility Practice. A Control Area must be certified by the NPCC or RFC, as applicable.

**Default** shall mean the failure of a Party in Breach of this Agreement to cure such Breach in accordance with Article 17 of this Agreement.

**Deliverability Interconnection Standard** shall mean the standard that must be met by any Merchant Transmission Facility proposing to interconnect to the New York State Transmission System and become a qualified Installed Capacity Supplier. To meet the NYISO Deliverability Interconnection Standard, the Developer of the proposed Merchant Transmission Facility must, in accordance with the rules in Attachment S to the NYISO OATT, fund or commit to fund the System Deliverability Upgrades identified for its project in the Class Year Deliverability Study.

**Developer** shall mean an Eligible Customer developing a Merchant Transmission Facility, proposing to connect to the New York State Transmission System, in compliance with the NYISO Minimum Interconnection Standard.

**Developer's Attachment Facilities** shall mean all facilities and equipment, as identified in Appendix A of this Agreement, that are located between the Merchant Transmission Facility and the Point of Change of Ownership, including any modification, addition, or upgrades to such facilities and equipment necessary to physically and electrically interconnect the Merchant Transmission Facility to the New York State Transmission System. Developer's Attachment Facilities are sole use facilities.

**Dispute Resolution** shall mean the procedure described in Article 27 of this Agreement for resolution of a dispute between the Parties.

**Effective Date** shall mean the date on which this Agreement becomes effective upon execution by the Parties, subject to acceptance by the Commission, or if filed unexecuted, upon the date specified by the Commission.

**Emergency State** shall mean the condition or state that the New York State Power System is in when an abnormal condition occurs that requires automatic or immediate manual action to prevent or limit loss of the New York State Transmission System or Generators that could adversely affect the reliability of the New York State Power System.

**Energy Resource Interconnection Service (“ERIS”)** shall mean the service provided by NYISO to interconnect the Developer’s Merchant Transmission Facility to the New York State Transmission System in accordance with the NYISO Minimum Interconnection Standard, to enable the New York State Transmission System to receive Energy and Ancillary Services from the Merchant Transmission Facility, pursuant to the terms of the NYISO OATT.

**Engineering & Procurement (E&P) Agreement** shall mean an agreement that authorizes Connecting Transmission Owner to begin engineering and procurement of long lead-time items necessary for the establishment of the interconnection in order to advance the implementation of the Interconnection Request.

**Environmental Law** shall mean Applicable Laws or Regulations relating to pollution or protection of the environment or natural resources.

**Federal Power Act** shall mean the Federal Power Act, as amended, 16 U.S.C. §§ 791a *et seq.* (“FPA”).

**FERC** shall mean the Federal Energy Regulatory Commission (“Commission”) or its successor.

**Force Majeure** shall mean any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party’s control. A Force Majeure event does not include acts of negligence or intentional wrongdoing by the Party claiming Force Majeure.

**Generating Facility** shall mean Developer’s device for the production of electricity identified in the Interconnection Request, but shall not include the Developer’s Attachment Facilities.

**Generating Facility Capacity** shall mean the net seasonal capacity of the Generating Facility and the aggregate net seasonal capacity of the Generating Facility where it includes multiple energy production devices.

**Good Utility Practice** shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to delineate acceptable practices, methods, or acts generally accepted in the region.

**Governmental Authority** shall mean any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over any of the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include Developer, NYISO, Affected Transmission Owner, Connecting Transmission Owner, or any Affiliate thereof.

**Hazardous Substances** shall mean any chemicals, materials or substances defined as or included in the definition of “hazardous substances,” “hazardous wastes,” “hazardous materials,” “hazardous constituents,” “restricted hazardous materials,” “extremely hazardous substances,” “toxic substances,” “radioactive substances,” “contaminants,” “pollutants,” “toxic pollutants” or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

**Highway** shall mean 115 kV and higher transmission facilities that comprise the following NYCA interfaces: Dysinger East, West Central, Volney East, Moses South, Central East/Total East, UPNY-SENY and UPNY-ConEd, and their immediately connected, in series, Bulk Power System facilities in New York State. Each interface shall be evaluated to determine additional “in series” facilities, defined as any transmission facility higher than 115 kV that (a) is located in an upstream or downstream zone adjacent to the interface and (b) has a power transfer distribution factor (DFAX) equal to or greater than five percent when the aggregate of generation in zones or systems adjacent to the upstream zone or zones which define the interface is shifted to the aggregate of generation in zones or systems adjacent to the downstream zone or zones which define the interface. In determining “in series” facilities for Dysinger East and West Central interfaces, the 115 kV and 230 kV tie lines between NYCA and PJM located in LBMP Zones A and B shall not participate in the transfer. Highway transmission facilities are listed in ISO Procedures.

**Initial Synchronization Date** shall mean the date upon which the Merchant Transmission Facility is initially synchronized with the New York State Transmission System and upon which Trial Operation begins.

**In-Service Date** shall mean the date upon which the Developer reasonably expects it will be ready to begin use of the Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities to obtain back feed power.

**Interconnection Facilities Study** shall mean a study conducted by NYISO or a third party consultant for the Developer to determine a list of facilities (including Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades as identified in the Interconnection System Reliability Impact Study), the cost of those facilities, and the time required to interconnect the Merchant Transmission Facility with the New York State Transmission System. The scope of the study is defined in Section 30.8 of the Standard Large Facility Interconnection Procedures.

**Interconnection Facilities Study Agreement** shall mean the form of agreement contained in Appendix 4 of the Standard Large Facility Interconnection Procedures for conducting the Interconnection Facilities Study.

**Interconnection Feasibility Study** shall mean a preliminary evaluation of the system impact and cost of interconnecting the Merchant Transmission Facility to the New York State Transmission System, the scope of which is described in Section 30.6 of the Standard Large Facility Interconnection Procedures.

**Interconnection Feasibility Study Agreement** shall mean the form of agreement contained in Appendix 2 of the Standard Large Facility Interconnection Procedures for conducting the Interconnection Feasibility Study.

**Interconnection Request** shall mean a Developer's request, in the form of Appendix 1 to the Standard Large Facility Interconnection Procedures, in accordance with the Tariff, to interconnect a new Merchant Transmission Facility to the New York State Transmission System, or to increase the capacity of, or make a material modification to the operating characteristics of, an existing Merchant Transmission Facility that is interconnected with the New York State Transmission System.

**Interconnection Study** shall mean any of the following studies: the Interconnection Feasibility Study, the Interconnection System Reliability Impact Study, and the Interconnection Facilities Study described in the Standard Large Facility Interconnection Procedures.

**Interconnection System Reliability Impact Study ("SRIS")** shall mean an engineering study, conducted in accordance with Section 30.7 of the Large Facility Interconnection Procedures, that evaluates the impact of the proposed Merchant Transmission Facility on the safety and reliability of the New York State Transmission System and, if applicable, an Affected

System, to determine what Attachment Facilities and System Upgrade Facilities are needed for the proposed Merchant Transmission Facility of the Developer to connect reliably to the New York State Transmission System in a manner that meets the NYISO Minimum Interconnection Standard.

**Interconnection System Reliability Impact Study Agreement** shall mean the form of agreement contained in Appendix 3 of the Standard Large Facility Interconnection Procedures for conducting the Interconnection System Reliability Impact Study.

**IRS** shall mean the Internal Revenue Service.

**Large Generating Facility** shall mean a Generating Facility having a Generating Facility Capacity of more than 20 MW.

**Loss** shall mean any and all losses relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the Indemnified Party's performance or non-performance of its obligations under this Agreement on behalf of the Indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the Indemnified Party.

**Material Modification** shall mean those modifications that have a material impact on the cost or timing of any Interconnection Request with a later queue priority date.

**Merchant Transmission Facility** shall mean generally a merchant facility for the transmission of electricity, and specifically the Developer's facility for the transmission of electricity as described in this Agreement and the Appendices hereto.

**Merchant Transmission Facility Interconnection Agreement** shall mean this Agreement.

**Metering Equipment** shall mean all metering equipment installed or to be installed at the Point of Interconnection, including but not limited to instrument transformers, MWh-meters, data acquisition equipment, transducers, remote terminal unit, communications equipment, phone lines, and fiber optics.

**Minimum Interconnection Standard** shall mean the reliability standard that must be met by any Merchant Transmission Facility proposing to connect to the New York State Transmission System. The Standard is designed to ensure reliable access by the proposed project to the New York State Transmission System. The Standard does not impose any deliverability test or deliverability requirement on the proposed interconnection.



**NERC** shall mean the North American Electric Reliability Council or its successor organization.

**New York State Transmission System** shall mean the entire New York State electric transmission system, which includes (i) the Transmission Facilities under ISO Operational Control; (ii) the Transmission Facilities Requiring ISO Notification; and (iii) all remaining transmission facilities within the New York Control Area.

**Notice of Dispute** shall mean a written notice of a dispute or claim that arises out of or in connection with this Agreement or its performance.

**NPCC** shall mean the Northeast Power Coordinating Council or its successor organization.

**NYSRC** shall mean the New York State Reliability Council or its successor organization.

**Optional Interconnection Study** shall mean a sensitivity analysis based on assumptions specified by the Developer in the Optional Interconnection Study Agreement.

**Optional Interconnection Study Agreement** shall mean the form of agreement contained in Appendix 5 of the Standard Large Facility Interconnection Procedures for conducting the Optional Interconnection Study.

**Other Interfaces** shall mean interfaces into New York capacity regions, Zone J and Zone K, and external ties into the New York Control Area.

**Party or Parties** shall mean NYISO, Connecting Transmission Owner, or Developer or any combination of the above.

**Point of Change of Ownership** shall mean the point, as set forth in Appendix A to this Agreement, where the Developer's Attachment Facilities connect to the Connecting Transmission Owner's Attachment Facilities.

**Point of Interconnection** shall mean the point, as set forth in Appendix A to this Agreement, where the Attachment Facilities connect to the New York State Transmission System.

**Queue Position** shall mean the order of a valid Interconnection Request, relative to all other pending valid Interconnection Requests, that is established based upon the date and time of receipt of the valid Interconnection Request by NYISO.

**Reasonable Efforts** shall mean, with respect to an action required to be attempted or taken by a Party under this Agreement, efforts that are timely and consistent with Good Utility

Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Scoping Meeting** shall mean the meeting between representatives of the Developer, NYISO and Connecting Transmission Owner conducted for the purpose of discussing alternative interconnection options, to exchange information including any transmission data and earlier study evaluations that would be reasonably expected to impact such interconnection options, to analyze such information, and to determine the potential feasible Points of Interconnection.

**Services Tariff** shall mean the NYISO Market Administration and Control Area Tariff, as filed with the Commission, and as amended or supplemented from time to time, or any successor tariff thereto.

**Site Control** shall mean documentation reasonably demonstrating: (1) ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Merchant Transmission Facility; (2) an option to purchase or acquire a leasehold site for such purpose; or (3) an exclusivity or other business relationship between Developer and the entity having the right to sell, lease or grant Developer the right to possess or occupy a site for such purpose.

**Stand Alone System Upgrade Facilities** shall mean System Upgrade Facilities that a Developer may construct without affecting day-to-day operations of the New York State Transmission System during their construction. NYISO, the Connecting Transmission Owner and the Developer must agree as to what constitutes Stand Alone System Upgrade Facilities and identify them in Appendix A to this Agreement.

**Standard Large Facility Interconnection Procedures (“LFIP”)** shall mean the interconnection procedures applicable to an Interconnection Request pertaining to a Merchant Transmission Facility that are included in Attachment X of the NYISO OATT.

**Standard Large Generator Interconnection Agreement (“LGIA”)** shall mean the form of interconnection agreement applicable to an Interconnection Request pertaining to a Large Generating Facility, that is included in Attachment X of the NYISO OATT.

**System Deliverability Upgrades** shall mean the least costly configuration of commercially available components of electrical equipment that can be used, consistent with Good Utility Practice and Applicable Reliability Requirements, to make the modifications or additions to Byways and Highways and Other Interfaces on the existing New York State Transmission System that are required for the proposed project to connect reliably to the system in a manner that meets the NYISO Deliverability Interconnection Standard at the requested level of Capacity Resource Interconnection Service.

**System Protection Facilities** shall mean the equipment, including necessary protection signal communications equipment, required to (1) protect the New York State Transmission System from faults or other electrical disturbances occurring at the Merchant Transmission

Facility and (2) protect the Merchant Transmission Facility from faults or other electrical system disturbances occurring on the New York State Transmission System or on other delivery systems or other generating systems to which the New York State Transmission System is directly connected.

**System Upgrade Facilities** shall mean the least costly configuration of commercially available components of electrical equipment that can be used, consistent with Good Utility Practice and Applicable Reliability Requirements, to make the modifications to the existing transmission system that are required to maintain system reliability due to: (i) changes in the system, including such changes as load growth and changes in load pattern, to be addressed in the form of generic generation or transmission projects; and (ii) proposed interconnections. In the case of proposed interconnection projects, System Upgrade Facilities are the modifications or additions to the existing New York State Transmission System that are required for the proposed project to connect reliably to the system in a manner that meets the NYISO Minimum Interconnection Standard.

**Tariff** shall mean the NYISO Open Access Transmission Tariff (“OATT”), as filed with the Commission, and as amended or supplemented from time to time, or any successor tariff.

**Trial Operation** shall mean the period during which Developer is engaged in on-site test operations and commissioning of the Merchant Transmission Facility prior to Commercial Operation.

## **ARTICLE 2. EFFECTIVE DATE, TERM AND TERMINATION**

**2.1 Effective Date.** This Agreement shall become effective upon execution by the Parties, subject to acceptance by FERC, or if filed unexecuted, upon the date specified by FERC. The NYISO and Connecting Transmission Owner shall promptly file this Agreement with FERC upon execution in accordance with Article 3.1.

**2.2 Term of Agreement.** Subject to the provisions of Article 2.3, this Agreement shall remain in effect for a period of twenty-five (25) years from the Effective Date and shall be automatically renewed for each successive one-year period thereafter.

### **2.3 Termination.**

**2.3.1 Written Notice.** This Agreement may be terminated by the Developer after giving the NYISO and Connecting Transmission Owner ninety (90) Calendar Days advance written notice, or by the NYISO and Connecting Transmission Owner notifying FERC after the Merchant Transmission Facility permanently ceases Commercial Operations.

**2.3.2 Default.** Any Party may terminate this Agreement in accordance with Article 17.

**2.3.3 Compliance.** Notwithstanding Articles 2.3.1 and 2.3.2, no termination of this Agreement shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this Agreement, which notice has been accepted for filing by FERC.

**2.4 Termination Costs.** If a Party elects to terminate this Agreement pursuant to Article 2.3.1 above, the terminating Party shall pay all costs incurred (including any cancellation costs relating to orders or contracts for Attachment Facilities and equipment) or charges assessed by the other Parties, as of the date of the other Parties' receipt of such notice of termination, that are the responsibility of the terminating Party under this Agreement. In the event of termination by a Party, all Parties shall use commercially Reasonable Efforts to mitigate the costs, damages and charges arising as a consequence of termination. Upon termination of this Agreement, unless otherwise ordered or approved by FERC:

**2.4.1** With respect to any portion of the Connecting Transmission Owner's Attachment Facilities that have not yet been constructed or installed, the Connecting Transmission Owner shall to the extent possible and with Developer's authorization cancel any pending orders of, or return, any materials or equipment for, or contracts for construction of, such facilities; provided that in the event Developer elects not to authorize such cancellation, Developer shall assume all payment obligations with respect to such materials, equipment, and contracts, and the Connecting Transmission Owner shall deliver such material and equipment, and, if necessary, assign such contracts, to Developer as soon as practicable, at Developer's expense. To the extent that Developer has already paid Connecting Transmission Owner for any or all such costs of materials or equipment not taken by Developer, Connecting Transmission Owner shall promptly refund such amounts to Developer, less any costs, including penalties incurred by the Connecting Transmission Owner to cancel any pending orders of or return such materials, equipment, or contracts.

If Developer terminates this Agreement, it shall be responsible for all costs incurred in association with Developer's interconnection, including any cancellation costs relating to orders or contracts for Attachment Facilities and equipment, and other expenses including any System Upgrade Facilities and System Deliverability Upgrades for which the Connecting Transmission Owner has incurred expenses and has not been reimbursed by the Developer.

**2.4.2** Connecting Transmission Owner may, at its option, retain any portion of such materials, equipment, or facilities that Developer chooses not to accept delivery of, in which case Connecting Transmission Owner shall be responsible for all costs associated with procuring such materials, equipment, or facilities.

**2.4.3** With respect to any portion of the Attachment Facilities, and any other facilities already installed or constructed pursuant to the terms of this Agreement, Developer shall be responsible for all costs associated with the removal, relocation or other disposition or retirement of such materials, equipment, or facilities.

**2.5 Disconnection.** Upon termination of this Agreement, Developer and Connecting Transmission Owner will take all appropriate steps to disconnect the Developer's Merchant Transmission Facility from the New York State Transmission System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this Agreement or such non-terminating Party otherwise is responsible for these costs under this Agreement.

**2.6 Survival.** This Agreement shall continue in effect after termination to the extent necessary to provide for final billings and payments and for costs incurred hereunder; including billings and payments pursuant to this Agreement; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this Agreement was in effect; and to permit Developer and Connecting Transmission Owner each to have access to the lands of the other pursuant to this Agreement or other applicable agreements, to disconnect, remove or salvage its own facilities and equipment.

### **ARTICLE 3. REGULATORY FILINGS**

**3.1 Filing.** NYISO and Connecting Transmission Owner shall file this Agreement (and any amendment hereto) with the appropriate Governmental Authority, if required. Any information related to studies for interconnection asserted by Developer to contain Confidential Information shall be treated in accordance with Article 22 of this Agreement and Attachment F to the NYISO OATT. If the Developer has executed this Agreement, or any amendment thereto, the Developer shall reasonably cooperate with NYISO and Connecting Transmission Owner with respect to such filing and to provide any information reasonably requested by NYISO and Connecting Transmission Owner needed to comply with Applicable Laws and Regulations.

### **ARTICLE 4. SCOPE OF INTERCONNECTION SERVICE**

**4.1 Provision of Service.** NYISO will provide Developer with interconnection service of the following type for the term of this Agreement.

**4.1.1 Product.** NYISO will provide Energy Resource Interconnection Service and Capacity Resource Interconnection Service to Developer at the Point of Interconnection.

**4.1.2 Developer** is responsible for ensuring that its actual Merchant Transmission Facility output matches the scheduled delivery from the Merchant Transmission Facility to the New York State Transmission System, consistent with the scheduling requirements of the NYISO's FERC-approved market structure, including ramping into and out of such scheduled delivery, as measured at the Point of Interconnection, consistent with the scheduling requirements of the NYISO OATT and any applicable FERC-approved market structure.

**4.2 No Transmission Delivery Service.** The execution of this Agreement does not constitute a request for, nor agreement to provide, any Transmission Service under the NYISO OATT, and does not convey any right to deliver electricity to any specific customer or Point of Delivery. If Developer wishes to obtain Transmission Service on the New York State Transmission System, then Developer must request such Transmission Service in accordance with the provisions of the NYISO OATT.

**4.3 No Other Services.** The execution of this Agreement does not constitute a request for, nor agreement to provide Energy, any Ancillary Services or Installed Capacity under the NYISO Market Administration and Control Area Services Tariff ("Services Tariff"). If Developer wishes to supply Energy, Installed Capacity or Ancillary Services, then Developer will make application to do so in accordance with the NYISO Services Tariff and the NYISO Installed Capacity Manual. This Agreement does not in any way alter the Merchant Transmission Facility's eligibility for Unforced Capacity Deliverability Rights to the extent such Unforced Capacity Deliverability Rights are requested by the Merchant Transmission Facility after execution of this Agreement.

## **ARTICLE 5. INTERCONNECTION FACILITIES ENGINEERING, PROCUREMENT, AND CONSTRUCTION**

**5.1 Options.** Unless otherwise mutually agreed to by Developer and Connecting Transmission Owner, Developer shall select the In-Service Date, Initial Synchronization Date, and Commercial Operation Date; and either Standard Option or Alternate Option set forth below for completion of the Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades as set forth in Appendix A hereto, and such dates and selected option shall be set forth in Appendix B hereto.

**5.1.1 Standard Option.** The Connecting Transmission Owner shall design, procure, and construct the Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades, using Reasonable Efforts to complete the Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades by the dates set forth in Appendix B hereto. The Connecting Transmission Owner shall not be required to undertake any action which is inconsistent with its standard safety practices, its material and equipment specifications, its design criteria and construction procedures, its labor agreements, and Applicable Laws and

Regulations. In the event the Connecting Transmission Owner reasonably expects that it will not be able to complete the Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades, by the specified dates, the Connecting Transmission Owner shall promptly provide written notice to the Developer and NYISO, and shall undertake Reasonable Efforts to meet the earliest dates thereafter.

- 5.1.2 Alternate Option.** If the dates designated by Developer are acceptable to Connecting Transmission Owner, the Connecting Transmission Owner shall so notify Developer and NYISO within thirty (30) Calendar Days, and shall assume responsibility for the design, procurement and construction of the Connecting Transmission Owner's Attachment Facilities by the designated dates.

If Connecting Transmission Owner subsequently fails to complete Connecting Transmission Owner's Attachment Facilities by the In-Service Date, to the extent necessary to provide back feed power; or fails to complete System Upgrade Facilities or System Deliverability Upgrades by the Initial Synchronization Date to the extent necessary to allow for Trial Operation at full power output, unless other arrangements are made by the Developer and Connecting Transmission Owner for such Trial Operation; or fails to complete the System Upgrade Facilities and System Deliverability Upgrades by the Commercial Operation Date, as such dates are reflected in Appendix B hereto; Connecting Transmission Owner shall pay Developer liquidated damages in accordance with Article 5.3, Liquidated Damages, provided, however, the dates designated by Developer shall be extended day for day for each day that NYISO refuses to grant clearances to install equipment.

- 5.1.3 Option to Build.** If the dates designated by Developer are not acceptable to Connecting Transmission Owner, the Connecting Transmission Owner shall so notify the Developer and NYISO within thirty (30) Calendar Days, and unless the Developer and Connecting Transmission Owner agree otherwise, Developer shall have the option to assume responsibility for the design, procurement and construction of Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities on the dates specified in Article 5.1.2; provided that if an Attachment Facility or Stand Alone System Upgrade Facility is needed for more than one Developer's project, Developer's option to build such Facility shall be contingent on the agreement of all other affected Developers. NYISO, Connecting Transmission Owner and Developer must agree as to what constitutes Stand Alone System Upgrade Facilities and identify such Stand Alone System Upgrade Facilities in Appendix A hereto. Except for Stand Alone System Upgrade Facilities, Developer shall have no right to construct System Upgrade Facilities under this option.

- 5.1.4 Negotiated Option.** If the Developer elects not to exercise its option under Article 5.1.3, Option to Build, Developer shall so notify Connecting Transmission

Owner and NYISO within thirty (30) Calendar Days, and the Developer and Connecting Transmission Owner shall in good faith attempt to negotiate terms and conditions (including revision of the specified dates and liquidated damages, the provision of incentives or the procurement and construction of a portion of the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities by Developer) pursuant to which Connecting Transmission Owner is responsible for the design, procurement and construction of the Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades. If the two Parties are unable to reach agreement on such terms and conditions, Connecting Transmission Owner shall assume responsibility for the design, procurement and construction of the Connecting Transmission Owner's Attachment Facilities and System Upgrades Facilities and System Deliverability Upgrades pursuant to 5.1.1, Standard Option.

**5.2 General Conditions Applicable to Option to Build.** If Developer assumes responsibility for the design, procurement and construction of the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities,

- (1) Developer shall engineer, procure equipment, and construct the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities (or portions thereof) using Good Utility Practice and using standards and specifications provided in advance by the Connecting Transmission Owner;
- (2) Developer's engineering, procurement and construction of the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities shall comply with all requirements of law to which Connecting Transmission Owner would be subject in the engineering, procurement or construction of the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities;
- (3) Connecting Transmission Owner shall review and approve the engineering design, equipment acceptance tests, and the construction of the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities;
- (4) Prior to commencement of construction, Developer shall provide to Connecting Transmission Owner and NYISO a schedule for construction of the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities, and shall promptly respond to requests for information from Connecting Transmission Owner or NYISO;
- (5) At any time during construction, Connecting Transmission Owner shall have the right to gain unrestricted access to the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities and to conduct inspections of the same;
- (6) At any time during construction, should any phase of the engineering, equipment procurement, or construction of the Connecting Transmission Owner's Attachment Facilities and



Stand Alone System Upgrade Facilities not meet the standards and specifications provided by Connecting Transmission Owner, the Developer shall be obligated to remedy deficiencies in that portion of the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities;

(7) Developer shall indemnify Connecting Transmission Owner and NYISO for claims arising from the Developer's construction of Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities under procedures applicable to Article 18.1 Indemnity;

(8) Developer shall transfer control of Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities to the Connecting Transmission Owner;

(9) Unless the Developer and Connecting Transmission Owner otherwise agree, Developer shall transfer ownership of Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities to Connecting Transmission Owner;

(10) Connecting Transmission Owner shall approve and accept for operation and maintenance the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities to the extent engineered, procured, and constructed in accordance with this Article 5.2; and

(11) Developer shall deliver to NYISO and Connecting Transmission Owner "as built" drawings, information, and any other documents that are reasonably required by NYISO or Connecting Transmission Owner to assure that the Attachment Facilities and Stand Alone System Upgrade Facilities are built to the standards and specifications required by Connecting Transmission Owner.

**5.3 Liquidated Damages.** The actual damages to the Developer, in the event the Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades are not completed by the dates designated by the Developer and accepted by the Connecting Transmission Owner pursuant to subparagraphs 5.1.2 or 5.1.4, above, may include Developer's fixed operation and maintenance costs and lost opportunity costs. Such actual damages are uncertain and impossible to determine at this time. Because of such uncertainty, any liquidated damages paid by the Connecting Transmission Owner to the Developer in the event that Connecting Transmission Owner does not complete any portion of the Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades by the applicable dates, shall be an amount equal to 1/2 of 1 percent per day of the actual cost of the Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades, in the aggregate, for which Connecting Transmission Owner has assumed responsibility to design, procure and construct.

However, in no event shall the total liquidated damages exceed 20 percent of the actual cost of the Connecting Transmission Owner Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades for which the Connecting Transmission Owner has assumed responsibility to design, procure, and construct. The foregoing payments will be made by the Connecting Transmission Owner to the Developer as just compensation for the damages caused to the Developer, which actual damages are uncertain and impossible to determine at this time, and as reasonable liquidated damages, but not as a penalty or a method to secure performance of this Agreement. Liquidated damages, when the Developer and Connecting Transmission Owner agree to them, are the exclusive remedy for the Connecting Transmission Owner's failure to meet its schedule.

Further, Connecting Transmission Owner shall not pay liquidated damages to Developer if: (1) Developer is not ready to commence use of the Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades to take the delivery of power for the Developer's Merchant Transmission Facility's Trial Operation or to transmit power from the Developer's Merchant Transmission Facility on the specified dates, unless the Developer would have been able to commence use of the Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades to take the delivery of power for Developer's Merchant Transmission Facility's Trial Operation or to transmit power from the Developer's Merchant Transmission Facility, but for Connecting Transmission Owner's delay; (2) the Connecting Transmission Owner's failure to meet the specified dates is the result of the action or inaction of the Developer or any other Developer who has entered into a Merchant Transmission Facility Interconnection Agreement with the Connecting Transmission Owner and NYISO, or action or inaction by any other Party, or any other cause beyond Connecting Transmission Owner's reasonable control or reasonable ability to cure; (3) the Developer has assumed responsibility for the design, procurement and construction of the Connecting Transmission Owner's Attachment Facilities and Stand Alone System Upgrade Facilities; or (4) the Connecting Transmission Owner and Developer have otherwise agreed.

In no event shall NYISO have any liability whatever to Developer for liquidated damages associated with the engineering, procurement or construction of Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades.

#### **5.4 Reserved.**

**5.5 Equipment Procurement.** If responsibility for construction of the Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades is to be borne by the Connecting Transmission Owner, then the Connecting Transmission Owner shall commence design of the Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades and procure necessary equipment as soon as practicable after all of the

following conditions are satisfied, unless the Developer and Connecting Transmission Owner otherwise agree in writing:

**5.5.1** NYISO and Connecting Transmission Owner have completed the Interconnection Facilities Study pursuant to the Interconnection Facilities Study Agreement;

**5.5.2** The NYISO has completed the required cost allocation analyses, and Developer has accepted his share of the costs for necessary System Upgrade Facilities and System Deliverability Upgrades in accordance with the provisions of Attachment S of the NYISO OATT;

**5.5.3** The Connecting Transmission Owner has received written authorization to proceed with design and procurement from the Developer by the date specified in Appendix B hereto; and

**5.5.4** The Developer has provided security to the Connecting Transmission Owner in accordance with Article 11.5 by the dates specified in Appendix B hereto.

**5.6 Construction Commencement.** The Connecting Transmission Owner shall commence construction of the Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades for which it is responsible as soon as practicable after the following additional conditions are satisfied:

**5.6.1** Approval of the appropriate Governmental Authority has been obtained for any facilities requiring regulatory approval;

**5.6.2** Necessary real property rights and rights-of-way have been obtained, to the extent required for the construction of a discrete aspect of the Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades;

**5.6.3** The Connecting Transmission Owner has received written authorization to proceed with construction from the Developer by the date specified in Appendix B hereto; and

**5.6.4** The Developer has provided security to the Connecting Transmission Owner in accordance with Article 11.5 by the dates specified in Appendix B hereto.

**5.7 Work Progress.** The Developer and Connecting Transmission Owner will keep each other, and NYISO, advised periodically as to the progress of their respective design, procurement and construction efforts. Any Party may, at any time, request a progress report from the Developer or Connecting Transmission Owner. If, at any time, the Developer determines that the completion of the Connecting Transmission Owner's

Attachment Facilities will not be required until after the specified In-Service Date, the Developer will provide written notice to the Connecting Transmission Owner and NYISO of such later date upon which the completion of the Connecting Transmission Owner's Attachment Facilities will be required.

**5.8 Information Exchange.** As soon as reasonably practicable after the Effective Date, the Developer and Connecting Transmission Owner shall exchange information, and provide NYISO the same information, regarding the design and compatibility of the Attachment Facilities and compatibility of the Attachment Facilities with the New York State Transmission System, and shall work diligently and in good faith to make any necessary design changes.

**5.9 Limited Operation.** If any of the Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades are not reasonably expected to be completed prior to the Commercial Operation Date of the Developer's Merchant Transmission Facility, NYISO shall, upon the request and at the expense of Developer, in conjunction with the Connecting Transmission Owner, perform operating studies on a timely basis to determine the extent to which the Developer's Merchant Transmission Facility and the Developer's Attachment Facilities may operate prior to the completion of the Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades consistent with Applicable Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and this Agreement. Connecting Transmission Owner and NYISO shall permit Developer to operate the Developer's Merchant Transmission Facility and the Developer's Attachment Facilities in accordance with the results of such studies.

**5.10 Developer's Attachment Facilities ("DAF").** Developer shall, at its expense, design, procure, construct, own and install the DAF, as set forth in Appendix A hereto.

**5.10.1 DAF Specifications.** Developer shall submit initial specifications for the DAF, including System Protection Facilities, to Connecting Transmission Owner and NYISO at least one hundred eighty (180) Calendar Days prior to the Initial Synchronization Date; and final specifications for review and comment at least ninety (90) Calendar Days prior to the Initial Synchronization Date. Connecting Transmission Owner and NYISO shall review such specifications to ensure that the DAF are compatible with the technical specifications, operational control, and safety requirements of the Connecting Transmission Owner and NYISO and comment on such specifications within thirty (30) Calendar Days of Developer's submission. All specifications provided hereunder shall be deemed to be Confidential Information.

**5.10.2 No Warranty.** The review of Developer's final specifications by Connecting Transmission Owner and NYISO shall not be construed as confirming, endorsing, or providing a warranty as to the design, fitness, safety, durability or reliability of the Merchant Transmission Facility, or the DAF. Developer shall make such

changes to the DAF as may reasonably be required by Connecting Transmission Owner or NYISO, in accordance with Good Utility Practice, to ensure that the DAF are compatible with the technical specifications, operational control, and safety requirements of the Connecting Transmission Owner and NYISO.

**5.10.3 DAF Construction.** The DAF shall be designed and constructed in accordance with Good Utility Practice. Within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Developer and Connecting Transmission Owner agree on another mutually acceptable deadline, the Developer shall deliver to the Connecting Transmission Owner and NYISO “as-built” drawings, information and documents for the DAF, such as: a one-line diagram, a site plan showing the Merchant Transmission Facility and the DAF, plan and elevation drawings showing the layout of the DAF, a relay functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with the Developer’s step-up transformers, the facilities connecting the Merchant Transmission Facility to the step-up transformers and the DAF, and the impedances (determined by factory tests) for the associated step-up transformers and the Merchant Transmission Facility. The Developer shall provide to, and coordinate with, Connecting Transmission Owner and NYISO with respect to proposed specifications for the excitation system, automatic voltage regulator, Merchant Transmission Facility control and protection settings, transformer tap settings, and communications, if applicable.

**5.11 Connecting Transmission Owner’s Attachment Facilities Construction.** The Connecting Transmission Owner’s Attachment Facilities shall be designed and constructed in accordance with Good Utility Practice. Upon request, within one hundred twenty (120) Calendar Days after the Commercial Operation Date, unless the Connecting Transmission Owner and Developer agree on another mutually acceptable deadline, the Connecting Transmission Owner shall deliver to the Developer “as-built” drawings, information and documents for the Connecting Transmission Owner’s Attachment Facilities.

The Connecting Transmission Owner shall transfer operational control of the Connecting Transmission Owner’s Attachment Facilities and Stand Alone System Upgrade Facilities to the NYISO upon completion of such facilities.

**5.12 Access Rights.** Upon reasonable notice and supervision by the Granting Party, and subject to any required or necessary regulatory approvals, either the Connecting Transmission Owner or Developer (“Granting Party”) shall furnish to the other of those two Parties (“Access Party”) at no cost any rights of use, licenses, rights of way and easements with respect to lands owned or controlled by the Granting Party, its agents (if allowed under the applicable agency agreement), or any Affiliate, that are necessary to enable the Access Party to obtain ingress and egress at the Point of Interconnection to construct, operate, maintain, repair, test (or witness testing), inspect, replace or remove facilities and equipment to: (i) interconnect the Merchant Transmission Facility with the

New York State Transmission System; (ii) operate and maintain the Merchant Transmission Facility, the Attachment Facilities and the New York State Transmission System; and (iii) disconnect or remove the Access Party's facilities and equipment upon termination of this Agreement. In exercising such licenses, rights of way and easements, the Access Party shall not unreasonably disrupt or interfere with normal operation of the Granting Party's business and shall adhere to the safety rules and procedures established in advance, as may be changed from time to time, by the Granting Party and provided to the Access Party. The Access Party shall indemnify the Granting Party against all claims of injury or damage from third parties resulting from the exercise of the access rights provided for herein.

**5.13 Lands of Other Property Owners.** If any part of the Connecting Transmission Owner's Attachment Facilities and/or System Upgrade Facilities and/or System Deliverability Upgrades is to be installed on property owned by persons other than Developer or Connecting Transmission Owner, the Connecting Transmission Owner shall at Developer's expense use efforts, similar in nature and extent to those that it typically undertakes for its own or affiliated generation, including use of its eminent domain authority, and to the extent consistent with state law, to procure from such persons any rights of use, licenses, rights of way and easements that are necessary to construct, operate, maintain, test, inspect, replace or remove the Connecting Transmission Owner's Attachment Facilities and/or System Upgrade Facilities and/or System Deliverability Upgrades upon such property.

**5.14 Permits.** NYISO, Connecting Transmission Owner and the Developer shall cooperate with each other in good faith in obtaining all permits, licenses and authorizations that are necessary to accomplish the interconnection in compliance with Applicable Laws and Regulations. With respect to this paragraph, Connecting Transmission Owner shall provide permitting assistance to the Developer comparable to that provided to the Connecting Transmission Owner's own, or an Affiliate's generation or transmission facilities, if any.

**5.15 Early Construction of Base Case Facilities.** Developer may request Connecting Transmission Owner to construct, and Connecting Transmission Owner shall construct, subject to a binding cost allocation agreement reached in accordance with Attachment S to the NYISO OATT, including Section 25.8.7 thereof, using Reasonable Efforts to accommodate Developer's In-Service Date, all or any portion of any System Upgrade Facilities or System Deliverability Upgrades required for Developer to be interconnected to the New York State Transmission System which are included in the Base Case of the Facilities Study for the Developer, and which also are required to be constructed for another Developer, but where such construction is not scheduled to be completed in time to achieve Developer's In-Service Date.

**5.16 Suspension.** Developer reserves the right, upon written notice to Connecting Transmission Owner and NYISO, to suspend at any time all work by Connecting Transmission Owner associated with the construction and installation of Connecting

Transmission Owner's Attachment Facilities and/or System Upgrade Facilities and/or System Deliverability Upgrades required for only that Developer under this Agreement with the condition that the New York State Transmission System shall be left in a safe and reliable condition in accordance with Good Utility Practice and the safety and reliability criteria of Connecting Transmission Owner and NYISO. In such event, Developer shall be responsible for all reasonable and necessary costs and/or obligations in accordance with Attachment S to the NYISO OATT including those which Connecting Transmission Owner (i) has incurred pursuant to this Agreement prior to the suspension and (ii) incurs in suspending such work, including any costs incurred to perform such work as may be necessary to ensure the safety of persons and property and the integrity of the New York State Transmission System during such suspension and, if applicable, any costs incurred in connection with the cancellation or suspension of material, equipment and labor contracts which Connecting Transmission Owner cannot reasonably avoid; provided, however, that prior to canceling or suspending any such material, equipment or labor contract, Connecting Transmission Owner shall obtain Developer's authorization to do so.

Connecting Transmission Owner shall invoice Developer for such costs pursuant to Article 12 and shall use due diligence to minimize its costs. In the event Developer suspends work by Connecting Transmission Owner required under this Agreement pursuant to this Article 5.16, and has not requested Connecting Transmission Owner to recommence the work required under this Agreement on or before the expiration of three (3) years following commencement of such suspension, this Agreement shall be deemed terminated. The three-year period shall begin on the date the suspension is requested, or the date of the written notice to Connecting Transmission Owner and NYISO, if no effective date is specified.

## **5.17 Taxes.**

**5.17.1 Developer Payments Not Taxable.** The Developer and Connecting Transmission Owner intend that all payments or property transfers made by Developer to Connecting Transmission Owner for the installation of the Connecting Transmission Owner's Attachment Facilities and the System Upgrade Facilities and the System Deliverability Upgrades shall be non-taxable, either as contributions to capital, or as an advance, in accordance with the Internal Revenue Code and any applicable state income tax laws and shall not be taxable as contributions in aid of construction or otherwise under the Internal Revenue Code and any applicable state income tax laws.

**5.17.2 Representations and Covenants.** In accordance with IRS Notice 2001-82 and IRS Notice 88-129, as applicable to this Merchant Transmission Facility, Developer represents and covenants that (i) ownership of the electricity transmitted on the Merchant Transmission Facility will pass to another party prior to the transmission of the electricity on the New York State Transmission System, (ii) for income tax purposes, the amount of any payments and the cost of any

property transferred to the Connecting Transmission Owner for the Connecting Transmission Owner's Attachment Facilities will be capitalized by Developer as an intangible asset and recovered using the straight-line method over a useful life of twenty (20) years, and (iii) any portion of the Connecting Transmission Owner's Attachment Facilities that is a "dual-use intertie," within the meaning of IRS Notice 88-129, is reasonably expected to carry only a de minimis amount of electricity in the direction of the Merchant Transmission Facility. For this purpose, "de minimis amount" means no more than 5 percent of the total power flows in both directions, calculated in accordance with the "5 percent test" set forth in IRS Notice 88-129. This is not intended to be an exclusive list of the relevant conditions that must be met to conform to IRS requirements for non-taxable treatment.

At Connecting Transmission Owner's request, Developer shall provide Connecting Transmission Owner with a report from an independent engineer confirming its representation in clause (iii), above. Connecting Transmission Owner represents and covenants that the cost of the Connecting Transmission Owner's Attachment Facilities paid for by Developer will have no net effect on the base upon which rates are determined.

**5.17.3 Indemnification for the Cost Consequences of Current Tax Liability Imposed Upon the Connecting Transmission Owner.** Notwithstanding Article 5.17.1, Developer shall protect, indemnify and hold harmless Connecting Transmission Owner from the cost consequences of any current tax liability imposed against Connecting Transmission Owner as the result of payments or property transfers made by Developer to Connecting Transmission Owner under this Agreement, as well as any interest and penalties, other than interest and penalties attributable to any delay caused by Connecting Transmission Owner.

Connecting Transmission Owner shall not include a gross-up for the cost consequences of any current tax liability in the amounts it charges Developer under this Agreement unless (i) Connecting Transmission Owner has determined, in good faith, that the payments or property transfers made by Developer to Connecting Transmission Owner should be reported as income subject to taxation or (ii) any Governmental Authority directs Connecting Transmission Owner to report payments or property as income subject to taxation; provided, however, that Connecting Transmission Owner may require Developer to provide security, in a form reasonably acceptable to Connecting Transmission Owner (such as a parental guarantee or a letter of credit), in an amount equal to the cost consequences of any current tax liability under this Article 5.17. Developer shall reimburse Connecting Transmission Owner for such costs on a fully grossed-up basis, in accordance with Article 5.17.4, within thirty (30) Calendar Days of receiving written notification from Connecting Transmission Owner of the amount due, including detail about how the amount was calculated.



This indemnification obligation shall terminate at the earlier of (1) the expiration of the ten-year testing period and the applicable statute of limitation, as it may be extended by the Connecting Transmission Owner upon request of the IRS, to keep these years open for audit or adjustment, or (2) the occurrence of a subsequent taxable event and the payment of any related indemnification obligations as contemplated by this Article 5.17.

**5.17.4 Tax Gross-Up Amount.** Developer's liability for the cost consequences of any current tax liability under this Article 5.17 shall be calculated on a fully grossed-up basis. Except as may otherwise be agreed to by the parties, this means that Developer will pay Connecting Transmission Owner, in addition to the amount paid for the Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades, an amount equal to (1) the current taxes imposed on Connecting Transmission Owner ("Current Taxes") on the excess of (a) the gross income realized by Connecting Transmission Owner as a result of payments or property transfers made by Developer to Connecting Transmission Owner under this Agreement (without regard to any payments under this Article 5.17) (the "Gross Income Amount") over (b) the present value of future tax deductions for depreciation that will be available as a result of such payments or property transfers (the "Present Value Depreciation Amount"), plus (2) an additional amount sufficient to permit the Connecting Transmission Owner to receive and retain, after the payment of all Current Taxes, an amount equal to the net amount described in clause (1).

For this purpose, (i) Current Taxes shall be computed based on Connecting Transmission Owner's composite federal and state tax rates at the time the payments or property transfers are received and Connecting Transmission Owner will be treated as being subject to tax at the highest marginal rates in effect at that time (the "Current Tax Rate"), and (ii) the Present Value Depreciation Amount shall be computed by discounting Connecting Transmission Owner's anticipated tax depreciation deductions as a result of such payments or property transfers by Connecting Transmission Owner's current weighted average cost of capital. Thus, the formula for calculating Developer's liability to Connecting Transmission Owner pursuant to this Article 5.17.4 can be expressed as follows:  $(\text{Current Tax Rate} \times (\text{Gross Income Amount} - \text{Present Value of Tax Depreciation})) / (1 - \text{Current Tax Rate})$ .

Developer's estimated tax liability in the event taxes are imposed shall be stated in Appendix A, Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades.

**5.17.5 Private Letter Ruling or Change or Clarification of Law.** At Developer's request and expense, Connecting Transmission Owner shall file with the IRS a request for a private letter ruling as to whether any property transferred or sums paid, or to be paid, by Developer to Connecting Transmission Owner under this

Agreement are subject to federal income taxation. Developer will prepare the initial draft of the request for a private letter ruling, and will certify under penalties of perjury that all facts represented in such request are true and accurate to the best of Developer's knowledge. Connecting Transmission Owner and Developer shall cooperate in good faith with respect to the submission of such request.

Connecting Transmission Owner shall keep Developer fully informed of the status of such request for a private letter ruling and shall execute either a privacy act waiver or a limited power of attorney, in a form acceptable to the IRS, that authorizes Developer to participate in all discussions with the IRS regarding such request for a private letter ruling. Connecting Transmission Owner shall allow Developer to attend all meetings with IRS officials about the request and shall permit Developer to prepare the initial drafts of any follow-up letters in connection with the request.

**5.17.6 Subsequent Taxable Events.** If, within 10 years from the date on which the relevant Connecting Transmission Owner Attachment Facilities are placed in service, (i) Developer Breaches the covenants contained in Article 5.17.2, (ii) a "disqualification event" occurs within the meaning of IRS Notice 88-129, or (iii) this Agreement terminates and Connecting Transmission Owner retains ownership of the Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades, the Developer shall pay a tax gross-up for the cost consequences of any current tax liability imposed on Connecting Transmission Owner, calculated using the methodology described in Article 5.17.4 and in accordance with IRS Notice 90-60.

**5.17.7 Contests.** In the event any Governmental Authority determines that Connecting Transmission Owner's receipt of payments or property constitutes income that is subject to taxation, Connecting Transmission Owner shall notify Developer, in writing, within thirty (30) Calendar Days of receiving notification of such determination by a Governmental Authority. Upon the timely written request by Developer and at Developer's sole expense, Connecting Transmission Owner may appeal, protest, seek abatement of, or otherwise oppose such determination. Upon Developer's written request and sole expense, Connecting Transmission Owner may file a claim for refund with respect to any taxes paid under this Article 5.17, whether or not it has received such a determination. Connecting Transmission Owner reserves the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other contest, including the selection of counsel and compromise or settlement of the claim, but Connecting Transmission Owner shall keep Developer informed, shall consider in good faith suggestions from Developer about the conduct of the contest, and shall reasonably permit Developer or an Developer representative to attend contest proceedings.

Developer shall pay to Connecting Transmission Owner on a periodic basis, as invoiced by Connecting Transmission Owner, Connecting Transmission Owner's documented reasonable costs of prosecuting such appeal, protest, abatement or other contest. At any time during the contest, Connecting Transmission Owner may agree to a settlement either with Developer's consent or after obtaining written advice from nationally-recognized tax counsel, selected by Connecting Transmission Owner, but reasonably acceptable to Developer, that the proposed settlement represents a reasonable settlement given the hazards of litigation. Developer's obligation shall be based on the amount of the settlement agreed to by Developer, or if a higher amount, so much of the settlement that is supported by the written advice from nationally-recognized tax counsel selected under the terms of the preceding sentence. The settlement amount shall be calculated on a fully grossed-up basis to cover any related cost consequences of the current tax liability. Any settlement without Developer's consent or such written advice will relieve Developer from any obligation to indemnify Connecting Transmission Owner for the tax at issue in the contest.

**5.17.8 Refund.** In the event that (a) a private letter ruling is issued to Connecting Transmission Owner which holds that any amount paid or the value of any property transferred by Developer to Connecting Transmission Owner under the terms of this Agreement is not subject to federal income taxation, (b) any legislative change or administrative announcement, notice, ruling or other determination makes it reasonably clear to Connecting Transmission Owner in good faith that any amount paid or the value of any property transferred by Developer to Connecting Transmission Owner under the terms of this Agreement is not taxable to Connecting Transmission Owner, (c) any abatement, appeal, protest, or other contest results in a determination that any payments or transfers made by Developer to Connecting Transmission Owner are not subject to federal income tax, or (d) if Connecting Transmission Owner receives a refund from any taxing authority for any overpayment of tax attributable to any payment or property transfer made by Developer to Connecting Transmission Owner pursuant to this Agreement, Connecting Transmission Owner shall promptly refund to Developer the following:

- (i) Any payment made by Developer under this Article 5.17 for taxes that is attributable to the amount determined to be non-taxable, together with interest thereon,
- (ii) Interest on any amounts paid by Developer to Connecting Transmission Owner for such taxes which Connecting Transmission Owner did not submit to the taxing authority, calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. §35.19a(a)(2)(iii) from the date payment was made by Developer to the date Connecting Transmission Owner refunds such payment to Developer, and

(iii) With respect to any such taxes paid by Connecting Transmission Owner, any refund or credit Connecting Transmission Owner receives or to which it may be entitled from any Governmental Authority, interest (or that portion thereof attributable to the payment described in clause (i), above) owed to the Connecting Transmission Owner for such overpayment of taxes (including any reduction in interest otherwise payable by Connecting Transmission Owner to any Governmental Authority resulting from an offset or credit); provided, however, that Connecting Transmission Owner will remit such amount promptly to Developer only after and to the extent that Connecting Transmission Owner has received a tax refund, credit or offset from any Governmental Authority for any applicable overpayment of income tax related to the Connecting Transmission Owner's Attachment Facilities.

The intent of this provision is to leave both the Developer and Connecting Transmission Owner, to the extent practicable, in the event that no taxes are due with respect to any payment for Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades hereunder, in the same position they would have been in had no such tax payments been made.

**5.17.9 Taxes Other Than Income Taxes.** Upon the timely request by Developer, and at Developer's sole expense, Connecting Transmission Owner shall appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against Connecting Transmission Owner for which Developer may be required to reimburse Connecting Transmission Owner under the terms of this Agreement. Developer shall pay to Connecting Transmission Owner on a periodic basis, as invoiced by Connecting Transmission Owner, Connecting Transmission Owner's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. Developer and Connecting Transmission Owner shall cooperate in good faith with respect to any such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by Developer to Connecting Transmission Owner for such taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, Developer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by Connecting Transmission Owner.

## **5.18 Tax Status; Non-Jurisdictional Entities.**

**5.18.1 Tax Status.** Each Party shall cooperate with the other Parties to maintain the other Parties' tax status. Nothing in this Agreement is intended to adversely affect the tax status of any Party including the status of NYISO, or the status of any Connecting Transmission Owner with respect to the issuance of bonds

including, but not limited to, Local Furnishing Bonds. Notwithstanding any other provisions of this Agreement, LIPA, NYPA and Consolidated Edison Company of New York, Inc. shall not be required to comply with any provisions of this Agreement that would result in the loss of tax-exempt status of any of their Tax-Exempt Bonds or impair their ability to issue future tax-exempt obligations. For purposes of this provision, Tax-Exempt Bonds shall include the obligations of the Long Island Power Authority, NYPA and Consolidated Edison Company of New York, Inc., the interest on which is not included in gross income under the Internal Revenue Code.

**5.18.2 Non-Jurisdictional Entities.** LIPA and NYPA do not waive their exemptions, pursuant to Section 201(f) of the FPA, from Commission jurisdiction with respect to the Commission's exercise of the FPA's general ratemaking authority.

## **5.19 Modification.**

**5.19.1 General.** Either the Developer or Connecting Transmission Owner may undertake modifications to its facilities covered by this Agreement. If either the Developer or Connecting Transmission Owner plans to undertake a modification that reasonably may be expected to affect the other Party's facilities, that Party shall provide to the other Party, and to NYISO, sufficient information regarding such modification so that the other Party and NYISO may evaluate the potential impact of such modification prior to commencement of the work. Such information shall be deemed to be Confidential Information hereunder and shall include information concerning the timing of such modifications and whether such modifications are expected to interrupt the flow of electricity from the Merchant Transmission Facility. The Party desiring to perform such work shall provide the relevant drawings, plans, and specifications to the other Party and NYISO at least ninety (90) Calendar Days in advance of the commencement of the work or such shorter period upon which the Parties may agree, which agreement shall not unreasonably be withheld, conditioned or delayed.

In the case of Merchant Transmission Facility modifications that do not require Developer to submit an Interconnection Request, the NYISO shall provide, within sixty (60) Calendar Days (or such other time as the Parties may agree), an estimate of any additional modifications to the New York State Transmission System, Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades necessitated by such Developer modification and a good faith estimate of the costs thereof. The Developer shall be responsible for the cost of any such additional modifications, including the cost of studying the impact of the Developer modification.

**5.19.2 Standards.** Any additions, modifications, or replacements made to a Party's facilities shall be designed, constructed and operated in accordance with this Agreement, NYISO requirements and Good Utility Practice.

**5.19.3 Modification Costs.** Developer shall not be assigned the costs of any additions, modifications, or replacements that Connecting Transmission Owner makes to the Connecting Transmission Owner's Attachment Facilities or the New York State Transmission System to facilitate the interconnection of a third party to the Connecting Transmission Owner's Attachment Facilities or the New York State Transmission System, or to provide Transmission Service to a third party under the NYISO OATT, except in accordance with the cost allocation procedures in Attachment S of the NYISO OATT. Developer shall be responsible for the costs of any additions, modifications, or replacements to the Developer Attachment Facilities that may be necessary to maintain or upgrade such Developer Attachment Facilities consistent with Applicable Laws and Regulations, Applicable Reliability Standards or Good Utility Practice.

## **ARTICLE 6. TESTING AND INSPECTION**

**6.1 Pre-Commercial Operation Date Testing and Modifications.** Prior to the Commercial Operation Date, the Connecting Transmission Owner shall test the Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades and Developer shall test the Merchant Transmission Facility and the Developer Attachment Facilities to ensure their safe and reliable operation. Similar testing may be required after initial operation. Developer and Connecting Transmission Owner shall each make any modifications to its facilities that are found to be necessary as a result of such testing. Developer shall bear the cost of all such testing and modifications. Developer shall transmit test energy over the Merchant Transmission Facility only if it has arranged for the injection into the New York Control Area or withdrawal from PJM of such test energy in accordance with NYISO, PJM, Public Service Electric and Gas Company ("PSE&G") and Connecting Transmission Owner procedures, as applicable.

**6.2 Post-Commercial Operation Date Testing and Modifications.** Developer and Connecting Transmission Owner shall each at its own expense perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice and Applicable Reliability Standards as may be necessary to ensure the continued interconnection of the Merchant Transmission Facility with the New York State Transmission System in a safe and reliable manner. Developer and Connecting Transmission Owner shall each have the right, upon advance written notice, to require reasonable additional testing of the other Party's facilities, at the requesting Party's expense, as may be in accordance with Good Utility Practice.

**6.3 Right to Observe Testing.** Developer and Connecting Transmission Owner shall each notify the other Party, and the NYISO, in advance of its performance of tests of its Attachment Facilities and Merchant Transmission Facility. The other Party, and the NYISO, shall each have the right, at its own expense, to observe such testing.

**6.4 Right to Inspect.** Developer and Connecting Transmission Owner shall each have the right, but shall have no obligation to: (i) observe the other Party's tests and/or inspection of any of its System Protection Facilities and other protective equipment; (ii) review the settings of the other Party's System Protection Facilities and other protective equipment; and (iii) review the other Party's maintenance records relative to the Attachment Facilities, the System Protection Facilities and other protective equipment. NYISO shall have these same rights of inspection as to the facilities and equipment of Developer and Connecting Transmission Owner. A Party may exercise these rights from time to time as it deems necessary upon reasonable notice to the other Party. The exercise or non-exercise by a Party of any such rights shall not be construed as an endorsement or confirmation of any element or condition of the Attachment Facilities or the System Protection Facilities or other protective equipment or the operation thereof, or as a warranty as to the fitness, safety, desirability, or reliability of same. Any information that a Party obtains through the exercise of any of its rights under this Article 6.4 shall be treated in accordance with Article 22 of this Agreement and Attachment F to the NYISO OATT.

## **ARTICLE 7. METERING**

**7.1 General.** Developer and Connecting Transmission Owner shall each comply with applicable requirements of NYISO and the New York Public Service Commission when exercising its rights and fulfilling its responsibilities under this Article 7. Unless otherwise agreed by the Connecting Transmission Owner and NYISO approved meter service provider and Developer, the Connecting Transmission Owner shall install Metering Equipment at the Point of Interconnection prior to any operation of the Merchant Transmission Facility and shall own, operate, test and maintain such Metering Equipment. Net power flows including MW and MVAR, MWHR and loss profile data to and from the Merchant Transmission Facility shall be measured at the Point of Interconnection. Connecting Transmission Owner and Developer shall provide metering quantities, in analog and/or digital form, as required, to Developer or NYISO upon request. The Developer shall also provide metering data from the meters at the PSE&G Substation to the Connecting Transmission Owner and NYISO, upon request. Developer shall bear all reasonable documented costs associated with the purchase, installation, operation, testing and maintenance of the Metering Equipment.

**7.2 Check Meters.** Developer, at its option and expense, may install and operate, on its premises and on its side of the Point of Interconnection, one or more check meters to check Connecting Transmission Owner's meters. Such check meters shall be for check purposes only and shall not be used for the measurement of power flows for purposes of this Agreement, except as provided in Article 7.4 below. The check meters shall be subject at all reasonable times to inspection and examination by Connecting Transmission Owner or its designee. The installation, operation and maintenance thereof shall be performed entirely by Developer in accordance with Good Utility Practice.

**7.3 Standards.** Connecting Transmission Owner shall install, calibrate, and test revenue quality Metering Equipment including potential transformers and current transformers in accordance with applicable ANSI and PSC standards as detailed in the NYISO Control Center Communications Manual and in the NYISO Revenue Metering Requirements Manual.

**7.4 Testing of Metering Equipment.** Connecting Transmission Owner shall inspect and test all of its Metering Equipment upon installation and at least once every two (2) years thereafter. If requested to do so by NYISO or Developer, Connecting Transmission Owner shall, at Developer's expense, inspect or test Metering Equipment more frequently than every two (2) years. Connecting Transmission Owner shall give reasonable notice of the time when any inspection or test shall take place, and Developer and NYISO may have representatives present at the test or inspection. If at any time Metering Equipment is found to be inaccurate or defective, it shall be adjusted, repaired or replaced at Developer's expense, in order to provide accurate metering, unless the inaccuracy or defect is due to Connecting Transmission Owner's failure to maintain, then Connecting Transmission Owner shall pay. If Metering Equipment fails to register, or if the measurement made by Metering Equipment during a test varies by more than two percent from the measurement made by the standard meter used in the test, Connecting Transmission Owner shall adjust the measurements by correcting all measurements for the period during which Metering Equipment was in error by using Developer's check meters, if installed. If no such check meters are installed or if the period cannot be reasonably ascertained, the adjustment shall be for the period immediately preceding the test of the Metering Equipment equal to one-half the time from the date of the last previous test of the Metering Equipment. The NYISO shall reserve the right to review all associated metering equipment installation on the Developer's or Connecting Transmission Owner's property at any time.

**7.5 Metering Data.** At Developer's expense, the metered data shall be telemetered to one or more locations designated by Connecting Transmission Owner, Developer and NYISO. Such telemetered data shall be used, under normal operating conditions, as the official measurement of the amount of energy delivered from the Merchant Transmission Facility to the Point of Interconnection.

## **ARTICLE 8. COMMUNICATIONS**

**8.1 Developer Obligations.** In accordance with applicable NYISO requirements, Developer shall maintain satisfactory operating communications with Connecting Transmission Owner and NYISO. Developer shall provide standard voice line, dedicated voice line and facsimile communications at its Merchant Transmission Facility control room or central dispatch facility through use of either the public telephone system, or a voice communications system that does not rely on the public telephone system. Developer shall also provide the dedicated data circuit(s) necessary to provide Developer data to Connecting Transmission Owner and NYISO as set forth in Appendix C hereto. The data circuit(s) shall extend from the Merchant Transmission Facility to the



location(s) specified by Connecting Transmission Owner and NYISO. Any required maintenance of such communications equipment shall be performed by Developer. Operational communications shall be activated and maintained under, but not be limited to, the following events: system paralleling or separation, scheduled and unscheduled shutdowns, equipment clearances, and hourly and daily load data.

**8.2 Remote Terminal Unit.** Prior to the Initial Synchronization Date of the Merchant Transmission Facility, a Remote Terminal Unit, or equivalent data collection and transfer equipment acceptable to the Parties, shall be installed by Developer, or by Connecting Transmission Owner at Developer's expense, to gather accumulated and instantaneous data to be telemetered to the location(s) designated by Connecting Transmission Owner and NYISO through use of a dedicated point-to-point data circuit(s) as indicated in Article 8.1. The communication protocol for the data circuit(s) shall be specified by Connecting Transmission Owner, PJM and NYISO. Instantaneous bi-directional analog real power and reactive power flow information must be telemetered directly to the location(s) specified by Connecting Transmission Owner, PJM and NYISO.

Each Party will promptly advise the appropriate other Party if it detects or otherwise learns of any metering, telemetry or communications equipment errors or malfunctions that require the attention and/or correction by that other Party. The Party owning such equipment shall correct such error or malfunction as soon as reasonably feasible.

**8.3 No Annexation.** Any and all equipment placed on the premises of a Party shall be and remain the property of the Party providing such equipment regardless of the mode and manner of annexation or attachment to real property, unless otherwise mutually agreed by the Party providing such equipment and the Party receiving such equipment.

## ARTICLE 9. OPERATIONS

**9.1 General.** Each Party shall comply with Applicable Laws and Regulations and Applicable Reliability Standards. Each Party shall provide to the other Parties all information that may reasonably be required by the other Parties to comply with Applicable Laws and Regulations and Applicable Reliability Standards.

**9.2 NYISO and Connecting Transmission Owner Obligations.** Connecting Transmission Owner and NYISO shall cause the New York State Transmission System and the Connecting Transmission Owner's Attachment Facilities to be operated, maintained and controlled in a safe and reliable manner in accordance with this Agreement and the NYISO Tariffs. Connecting Transmission Owner and NYISO may provide operating instructions to Developer consistent with this Agreement, NYISO procedures and Connecting Transmission Owner's operating protocols and procedures as they may change from time to time. Connecting Transmission Owner and NYISO will consider changes to their respective operating protocols and procedures proposed by Developer.

**9.3 Developer Obligations.** Developer shall at its own expense operate, maintain and control the Merchant Transmission Facility and the Developer Attachment Facilities in a safe and reliable manner and in accordance with this Agreement. Developer shall operate the Merchant Transmission Facility and the Developer Attachment Facilities in accordance with NYISO and Connecting Transmission Owner requirements, as such requirements are set forth or referenced in Appendix C hereto. Appendix C will be modified to reflect changes to the requirements as they may change from time to time. Any Party may request that the appropriate other Party or Parties provide copies of the requirements set forth or referenced in Appendix C hereto.

**9.4 Start-Up and Synchronization.** Consistent with the mutually acceptable procedures of the Developer and Connecting Transmission Owner, the Developer is responsible for the proper synchronization of the Merchant Transmission Facility to the New York State Transmission System in accordance with NYISO, PJM, PSE&G and Connecting Transmission Owner procedures and requirements, as applicable.

## **9.5 Real and Reactive Power Control.**

**9.5.1 Power Factor Design Criteria.** Developer shall design the Merchant Transmission Facility to maintain an effective power delivery at maximum net capability at the Point of Interconnection within the variable range of -50 MVar and +200 MVar for an AC voltage range of 0.95 pu to 1.05 pu at the Point of Interconnection, as discussed further in Appendix G.

**9.5.2 Voltage Schedules.** Once the Developer has synchronized the Merchant Transmission Facility with the New York State Transmission System, NYISO shall require Developer to operate the Merchant Transmission Facility to transmit reactive power within the design capability of the Merchant Transmission Facility set forth in Article 9.5.1 (Power Factor Design Criteria), provided that the voltage at the Point of Interconnection is within the range of 346 kV to 362 kV in accordance with Connecting Transmission Owner's engineering specification EP-7000, as amended from time to time. When voltages are outside the range specified by EP-7000 due to conditions beyond the control of Connecting Transmission Owner and NYISO, the Developer shall also provide assistance consistent with Good Utility Practice within the full capability of the Merchant Transmission Facility in restoring the voltage at the Point of Interconnection to the normal range as may be directed by the Connecting Transmission Owner or the NYISO. If the Merchant Transmission Facility is unable to provide the requested assistance, or maintain the specified power factor, it shall promptly notify both the Connecting Transmission Owner and the NYISO.

**9.5.3 Payment for Reactive Power.** NYISO shall pay Developer for reactive power or voltage support service that Developer provides from the Merchant Transmission Facility in accordance with the provisions of Rate Schedule 2 of the NYISO Services Tariff.

#### **9.5.4 Reserved.**

### **9.6 Outages and Interruptions.**

#### **9.6.1 Outages.**

**9.6.1.1 Outage Authority and Coordination.** Developer and Connecting Transmission Owner may each, in accordance with NYISO procedures and Good Utility Practice and in coordination with the other Party, remove from service any of its respective Attachment Facilities or System Upgrade Facilities and System Deliverability Upgrades that may impact the other Party's facilities as necessary to perform maintenance or testing or to install or replace equipment. Absent an Emergency State, the Party scheduling a removal of such facility(ies) from service will use Reasonable Efforts to schedule such removal on a date and time mutually acceptable to both the Developer and the Connecting Transmission Owner. In all circumstances either Party planning to remove such facility(ies) from service shall use Reasonable Efforts to minimize the effect on the other Party of such removal.

**9.6.1.2 Outage Schedules.** The Connecting Transmission Owner shall post scheduled outages of its transmission facilities on the NYISO OASIS. Developer shall submit its planned maintenance schedules for the Merchant Transmission Facility to Connecting Transmission Owner and NYISO for a minimum of a rolling thirty-six month period. Developer shall update its planned maintenance schedules as necessary. NYISO may direct, or the Connecting Transmission Owner may request, Developer to reschedule its maintenance as necessary to maintain the reliability of the New York State Transmission System. Compensation to Developer for any additional direct costs that the Developer incurs as a result of rescheduling maintenance, including any additional overtime, breaking of maintenance contracts or other costs above and beyond the cost the Developer would have incurred absent the request to reschedule maintenance, shall be in accordance with the NYISO OATT. Developer will not be eligible to receive compensation, if during the twelve (12) months prior to the date of the scheduled maintenance, the Developer had modified its schedule of maintenance activities other than at the direction of the NYISO or request of the Connecting Transmission Owner.

**9.6.1.3 Outage Restoration.** If an outage on the Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades of the Connecting Transmission Owner or Developer

adversely affects the other Party's operations or facilities, the Party that owns the facility that is out of service shall use Reasonable Efforts to promptly restore such facility(ies) to a normal operating condition consistent with the nature of the outage. The Party that owns the facility that is out of service shall provide the other Party and NYISO, to the extent such information is known, information on the nature of the Emergency State, an estimated time of restoration, and any corrective actions required. Initial verbal notice shall be followed up as soon as practicable with written notice explaining the nature of the outage.

**9.6.2 Interruption of Service.** If required by Good Utility Practice or Applicable Reliability Standards to do so, the NYISO or Connecting Transmission Owner may require Developer to interrupt or reduce transmission of electricity over the Merchant Transmission Facility if such transmission could adversely affect the ability of NYISO and Connecting Transmission Owner to perform such activities as are necessary to safely and reliably operate and maintain the New York State Transmission System. The following provisions shall apply to any interruption or reduction permitted under this Article 9.6.2:

**9.6.2.1** The interruption or reduction shall continue only for so long as reasonably necessary under Good Utility Practice;

**9.6.2.2** Any such interruption or reduction shall be made on an equitable, non-discriminatory basis with respect to all merchant transmission facilities directly connected to the New York State Transmission System;

**9.6.2.3** When the interruption or reduction must be made under circumstances which do not allow for advance notice, NYISO or Connecting Transmission Owner shall notify Developer by telephone as soon as practicable of the reasons for the curtailment, interruption, or reduction, and, if known, its expected duration. Telephone notification shall be followed by written notification as soon as practicable;

**9.6.2.4** Except during the existence of an Emergency State, when the interruption or reduction can be scheduled without advance notice, NYISO or Connecting Transmission Owner shall notify Developer in advance regarding the timing of such scheduling and further notify Developer of the expected duration. NYISO or Connecting Transmission Owner shall coordinate with each other and the Developer using Good Utility Practice to schedule the interruption or reduction during periods of least impact to the Developer, the

Connecting Transmission Owner and the New York State Transmission System;

**9.6.2.5** The Parties shall cooperate and coordinate with each other to the extent necessary in order to restore the Merchant Transmission Facility, Attachment Facilities, and the New York State Transmission System to their normal operating state, consistent with system conditions and Good Utility Practice.

**9.6.3** Under-Frequency and Over Frequency Conditions. The New York State Transmission System is designed to automatically activate a load-shed program as required by the NPCC in the event of an under-frequency system disturbance. Developer shall implement under-frequency and over-frequency relay set points for the Merchant Transmission Facility as required by the NPCC to ensure “ride through” capability of the New York State Transmission System. Merchant Transmission Facility response to frequency deviations of predetermined magnitudes, both under-frequency and over-frequency deviations, shall be studied and coordinated with the NYISO and Connecting Transmission Owner in accordance with Good Utility Practice. The term “ride through” as used herein shall mean the ability of a Merchant Transmission Facility to stay connected to and synchronized with the New York State Transmission System during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice and with NPCC Regional Reliability Reference Directory # 12.

**9.6.4 System Protection and Other Control Requirements.**

**9.6.4.1 System Protection Facilities.** Developer shall, at its expense, install, operate and maintain System Protection Facilities as a part of the Merchant Transmission Facility or Developer Attachment Facilities. Connecting Transmission Owner shall install at Developer’s expense any System Protection Facilities that may be required on the Connecting Transmission Owner Attachment Facilities or the New York State Transmission System as a result of the interconnection of the Merchant Transmission Facility and Developer Attachment Facilities.

**9.6.4.2** The protection facilities of both the Developer and Connecting Transmission Owner shall be designed and coordinated with other systems in accordance with Good Utility Practice and Applicable Reliability Standards.

**9.6.4.3** The Developer and Connecting Transmission Owner shall each be responsible for protection of its respective facilities consistent with Good Utility Practice and Applicable Reliability Standards.

**9.6.4.4** The protective relay design of the Developer and Connecting Transmission Owner shall each incorporate the necessary test switches to perform the tests required in Article 6 of this Agreement. The required test switches will be placed such that they allow operation of lockout relays while preventing breaker failure schemes from operating and causing unnecessary breaker operations and/or the tripping of the Developer's Merchant Transmission Facility or the Connecting Transmission Owner's facilities.

**9.6.4.5** The Developer and Connecting Transmission Owner will each test, operate and maintain System Protection Facilities in accordance with Good Utility Practice and NPCC criteria.

**9.6.4.6** Prior to the In-Service Date, and again prior to the Commercial Operation Date, the Developer and Connecting Transmission Owner shall each perform, or their agents shall perform, a complete calibration test and functional trip test of the System Protection Facilities. At intervals suggested by Good Utility Practice and following any apparent malfunction of the System Protection Facilities, the Developer and Connecting Transmission Owner shall each perform calibration and functional trip tests of the System Protection Facilities in a manner and at intervals consistent with Connecting Transmission Owner's standard practice for performing such tests. These tests do not require the tripping of any in-service generation unit. These tests do, however, require that all protective relays and lockout contacts be activated.

**9.6.5 Requirements for Protection.** In compliance with NPCC requirements, applicable requirements of other Applicable Reliability Councils, and Good Utility Practice, Developer shall provide, install, own, and maintain relays, circuit breakers and all other devices necessary to remove any fault contribution of the Merchant Transmission Facility to any short circuit occurring on the New York State Transmission System not otherwise isolated by Connecting Transmission Owner's equipment, such that the removal of the fault contribution shall be coordinated with the protective requirements of the New York State Transmission System. Developer shall be solely responsible to disconnect the Merchant Transmission Facility and Developer's other equipment if conditions on the New York State Transmission System could adversely affect the Merchant Transmission Facility.

**9.6.6 Power Quality.** Neither the facilities of Developer nor the facilities of Connecting Transmission Owner shall cause excessive voltage flicker nor introduce excessive distortion to the sinusoidal voltage or current waves as defined by ANSI Standard C84.1-1989, in accordance with IEEE Standard 519, or any applicable superseding electric industry standard. In the event of a conflict

between ANSI Standard C84.1-1989, or any applicable superseding electric industry standard, ANSI Standard C84.1-1989, or the applicable superseding electric industry standard, shall control.

**9.7 Switching and Tagging Rules.** The Developer and Connecting Transmission Owner shall each provide the other Party a copy of its switching and tagging rules that are applicable to the other Party's activities. Such switching and tagging rules shall be developed on a nondiscriminatory basis. The Parties shall comply with applicable switching and tagging rules, as amended from time to time, in obtaining clearances for work or for switching operations on equipment.

## **9.8 Use of Attachment Facilities by Third Parties.**

**9.8.1 Purpose of Attachment Facilities.** Except as may be required by Applicable Laws and Regulations, or as otherwise agreed to among the Parties, the Attachment Facilities shall be constructed for the sole purpose of interconnecting the Merchant Transmission Facility to the New York State Transmission System and shall be used for no other purpose.

**9.8.2 Third Party Users.** If required by Applicable Laws and Regulations or if the Parties mutually agree, such agreement not to be unreasonably withheld, to allow one or more third parties to use the Connecting Transmission Owner's Attachment Facilities, or any part thereof, Developer will be entitled to compensation for the capital expenses it incurred in connection with the Attachment Facilities based upon the pro rata use of the Attachment Facilities by Connecting Transmission Owner, all third party users, and Developer, in accordance with Applicable Laws and Regulations or upon some other mutually-agreed upon methodology. In addition, cost responsibility for ongoing costs, including operation and maintenance costs associated with the Attachment Facilities, will be allocated between Developer and any third party users based upon the pro rata use of the Attachment Facilities by Connecting Transmission Owner, all third party users, and Developer, in accordance with Applicable Laws and Regulations or upon some other mutually agreed upon methodology. If the issue of such compensation or allocation cannot be resolved through such negotiations, it shall be submitted to FERC for resolution.

**9.9 Disturbance Analysis Data Exchange.** The Parties will cooperate with one another and the NYISO in the analysis of disturbances to either the Merchant Transmission Facility or the New York State Transmission System by gathering and providing access to any information relating to any disturbance, including information from disturbance recording equipment, protective relay targets, breaker operations and sequence of events records, and any disturbance information required by Good Utility Practice.

## ARTICLE 10. MAINTENANCE

**10.1 Connecting Transmission Owner Obligations.** Connecting Transmission Owner shall maintain its transmission facilities and Attachment Facilities in a safe and reliable manner and in accordance with this Agreement.

**10.2 Developer Obligations.** Developer shall maintain its Merchant Transmission Facility and Attachment Facilities in a safe and reliable manner and in accordance with this Agreement.

**10.3 Coordination.** The Developer and Connecting Transmission Owner shall confer regularly to coordinate the planning, scheduling and performance of preventive and corrective maintenance on the Merchant Transmission Facility and the Attachment Facilities. The Developer and Connecting Transmission Owner shall keep NYISO fully informed of the preventive and corrective maintenance that is planned, and shall schedule all such maintenance in accordance with NYISO procedures.

**10.4 Secondary Systems.** The Developer and Connecting Transmission Owner shall each cooperate with the other in the inspection, maintenance, and testing of control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers that directly affect the operation of Developer or Connecting Transmission Owner's facilities and equipment which may reasonably be expected to impact the other Party. The Developer and Connecting Transmission Owner shall each provide advance notice to the other Party, and to NYISO, before undertaking any work on such circuits, especially on electrical circuits involving circuit breaker trip and close contacts, current transformers, or potential transformers.

**10.5 Operating and Maintenance Expenses.** Subject to the provisions herein addressing the use of facilities by others, and except for operations and maintenance expenses associated with modifications made for providing interconnection or transmission service to a third party and such third party pays for such expenses, Developer shall be responsible for all reasonable expenses including overheads, associated with: (1) owning, operating, maintaining, repairing, and replacing Developer Attachment Facilities; and (2) operation, maintenance, repair and replacement of Connecting Transmission Owner's Attachment Facilities. The Connecting Transmission Owner shall be entitled to the recovery of incremental operating and maintenance expenses that it incurs associated with System Upgrade Facilities and System Deliverability Upgrades if and to the extent provided for under Attachment S to the NYISO OATT.



## **ARTICLE 11. PERFORMANCE OBLIGATION**

**11.1 Developer Attachment Facilities.** Developer shall design, procure, construct, install, own and/or control the Developer Attachment Facilities described in Appendix A, hereto, at its sole expense.

**11.2 Connecting Transmission Owner's Attachment Facilities.** Connecting Transmission Owner shall design, procure, construct, install, own and/or control the Connecting Transmission Owner's Attachment Facilities described in Appendix A hereto, at the sole expense of the Developer.

**11.3 System Upgrade Facilities and System Deliverability Upgrades.** Connecting Transmission Owner shall design, procure, construct, install, and own the System Upgrade Facilities and System Deliverability Upgrades described in Appendix A hereto. The responsibility of the Developer for costs related to System Upgrade Facilities and System Deliverability Upgrades shall be determined in accordance with the provisions of Attachment S to the NYISO OATT.

**11.4 Special Provisions for Affected Systems.** For the re-payment of amounts advanced to Affected System Operator for System Upgrade Facilities or System Deliverability Upgrades, the Developer and Affected System Operator shall enter into an agreement that provides for such re-payment, but only if responsibility for the cost of such System Upgrade Facilities or System Deliverability Upgrades is not to be allocated in accordance with Attachment S to the NYISO OATT. The agreement shall specify the terms governing payments to be made by the Developer to the Affected System Operator as well as the re-payment by the Affected System Operator.

**11.5 Provision of Security.** At least thirty (30) Calendar Days prior to the commencement of the procurement, installation, or construction of a discrete portion of a Connecting Transmission Owner's Attachment Facilities, Developer shall provide Connecting Transmission Owner, at Developer's option, a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to Connecting Transmission Owner and is consistent with the Uniform Commercial Code of the jurisdiction identified in Article 14.2.1 of this Agreement. Such security for payment shall be in an amount sufficient to cover the cost for the Developer's share of constructing, procuring and installing the applicable portion of Connecting Transmission Owner's Attachment Facilities, and shall be reduced on a dollar-for-dollar basis for payments made to Connecting Transmission Owner for these purposes.

In addition:

**11.5.1** The guarantee must be made by an entity that meets the commercially reasonable creditworthiness requirements of Connecting Transmission Owner, and contains

terms and conditions that guarantee payment of any amount that may be due from Developer, up to an agreed-to maximum amount.

**11.5.2** The letter of credit must be issued by a financial institution reasonably acceptable to Connecting Transmission Owner and must specify a reasonable expiration date.

**11.5.3** The surety bond must be issued by an insurer reasonably acceptable to Connecting Transmission Owner and must specify a reasonable expiration date.

**11.5.4** Attachment S to the NYISO OATT shall govern the Security that Developer provides for System Upgrade Facilities and System Deliverability Upgrades.

**11.6 Developer Compensation for Emergency Services.** If, during an Emergency State, the Developer provides services at the request or direction of the NYISO or Connecting Transmission Owner, the Developer will be compensated for such services in accordance with the NYISO Services Tariff.

**11.7 Line Outage Costs.** Notwithstanding anything in the NYISO OATT to the contrary, the Connecting Transmission Owner may propose to recover line outage costs associated with the installation of Connecting Transmission Owner's Attachment Facilities or System Upgrade Facilities or System Deliverability Upgrades on a case-by-case basis.

## **ARTICLE 12. INVOICE**

**12.1 General.** The Developer and Connecting Transmission Owner shall each submit to the other Party, on a monthly basis, invoices of amounts due for the preceding month. Each invoice shall state the month to which the invoice applies and fully describe the services and equipment provided. The Developer and Connecting Transmission Owner may discharge mutual debts and payment obligations due and owing to each other on the same date through netting, in which case all amounts one Party owes to the other Party under this Agreement, including interest payments or credits, shall be netted so that only the net amount remaining due shall be paid by the owing Party.

**12.2 Final Invoice.** Within six months after completion of the construction of the Connecting Transmission Owner's Attachment Facilities and the System Upgrade Facilities and System Deliverability Upgrades, Connecting Transmission Owner shall provide an invoice of the final cost of the construction of the Connecting Transmission Owner's Attachment Facilities and the System Upgrade Facilities and System Deliverability Upgrades, determined in accordance with Attachment S to the NYISO OATT, and shall set forth such costs in sufficient detail to enable Developer to compare the actual costs with the estimates and to ascertain deviations, if any, from the cost estimates. Connecting Transmission Owner shall refund to Developer any amount by which the actual payment by Developer for estimated costs exceeds the actual costs of

construction within thirty (30) Calendar Days of the issuance of such final construction invoice.

**12.3 Payment.** Invoices shall be rendered to the paying Party at the address specified in Appendix F hereto. The Party receiving the invoice shall pay the invoice within thirty (30) Calendar Days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named and account designated by the invoicing Party. Payment of invoices will not constitute a waiver of any rights or claims the paying Party may have under this Agreement.

**12.4 Disputes.** In the event of a billing dispute between Connecting Transmission Owner and Developer, Connecting Transmission Owner shall continue to perform under this Agreement as long as Developer: (i) continues to make all payments not in dispute; and (ii) pays to Connecting Transmission Owner or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Developer fails to meet these two requirements for continuation of service, then Connecting Transmission Owner may provide notice to Developer of a Default pursuant to Article 17. Within thirty (30) Calendar Days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount due with interest calculated in accord with the methodology set forth in FERC's Regulations at 18 C.F.R. § 35.19a(a)(2)(iii).

## **ARTICLE 13. EMERGENCIES**

**13.1 Obligations.** Each Party shall comply with the Emergency State procedures of NYISO, the applicable Reliability Councils, Applicable Laws and Regulations, and any emergency procedures agreed to by the NYISO Operating Committee.

**13.2 Notice.** NYISO or, as applicable, Connecting Transmission Owner shall notify Developer promptly when it becomes aware of an Emergency State that affects the Connecting Transmission Owner's Attachment Facilities or the New York State Transmission System that may reasonably be expected to affect Developer's operation of the Merchant Transmission Facility or the Developer's Attachment Facilities. Developer shall notify NYISO and Connecting Transmission Owner promptly when it becomes aware of an Emergency State that affects the Merchant Transmission Facility or the Developer Attachment Facilities that may reasonably be expected to affect the New York State Transmission System or the Connecting Transmission Owner's Attachment Facilities. To the extent information is known, the notification shall describe the Emergency State, the extent of the damage or deficiency, the expected effect on the operation of Developer's or Connecting Transmission Owner's facilities and operations, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice.

**13.3 Immediate Action.** Unless, in Developer's reasonable judgment, immediate action is required, Developer shall obtain the consent of Connecting Transmission Owner, such consent to not be unreasonably withheld, prior to performing any manual

switching operations at the Merchant Transmission Facility or the Developer Attachment Facilities in response to an Emergency State either declared by NYISO, Connecting Transmission Owner or otherwise regarding New York State Transmission System.

### **13.4 NYISO and Connecting Transmission Owner Authority.**

**13.4.1 General.** NYISO or Connecting Transmission Owner may take whatever actions with regard to the New York State Transmission System or the Connecting Transmission Owner's Attachment Facilities it deems necessary during an Emergency State in order to (i) preserve public health and safety, (ii) preserve the reliability of the New York State Transmission System or the Connecting Transmission Owner's Attachment Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service.

NYISO and Connecting Transmission Owner shall use Reasonable Efforts to minimize the effect of such actions or inactions on the Merchant Transmission Facility or the Developer Attachment Facilities. NYISO or Connecting Transmission Owner may, on the basis of technical considerations, require the Merchant Transmission Facility to mitigate an Emergency State by taking actions necessary and limited in scope to remedy the Emergency State, including, but not limited to, directing Developer to shut-down, start-up, increase or decrease the real or reactive power output of the Merchant Transmission Facility; implementing a reduction or disconnection pursuant to Article 13.4.2; directing the Developer to assist with blackstart (if available) or restoration efforts; or altering the outage schedules of the Merchant Transmission Facility and the Developer Attachment Facilities. Developer shall comply with all of the NYISO and Connecting Transmission Owner's operating instructions concerning Merchant Transmission Facility real power and reactive power output within the manufacturer's design limitations of the Merchant Transmission Facility's equipment that is in service and physically available for operation at the time, in compliance with Applicable Laws and Regulations.

**13.4.2 Reduction and Disconnection.** NYISO or Connecting Transmission Owner may reduce Energy Resource Interconnection Service and Capacity Resource Interconnection Service or disconnect the Merchant Transmission Facility or the Developer Attachment Facilities, when such reduction or disconnection is necessary under Good Utility Practice due to an Emergency State. These rights are separate and distinct from any right of Curtailment of NYISO pursuant to the NYISO OATT. When NYISO or Connecting Transmission Owner can schedule the reduction or disconnection in advance, NYISO or Connecting Transmission Owner shall notify Developer of the reasons, timing and expected duration of the reduction or disconnection. NYISO or Connecting Transmission Owner shall coordinate with the Developer using Good Utility Practice to schedule the reduction or disconnection during periods of least impact to the Developer and the New York State Transmission System. Any reduction or disconnection shall

continue only for so long as reasonably necessary under Good Utility Practice. The Parties shall cooperate with each other to restore the Merchant Transmission Facility, the Attachment Facilities, and the New York State Transmission System to their normal operating state as soon as practicable consistent with Good Utility Practice.

**13.5 Developer Authority.** Consistent with Good Utility Practice and this Agreement, the Developer may take whatever actions or inactions with regard to the Merchant Transmission Facility or the Developer Attachment Facilities during an Emergency State in order to (i) preserve public health and safety, (ii) preserve the reliability of the Merchant Transmission Facility or the Developer Attachment Facilities, (iii) limit or prevent damage, and (iv) expedite restoration of service. Developer shall use Reasonable Efforts to minimize the effect of such actions or inactions on the New York State Transmission System and the Connecting Transmission Owner's Attachment Facilities. NYISO and Connecting Transmission Owner shall use Reasonable Efforts to assist Developer in such actions.

**13.6 Limited Liability.** Except as otherwise provided in Article 11.6 of this Agreement, no Party shall be liable to another Party for any action it takes in responding to an Emergency State so long as such action is made in good faith and is consistent with Good Utility Practice and the NYISO Tariffs.

## **ARTICLE 14. REGULATORY REQUIREMENTS AND GOVERNING LAW**

**14.1 Regulatory Requirements.** Each Party's obligations under this Agreement shall be subject to its receipt of any required approval or certificate from one or more Governmental Authorities in the form and substance satisfactory to the applying Party, or the Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Party shall in good faith seek and use its Reasonable Efforts to obtain such other approvals. Nothing in this Agreement shall require Developer to take any action that could result in its inability to obtain, or its loss of, status or exemption under the Federal Power Act or the Public Utility Holding Company Act of 2005 or the Public Utility Regulatory Policies Act of 1978, as amended.

### **14.2 Governing Law.**

**14.2.1** The validity, interpretation and performance of this Agreement and each of its provisions shall be governed by the laws of the state of New York, without regard to its conflicts of law principles.

**14.2.2** This Agreement is subject to all Applicable Laws and Regulations.

**14.2.3** Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, rules, or regulations of a Governmental Authority.

## **ARTICLE 15. NOTICES**

**15.1 General.** Unless otherwise provided in this Agreement, any notice, demand or request required or permitted to be given by a Party to the other Parties and any instrument required or permitted to be tendered or delivered by a Party in writing to the other Parties shall be effective when delivered and may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the Party, or personally delivered to the Party, at the address set out in Appendix F hereto.

A Party may change the notice information in this Agreement by giving five (5) Business Days written notice prior to the effective date of the change.

**15.2 Billings and Payments.** Billings and payments shall be sent to the addresses set out in Appendix F hereto.

**15.3 Alternative Forms of Notice.** Any notice or request required or permitted to be given by a Party to the other Parties and not required by this Agreement to be given in writing may be so given by telephone, facsimile or email to the telephone numbers and email addresses set out in Appendix F hereto.

**15.4 Operations and Maintenance Notice.** Developer and Connecting Transmission Owner shall each notify the other Party, and NYISO, in writing of the identity of the person(s) that it designates as the point(s) of contact with respect to the implementation of Articles 9 and 10 of this Agreement.

## **ARTICLE 16. FORCE MAJEURE**

### **16.1 Force Majeure.**

**16.1.1** Economic hardship is not considered a Force Majeure event.

**16.1.2** A Party shall not be responsible or liable, or deemed, in Default with respect to any obligation hereunder, (including obligations under Article 4 of this Agreement) , other than the obligation to pay money when due, to the extent the Party is prevented from fulfilling such obligation by Force Majeure. A Party unable to fulfill any obligation hereunder (other than an obligation to pay money when due) by reason of Force Majeure shall give notice and the full particulars of such Force Majeure to the other Parties in writing or by telephone as soon as

reasonably possible after the occurrence of the cause relied upon. Telephone notices given pursuant to this Article shall be confirmed in writing as soon as reasonably possible and shall specifically state full particulars of the Force Majeure, the time and date when the Force Majeure occurred and when the Force Majeure is reasonably expected to cease. The Party affected shall exercise due diligence to remove such disability with reasonable dispatch, but shall not be required to accede or agree to any provision not satisfactory to it in order to settle and terminate a strike or other labor disturbance.

## **ARTICLE 17. DEFAULT**

### **17.1 Default.**

**17.1.1 General.** No Breach shall exist where such failure to discharge an obligation (other than the payment of money) is the result of Force Majeure as defined in this Agreement or the result of an act or omission of the other Parties. Upon a Breach, the non-Breaching Parties shall give written notice of such to the Breaching Party. The Breaching Party shall have thirty (30) Calendar Days from receipt of the Breach notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) Calendar Days, the Breaching Party shall commence such cure within thirty (30) Calendar Days after notice and continuously and diligently complete such cure within ninety (90) Calendar Days from receipt of the Breach notice; and, if cured within such time, the Breach specified in such notice shall cease to exist.

**17.1.2 Right to Terminate.** If a Breach is not cured as provided in this Article 17, or if a Breach is not capable of being cured within the period provided for herein, the non-Breaching Parties acting together shall thereafter have the right to declare a Default and terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not those Parties terminate this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which they are entitled at law or in equity. The provisions of this Article will survive termination of this Agreement.

## **ARTICLE 18. INDEMNITY, CONSEQUENTIAL DAMAGES AND INSURANCE**

**18.1 Indemnity.** Each Party (the "Indemnifying Party") shall at all times indemnify, defend, and save harmless, as applicable, the other Parties (each an "Indemnified Party") from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, the alleged violation of any Environmental Law, or the release or threatened release of any Hazardous Substance, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from (i) the Indemnified Party's performance of its obligations under this Agreement on behalf of the

Indemnifying Party, except in cases where the Indemnifying Party can demonstrate that the Loss of the Indemnified Party was caused by the gross negligence or intentional wrongdoing of the Indemnified Party or (ii) the violation by the Indemnifying Party of any Environmental Law or the release by the Indemnifying Party of any Hazardous Substance.

**18.1.1 Indemnified Party.** If a Party is entitled to indemnification under this Article 18 as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under Article 18.1.3, to assume the defense of such claim, such Indemnified Party may at the expense of the Indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

**18.1.2 Indemnifying Party.** If an Indemnifying Party is obligated to indemnify and hold any Indemnified Party harmless under this Article 18, the amount owing to the Indemnified Party shall be the amount of such Indemnified Party's actual Loss, net of any insurance or other recovery.

**18.1.3 Indemnity Procedures.** Promptly after receipt by an Indemnified Party of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in Article 18.1 may apply, the Indemnified Party shall notify the Indemnifying Party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the Indemnifying Party.

Except as stated below, the Indemnifying Party shall have the right to assume the defense thereof with counsel designated by such Indemnifying Party and reasonably satisfactory to the Indemnified Party. If the defendants in any such action include one or more Indemnified Parties and the Indemnifying Party and if the Indemnified Party reasonably concludes that there may be legal defenses available to it and/or other Indemnified Parties which are different from or additional to those available to the Indemnifying Party, the Indemnified Party shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the Indemnifying Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Party or Indemnified Parties having such differing or additional legal defenses.

The Indemnified Party shall be entitled, at its expense, to participate in any such action, suit or proceeding, the defense of which has been assumed by the Indemnifying Party. Notwithstanding the foregoing, the Indemnifying Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of



the Indemnified Party and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Party, or there exists a conflict or adversity of interest between the Indemnified Party and the Indemnifying Party, in such event the Indemnifying Party shall pay the reasonable expenses of the Indemnified Party, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Party, which shall not be unreasonably withheld, conditioned or delayed.

**18.2 No Consequential Damages.** Other than the Liquidated Damages heretofore described and the indemnity obligations set forth in Article 18.1, in no event shall any Party be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to another Party under separate agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

**18.3 Insurance.** Developer and Connecting Transmission Owner shall each, at its own expense, maintain in force throughout the period of this Agreement, and until released by the other Parties, the following minimum insurance coverages, with insurers authorized to do business in the state of New York:

**18.3.1** Employers' Liability and Workers' Compensation Insurance providing statutory benefits in accordance with the laws and regulations of New York State.

**18.3.2** Commercial General Liability Insurance including premises and operations, personal injury, broad form property damage, broad form blanket contractual liability coverage (including coverage for the contractual indemnification) products and completed operations coverage, coverage for explosion, collapse and underground hazards, independent contractors coverage, coverage for pollution to the extent normally available and punitive damages to the extent normally available and a cross liability endorsement, with minimum limits of One Million Dollars (\$1,000,000) per occurrence/One Million Dollars (\$1,000,000) aggregate combined single limit for personal injury, bodily injury, including death and property damage.

**18.3.3** Comprehensive Automobile Liability Insurance for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury, including death, and property damage.

- 18.3.4** Excess Public Liability Insurance over and above the Employers' Liability Commercial General Liability and Comprehensive Automobile Liability Insurance coverage, with a minimum combined single limit of Twenty Million Dollars (\$20,000,000) per occurrence/Twenty Million Dollars (\$20,000,000) aggregate.
- 18.3.5** The Commercial General Liability Insurance, Comprehensive Automobile Insurance and Excess Public Liability Insurance policies of Developer and Connecting Transmission Owner shall name the other Party, its parent, associated and Affiliate companies and their respective directors, officers, agents, servants and employees ("Other Party Group") as additional insured. All policies shall contain provisions whereby the insurers waive all rights of subrogation in accordance with the provisions of this Agreement against the Other Party Group and provide thirty (30) Calendar days advance written notice to the Other Party Group prior to anniversary date of cancellation or any material change in coverage or condition.
- 18.3.6** The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies shall contain provisions that specify that the policies are primary and shall apply to such extent without consideration for other policies separately carried and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. Developer and Connecting Transmission Owner shall each be responsible for its respective deductibles or retentions.
- 18.3.7** The Commercial General Liability Insurance, Comprehensive Automobile Liability Insurance and Excess Public Liability Insurance policies, if written on a Claims First Made Basis, shall be maintained in full force and effect for two (2) years after termination of this Agreement, which coverage may be in the form of tail coverage or extended reporting period coverage if agreed by the Developer and Connecting Transmission Owner.
- 18.3.8** The requirements contained herein as to the types and limits of all insurance to be maintained by the Developer and Connecting Transmission Owner are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by those Parties under this Agreement.
- 18.3.9** Within ten (10) days following execution of this Agreement, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within ninety (90) days thereafter, Developer and Connecting Transmission Owner shall provide certification of all insurance required in this Agreement, executed by each insurer or by an authorized representative of each insurer.

**18.3.10** Notwithstanding the foregoing, Developer and Connecting Transmission Owner may each self-insure to meet the minimum insurance requirements of Articles 18.3.2 through 18.3.8 to the extent it maintains a self-insurance program; provided that, such Party's senior debt is rated at investment grade, or better, by Standard & Poor's and that its self-insurance program meets the minimum insurance requirements of Articles 18.3.2 through 18.3.8. For any period of time that a Party's senior debt is unrated by Standard & Poor's or is rated at less than investment grade by Standard & Poor's, such Party shall comply with the insurance requirements applicable to it under Articles 18.3.2 through 18.3.9. In the event that a Party is permitted to self-insure pursuant to this Article 18.3.10, it shall notify the other Party that it meets the requirements to self-insure and that its self-insurance program meets the minimum insurance requirements in a manner consistent with that specified in Article 18.3.9.

**18.3.11** Developer and Connecting Transmission Owner agree to report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this Agreement.

## **ARTICLE 19. ASSIGNMENT**

**19.1 Assignment.** This Agreement may be assigned by a Party only with the written consent of the other Parties; provided that a Party may assign this Agreement without the consent of the other Parties to any Affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement; provided further that a Party may assign this Agreement without the consent of the other Parties in connection with the sale, merger, restructuring, or transfer of a substantial portion or all of its assets, including the Attachment Facilities it owns, so long as the assignee in such a transaction directly assumes in writing all rights, duties and obligations arising under this Agreement; and provided further that the Developer shall have the right to assign this Agreement, without the consent of the NYISO or Connecting Transmission Owner, for collateral security purposes to aid in providing financing for the Merchant Transmission Facility, provided that the Developer will promptly notify the NYISO and Connecting Transmission Owner of any such assignment. Any financing arrangement entered into by the Developer pursuant to this Article will provide that prior to or upon the exercise of the secured party's, trustee's or mortgagee's assignment rights pursuant to said arrangement, the secured creditor, the trustee or mortgagee will notify the NYISO and Connecting Transmission Owner of the date and particulars of any such exercise of assignment right(s) and will provide the NYISO and Connecting Transmission Owner with proof that it meets the requirements of Articles 11.5 and 18.3. Any attempted assignment that violates this Article is void and ineffective. Any assignment under this Agreement shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

## **ARTICLE 20. SEVERABILITY**

**20.1 Severability.** If any provision in this Agreement is finally determined to be invalid, void or unenforceable by any court or other Governmental Authority having jurisdiction, such determination shall not invalidate, void or make unenforceable any other provision, agreement or covenant of this Agreement; provided that if the Developer (or any third party, but only if such third party is not acting at the direction of the Connecting Transmission Owner) seeks and obtains such a final determination with respect to any provision of the Alternate Option (Article 5.1.2), or the Negotiated Option (Article 5.1.4), then none of these provisions shall thereafter have any force or effect and the rights and obligations of Developer and Connecting Transmission Owner shall be governed solely by the Standard Option (Article 5.1.1).

## **ARTICLE 21. COMPARABILITY**

**21.1 Comparability.** The Parties will comply with all applicable comparability and code of conduct laws, rules and regulations, as amended from time to time.

## **ARTICLE 22. CONFIDENTIALITY**

**22.1 Confidentiality.** Certain information exchanged by the Parties during the term of this Agreement shall constitute confidential information ("Confidential Information") and shall be subject to this Article 22.

If requested by a Party receiving information, the Party supplying the information shall provide in writing, the basis for asserting that the information referred to in this Article warrants confidential treatment, and the requesting Party may disclose such writing to the appropriate Governmental Authority. Each Party shall be responsible for the costs associated with affording confidential treatment to its information.

**22.1.1 Term.** During the term of this Agreement, and for a period of three (3) years after the expiration or termination of this Agreement, except as otherwise provided in this Article 22, each Party shall hold in confidence and shall not disclose to any person Confidential Information.

**22.1.2 Confidential Information.** The following shall constitute Confidential Information: (1) any non-public information that is treated as confidential by the disclosing Party and which the disclosing Party identifies as Confidential Information in writing at the time, or promptly after the time, of disclosure; or (2) information designated as Confidential Information by the NYISO Code of Conduct contained in Attachment F to the NYISO OATT.

**22.1.3 Scope.** Confidential Information shall not include information that the receiving Party can demonstrate: (1) is generally available to the public other than as a

result of a disclosure by the receiving Party; (2) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (3) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (4) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (5) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this Agreement; or (6) is required, in accordance with Article 22.1.8 of this Agreement, Order of Disclosure, to be disclosed by any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this Agreement. Information designated as Confidential Information will no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

- 22.1.4 Release of Confidential Information.** No Party shall release or disclose Confidential Information to any other person, except to its Affiliates (limited by FERC Standards of Conduct requirements), subcontractors, employees, consultants, or to parties who may be considering providing financing to or equity participation with Developer, or to potential purchasers or assignees of a Party, on a need-to-know basis in connection with this Agreement, unless such person has first been advised of the confidentiality provisions of this Article 22 and has agreed to comply with such provisions. Notwithstanding the foregoing, a Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Article 22.
- 22.1.5 Rights.** Each Party retains all rights, title, and interest in the Confidential Information that each Party discloses to the other Party. The disclosure by each Party to the other Parties of Confidential Information shall not be deemed a waiver by any Party or any other person or entity of the right to protect the Confidential Information from public disclosure.
- 22.1.6 No Warranties.** By providing Confidential Information, no Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, no Party obligates itself to provide any particular information or Confidential Information to the other Parties nor to enter into any further agreements or proceed with any other relationship or joint venture.
- 22.1.7 Standard of Care.** Each Party shall use at least the same standard of care to protect Confidential Information it receives as it uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Party may use Confidential Information solely to fulfill its

obligations to the other Party under this Agreement or its regulatory requirements, including the NYISO OATT and NYISO Services Tariff. The NYISO shall, in all cases, treat the information it receives in accordance with the requirements of Attachment F to the NYISO OATT.

- 22.1.8 Order of Disclosure.** If a court or a Government Authority or entity with the right, power, and apparent authority to do so requests or requires any Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Parties with prompt notice of such request(s) or requirement(s) so that the other Parties may seek an appropriate protective order or waive compliance with the terms of this Agreement. Notwithstanding the absence of a protective order or waiver, the Party may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party will use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.
- 22.1.9 Termination of Agreement.** Upon termination of this Agreement for any reason, each Party shall, within ten (10) Calendar Days of receipt of a written request from the other Parties, use Reasonable Efforts to destroy, erase, or delete (with such destruction, erasure, and deletion certified in writing to the other Parties) or return to the other Parties, without retaining copies thereof, any and all written or electronic Confidential Information received from the other Parties pursuant to this Agreement.
- 22.1.10 Remedies.** The Parties agree that monetary damages would be inadequate to compensate a Party for another Party's Breach of its obligations under this Article 22. Each Party accordingly agrees that the other Parties shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Article 22, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed an exclusive remedy for the Breach of this Article 22, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Party, however, shall be liable for indirect, incidental, or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Article 22.
- 22.1.11 Disclosure to FERC, its Staff, or a State.** Notwithstanding anything in this Article 22 to the contrary, and pursuant to 18 C.F.R. section 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence

pursuant to this Agreement or the NYISO OATT, the Party shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 C.F.R. section 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Parties to this Agreement prior to the release of the Confidential Information to the Commission or its staff. The Party shall notify the other Parties to the Agreement when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time the Parties may respond before such information would be made public, pursuant to 18 C.F.R. section 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations. A Party shall not be liable for any losses, consequential or otherwise, resulting from that Party divulging Confidential Information pursuant to a FERC or state regulatory body request under this paragraph.

**22.1.12** Except as otherwise expressly provided herein, no Party shall disclose Confidential Information to any person not employed or retained by the Party possessing the Confidential Information, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Party to be required to be disclosed in connection with a dispute between or among the Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the other Party, such consent not to be unreasonably withheld; or (iv) necessary to fulfill its obligations under this Agreement, the NYISO OATT or the NYISO Services Tariff. Prior to any disclosures of a Party's Confidential Information under this subparagraph, or if any third party or Governmental Authority makes any request or demand for any of the information described in this subparagraph, the disclosing Party agrees to promptly notify the other Party in writing and agrees to assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

## **ARTICLE 23. ENVIRONMENTAL RELEASES**

**23.1 Developer and Connecting Transmission Owner Notice.** Developer and Connecting Transmission Owner shall each notify the other Party, first orally and then in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Merchant Transmission Facility or the Attachment Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall: (i) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than twenty-four hours after such Party becomes aware of the occurrence; and (ii) promptly furnish to the other Party copies of any publicly available reports filed with any Governmental Authorities addressing such events.

## **ARTICLE 24. INFORMATION REQUIREMENT**

**24.1 Information Acquisition.** Connecting Transmission Owner and Developer shall each submit specific information regarding the electrical characteristics of their respective facilities to the other, and to NYISO, as described below and in accordance with Applicable Reliability Standards.

**24.2 Information Submission by Connecting Transmission Owner.** The initial information submission by Connecting Transmission Owner shall occur no later than one hundred eighty (180) Calendar Days prior to Trial Operation and shall include New York State Transmission System information necessary to allow the Developer to select equipment and meet any system protection and stability requirements, unless otherwise mutually agreed to by the Developer and Connecting Transmission Owner. On a monthly basis Connecting Transmission Owner shall provide Developer and NYISO a status report on the construction and installation of Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades, including, but not limited to, the following information: (1) progress to date; (2) a description of the activities since the last report; (3) a description of the action items for the next period; and (4) the delivery status of equipment ordered.

**24.3 Updated Information Submission by Developer.** The updated information submission by the Developer, including manufacturer information, shall occur no later than one hundred eighty (180) Calendar Days prior to the Trial Operation. Developer shall submit a completed copy of the Merchant Transmission Facility data requirements contained in Appendix 1 to the Large Facility Interconnection Procedures. It shall also include any additional information provided to Connecting Transmission Owner for the Interconnection Feasibility Study and Interconnection Facilities Study. Information in this submission shall be the most current Merchant Transmission Facility design or expected performance data. Information submitted for stability models shall be compatible with NYISO standard models. If there is no compatible model, the Developer will work with a consultant mutually agreed to by the Parties to develop and supply a standard model and associated information.

If the Developer's data is different from what was originally provided to Connecting Transmission Owner and NYISO pursuant to an Interconnection Study Agreement among Connecting Transmission Owner, NYISO and Developer and this difference may be reasonably expected to affect the other Parties' facilities or the New York State Transmission System, but does not require the submission of a new Interconnection Request, then NYISO will conduct appropriate studies to determine the impact on the New York State Transmission System based on the actual data submitted pursuant to this Article 24.3. Such studies will provide an estimate of any additional modifications to the New York State Transmission System, Connecting Transmission Owner's Attachment Facilities, or System Upgrade Facilities or System Deliverability Upgrades based on the actual data and a good faith estimate of the costs thereof. The Developer shall not begin Trial Operation until such studies are completed. The Developer shall be responsible for



the cost of any modifications required by the actual data, including the cost of any required studies.

**24.4 Information Supplementation.** Prior to the Commercial Operation Date, the Developer and Connecting Transmission Owner shall supplement their information submissions described above in this Article 24 with any and all “as-built” Merchant Transmission Facility information or “as-tested” performance information that differs from the initial submissions or, alternatively, written confirmation that no such differences exist. The Developer shall conduct tests on the Merchant Transmission Facility as required by Good Utility Practice.

Developer shall provide the Connecting Transmission Owner and NYISO validated test recordings showing the responses of its Merchant Transmission Facility.

Subsequent to the Commercial Operation Date, the Developer shall provide Connecting Transmission Owner and NYISO any information changes due to equipment replacement, repair, or adjustment. Connecting Transmission Owner shall provide the Developer and NYISO any information changes due to equipment replacement, repair or adjustment in the directly connected substation or any adjacent Connecting Transmission Owner substation that may affect the Merchant Transmission Facility or Developer Attachment Facilities equipment ratings, protection or operating requirements. The Developer and Connecting Transmission Owner shall provide such information no later than thirty (30) Calendar Days after the date of the equipment replacement, repair or adjustment.

## **ARTICLE 25. INFORMATION ACCESS AND AUDIT RIGHTS**

**25.1 Information Access.** Each Party (“Disclosing Party”) shall make available to another Party (“Requesting Party”) information that is in the possession of the Disclosing Party and is necessary in order for the Requesting Party to: (i) verify the costs incurred by the Disclosing Party for which the Requesting Party is responsible under this Agreement; and (ii) carry out its obligations and responsibilities under this Agreement. The Parties shall not use such information for purposes other than those set forth in this Article 25.1 of this Agreement and to enforce their rights under this Agreement.

**25.2 Reporting of Non-Force Majeure Events.** Each Party (the “Notifying Party”) shall notify the other Parties when the Notifying Party becomes aware of its inability to comply with the provisions of this Agreement for a reason other than a Force Majeure event. The Parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this Article shall not entitle the Party receiving such notification to allege a cause for anticipatory breach of this Agreement.

**25.3 Audit Rights.** Subject to the requirements of confidentiality under Article 22 of this Agreement, each Party shall have the right, during normal business hours, and upon prior reasonable notice to another Party, to audit at its own expense the other Party's accounts and records pertaining to the other Party's performance or satisfaction of its obligations under this Agreement. Such audit rights shall include audits of the other Party's costs, calculation of invoiced amounts, and each Party's actions in an Emergency State. Any audit authorized by this Article shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to the Party's performance and satisfaction of obligations under this Agreement. Each Party shall keep such accounts and records for a period equivalent to the audit rights periods described in Article 25.4 of this Agreement.

## **25.4 Audit Rights Periods.**

### **25.4.1 Audit Rights Period for Construction-Related Accounts and Records.**

Accounts and records related to the design, engineering, procurement, and construction of Connecting Transmission Owner's Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades shall be subject to audit for a period of twenty-four months following Connecting Transmission Owner's issuance of a final invoice in accordance with Article 12.2 of this Agreement.

**25.4.2 Audit Rights Period for All Other Accounts and Records.** Accounts and records related to a Party's performance or satisfaction of its obligations under this Agreement other than those described in Article 25.4.1 of this Agreement shall be subject to audit as follows: (i) for an audit relating to cost obligations, the applicable audit rights period shall be twenty-four months after the auditing Party's receipt of an invoice giving rise to such cost obligations; and (ii) for an audit relating to all other obligations, the applicable audit rights period shall be twenty-four months after the event for which the audit is sought.

**25.5 Audit Results.** If an audit by a Party determines that an overpayment or an underpayment has occurred, a notice of such overpayment or underpayment shall be given to the other Party together with those records from the audit which support such determination.

## **ARTICLE 26. SUBCONTRACTORS**

**26.1 General.** Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Parties for the performance of such subcontractor.

**26.2 Responsibility of Principal.** The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Parties for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the NYISO or Connecting Transmission Owner be liable for the actions or inactions of the Developer or its subcontractors with respect to obligations of the Developer under Article 5 of this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

**26.3 No Limitation by Insurance.** The obligations under this Article 26 will not be limited in any way by any limitation of subcontractor's insurance.

## **ARTICLE 27. DISPUTES**

**27.1 Submission.** In the event any Party has a dispute, or asserts a claim, that arises out of or in connection with this Agreement or its performance (a "Dispute"), such Party shall provide the other Parties with written notice of the Dispute ("Notice of Dispute"). Such Dispute shall be referred to a designated senior representative of each Party for resolution on an informal basis as promptly as practicable after receipt of the Notice of Dispute by the other Parties. In the event the designated representatives are unable to resolve the Dispute through unassisted or assisted negotiations within thirty (30) Calendar Days of the other Parties' receipt of the Notice of Dispute, such Dispute may, upon mutual agreement of the Parties, be submitted to arbitration and resolved in accordance with the arbitration procedures set forth below. In the event the Parties do not agree to submit such Dispute to arbitration, each Party may exercise whatever rights and remedies it may have in equity or at law consistent with the terms of this Agreement.

**27.2 External Arbitration Procedures.** Any arbitration initiated under this Agreement shall be conducted before a single neutral arbitrator appointed by the Parties. If the Parties fail to agree upon a single arbitrator within ten (10) Calendar Days of the submission of the Dispute to arbitration, each Party shall choose one arbitrator who shall sit on a three-member arbitration panel. In each case, the arbitrator(s) shall be knowledgeable in electric utility matters, including electric transmission and bulk power issues, and shall not have any current or past substantial business or financial relationships with any party to the arbitration (except prior arbitration). The arbitrator(s) shall provide each of the Parties an opportunity to be heard and, except as otherwise provided herein, shall conduct the arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("Arbitration Rules") and any applicable FERC regulations or RTO rules; provided, however, in the event of a conflict between the Arbitration Rules and the terms of this Article 27, the terms of this Article 27 shall prevail.

**27.3 Arbitration Decisions.** Unless otherwise agreed by the Parties, the arbitrator(s) shall render a decision within ninety (90) Calendar Days of appointment and shall notify

the Parties in writing of such decision and the reasons therefor. The arbitrator(s) shall be authorized only to interpret and apply the provisions of this Agreement and shall have no power to modify or change any provision of this Agreement in any manner. The decision of the arbitrator(s) shall be final and binding upon the Parties, and judgment on the award may be entered in any court having jurisdiction. The decision of the arbitrator(s) may be appealed solely on the grounds that the conduct of the arbitrator(s), or the decision itself, violated the standards set forth in the Federal Arbitration Act or the Administrative Dispute Resolution Act. The final decision of the arbitrator must also be filed with FERC if it affects jurisdictional rates, terms and conditions of service, Attachment Facilities, or System Upgrade Facilities, or System Deliverability Upgrades.

**27.4 Costs.** Each Party shall be responsible for its own costs incurred during the arbitration process and for the following costs, if applicable: (1) the cost of the arbitrator chosen by the Party to sit on the three member panel; or (2) one-third the cost of the single arbitrator jointly chosen by the Parties.

**27.5 Termination.** Notwithstanding the provisions of this Article 27, any Party may terminate this Agreement in accordance with its provisions or pursuant to an action at law or equity. The issue of whether such a termination is proper shall not be considered a Dispute hereunder.

## **ARTICLE 28. REPRESENTATIONS, WARRANTIES AND COVENANTS**

**28.1 General.** Each Party makes the following representations, warranties and covenants:

**28.1.1 Good Standing.** Such Party is duly organized, validly existing and in good standing under the laws of the state in which it is organized, formed, or incorporated, as applicable; that it is qualified to do business in the state or states in which the Merchant Transmission Facility, Attachment Facilities and System Upgrade Facilities and System Deliverability Upgrades owned by such Party, as applicable, are located; and that it has the corporate power and authority to own its properties, to carry on its business as now being conducted and to enter into this Agreement and carry out the transactions contemplated hereby and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this Agreement.

**28.1.2 Authority.** Such Party has the right, power and authority to enter into this Agreement, to become a Party hereto and to perform its obligations hereunder. This Agreement is a legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

**28.1.3 No Conflict.** The execution, delivery and performance of this Agreement does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of such Party, or any judgment, license, permit, order, material agreement or instrument applicable to or binding upon such Party or any of its assets.

**28.1.4 Consent and Approval.** Such Party has sought or obtained, or, in accordance with this Agreement will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of this Agreement, and it will provide to any Governmental Authority notice of any actions under this Agreement that are required by Applicable Laws and Regulations.

## **ARTICLE 29. MISCELLANEOUS**

**29.1 Binding Effect.** This Agreement and the rights and obligations hereof, shall be binding upon and shall inure to the benefit of the successors and permitted assigns of the Parties hereto.

**29.2 Conflicts.** If there is a discrepancy or conflict between or among the terms and conditions of this cover agreement and the Appendices hereto, the terms and conditions of this cover agreement shall be given precedence over the Appendices, except as otherwise expressly agreed to in writing by the Parties. As permitted by the foregoing, the Parties expressly agree that the terms and conditions of the Appendices shall take precedence over the provisions of this cover agreement in case of a discrepancy or conflict between or among the terms and conditions of same.

**29.3 Rules of Interpretation.** This Agreement, unless a clear contrary intention appears, shall be construed and interpreted as follows: (1) the singular number includes the plural number and vice versa; (2) reference to any person includes such person's successors and assigns but, in the case of a Party, only if such successors and assigns are permitted by this Agreement, and reference to a person in a particular capacity excludes such person in any other capacity or individually; (3) reference to any agreement (including this Agreement), document, instrument or tariff means such agreement, document, instrument, or tariff as amended or modified and in effect from time to time in accordance with the terms thereof and, if applicable, the terms hereof; (4) reference to any Applicable Laws and Regulations means such Applicable Laws and Regulations as amended, modified, codified, or reenacted, in whole or in part, and in effect from time to time, including, if applicable, rules and regulations promulgated thereunder; (5) unless expressly stated otherwise, reference to any Article, Section or Appendix means such Article of this Agreement or such Appendix to this Agreement, or such Section to the Large Facility Interconnection Procedures or such Appendix to the Large Facility Interconnection Procedures, as the case may be; (6) "hereunder", "hereof", "herein", "hereto" and words of similar import shall be deemed references to this Agreement as a whole and not to any particular Article or other provision hereof or thereof; (7)

“including” (and with correlative meaning “include”) means including without limiting the generality of any description preceding such term; and (8) relative to the determination of any period of time, “from” means “from and including”, “to” means “to but excluding” and “through” means “through and including”.

**29.4 Compliance.** Each Party shall perform its obligations under this Agreement in accordance with Applicable Laws and Regulations, Applicable Reliability Standards, the NYISO OATT and Good Utility Practice. To the extent a Party is required or prevented or limited in taking any action by such regulations and standards, such Party shall not be deemed to be in Breach of this Agreement for its compliance therewith. When any Party becomes aware of such a situation, it shall notify the other Parties promptly so that the Parties can discuss the amendment to this Agreement that is appropriate under the circumstances.

**29.5 Joint and Several Obligations.** Except as otherwise stated herein, the obligations of NYISO, Developer and Connecting Transmission Owner are several, and are neither joint nor joint and several.

**29.6 Entire Agreement.** This Agreement, including all Appendices and Schedules attached hereto, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party’s compliance with its obligations under this Agreement.

**29.7 No Third Party Beneficiaries.** This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and permitted their assigns.

**29.8 Waiver.** The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party. Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or Default of this Agreement for any reason by the Developer shall not constitute a waiver of the Developer’s legal rights to obtain Capacity Resource Interconnection Service and Energy Resource Interconnection Service from the NYISO and Connecting Transmission Owner in accordance with the provisions of the NYISO OATT. Any waiver of this Agreement shall, if requested, be provided in writing.

**29.9 Headings.** The descriptive headings of the various Articles of this Agreement have been inserted for convenience of reference only and are of no significance in the interpretation or construction of this Agreement.

**29.10 Multiple Counterparts.** This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

**29.11 Amendment.** The Parties may by mutual agreement amend this Agreement, by a written instrument duly executed by all three of the Parties.

**29.12 Modification by the Parties.** The Parties may by mutual agreement amend the Appendices to this Agreement, by a written instrument duly executed by all three of the Parties. Such an amendment shall become effective and a part of this Agreement upon satisfaction of all Applicable Laws and Regulations.

**29.13 Reservation of Rights.** NYISO and Connecting Transmission Owner shall have the right to make unilateral filings with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and Developer shall have the right to make a unilateral filing with FERC to modify this Agreement pursuant to section 206 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder; provided that each Party shall have the right to protest any such filing by another Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations thereunder, except to the extent that the Parties otherwise mutually agree as provided herein.

**29.14 No Partnership.** This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership among the Parties or to impose any partnership obligation or partnership liability upon any Party. No Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, any other Party.

**29.15 Other Transmission Rights.** Notwithstanding any other provision of this Agreement, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, or transmission congestion rights that the Developer shall be entitled to, now or in the future under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the System Upgrade Facilities and System Deliverability Upgrades.

**IN WITNESS WHEREOF**, the Parties have executed this LGIA in duplicate originals, each of which shall constitute and be an original effective Agreement between the Parties.

**NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.**

By: 

Title: V.P., System and Resource Planning

Date: 4/19/2011


**CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.**

By: 

Title: Vice President of System and Transmission Operations

Date: 4/20/11

**HUDSON TRANSMISSION PARTNERS, LLC**

By: 

Title: CEO

Date: April 19, 2011



## **APPENDICES**

### **Appendix A**

Attachment Facilities and System Upgrade Facilities

### **Appendix B**

Milestones

### **Appendix C**

Interconnection Details

### **Appendix D**

Security Arrangements

### **Appendix E**

Commercial Operation Date

### **Appendix F**

Addresses for Delivery of Notices and Billings

### **Appendix G**

Merchant Transmission Facility and Developer Attachment Facilities Performance Specifications

### **Appendix H**

Project Principles

## **APPENDIX A**

### **ATTACHMENT FACILITIES AND SYSTEM UPGRADE FACILITIES**

#### **1. Attachment Facilities:**

##### **(a) Developer's Attachment Facilities ("DAF"):**

The Merchant Transmission Facility shall interconnect at the available bus position of the Connecting Transmission Owner's West 49th Street 345 kilovolt ("kV") Gas Insulated Switchgear ("GIS") substation ("West 49th Street Substation") between existing circuit breakers 7 and 8. The DAF, as identified in Figure A-1, will be located between the West 49th Street Substation and the cable transition splice vault at West 52nd Street. Specifically, the DAF will be a single circuit, three phase, 345kV buried electric cable system comprised of (i) an approximately 1800 foot solid dielectric cable segment installed in the public roadways of New York City from the point at which it exits a cable transition splice vault on West 52nd Street to a 345kV GIS design termination in the West 49th Street Substation; and (ii) all necessary terminations, splices and appurtenances as necessary to construct, operate and maintain the DAF. Figure A-1 identifies the DAF, Point of Change of Ownership, and the Point of Interconnection.

Technical details of the major DAF equipment are as follows:

- Three (3) 365kV, 1425kV Lightning Impulse Withstand; GIS insulated cable terminations;
- A 1,800 foot segment of 345kV, 1300kV Basic Impulse Insulation Level ("BIL") 1600 mm<sup>2</sup> copper conductor, XLPE insulated, underground electric radial line, spliced to Developer's submarine cable as described in Appendix C, 1(b)5.
- A DAF interface cabinet including fiber optic and cable monitoring equipment, raceways and termination shall be located adjacent to the newly-installed DAF cable termination stand. The DAF interface cabinet requires local West 49th Street substation AC and DC control power.
- Surge suppression devices as determined by detailed equipment design will be installed if required for very fast transient phenomenon.

##### **(b) Connecting Transmission Owner's Attachment Facilities ("CTOAF"):**

There are no CTOAFs that are covered by this Agreement.

#### **2. System Upgrade Facilities:**

##### **(a) System Upgrade Facilities:**

The System Upgrade Facilities ("SUF") shall include the necessary removal, addition or modifications to the existing structural steel termination and accessories stand

at the West 49th Street Substation allowing the DAF to interconnect to the point as illustrated in Figure A-1. SUFs shall also include the addition of a GIS design revenue metering package.

The West 49th Street 345kV substation is an existing indoor GIS design and is configured as a ring bus as shown on Figure A-1. Currently, the pothead for the bus section between breakers 7 and 8 is designed for an oil filled pipe type connection. The Developer selected a solid dielectric cable which is not compatible with the existing pothead. Accordingly, the pipe type cable potheads will need to be replaced, certain conduit in the cable tunnel will need to be removed to make room for the Developer's cable, and modifications to the relay protection equipment will be required to effectuate the interconnection. Technical details of the SUFs are as follows:

- Existing, non-compatible 345kV cable termination stand at bus section No. 10 between existing circuit breakers 7 and 8 will be replaced with a stand and relay protection current transformers suitable for Developer's incoming 345kV solid dielectric cable.
- Existing GIS coupling capacitor potential devices will be replaced with revenue metering potential transformers.
- Three sets of current transformers over new feeder riser, two sets of 3000/5Amp current transformers for relay protection, class C800 (or equal) and one set of 3000/5Amp current transformers revenue metering grade will be installed.
- Three single phase metering potential transformer isolation disconnect switches will be installed, if required by detailed equipment design.
- The GIS bus section between breakers 7 and 8 will continue to conform to the following existing technical specifications:
  - Rated Voltage - 362kV;
  - Rated Interrupting Rating - 63kA;
  - Rated Current - 3000A;
  - Rated 60 Hz. Withstand - 555kV;
  - Rated BIL in the pressurized SF<sub>6</sub> housing - 1050kV;
  - Rated BIL across any open contacts – 1300kV;
  - Rated Test Voltage Withstand for Pothead Compartments – 540kVDC for 15 minutes.
- All electrical components associated with installation of new 345kV feeder, such as disconnect switches, pothead, and potential transformers will be SF<sub>6</sub> GIS design.
- The GIS bus section will include 345kV metering grade (0.3 ANSI revenue metering accuracy) potential transformers to replace an existing CCPD connected to 345kV bus section No.10.
- The new GIS section will be designed to have transition compartments between existing ITE GIS bus and new 345kV potential transformer assembly.

- The GIS bus section will be designed to provide the transition compartments between existing ITE gas insulated bus and new bus and pothead compartments. Transition compartments shall be supplied, as required by Connecting Transmission Owner's specifications. Also, the new pothead compartments design shall incorporate an additional 3 single phase operated test disconnect switch in order to provide sufficient isolation to the existing 345kV GIS equipment during the high voltage testing of the new 345kV solid dielectric feeder. New pothead compartments shall accept 400kV solid dielectric cable terminations designed to IEC TS 60859 specifications maintaining the existing feeder outlets, feeder disconnect, and ground switch.
- The GIS equipment supplier shall provide platforms to the GIS equipment view ports, gas pressure gauges, and related equipment to ensure easy future safe personnel access and maintenance. The platforms design shall adhere to the OSHA requirements.
- Prior to the purchase of the GIS equipment, Developer has the option to purchase and have Connecting Transmission Owner install one (1) 3 phase Disconnect Switch for future expansion of ring bus.
- The existing oil pipe type cable conduit in the cable tunnel will be removed in order to provide the route required for the DAF installation and routing.

The following are details regarding the protection and control equipment required at the West 49th Street Substation:

- New metering and relay protection current transformers will be installed on the new cable termination stand for Developer's cable.
- The existing structural steel cable termination and accessories stand will be replaced to accommodate the Developer's new solid dielectric cable and provide mounting abilities for necessary relay protection current transformers.
- Four relay protection panels will be installed consisting of new control, supervisory and protection equipment along with all wiring, terminations and raceways. The existing control room layout will be modified to provide space for the installation of four relay panels associated with Developer's new 345kV feeder. The existing zones of relay protection will be modified and new zones of relay protection will be established in compliance with Connecting Transmission Owner's Engineering Specifications and NPCC Bulk Power System Protection requirements. To the extent applicable for relay protection located outside the New York Control Area, RFC requirements may also apply to such relay protection.
- AC and DC control power feeds to DAF interface control cabinet will be installed.

**(b) Other System Upgrade Facilities:**

There are no Other System Upgrade Facilities that are covered by this Agreement.

**3. System Deliverability Upgrades:**

There are no System Deliverability Upgrades that are covered by this Agreement.

**Figure A-1 – Single Line Diagram for System Interconnection**

Critical Energy Infrastructure Information Protected from Disclosure Pursuant to  
18 C.F.R. § 388.107, 18 C.F.R. § 388.112, and 18 C.F.R. § 388.113

**4. Cost Estimates:** Cost estimates from the Class Year 2008 Interconnection Facilities Study for the CTOAF and System Upgrade Facilities.

**(a) Attachment Facilities**

Not applicable, because there are no CTOAFs for the Merchant Transmission Facility that are covered by this Agreement.

**(b) System Upgrade Facilities**

The estimated cost of constructing the System Upgrade Facilities is \$16,471,000.00.

**(c) Deliverability System Upgrades**

Not applicable, because there are no Deliverability System Upgrades for the Merchant Transmission Facility that are covered by this Agreement.

**(d) Tax Liability**

As of the Effective Date, Developer and Transmission owner are not aware of Developer having any tax liability under Article 5.17 of this Agreement.

## APPENDIX B

### MILESTONES

#### 1. Selected Option Pursuant to Article 5.1

Developer has selected the Standard Option pursuant to Article 5.1

The following milestones shall apply to the engineering, procurement, construction, and testing for the interconnection of the Merchant Transmission Facility, DAF and SUFs.

The actual dates for completion of the milestones are highly dependent upon lead times for the procurement of equipment and material, the availability of labor, outage scheduling, receipt of regulatory approvals, and the results of equipment testing. The completion and results of environmental remediation of the site, and other unforeseen events could also affect the achievement of the milestones. The Connecting Transmission Owner is under no obligation to undertake any engineering, procurement, or construction work pursuant to this Agreement, until the requirements of Appendix H, section 2 are satisfied, except as specified in Appendix H, section 1(d).

#### 2. Milestones

Item	Milestone	Responsible Party	Due Date
(a)	Developer issues written authorization to proceed with construction under Article 5.6.2	Developer	5/31/2011
(b)	Developer replaces existing security with cash or letter of credit or conditions on security are satisfied	Developer	5/31/2011
(c)	Connecting Transmission Owner initiates action to issue GIS Purchase Order	Connecting Transmission Owner	5/31/2011
(d)	Connecting Transmission Owner removes partial amount of retired equipment from West 49th St Substation tunnel to allow for Developer cable installation	Connecting Transmission Owner	10/1/2011
(e)	Developer Cable stub installed into West 49th Substation tunnel	Developer	10/21/2011
(f)	Developer Cable splicing and terminations and acceptance test complete	Developer	12/14/2012
(g)	Developer Cable installed, tested and ready for Synchronization	Developer	12/14/2012



Item	Milestone	Responsible Party	Due Date
(h)	Completion of System Upgrade Facilities	Developer	12/15/2012
(i)	In-Service Date	Connecting Transmission Owner	12/15/2012*
(j)	Initial Synchronization of the Merchant Transmission Facility	Developer	12/16/2012**
(k)	Commission testing and Trial Operation complete	Developer	5/30/2013
(l)	Commercial Operation Date ("COD")	Developer	5/31/2013

\* Prior to the In-Service Date, Developer shall comply with NYISO procedures and request and obtain written approval for synchronization from Connecting Transmission Owner. If the facility is ready for synchronization, Connecting Transmission Owner shall grant such approval within ten (10) days of receiving the request.

\*\* Prior to synchronization, Developer shall comply with all applicable NYISO procedures and shall request and obtain written approval for synchronization from Connecting Transmission Owner in accordance with all applicable NYISO, PJM, Public Service Electric and Gas Company ("PSE&G"), and Connecting Transmission Owner procedures. If the unit is ready for synchronization, Connecting Transmission Owner shall grant such approval within ten (10) days of receiving the request.

## **APPENDIX C**

### **INTERCONNECTION DETAILS**

#### **1. Description of Facilities including Point of Interconnection**

##### **(a) Overview of the Merchant Transmission Facility**

The Merchant Transmission Facility is a 660MW back-to-back HVDC (AC input-DC conversion-AC output) transmission project that will connect the PSE&G Bergen Substation (“PSE&G Substation”) located in Ridgefield, New Jersey, with the West 49th Street Substation in New York City.

The Merchant Transmission Facility includes 2100 feet of 230kV alternating current (“AC”), solid dielectric cable connection from the PSE&G Substation to a back-to-back converter station facility, to be constructed in Ridgefield, New Jersey by the Developer (the “Converter Station”). The Converter Station, which includes 230kV and 345kV Switchyards, will convert AC power to DC and back to AC. A 345kV AC underground and underwater cable system will be constructed and installed from the Converter Station to the West 49th Street Substation in New York City. A simplified schematic illustrating the major components of the Merchant Transmission Facility, and DAF are included in Appendix A, Figure A-1. The Merchant Transmission Facility and DAF will have an operating range between 60MW and 660MW, subject to system conditions as described in Sections 9.5.1 and 9.5.2 of this agreement.

The high-voltage AC power cables will interconnect PJM and New York City along a route that is entirely underground, installed either in existing roadways, an existing railway tunnel, or buried beneath the Hudson River. The Developer shall design, procure, construct, install, own and/or control the Merchant Transmission Facility described herein, at its sole expense. The Merchant Transmission Facility is from the connection point to the PSE&G Substation in New Jersey to the point of the splice manhole at West 52nd Street in New York City.

The Merchant Transmission Facility will have only unidirectional flow from PJM to the New York Control Area.

The Point of Interconnection (“POI”) is defined as the point identified in Figure A-1 at the West 49th Street Substation between existing circuit breakers 7 and 8 as shown in Figure A-1.

##### **(b) Detailed Description of the Merchant Transmission Facility**

The major components for the Merchant Transmission Facility shall include but not be limited to:

1. 230kV cable system connecting to PSE&G Substation

An underground cable system installed from the Merchant Transmission Facility 230kV Switchyard to the PSE&G Substation with the following components:

- a. One (1) three phase 230kV alternating current (“AC”), 2500 mm<sup>2</sup>, XLPE solid dielectric cable, approximately 2100 ft in length;
- b. Three (3) 245kV, 1050kV Lightning Impulse Withstand, open air cable terminations.

2. 230kV Switchyard

- a. Three (3) single phase; 60Hz; three winding converter transformers; 132.8/77/44.5kV; Wye-Delta-Wye; 268MVA single rating (ODAF); 19.0 % impedance @ 268MVA;
- b. One (1) 230kV, 900kV BIL, live tank design, SF-6 gas insulated, circuit breaker with 2000A continuous and 63kA interrupting capability interconnecting with the 230kV cable system;
- c. One (1) 230kV, 900kV BIL, 2000A, three phase motor operated disconnect switch with two (2) motor-operated ground switches for the station line end;
- d. Two (2) 140MVAr switchable reactive filter banks;
- e. One (1) 90MVAr switchable reactive filter banks;
- f. Three (3) 230kV, 900kV BIL, live tank design, SF-6 gas insulated. circuit breaker with 2000A continuous and 63kA interrupting capability for the switchable AC filters;
- g. Three (3) 230kV, 900kV BIL, 2000 A, three phase motor operated disconnect switches with (2) motor-operated ground switches for the switchable AC filters;
- h. All other 230kV switchyard bus and associated components will be rated for 900kV BIL.

3. The Converter Station will convert 230kV AC power to DC and back to 345kV AC power over a transfer range of 60-660MW synchronously with both interconnected transmission systems. This “back-to-back” process will be accomplished using solid-state, “conventional” HVDC conversion technology configured in a 12-pulse thyristor valve group utilizing direct light triggering. The Converter Station shall operate with no intentional earth current and shall be capable of daily load cycling.

4. 345kV Switchyard

- a. Three (3) single phase; 60Hz, three winding converter transformers; 199.2/77.8/45kV; Wye-Delta-Wye; 271MVA single rating (ODAF); 19.0% impedance @ 271MVA;
- b. One (1) 345kV, 1300kV BIL, live tank design, SF-6 gas insulated, circuit breaker with 2000A continuous and 63kA interrupting capability for the station line end;
- c. One (1) 345kV, 1300 kV BIL, 2000A, three phase motor operated disconnect switch with two (2) motor-operated ground switches for the station line end;
- d. One (1) three phase, 345kV, 1050kV BIL, 60Hz, 145MVA switchable shunt reactor;
- e. Three (3) 130MVA switchable reactive filter banks;
- f. Four (4) 345kV, 1050kV BIL, live tank design, SF-6 gas insulated, circuit breaker with 2000A continuous and 63kA interrupting capability for the switchable AC filters;
- g. Four (4) 345kV, 1050kV BIL, 2000A, three phase motor operated disconnect switches with (2) motor-operated ground switches for the switchable AC filters;
- h. All other 345kV switchyard bus and associated components will be rated for 1050kV BIL.

5. 345kV Cable System Connecting to DAF

A 7.3 mile 345kV, three phase AC underground and underwater cable system installed from the Merchant Transmission Facility 345kV Switchyard to the West 49th Street Substation with the following components:

- a. Three (3) 365kV, 1425kV Lightning Impulse Withstand; open air cable terminations;
- b. A 4.1 mile segment of 345kV, 1300kV BIL, 1600 mm<sup>2</sup> copper conductor, XLPE insulated, underground electric radial line, spliced to;
- c. A 3.2 mile segment of 345kV, 2000 mm<sup>2</sup> copper conductor with center dielectric fluid duct, polypropylene paper laminate tapes impregnated with insulating cable fluid, spliced to the DAF as described in Appendix A.

## **2. Developer Operating Requirements**

(a) Developer shall comply with all provisions of NYISO tariffs and procedures, as amended from time to time, which apply to any aspect of the Merchant Transmission Facility's operations and its participation in NYISO-administered markets. Tariff revisions and/or operating protocols with NYISO, PJM, the Connecting Transmission Owner, and Developer may need to be developed to incorporate the Merchant Transmission Facility into NYISO-administered markets and to coordinate the operational control of the facility.

(b) Developer shall comply with Connecting Transmission Owner operating instructions and requirements, which requirements shall include the dedicated data circuits to be maintained by Developer in accordance with Article 8.1 of this Agreement. Operating instructions will be communicated by telephone, or such other means of communication as the Parties may agree upon.

(c) Station Power - The Merchant Transmission Facilities will be served by two fully capable and independently supplied station service feeds provided by PSE&G. At no time will it be necessary for the Connecting Transmission Owner to provide station service via the 345kV AC cable to the Converter Station.

## **3. System Protection and Other Control Requirements**

Developer shall provide, install and test relay protection systems at the Merchant Transmission Facility to interface with those systems installed by Connecting Transmission Owner at the West 49th Street Substation.

## **4. Merchant Transmission Facility Design and Construction**

In accordance with Article 5.10 and Article 24.4, the Developer shall provide to the Connecting Transmission Owner and NYISO all detailed design drawings, requirements, specifications, calculations, equipment drawings, "as-built" drawings, information and documents for the Merchant Transmission Facility and DAF, including the following:

- a) Final design and performance verification studies as described in Section 5 below;
- b) A one-line diagram;
- c) Site plan and elevation drawings;
- d) Relay functional diagram(s), AC and DC schematic wiring diagrams and device settings for all facilities associated with the station's 345kV converter transformer and reactive filter bus; and
- e) Converter transformer impedances (determined by factory tests) for the 345kV converter transformers.

## **5. Project Design and Performance Verification Studies**

In accordance with Article 24.4, Developer shall perform project design and performance verification studies and shall provide design and performance verification study reports to the Connecting Transmission Owner and to the NYISO. Connecting Transmission Owner shall be free to witness any simulator demonstrations that are relevant to system performance.

The minimum design and performance verification studies are summarized as follows:

- a) Project main circuit design study;
- b) Dynamic performance study including AC system tolerance and disturbance recovery performance verification, as further detailed in Appendix G, section 5.6.8;
- c) Steady-state reactive power flow exchange verification;
- d) AC system harmonic performance verification study;
- e) Power line carrier ("PLC") performance verification study;
- f) Temporary overvoltage and insulation coordination studies;
- g) 345kV circuit breaker coordination study;
- h) AC and DC protection system study;
- i) Sub-synchronous torsional interaction screening and control;
- j) Implementation studies;
- k) Additional electromagnetic transients program studies, as necessary to validate system performance based on final design.

## **APPENDIX D**

### **SECURITY ARRANGEMENTS**

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 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.  
Attn: Vice President, Operations  
3890 Carman Road  
Schenectady, NY 12303  
Phone: (518) 356-6000  
Fax: (518) 356-6118

Consolidated Edison Company of New York, Inc.  
4 Irving Place  
New York, NY 10003  
Attn: Senior Vice President, System and  
Transmission Operations  
Phone: (212) 460-1210  
Fax: (212) 460-1252

Re: Hudson Transmission Partners, LLC Merchant Transmission Facility

Dear \_\_\_\_\_:

On **[Date]** **[Developer]** has completed Trial Operation. This letter confirms that **[Developer]** commenced Commercial Operation of the Merchant Transmission Facility, effective as of **[Date plus one day]**.

Thank you.

**[Signature]**

**[Developer Representative]**



## **APPENDIX F**

### **ADDRESSES FOR DELIVERY OF NOTICES AND BILLINGS**

#### **1. Notices:**

##### **(a) NYISO:**

###### **(i) Before commercial operation of the Merchant Transmission Facility:**

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

###### **(ii) After commercial operation of the Merchant Transmission Facility:**

New York Independent System Operator, Inc.  
Attn: Vice President, Operations  
3890 Carman Road  
Schenectady, NY 12303  
Phone: (518) 356-6000  
Fax: (518) 356-6118

##### **(b) Connecting Transmission Owner:**

Consolidated Edison Company of New York, Inc.  
4 Irving Place  
New York, NY 10003  
Attn: Vice President  
System and Transmission Operations  
Phone: (212) 460-1210  
Fax: (212) 353-8831

Copy to:

Consolidated Edison Company of New York, Inc.  
4 Irving Place  
New York, NY 10003  
Attn: General Counsel  
Phone: (212) 460-2432  
Fax: (212) 674-7329

**(c)     Developer:**

Hudson Transmission Partners, LLC  
Attn: Edward M. Stern  
501 King's Highway East  
Suite 300  
Fairfield, CT 06825  
Phone: (203) 416-5590  
Fax: (203) 416-5599

**2.     Billings and Payments:**

**(a)     Connecting Transmission Owner:**

Consolidated Edison Company of New York, Inc.  
4 Irving Place  
New York, NY 10003  
Attn: Vice President  
          System and Transmission Operations  
Phone: (212) 460-1210  
Fax: (212) 353-8831

**(b)     Developer:**

Hudson Transmission Partners, LLC  
Attn: Edward M. Stern  
501 King's Highway East  
Suite 300  
Fairfield, CT 06825  
Phone: (203) 416-5590  
Fax: (203) 416-5599

## **APPENDIX G**

### **MERCHANT TRANSMISSION FACILITY AND DEVELOPER ATTACHMENT FACILITIES PERFORMANCE SPECIFICATIONS**

#### **1.0 POWER TRANSFER CAPABILITY**

The Merchant Transmission Facility and DAF shall be designed for continuous delivery to the POI as described under the following system conditions:

- a controllable power transfer range of 60 to 600MW under AC voltage conditions of 0.95pu to 1.05pu at the POI and without the use of installed Merchant Transmission Facility spare equipment (defined as augmented valve and transformer cooling and one AC filter bank); and
- a controllable power range of 60 to 660MW under the AC voltage conditions of 1.00 to 1.05pu at the POI and with the use of installed Merchant Transmission Facility spare equipment defined above.

#### **2.0 OPERATING CONDITIONS**

Developer shall design the Merchant Transmission Facility to operate within the voltage guidelines as specified in Article 9.5.2.

The nominal frequency of the New York State Transmission System is 60 Hz. The frequency may deviate by  $\pm 0.05\text{Hz}$  from the nominal value during normal steady-state conditions. During extreme system disturbances, the system frequency may deviate from the nominal value by  $\pm 0.07\text{Hz}$ . For very extreme disturbances such as system separation, frequency deviations may be  $\pm 1.5\text{Hz}$ .

Connecting Transmission Owner typically operates the 345kV AC bus at a higher voltage than 1.0pu. Under infrequent operating conditions the system voltage may be reduced to less than 1.0pu and the system reactive requirements may be such that the Merchant Transmission Facility may reduce import levels during such conditions.

#### **3.0 CONTROL SYSTEM**

Detailed control system capabilities and features will be developed and agreed upon by the Developer, Connecting Transmission Owner, NYISO and PJM at the conclusion of the detailed equipment design of the Merchant Transmission Facility.

##### **3.1 General**

The primary control components, including their power supply and communications involved in the control of real power, reactive power, AC current, AC voltage, DC voltage, and DC current will be redundant with an active and standby

system. The active and standby control components will be continuously monitored for proper operation and will transfer automatically from active to standby when faults are detected in the active system. The active and standby components will be continuously updated to minimize disturbances during and after transfers between the active and standby systems.

Transfer of DC or AC power supplies for the control system will not cause a disturbance to the operation of the Merchant Transmission Facility. Disturbances to or the loss of control of telecommunications channels will not cause unstable operation of the Merchant Transmission Facility.

General control features will include the following:

- Sequences to connect and isolate the AC equipment to the Merchant Transmission Facility system, to start the converters, to block the converters, to ramp DC power and current, to acknowledge orders and transfers, and to switch between control modes and control locations.
- Capability to control DC current, DC voltage, and DC power within an acceptable operating margin.
- Capability to limit DC current, DC voltage, and DC power ramps to prevent overload of equipment or loss of operating margin.

### **3.2 Control System Features**

The converter station will be equipped with a supervisory control and data acquisition (“SCADA”) hardware I/O to interconnect with the Connecting Transmission Owner SCADA remote terminal unit (“RTU”) and dispatch system. Detailed SCADA I/O and RTU specifications will be mutually developed and implemented at a later date.

The Merchant Transmission Facility shall provide data to the Connecting Transmission Owner SCADA system for the purpose of monitoring key parameters such as 345kV voltage, bus frequency, real and reactive power flow into the AC system, line current, real-time indication of loading, and reactive bank status. Requirements for the communications between the Merchant Transmission Facility operators, NYISO, PJM, PSE&G, and Connecting Transmission Owner will be mutually developed and implemented at a later date, as necessary.

A local and remote operator control and communications conceptual diagram will be developed and included in the Merchant Transmission Facility design reports.

## **4.0 STEADY-STATE CONTROL PERFORMANCE**

The Merchant Transmission Facility shall be designed and operated in accordance with Article 9.5 of this Agreement. In addition, the Merchant Transmission Facility shall maintain stable power transfer within a tolerance which is the lesser deviation of  $\pm 3.0\%$  or  $\pm 6\text{MW}$  when the AC voltages and frequency vary.

The reactive compensation control system shall allow the AC bus voltage at the West 49th Street 345kV Substation 345kV bus to be regulated to within  $\pm 0.02$  p.u. relative to the voltage regulation set point when in AC bus voltage regulation mode, at any power transfer within the Merchant Transmission Facility system normal capacity, and subject to the constraints of the total installed reactive supply and reactive absorption capability. Reactive absorption capacity comprises 1 shunt reactor. The voltage set point shall be selectable between 0.95 pu and 1.05 pu.

## **5.0 DYNAMIC PERFORMANCE**

### **5.1 Minor AC Voltage Disturbances**

Continuous operation of the Merchant Transmission Facility system shall not be disrupted by the following minor disturbances.

- Dynamic AC voltage swings of less than  $\pm 10\%$  with an oscillatory period of one second or longer.
- Any switching of reactive banks.
- Energization at any point on the AC voltage wave of any electric system capacitor banks.

Disruption of continuous operation shall be defined as an inverter commutation failure, or as any deviation from the pre-disturbance power transfer greater than 50% of the pre-disturbance value for a duration in excess of 0.02 seconds. The above shall apply for the normal range of short-circuit capacity.

### **5.2 Severe Disturbances**

Operation of the Merchant Transmission Facility may be temporarily suspended for disturbances more severe than defined in *Minor AC Voltage Disturbances* above. Unless the voltage disturbance at either terminal of the Merchant Transmission Facility exceeds the extreme disturbance criteria listed in *Criteria for Permanent Blocking and Tripping* below, the Merchant Transmission Facility shall commence recovery within one cycle of the recovery of the PJM and New York State Transmission System voltage to a value greater than 0.8 pu in all phases.

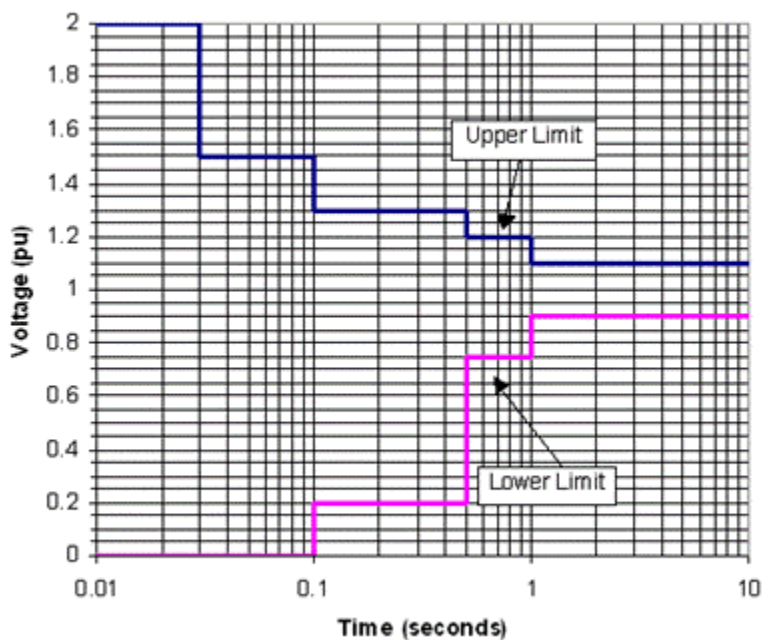
### **5.3 Criteria for Permanent Blocking and Tripping**

The Merchant Transmission Facility system shall be permitted, but not required, to trip for the following extreme system conditions:

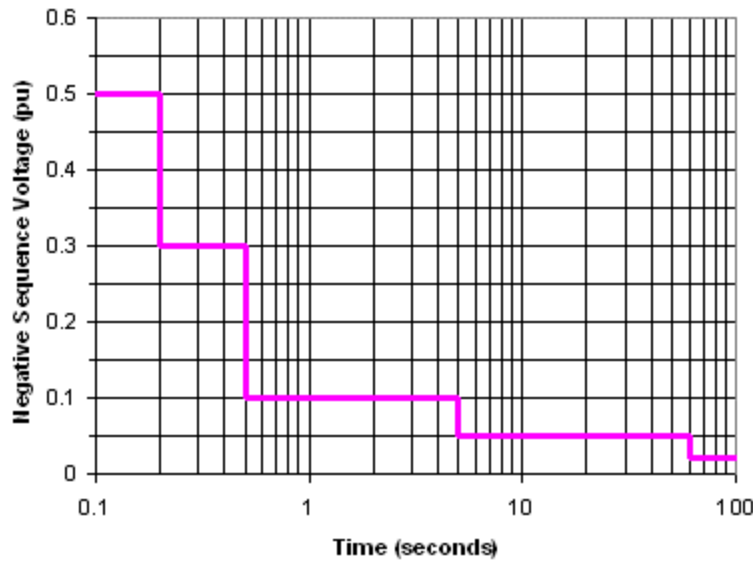
1. Positive-sequence component of the fundamental frequency AC bus voltage at either the West 49th Street 345kV Substation 345kV AC bus or the Bergen 230kV AC bus greater than the upper limit or less than the lower limit as specified in Figure G-1. For the period up to 0.5 seconds, the upper voltage limit specified in Figure G-1 shall be applied to the greater of the fundamental-frequency positive-sequence AC bus voltage in pu on the nominal line-to-line rms

voltage, the crest phase-to-ground voltage of any AC bus phase in pu of  $\sqrt{2}/\sqrt{3}$  times the nominal line-to-line rms voltage, and the crest phase-to-phase voltage of any AC bus phase in pu of  $\sqrt{2}$  times the nominal line-to-line rms AC bus voltage.

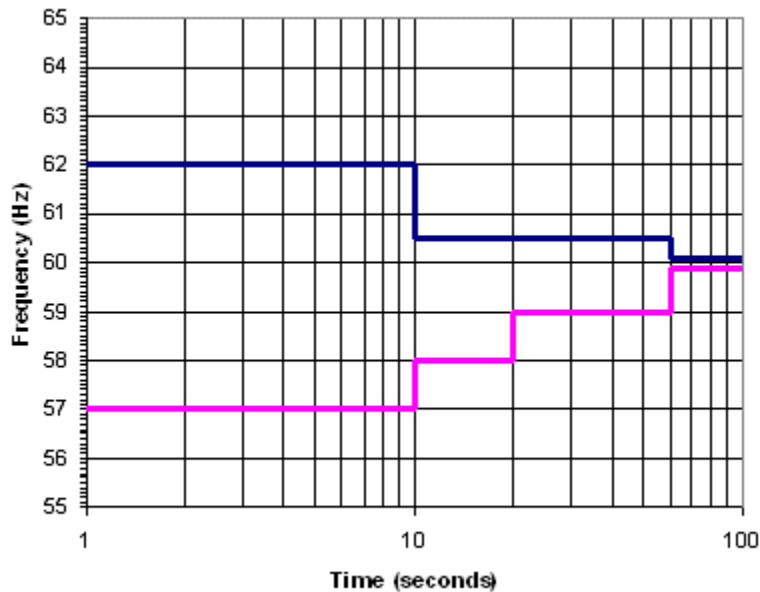
2. Negative-sequence component of the fundamental frequency AC bus voltage at either the West 49th Street 345kV Substation 345kV AC bus or the Bergen 230kV AC bus greater than the limits specified in Figure G-2.
3. AC system fundamental frequency outside of the limits specified in Figure G-3.
4. System conditions causing the AC system short-circuit capacity at the West 49th Street 345kV Substation 345kV AC bus to fall below 500MVA provided the AC system condition is not the result of the performance of the Merchant Transmission Facility.



**Figure G-1 Voltage thresholds for permanent blocking and converter station tripping**



**Figure G-2 Voltage imbalance (negative sequence component) threshold for permanent blocking and converter station tripping.**



**Figure G-3 Fundamental frequency deviation threshold for permanent blocking and converter station tripping**

#### 5.4 Power Regulation

The response of the power controls to manual or automatic modifications in power order shall be prompt and stable. Any oscillatory performance of the power transfer shall be well damped with an overshoot no more than 10% of the requested change. Reactive power balance shall be maintained during routine power ramping

operations. If discrete changes in active power are necessary while ramping between power levels the discrete changes will not exceed 25MW.

## **5.5 Power Runback Performance**

During contingency conditions power transfers may need to be reduced substantially and rapidly. The action of reducing the power transfer in response to an externally provided trigger is called power runback. The design of the Merchant Transmission Facility shall allow for pre-programmed power runback levels. Runback execution shall not require a reversal of power direction.

When transition to a specified or predetermined runback level is requested, power shall be reduced to the programmed runback level at a programmable rate no less than 500 ms. The available runback rates shall allow runback to be completed as fast as 500 ms from the receipt of the runback signal by the Merchant Transmission Facility system. (The runback levels are maximum power limits; if the Merchant Transmission Facility is dispatched to less than the runback level at the time of runback command, no power change is necessary.) If a runback level of less than 60MW is specified, the Merchant Transmission Facility will be allowed to trip upon receipt of the runback signal.

To the extent runback or special protection systems are required; Developer shall be responsible for obtaining the appropriate approvals and is responsible for all systems costs including maintenance. Any runback or special protection systems shall conform to applicable Connecting Transmission Owner, NYISO, and NPCC standards, as applicable.

## **5.6 Disturbance Recovery Performance**

### **5.6.1 General requirements**

Following any disturbance that causes the Merchant Transmission Facility to deviate from the initial equilibrium AC and DC conditions, the Merchant Transmission Facility shall be controlled toward an acceptable equilibrium as rapidly as possible. The post-disturbance equilibrium conditions shall be identical to the pre-disturbance conditions if there is no change in the AC system state. If there are changes to the AC system state, such as opening of a line, then the post-disturbance Merchant Transmission Facility equilibrium condition may or may not be identical to the pre-disturbance conditions. Recovery performance, as used within this Technical Specification, refers to the action of resuming the pre-disturbance equilibrium conditions or successfully readjusting Merchant Transmission Facility operation to accommodate changes in the AC system caused by the disturbance. The actual values and set points for the performance characteristics described in this section will be determined as part of Merchant Transmission Facility final design.

### **5.6.2 Recovery time definition**

Recovery time is defined as the elapsed time from the instant of disturbance initiation until the Merchant Transmission Facility is within 10% of



the lesser of the dispatched power order or the achievable power transfer as limited by the AC voltage magnitude, and the reactive power interchange with the AC system at the West 49th Street 345kV Substation 345kV bus is within  $\pm 100\text{MVAR}$  of the expected post-disturbance value. If the initiating disturbance is a fault causing any phase voltage at either the PSE&G Bergen 230kV AC bus or the West 49th Street 345kV Substation 345kV AC bus to decrease below 80% of the pre-disturbance value, then recovery time shall be measured from the time of fault clearing.

### **5.6.3 Commutation Failure Recovery**

The Merchant Transmission Facility shall recover from commutation failures, other than those caused by faults reducing inverter AC bus voltage to less than 80% of the pre-disturbance value, within 250 ms without subsequent commutation failures or sustained oscillations.

### **5.6.4 Recovery From AC Faults**

The Merchant Transmission Facility system operation, if disrupted by an AC system fault, shall recover from such faults in 350 ms without subsequent commutation failures or sustained oscillations.

### **5.6.5 Irrecoverable Faults**

The Merchant Transmission Facility shall not be required to recover from the following:

- Permanent faults within the protection zones of the converter station including faults on the 230kV and 345kV cable systems between the converter station and the PSE&G Substation and between the West 49th Street 345kV Substation, respectively;
- Any event for which the short-circuit capacity at West 49th Street 345kV Substation is reduced below the minimum post-contingency value.

### **5.6.6 Failure to Meet Disturbance Recovery Performance**

Developer shall take immediate action to correct any situation causing the Merchant Transmission Facility system to fail to meet the disturbance recovery performance requirements.

### **5.6.7 Control Stability**

Developer shall ensure that the Merchant Transmission Facility's control performance is stable for all foreseeable AC system conditions, including any single or double contingencies on either the PJM or NYISO systems. Developer is responsible for determining the range of short-circuit capacities at the terminals,

for any single or double contingency outages including failure of special protective systems. Developer shall ensure that harmonic instabilities, including core saturation instability, will not occur.

Stable control performance shall be defined as adequately damped performance, free of persistent oscillations in real or reactive power into the West 49th Street 345kV Substation 345kV AC bus. In addition, stable control performance shall require that the Merchant Transmission Facility system shall not suffer repetitive commutation failures.

If system conditions are found to create system control or harmonic instability in the Merchant Transmission Facility control system, including those reducing the short-circuit capacity below the calculated minimum post-contingency short-circuit capacity at the West 49th Street 345kV Substation 345kV AC bus, or the PSE&G Bergen 230kV AC bus, then adequate protective functions shall be included in the Merchant Transmission Facility system design to detect the instability and promptly trip the Merchant Transmission Facility system or take other effective corrective action.

#### **5.6.8 Dynamic Performance Study**

(a) A detailed Dynamic Performance Study (“DPS”) shall be performed to verify that the response to disturbances does not cause instability in the Merchant Transmission Facility, does not cause conditions that will damage the equipment and does behave according to the Merchant Transmission Facility design.

The DPS report shall provide descriptions of the performance to the cases listed below where applicable. The case descriptions shall include the simulation setup and plots of relevant AC and DC quantities. System data needed for the simulations described below shall be obtained from Connecting Transmission Owner.

1. DPS Case
  - Permanent DC
  - Temporary AC side faults with one reclose, single-phase and three-phase
  - Stuck AC breaker faults, single-phase and three-phase
  - Switching to energize nearby power transformers, shunt capacitors, and shunt reactors
  - Switching of AC filters and bus voltage control devices by the Reactive Power Control at the converter stations
2. Simulation Setup

- **Simulation Description:** Developer shall provide a detailed description of the proposed simulator, or simulation program to be used for the DPS. The description shall include an explanation of the model representation for network components. The description shall also include examples of studies that have been performed and where reasonably available, show a comparison between simulated and actual field cases.
- **Telecommunication Channel Delays:** Telecommunication channel delay shall be represented in the DPS.
- **Developer, with assistance of Connecting Transmission Owner,** shall develop and apply in the DPS studies a dynamic model for West 49th Street 345kV Substation as outlined below. Developer is responsible to obtain NYISO and PJM AC system data required for study, as needed to make this information available.

**(b) DPS Simulation Model**

Certain design verification studies, including, but not limited to the following, require use of cycle-by-cycle simulation using a transient network analyzer, special purpose simulator or a digital computer program equivalent:

- Fault performance
- Reactive equipment and transformer switching impact
- Dynamic performance, including AC disturbance tolerance and disturbance recovery
- Overvoltage mitigation

**6.0 VOLTAGE AND REACTIVE POWER CONTROL REQUIREMENTS**

**6.1 Reactive Power Supply / Absorption Requirements**

Reactive power support shall be provided as specified in Article 9.5 concurrently with meeting all harmonic performance requirements.

**6.2 Maximum Voltage Change on Reactive Switching**

Energization/de-energization of the Merchant Transmission Facility system terminal equipment, including AC cables, and routine switching of supplemental reactive compensation equipment (capacitors and reactors) must not cause transients and sustained changes in the voltage that may be considered power quality violations.

### **6.3 Voltage Change During Startup Switching**

The limitation to voltage change on switching specified above shall not apply to station energization. During station energization, voltage change will be limited to 3.5% or 0.035pu. At no time will the fundamental-frequency voltage be raised above 1.05pu of 345kV, or lowered below 0.95pu at the West 49th Street 345kV Substation 345kV bus by any reactive bank or cable switching, including banks or cables switched during energization.

### **6.4 Transient Voltage Change**

In order to reduce the impact of reactive bank and AC cable switching on sensitive loads, the severity of voltage transients due to switching shall be minimized. Equipment switching at the converter station or the 345kV AC cable interconnecting this terminal with West 49th Street 345kV Substation, including switching of capacitor banks, harmonic filters, AC cables, and shunt reactors, shall be performed using point-on-wave synchronous switching. Switching of the Merchant Transmission Facility at the West 49th Street 345kV Substation shall be performed using pre-insertion resistors. The closing time tolerance for synchronous switching shall be  $\pm 1$  ms. However, the closing time tolerance may be as high as 1.5 ms for operation during ambient temperature conditions of less than -10 C .

### **6.5 Effect of Switching On Converter Operation**

Switching of a reactive compensation bank, if required, at either converter terminal shall not interfere with the control and continuity of power transfer on the Merchant Transmission Facility system or disrupt normal control of power transfer or voltage regulation at the converter terminals.

### **6.6 Binary Switching**

Binary switching, which is the approximately simultaneous switching of more than one reactive compensation bank or cable, shall not be used to achieve voltage change on switching requirements.

### **6.7 AC Voltage and Reactive Control**

#### **6.7.1 Automatic Reactive Power Control**

To maintain real and reactive power levels within the range set forth in Article 9.5.1, an automatic reactive power control system including discrete reactive bank switching shall be provided with the following two control modes:

1. AC bus voltage regulation. In this mode, an incrementally switched or continuously controlled source of reactive power is adjusted to maintain the AC bus voltage at the West 49th Street 345kV Substation 345kV bus within the range set forth in Article 9.5.1. The set points this control mode will be adjustable, and shall

be set according to directives from the responsible Connecting Transmission Owner system dispatcher. The design of the reactive compensation system shall allow the AC bus voltage at the West 49th Street 345kV Substation 345kV bus to be regulated to within  $\pm 0.02$ pu relative to the voltage regulation set point at any power transfer within the Merchant Transmission Facility system normal capacity, subject to the constraints of the total installed reactive supply and reactive absorption capability.

2. Reactive power exchange regulation. In this mode, the incrementally switched or continuously controlled source of reactive power is adjusted to maintain the reactive power exchange with the AC system at the West 49th Street 345kV Substation 345kV bus within the range set forth in Article 9.5.1. This control mode shall be effective only if the West 49th Street 345kV Substation 345kV AC bus voltage is within the prescribed range of 0.95pu to 1.05pu. If the converter station is operating in reactive power exchange regulation mode, and the AC voltage at the West 49th Street 345kV Substation 345kV bus either falls below a low-voltage threshold, or increases above a high-voltage threshold, the control mode shall automatically switch to the AC bus voltage regulation mode. Reactive power exchange limits shall be adjustable based on real time system conditions.

#### **6.7.2 Coordination of Reactive Control with Harmonic Filtering Requirements**

The reactive power controls shall ensure at all times that the harmonic filters, required to meet the performance specified in accordance with IEEE Standard 519, are energized. The harmonic filter requirement shall take precedence over the automatic voltage and reactive power exchange control modes, unless the minimum equipment to meet harmonic requirements cause the voltage at the POI to exceed 1.05pu of 345kV. For the expected range of normal conditions, sufficient reactive absorption shall be installed to avoid this situation.

#### **6.7.3 Equipment Availability for Re-Energization**

Any equipment de-energized for any reason except for protective tripping or removal from service for maintenance shall be available for re-energization within five minutes.

### **7.0 AC HARMONIC FILTERS**

#### **7.1 General**

The following performance indices are to be met by the Merchant Transmission Facility during normal operation. All performance indices reflect the incremental

contribution of the Merchant Transmission Facility. Normal operation is defined as follows:

- Connecting Transmission Owner electric system operating with 1 (one) major element out of service, where the Merchant Transmission Facility is expected to remain in operation.
- Generator dispatch associated with any condition ranging from minimum load through maximum load on the interconnecting AC systems.
- Power transfer on the Merchant Transmission Facility and reactive power exchange anywhere within its normal operating range.
- Ambient temperature within the specified range.
- AC system frequency within the normal range.
- AC voltage within the normal range.
- AC voltage negative sequence voltage imbalance less than or equal to 1%.

## **7.2 AC Harmonic Filter Performance**

The AC harmonic filters shall be designed in accordance with the performance criteria below, as measured at the POI for the frequency range from 60 to 3kHz.

The performance criteria for normal operation shall be met over the entire normal power transfer range in rectifier and inverter operation.

The performance criteria shall be met considering combined detuning effects on tuned filters caused by frequency and temperature variations.

The voltage distortion caused by the Merchant Transmission Facility at the Connecting Transmission Owner 345kV bus of the West 49th Street Substation shall be:

- Less than 1.0% for any individual harmonic and
- Less than 3.0% for the root sum-square total of all harmonics.

## **7.3 Telephone Interference**

Telephone interference shall be limited by the telephone influence factor ("TIF") as defined in Section 13.2 of the "Electric Power Research Institute High-Voltage Direct Current Handbook." Power quality of the associated filtering systems shall be such that the incremental contribution of TIF associated with the Merchant Transmission Facility at the Points of Interconnection shall be based on a design goal not to exceed 40.

## **7.4 Harmonic Generation**

Developer shall determine the Merchant Transmission Facility operating conditions which produce worst case harmonic generation.

Imbalances leading to non-characteristic harmonics shall be considered as follows:

- Negative-sequence component of the AC bus voltage.
- Transformer impedance balance between the individual phases.

## **7.5 AC Harmonic Filter Performance Verification Measurements**

Developer shall provide a procedure to measure the harmonic voltages and currents at the interconnection with the West 49th Street 345kV Substation 345kV bus as part of the commissioning test program.

Developer may implement independent monitoring of the performance indices at its own discretion.

## **8.0 AC HIGH FREQUENCY FILTERS**

The Merchant Transmission Facility will include AC high frequency filters. The following four general frequency ranges shall be considered in the design of the filters:

- Power Line Carrier ("PLC"): 30 kHz to 500kHz
- Radio Interference ("RI"): 500 kHz to 30MHz
- Television ("TVI"): 30MHz to 1000MHz
- VHF, UHF and Microwave Radio: 30MHz to 10GHz

### **8.1 Power Line Carrier Interference Filters (30kHz To 500kHz)**

PLC systems exist on the Connecting Transmission Owner System. In addition to potential interference due to noise injected by the converters in the PLC channel frequency range from 30kHz to 400kHz, PLC receiver input overload due to energy in the 4kHz to 10kHz region shall be avoided. The proposed equipment comprising the Merchant Transmission Facility system shall be designed to avoid interference with PLC systems due to any injected electrical noise or harmonics, even if this interference is outside of the PLC channel frequency range. Interference in the frequency range of 30kHz to 200kHz should be especially avoided.

Harmonic and electrical noise conducted or radiated from the Merchant Transmission Facility system shall not interfere with any PLC system, including interference to PLC operation via input stage overload due to energy outside of the carrier frequency range. The contribution to voltage across the drain coils of PLC coupling capacitors shall be less than 5% of their design maximum.

Developer shall predict maximum PLC interference voltage on the West 49th Street 345kV Substation 345kV bus.

## **9.0 INSULATION COORDINATION AND OVERVOLTAGE CONTROL**

### **9.1 Temporary Overvoltage**

The temporary overvoltages (“TOV”) potentially caused by the Merchant Transmission Facility system shall be defined to include, but not be limited to, all voltage components resulting from the following causes:

1. Fundamental-frequency voltages resulting from capacitive compensation in excess of the system requirements, or excess uncompensated AC cable charging capacitance;
2. Harmonic voltages caused by saturation of any transformer or reactor within the Merchant Transmission Facility system, including both symmetric saturation caused by excess applied voltage, and asymmetric saturation resulting from flux offset during disturbances or from direct current injected by any power electronic device or converter included in the Merchant Transmission Facility,
3. Harmonic voltages caused by characteristic and non-characteristic harmonics injected into the AC system by any component of the Merchant Transmission Facility, particularly during unbalanced faults on the interconnecting AC systems, and
4. Overvoltages caused by control failure or other mis-operation of the Merchant Transmission Facility.
5. Overvoltages caused by Very High Frequency (“VHF”) surges resulting from switching West 49th Street 345kV Substation GIS equipment.

### **9.2 Temporary Overvoltage Envelope**

The magnitude and duration of temporary overvoltages shall be quantified by the temporary overvoltage envelope. The temporary voltage envelope for a given bus is defined as the plot of voltage versus time, for which the voltage value at any instant of time is the maximum instantaneous pu value of any phase-to-ground or phase-to-phase voltage magnitude (absolute value) during the preceding 16.6666 milliseconds. The crest voltage base for per-unitization of phase-to-ground voltages is  $\sqrt{2}/\sqrt{3}$  times the nominal line-to-line rms voltage, and the base for phase-to-phase voltages is  $\sqrt{2}$  times the nominal line-to-line rms AC bus voltage.

### **9.3 Related Sequence of Events**

Temporary overvoltage duration limitations in this specification are cumulative for a related sequence of events. A related sequence of events is defined to be all events occurring as a consequence of an initiating AC or DC system contingency, including failure of primary TOV control equipment. Repeated faults caused by unsuccessful



reclosing into a faulted line or other AC system component, however, shall be considered as individual fault events.

#### **9.4 Temporary Overvoltage Limits**

The Merchant Transmission Facility is not expected to cause unacceptable fundamental-frequency overvoltages on the interconnected 345kV transmission system.

Overvoltage duration shall be defined as the total cumulative period of time that the TOV envelope is at or above the given magnitude as a result of any single event or related sequence of events. This requirement shall be met for events and conditions including, but not limited to the following:

1. AC faults and fault recovery, including faults in the PJM transmission system, faults involving the Merchant Transmission Facility system itself, as well as faults in the NYISO AC transmission system;
2. Tripping radial AC circuits that tie the Merchant Transmission Facility to the PJM or NYISO transmission systems. This includes interruptions that only last for the dead time prior to automatic line reclosing, as well as lockouts for which the Merchant Transmission Facility can be shut down;
3. Events for which the Merchant Transmission Facility is tripped; and
4. Transformer energization.

#### **9.5 Reactive Power Control**

The strategy for temporary overvoltage limitation must not limit post-disturbance AC reactive compensation capabilities to less than specified in Appendix G, Section 9.1. If reactive equipment tripping is used for TOV control, the equipment shall be available for re-energization in accordance with Appendix G, Section 6.7.3. If AC faults, on the Connecting Transmission Owner or PJM system reduce the AC voltage at either the POI or the 230kV PJM interconnection to a magnitude less than 50% of nominal positive sequence voltage for a duration longer than 100 ms this requirement shall not apply.

Any reactive power equipment tripping shall be performed using switchgear rated to perform the switching at the maximum voltage present prior to de-energization.

#### **9.6 Use of Converter for Temporary Overvoltage Control**

The HVDC converter may be used to control temporary overvoltages. If operation of the converter during and after disturbances is critical to meeting the temporary overvoltage specification, the Developer shall provide the following information:

1. Study results showing the temporary overvoltage performance considering direct current discontinuities which may occur, including those caused by

distortion and mis-synchronization of valve firing following bolted AC faults at either converter.

2. Explanation and demonstration of temporary overvoltage performance for all cases where converters are to be blocked, including tripping of the PSE&G 230kV line in New Jersey, from which the AC connection to the converter station is made, converter faults, and DC cable faults; with due consideration of all telecommunication delays, signal processing times, relay operating times, and breaker operating times.

### **9.7 Failure of Primary Overvoltage Control Equipment**

Failure of a single temporary overvoltage control equipment, including the Converter Station, shall not cause the overvoltage criteria to be exceeded.

Operation shall not be permitted without the Connecting Transmission Owner AC system protected from temporary overvoltages by a redundant overvoltage control scheme. This shall be interpreted as allowing power transfer with either or both the primary or backup temporary overvoltage control equipment unavailable, only up to the transfer for which the required reactive compensation cannot cause fundamental frequency overvoltage in excess of 1.05pu at the West 49th Street 345 kV Substation 345kV bus.

### **9.8 Surge Arrester Coordination**

Overvoltage protective devices at the converter station and at the POI shall be coordinated with the overvoltage protective devices (surge arresters) installed such that overvoltages, caused by excess reactive power flow from the Merchant Transmission Facility system into the Connecting Transmission Owner AC power system, and switching transient overvoltages, caused by switching of reactive banks or switching of the Merchant Transmission Facility system itself shall not cause duty in excess of the capability of any existing surge arresters. Details of the existing surge arresters in the West 49th Street Substation will be obtained from Connecting Transmission Owner.

### **9.9 Margins**

Insulation levels of the Merchant Transmission Facility shall include minimum margins above surge arrester protection levels as follows:

- 15% for switching impulse levels (200-300  $\mu$ sec), 10% for valves.
- 15% for lightning impulse levels (1.2/50  $\mu$ sec wave), 10% for valves.
- 10% on converter valves only for steep front impulse voltages.
- 20% on other all other equipment for steep front impulse voltages.

### **9.10 Insulation Coordination Study**

Developer shall provide to NYISO , PJM, and Connecting Transmission Owner the results of the insulation coordination study for review as specified in Appendix C, section 6(f). The study shall assure that the equipment as described in Appendix C, section 1(b)(4), the DAF and the West 49th Street Substation are properly insulated and that the insulation systems are properly coordinated. The study shall include the insulation coordination philosophy, the limiting cases, surge arrester currents for coordination purposes, equipment insulation levels, surge arrester locations, and the resulting protection margins.

## **APPENDIX H**

### **PROJECT PRINCIPLES**

#### **1. Responsibilities**

- (a) Connecting Transmission Owner shall be responsible for engineering, procurement and construction of the SUFs in accordance with Article 5.1.1 of this Agreement with reference to the dates set forth in Appendix B. The responsibilities assigned to Connecting Transmission Owner for engineering, procurement and construction shall be referred to as “Connecting Transmission Owner Functions.” The Developer shall be responsible for the engineering, procurement and construction of the DAF.
- (b) Developer will reimburse Connecting Transmission Owner for the labor and material costs Connecting Transmission Owner incurs in performing the Connecting Transmission Owner Functions. Connecting Transmission Owner’s labor costs shall be based on the time expended by category and the Rates for Accommodation Services set forth in Attachment H-1, as adjusted annually.
- (c) Pursuant to Section 9 of Attachment X of the NYISO OATT, Connecting Transmission Owner and Developer agreed that Connecting Transmission Owner would provide engineering and procurement services prior to the execution of this Agreement. The terms of that agreement are set forth in the Master Services Agreement Transaction Form 2 (“TF2”) dated October 27, 2010. As of the Effective Date of this Agreement, Connecting Transmission Owner had completed all of the Con Edison Services specified in TF2 except the service specified in Section 2.2 involving the preparation of technical specifications and bid documents for the solicitation an evaluation of vendor proposals for long lead items associated with the interconnection.
- (d) TF2 is terminated as of the Effective Date of this Agreement. After the Effective Date, Connecting Transmission Owner will continue and complete the service specified in Section 2.2 of TF2 in accordance with the terms of this Agreement, notwithstanding Appendix H, Section 2. In accordance with TF2 Section 6, Developer provided a deposit of \$100,000 as an advance payment for Connecting Transmission Owner’s services under TF2. Connecting Transmission Owner drew on that amount as it incurred costs under TF2 prior to the effective date of this Agreement. Connecting Transmission Owner will treat the remainder of that deposit as a component of SUF security available as of the Effective Date, and will invoice Developer for such work as Connecting Transmission Owner completes the service specified by Section 2.2 of TF2 under Article 12 of this Agreement.

#### **2. Security**

The Connecting Transmission Owner will not be required to commence any work under this Agreement until one of the following occurs: (1) the New York Power Authority

(“NYPA”) grants its approval for all work to proceed for the project, or (2) the Developer provides substitute Security in the form of (i) cash or (ii) a letter of credit in a form and from a credit-worthy issuer reasonably acceptable to the Connecting Transmission Owner.

### **3. Construction**

#### **(a) System Upgrade Facilities**

1. Connecting Transmission Owner will acquire all permits necessary for the construction of SUFs and will construct the SUFs within Connecting Transmission Owner’s property boundaries consistent with Connecting Transmission Owner’s Engineering and Construction Standards.
2. The Connecting Transmission Owner will provide assistance to Developer during the installation and commissioning the three new GIS cable termination compartments for Developer’s provided and installed cable terminations, as well as three new single pole disconnect switches for Developer’s cable testing.
3. Connecting Transmission Owner shall provide and install the relay protection equipment and corresponding equipment associated with the SUFs. The requirements in Article 9.6.4.6 of this Agreement, that Developer and Connecting Transmission Owner perform tests of the System Protection Facilities by certain dates and at certain intervals, will be satisfied by the performance of such tests in a manner and at intervals consistent with Connecting Transmission Owner’s standard practice for performing such tests, and in accordance with NERC, RFC and NPCC compliance requirements.
4. Protective relaying system commissioning and testing for that equipment associated with the DAF will be jointly performed by the Developer for that equipment associated with the DAF and by Connecting Transmission Owner’s Protective System Testing group (“PST”) for the protective relay systems associated with the SUFs. PST will also perform the functional testing of the SUFs substation automation system and acceptance testing with respect to affected primary equipment, including, but not limited to, the following: circuit breakers, disconnect switches, instrument transformers, surge arrestors, and light and power transformers. All disconnection or connection in any live or existing relay cabinets and corresponding equipment will be performed by Connecting Transmission Owner’s Electric Construction Bureau (“ECB”). Any testing at remote-end Connecting Transmission Owner substations also required will be performed by Connecting Transmission Owner personnel.

#### **(b) Developer Attachment Facilities**

1. Developer shall design, provide, procure, construct, install and commission the DAF as defined in Appendix A, including all cable, GIS terminations, cable supporting structures and raceways up to the Point of Interconnection.

2. Developer will acquire all permits and easements necessary for the construction of the DAF on Connecting Transmission Owner's property and will construct the DAF within the Connecting Transmission Owner's property boundaries consistent with Connecting Transmission Owner's Standard Terms for Construction Projects, Environmental, Health and Safety requirements, and Engineering specifications and requirements. Developer and Connecting Transmission Owner will enter into an easement or similar authorization acceptable to Connecting Transmission Owner and New York Public Service Commission for the location of Developer's DAF in the West 49th Street Substation.
3. Developer shall coordinate with Connecting Transmission Owner to ensure proper interface of the DAF with the Connecting Transmission Owner designed and installed termination stand, its accessories and GIS equipment associated with Developer's DAF.
4. The Developer's cable supplier will furnish the pothead and connectors required to attach to the GIS buswork. Connecting Transmission Owner and Developer will design and coordinate the assembly of these components.
5. Developer will construct the DAF up to the point when they are ready for connection to Connecting Transmission Owner constructed and tested SUFs. Promptly after Developer has completed that construction, Connecting Transmission Owner will (i) make the final connection of the DAF and SUFs to its existing facilities and (ii) complete any agreed-upon remaining construction work required for the SUFs.
6. Once the Developers detailed equipment design is completed and has identified the required AC and DC control power to the DAF interface panel needs, the Connecting Transmission Owner will evaluate the need to expand the existing ancillary systems (AC and DC power panels ground grid, paging system, and load boards, etc.). The Connecting Transmission Owner shall provide AC and DC control power to the interface cabinets for the DAFs listed in Appendix A if needed.
7. Developer shall coordinate the work and the equipment testing of the DAF with the Connecting Transmission Owner to support the Milestone Dates.
8. Developer shall coordinate the procurement, installation, and testing of corresponding relay protection equipment and corresponding equipment at the sending end of the Merchant Transmission Facility.
9. The DAF may be required to be constructed in several segments. Developer and Connecting Transmission Owner shall coordinate their respective work so as to allow for these work segments. If the work on the DAF progresses ahead of schedule or is delayed, Connecting Transmission Owner will endeavor to reschedule necessary outages in accordance with the NYISO Procedures, taking

into consideration system outages and conditions on the system, in an attempt to complete the project expeditiously.

**(c) Commissioning and Trial Operation** - The commissioning test program prescribed for the Merchant Transmission Facility and the DAF will progress over an approximate seven month schedule in the following stages:

1. Prior to the In-Service Date, Developer will perform extensive de-energized equipment testing that will progress from individual components including circuit breakers, transformers, valve assemblies, instrumentation devices, etc., and subsystem tests including high voltage cables; relay and communication devices; control systems, etc. into system tests such as relay, communication, controls, cooling systems, etc. This will include relay and communication tests interfacing with both Connecting Transmission Owner and PSE&G. Estimated duration for this effort is two months;
2. On the Initial Synchronization Date, no load and low power level testing will be performed to further verify subsystem performance;
3. Under partial and full load tests, system characteristics will be verified and measured, including heat runs; simulated fault testing; and commutation failures. Duration for this effort is approximately 2 ½ months;
4. Developer will perform a hipot acceptance test on the 345kV cable to include the Merchant Transmission Facility and DAF;
5. The final stage is a seven day, continuous operation with no forced outage period within the seven days period.

**(d) Project Management and General Responsibilities**

1. Connecting Transmission Owner and Developer will create a joint steering committee, consisting of representatives of affected departments, to oversee all aspects of the scoping, engineering, design, construction and commissioning of the SUFs and DAF. The Project Steering Committee will include the Connecting Transmission Owner's Project Manager and Project Engineer and such other members as Developer and Connecting Transmission Owner will appoint. The Project Steering Committee will conduct conference calls every two weeks (or more frequently, as needed) and convene meetings as needed or on a mutually agreed basis. The Project Steering Committee will develop a project management plan that will outline members' responsibilities, communication protocol, submittal of project status reports, etc.
2. Connecting Transmission Owner and Developer will work together to develop specific facility outage sequencing and cutover procedures. Work requiring an equipment outage will be performed in accordance with the NYISO's and Connecting Transmission Owner's system operations and outage scheduling

practices and procedures. Outage scheduling and construction activities are contingent upon NYISO outage scheduling requirements, system conditions of Connecting Transmission Owner's bulk power system and applicable regulatory requirements.

3. Developer shall arrange with Connecting Transmission Owner for the provision of on-site power needed for the construction of the DAF within Connecting Transmission Owner facilities. Developer will specify the voltage and load of the electric load needed and will provide all down-stream wiring and equipment consistent with electrical codes and safety practices.
4. Developer shall arrange with Connecting Transmission Owner for the use of existing, or supply of temporary water and sanitary facilities that may be needed during construction on the DAF within Connecting Transmission Owner facilities.
5. Developer shall provide Connecting Transmission Owner details of the construction and cable pulling methods and tooling so the Connecting Transmission Owner can determine if there are adverse impacts to the operations of the substation.
6. Developer will be responsible for site access control of its vehicles and personnel during working hours at designated access points for the Connecting Transmission Owner facilities in coordination with designated Connecting Transmission Owner personnel. Developer will be responsible for security of its stored material and temporary offices at all times. Although Connecting Transmission Owner will be responsible for overall substation security at all times, Connecting Transmission Owner is not responsible for Developer's materials and tools.
7. In accordance with Article 24 of this Agreement, Developer and Connecting Transmission Owner shall submit to each other and the NYISO a monthly status report on the construction and installation of the SUFs and DAF for which each Party is responsible per this Attachment H. Such monthly reports shall be provided on the 20<sup>th</sup> of every month (or next calendar day if the 20<sup>th</sup> falls on Holiday or weekend) after the Effective Date of this Agreement.

### **Attachments to Appendix H:**

#### **H-1 Connecting Transmission Owner Rates for Accommodation Services**



## H-1 Con Edison Rates for Accommodation Services

### Consolidated Edison Company of New York, Inc. 2010 Accommodation Billing Schedule Rates

		<u>2010 Regular</u>	<u>2010 Overtime</u>
CA- 2E	ELECTRIC OUTSIDE PLANT	117.55	133.10
CA- 2S	STEAM OUTSIDE PLANT	127.55	143.10
CA - 3G	GAS INSIDE AND OUTSIDE PLANT (formally known as GA - 2G & GA - 4 - CGO)	140.45	156.75
CA- 4A	CENTRAL ENGINEERING (SUBSTATION & TRANSMISSION ENGINEERING)	109.40	-
CA - 4 - MS	MAINTENANCE SERVICES	102.15	117.25
CA-4 - SO/PST	SUBSTATION OPERATION INSIDE PLANT AND PROTECTIVE SYSTEMS ACCOMODATION WORK (formally known as GA - 4 -SO & GA- 12)	116.90	134.45
CA- 5L *	TRANSMISSION LINE MAINTENANCE	137.55	159.30
CA- 5U *	UNDERGROUND TRANSMISSION	129.70	146.20
CA- 5M	* formally combined UNDERGROUND TRANSMISSION & LINE MAINTENANCE	(replaced with 5L & 5U)	
CA - 6	TECHNICAL SERVICE LABS	107.10	123.05
CA - 7	TRANSFORMER SHOP	146.10	162.50
CA- 9	TRANSPORTATION OPERATIONS, MAINTENANCE & CRANES AND RIGGING (COMBINED)	127.90	145.95
CA- 11	TRANSFORMER ANNUAL MAINTENANCE COSTS	(Schedule attached)	
CA- 13	ELECTRIC METER BUREAU	153.25	171.60

CA- 14	CHEMICAL TESTING LAB	181.20	201.30
CA- 21	FOR NON-PROFIT ORGANIZATIONS ELECTRIC, GAS & STEAM OUTSIDE PLANT	57.95	76.50
CA- 22	CONSTRUCTION MANAGEMENT	183.05	203.25
CA- 80	DIVISION ENGINEERING	93.50	110.85
CA - 81	TRANSMISSION PLANNING	103.25	-
CA - 82	TRANSIT AUTHORITY	<i>(Schedule on file)</i>	
CA - 83	RESEARCH & DEVELOPMENT	197.95	-
CA - 84	AUDITING	126.90	-
CA - 85	ENERGY SERVICES - ACCOUNT EXECUTIVE GROUP (new)	102.50	-

**Footnotes:**

**Material Costs:** All materials will be billed at average storeroom prices plus a storeroom handling charge of 14.50%. New York State and Local Sales and Use Tax will be added where applicable.

**Transportation Costs:** Use of transportation vehicles will be billed at current industry standard rates.

**Outside Contract Work:** Outside contract work will be billed at the actual cost to the Company.

**Use of Large Tools and Work Equipment:** Such use will be billed at current industry standard rates.

**Corporate Overheads** (covers Engineering and Administrative & Supervisory "A&S" expenses) and Gross Receipts Taxes "GRT" - Accomodation Work. In addition to the above costs, the following percentages will be added to the total foregoing items based upon the location:

New York City	22.89%
Yonkers	23.71%
New Rochelle, White Plains, Mount Vernon, Briarcliff Manor and Other Westchester cities and villages	21.21%
Buchanon and other Westchester communities	20.00%

Note: When Engineering Services are directly billed, the Corporate Overhead for Administrative and Supervisory is 4.0%, plus GRT. GRT rates are subject to change to reflect current costs.

New York City	6.50%
Yonkers	7.22%
New Rochelle, White Plains, Mount Vernon, Briarcliff Manor and other Westchester cities & villages	5.05%
Buchanan and other Westchester communities	4.00%

<u>Corporate overheads and Gross Receipts taxes - Property Damages</u>	
All Areas	20.00%

When the labor cost for engineering or drafting is separately stated, corporate overhead for administration and inspection is 4% plus Gross Receipt Taxes.

Salvage Credit for Material Removed: When the Company agrees to accept the material and allow salvage credit against the total bill, credit will be allowed at average storeroom price, less salvaging cost. If the material is not suitable for re-use on the Company's system, credit will be allowed at scrap value.

New York State and Local Sales Tax will be added to the total bill when applicable.

Price Revision: The various rates indicated may be revised as conditions warrant. The labor scale specified in the rates may be adjusted in the event of a retroactive change in the wages of the class or classes of employees engaged in the work.

<u>Sales Tax On Total Invoice (Unless Exempt*)</u>		Effective 6/1/2010
New York City	8.875%	
Mount Vernon, Yonkers, & New Rochelle	8.375%	
White Plains	8.125%	8.375%
All Other Westchester	7.375%	

Exemption Categories

- A) Capital Improvements (need certificate)
- B) Non-Profit & Governmental Organizations and Transit Authority
- C) Direct Payment Permit (need certificate)
- D) Materials used for Resale (need certificate)
- E) Materials used for Manufacturing (need certificate)

If you have any questions call Marietta Deluca (212) 460-2705, David Singh (212) 460-3077, or Yvette Jackson-Brown (212) 460-6858.

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.  
TRANSFORMER ANNUAL MAINTENANCE COSTS  
YEAR 2010

UPDATE LOW TENSION TO HIGH TENSION CONVERSION PROGRAM

TYPE TRANSFORMER

	New York City	Yonkers	New Rochelle White Plains Mount Vernon Briarcliff Manor Other West.Cities & Villages	Buchanan & Other Westchester Communities
Liquid Filled Transformer				
With Network Protector	\$2,116.00	\$2,296.00	\$ 2,250.00	\$ 2,228.00
Without Network Protector	\$ 793.00	\$ 965.00	\$ 945.00	\$ 936.00
Dry Type Transformer				
With Network Protector	\$5,518.00	\$6,220.00	\$ 6,095.00	\$ 6,034.00
Without Network Protector	\$3,864.00	\$4,556.00	\$ 4,464.00	\$ 4,419.00