

Service Agreement No. 1913

INTERCONNECTION AGREEMENT

BETWEEN

NIAGARA MOHAWK POWER CORPORATION d/b/a NATIONAL GRID

AND

THE VILLAGE OF SOLVAY

This amended INTERCONNECTION AGREEMENT (the "Agreement") is made effective as of June 18, 2012, between Niagara Mohawk Power Corporation d/b/a National Grid ("National Grid"), a New York Corporation, and the Village of Solvay, New York, a municipal corporation of the State of New York, ("Solvay"). Collectively, Solvay and National Grid may be referred to as the "Parties" or "Party's", or individually, as a "Party."

WHEREAS, the New York Independent System Operator, Inc., a not-for-profit corporation organized and operating under the laws of the State of New York ("NYISO") operates the New York State Transmission System and National Grid owns and operates certain facilities included in the New York State Transmission System; and

WHEREAS, NYISO currently provides transmission services to the New York Power Authority ("NYPA") for deliveries of NYPA power and energy to Solvay in accordance with the NYISO's Open Access Transmission Tariff ("OATT") utilizing facilities owned by National Grid; and

WHEREAS, National Grid is currently interconnected to Solvay at Solvay's Mathews Avenue substation ("Mathews"), Industrial substation ("Industrial") and Lakeland substation ("Lakeland") as described in greater detail in Exhibit A to this Agreement (collectively Mathews, Industrial and Lakeland may be referred to as the "Solvay Substations"); and

WHEREAS, Solvay is making modifications to its existing Industrial and Mathews substations which will require modifications to National Grid's facilities; and

WHEREAS, National Grid and Solvay are parties to certain agreements governing the recovery of costs for certain engineering and related work performed by National Grid ("Cost Reimbursement Agreements"); and

WHEREAS, National Grid and Solvay are parties to an interconnection agreement governing the Industrial substation executed in May 1999, which is being superseded by this Agreement; and

WHEREAS, National Grid and Solvay are parties to an interconnection agreement governing the Lakeland substation executed in August 2003, which is being amended and superseded by this Agreement;

NOW THEREFORE, in consideration of the mutual representations, covenants and agreements set forth herein, the Parties to this Agreement agree as follows:

ARTICLE I DEFINITIONS

The following terms, when used herein with initial capitalization, shall have the meanings specified in this section.

- 1.1 “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 entity. A voting interest of ten percent or more shall create a rebuttable presumption of control.
- 1.2 "Agreement" shall mean this Interconnection Agreement between National Grid and Solvay, including all exhibits hereto, as the same may be amended, supplemented, revised, altered, changed, or restated in accordance with its terms.
- 1.3 "Bulletin No. 752" or "ESB 752" shall mean the National Grid document dated October 1994, 2nd Printing April 2002 Supplement to Specifications for Electrical Installations and designated Electric System Bulletin No. 752, as amended or superseded and attached hereto as Exhibit C.
- 1.4 "Commercially Reasonable Efforts" shall mean, with respect to an action required to be attempted or taken 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.
- 1.5 "Confidential Information" means any plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party which has not been released publicly by its authorized representatives and which has been designated as "Confidential" by the Party asserting a claim of confidentiality, whether such Confidential Information is conveyed orally, electronically, in writing, through inspection, or otherwise. Confidential Information as used herein also includes Confidential Information supplied by any Party to another Party prior to the execution of this Agreement, and such Confidential Information shall be considered in the same manner and be subject to the same treatment as the Confidential Information made available after the execution of this Agreement. Confidential Information shall also include Confidential Information observed by any Party while visiting the premises of another Party.
- 1.6 “Delivery Points” shall mean the points, as set forth in Exhibit A to this Agreement, where Solvay’s Interconnection Facilities connect to National Grid’s Interconnection Facilities.
- 1.7 "Electricity" shall mean electric capacity as measured in MW or kW, energy as measured in MWh or kWh, and/or ancillary services.
- 1.8 "Emergency Condition" shall mean a condition or situation which is deemed imminently likely to (i) endanger life, property, or public health; or (ii) adversely affect or impair the Transmission System, the Solvay Stations, the Solvay System, or the electrical or transmission systems of others to which National Grid's electrical systems are directly or indirectly connected.
- 1.9 "FERC" shall mean the United States of America's Federal Energy Regulatory

Commission ("FERC") or any successor organization.

- 1.10 "Good Utility Practice" means any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility 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 be acceptable practices, methods, or acts generally accepted in the region in which the Solvay Stations are located. Good Utility Practice shall include, but not be limited to, NERC (defined below) criteria, rules, guidelines and standards, NPCC (defined below) criteria, rules, guidelines and standards, New York State Reliability Council (defined below) criteria, rules, guidelines and standards, and NYISO (defined below) criteria, rules, guidelines and standards, where applicable, as they may be amended from time to time including the rules, guidelines and criteria of any successor organization to the foregoing entities. When applied to Solvay, the term Good Utility Practice shall also include standards applicable to municipalities connecting to the distribution or transmission facilities or system of another utility.
- 1.11 "Hazardous Substance(s)" shall mean those substances, materials, products or wastes which are classified as hazardous or toxic under any applicable federal, state or local law, or any regulations promulgated thereunder, effective as of the date of execution of this Agreement, and the presence of which requires remediation, removal or cleanup under this Agreement.
- 1.12 "Interconnection Facilities" shall include the National Grid Interconnection Facilities and Solvay Interconnection Facilities. Collectively, Interconnection Facilities shall include all property, facilities and equipment between the Solvay Substations and the Interconnection Points, as identified on Exhibit A, including any modifications, additions or upgrades, that are necessary to physically and electrically interconnect the Solvay Substations to the Transmission System.
- 1.13 "Interconnection Points" shall mean the points at which the Interconnection Facilities connect to the National Grid Transmission System as indicated on Exhibit A.
- 1.14 "Interconnection Study" shall mean the necessary studies performed by National Grid to interconnect or modify the existing interconnections of the Solvay Substations to the National Grid Transmission System. National Grid shall perform those studies that, in the judgment of National Grid, are necessary to determine: (a) an appropriate Interconnection Point and Delivery Point, (b) conceptual equipment and the facilities necessary and desirable for the construction and operation of new or additional or modified facilities, (c) the interconnection voltage and operational constraints, (d) the estimated costs of facilities and/or the costs for National Grid's design, review, assistance and inspection of facilities to be designed and constructed by Solvay, (e) the estimated costs of any new reinforcements to or additions of new facilities to the National Grid Transmission System required or recommended to be made in order for National Grid to

interconnect with the Solvay Substations in accordance with NYISO Tariff rules and regulations and as such Interconnection Study is attached hereto as Exhibit B.

- 1.15 "Modification" means any new construction, new facilities, additions, reinforcements, alterations, improvements, appurtenances, replacements or upgrades made to the Interconnection Facilities, National Grid Transmission System or the Solvay Substations after the Effective Date of this Agreement that has a material impact on the National Grid Transmission System or the Solvay System. "Modification" as it applies to the Interconnection Facilities or National Grid Transmission System shall also include Modifications which are required to support the operations of Solvay at the Solvay Substations, including those required by: (i) changes in the operations of the Solvay Substations after the Effective Date as hereinafter defined, or (ii) changes in the technology employed at the Solvay Substations after the Effective Date.
- 1.16 "NERC" shall mean the North American Electric Reliability Corporation or any successor organization.
- 1.17 "New York Control Area" or "NYCA" shall have the same meaning as in the Independent System Operator Agreement establishing the New York ISO (as defined below).
- 1.18 "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.
- 1.19 "National Grid" shall mean Niagara Mohawk Power Corporation d/b/a National Grid and its successors and permitted assigns.
- 1.20 "National Grid Properties" shall mean those parcels of and/or interest in real property that National Grid uses for the National Grid Transmission System.
- 1.21 "National Grid Transmission System" shall mean the properties, structures, facilities, equipment, devices, and apparatus wholly or partly owned or leased by, or under contract to, or under the control of National Grid or its Affiliates, necessary for the provision of services under the NYISO OATT and/or National Grid's Retail Tariff..
- 1.22 "NPCC" shall mean the Northeast Power Coordinating Council or any successor organization.
- 1.23 "NYISO" shall mean the New York Independent System Operator, Inc., or any successor thereto.
- 1.24 "NYISO OATT" shall mean the FERC-approved Open Access Transmission Tariff for the NYISO and/or the FERC-approved Market Services Tariff for the NYISO, including Tariff Attachments, as applicable, and as it may be amended from time to time.

- 1.25 "NYPA" shall mean the New York Power Authority or any successor thereto.
- 1.26 "NYSPSC" shall mean the New York Public Service Commission or any successor thereto.
- 1.27 "NYSRC" shall mean the New York State Reliability Council or any successor organization.
- 1.28 "Retail Tariff" means National Grid's Retail Tariff, New York Public Service Commission ("NYPSC") No. 220 — Electricity as approved by the NYPSC and all subsequent revisions, as it may be amended from time to time.
- 1.29 "Solvay" shall mean the Village of Solvay and its successors and permitted assigns.
- 1.30 "Solvay Substations" shall mean the Village of Solvay's Mathews Avenue substation, Industrial substation and Lakeland substation.
- 1.31 "Solvay System" shall mean the electric distribution system owned, controlled and maintained by Solvay, and any upgrades thereto, including the Solvay Substations.
- 1.32 "Upgrades" shall mean the improvements and additions to the National Grid Transmission System and Interconnection Facilities as identified in the Interconnection Study.

Interpretation. The following rules shall govern the interpretation of this Agreement, including its definitions. The terms "includes" or "including" shall not be limiting, whether or not followed by the words "without limitation." References to an article or section shall mean an article or section of this Agreement unless the context requires otherwise, and reference to a given agreement or instrument shall be a reference to that agreement or instrument as modified, amended, supplemented and restated through the date as of which such reference is made.

ARTICLE II
AGREEMENT TO INTERCONNECT
DESCRIPTION OF INTERCONNECTION FACILITY

- 2.1 The Parties agree to interconnect the Solvay Substations to the National Grid Transmission System in accordance with the terms of this Agreement.
- 2.2 National Grid and Solvay shall be interconnected by means of National Grid Interconnection Facilities, which National Grid shall own, operate and maintain, at Solvay's expense, and Solvay Interconnection Facilities, which Solvay shall own, operate and maintain. Solvay agrees that the installation of the electrical equipment and the operation of the Solvay Substations must meet or exceed the standards of Good Utility Practice, all requirements of Bulletin No. 752, any applicable Interconnection Study and the NYISO; provided, however, that in the event of a conflict between the requirements,

rules and regulations of the NYISO and the requirements of Bulletin No. 752, the requirements, rules and regulations of the NYISO shall govern.

- 2.3 Solvay recognizes that nothing in this Agreement or Solvay's financial support of the Interconnection Facilities confers upon Solvay any right to transmit or receive Electricity over the Transmission System, other than through the Interconnection Facilities identified in more particularity in Exhibit A.
- 2.4 National Grid shall use Good Utility Practice to own, operate, maintain and make available National Grid Interconnection Facilities and National Grid Transmission System. National Grid does not, however, guarantee or warrant uninterrupted availability of the Interconnection Facilities or the National Grid Transmission System. Any curtailment of deliveries over the Interconnection Facilities or the National Grid Transmission System shall be governed by Good Utility Practice, the terms and conditions of the NYISO, National Grid's standard practices and procedures, and as applicable, Bulletin No. 752 and the Interconnection Study; provided, however, that in the event of a conflict between the requirements, rules and regulations of the NYISO and the requirements of Bulletin No. 752, National Grid's standard practices and procedures and the Interconnection Study, the requirements, rules and regulations of the NYISO shall govern.
- 2.5 National Grid reserves the right to operate disconnect switch(s) in the Solvay Substations with twenty four (24) hour notice to Solvay for National Grid requested maintenance or in an Emergency Condition after giving Solvay reasonable notice under the circumstances. National Grid shall exercise such right of disconnect (a) in accordance with Bulletin No. 752 (b) in a non-discriminatory manner, and (c) in accordance with Good Utility Practice.
- 2.6 If Solvay relies on National Grid's protection equipment and practices for protection of the Solvay Stations or if Solvay relies on any other of National Grid's equipment for support of its operations, Solvay agrees to release, indemnify, defend, and save harmless National Grid, its agents and employees, against any and all claims, judgments, cost, liability, damage, injury, penalties, judgments, fines (civil or criminal), or other costs arising from any damage or loss to the Solvay Substations as a result of such reliance, whether the loss, damage or injury result to or be sustained by Solvay or any other persons, firms or corporations.
- 2.7 This Agreement does not waive, alter or impair the rights or obligations of any Party under any other agreement.

ARTICLE III REPRESENTATIONS AND WARRANTIES OF PARTIES

- 3.1 Solvay is a municipal corporation duly organized and validly existing under the laws of the State of New York. Solvay is qualified to do business under the laws of the State of New York, is in good standing under the laws of the State of New York, has the power and authority to own its properties, to carry on its business as now being conducted, and to enter into this Agreement and the transactions contemplated herein and perform

and carry out all covenants and obligations on its part to be performed under and pursuant to this Agreement, and is duly authorized to execute and deliver this Agreement and consummate the transactions contemplated herein.

- 3.2 National Grid is a corporation duly organized, validly existing and qualified to do business under the laws of the State of New York, is in good standing under its certificate of incorporation and the laws of the State of New York, has the corporate authority to own its properties, to carry on its business as now being conducted, and to enter into this Agreement and the transactions contemplated herein and perform and carry out all covenants and obligations on its part to be performed under and pursuant to this Agreement, and is duly authorized to execute and deliver this Agreement and consummate the transactions contemplated herein.
- 3.3 Solvay and National Grid each represents that: (a) it is not prohibited from entering into this Agreement and discharging and performing all covenants and obligations on its part to be performed under and pursuant to this Agreement; (b) upon the acceptance of the terms of this Agreement by FERC, the execution and delivery of this Agreement, the consummation of the transactions contemplated herein including the fulfillment of and compliance with the provisions of this Agreement will not conflict with or constitute a breach of or a default under any of the terms, conditions or provisions of any law, rule or regulation, any order, judgment, writ, injunction, decree, determination, award or other instrument or legal requirement of any court or other agency of government, or any contractual limitation, corporate restriction or outstanding trust indenture, deed of trust, mortgage, loan agreement, lease, other evidence of indebtedness or any other agreement or instrument to which it is a party or by which it or any of its property is bound and will not result in a breach of or a default under any of the foregoing; and (c) unless this Agreement is materially modified by any court or appropriate regulatory authority having jurisdiction and subsequently terminated, this Agreement shall be a legal, valid and binding obligation enforceable in accordance with its terms, except as limited by any subsequent order of any court or appropriate regulatory authority having jurisdiction, or by any applicable reorganization, insolvency, liquidation, readjustment of debt, moratorium, or other similar laws affecting the enforcement of rights of creditors generally as such laws may be applied in the event of a reorganization, insolvency, liquidation, readjustment of debt or other similar proceeding of or moratorium applicable to the Party and by general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law.)

ARTICLE IV INTERCONNECTION FACILITIES

4.1 INTERCONNECTION STUDY

- 4.1.1 Exhibit A to this Agreement shall separately identify the Interconnection Facilities associated with the existing Delivery Points and the Interconnection Facilities associated with any new, modified, or upgraded delivery point. The Interconnection Facilities and the Upgrades associated with any new, modified, or upgraded Delivery Point shall be constructed and operated in accordance with the

Interconnection Study performed by National Grid pursuant to this Agreement and in accordance with Good Utility Practice. Certain provisions of this Article IV relating to Modifications shall apply only if Modifications are made to the Interconnection Facilities, National Grid Transmission System or Solvay System after the Effective Date of this Agreement. The Interconnection Study shall be included as Exhibit B, hereto. The provisions of this Agreement addressing the design, engineering, procurement, and construction of Interconnection Facilities and Upgrades shall apply to the Interconnection Facilities and the Upgrades associated with any new, modified, or upgraded Delivery Point.

4.2 OBTAINING REAL PROPERTY INTERESTS, AND NECESSARY LICENSES, PERMITS, AND APPROVALS

- 4.2.1 Solvay will acquire all interests in real property that are necessary for National Grid to construct, operate and maintain the National Grid Interconnection Facilities or Modifications in accordance with the terms and provisions of this Agreement.
- 4.2.2 National Grid, at Solvay's sole cost and expense, shall be responsible for preparing and maintaining in full force and effect all permits, authorizations, licenses, certificates and approvals necessary to design, construct, operate and maintain National Grid Interconnection Facilities or Modifications. Solvay shall be responsible, at its own cost, for preparing and maintaining in full force and effect all permits, authorizations, licenses, certificates, and approvals necessary to design, construct, operate and maintain the Solvay Substations and effectuate its obligations under the Agreement with respect to the Solvay Interconnection Facilities. National Grid, at Solvay's sole cost and expense, shall fully cooperate with Solvay in order to prepare and maintain all permits, authorizations, licenses, certificates and approvals required by this Section. Solvay and National Grid agree to comply in all material respects with all federal, state and local environmental and other laws, ordinances, rules, regulations, permits, licenses, approvals, certificates and requirements thereunder in connection with the activities each performs pursuant to this Agreement.
- 4.2.3 Solvay agrees that, prior to the transfer of any real property interest to National Grid under the terms of this Agreement, Solvay shall conduct, or cause to be conducted, sampling, soil testing, and any other methods of investigation which would disclose the presence of any Hazardous Substance which has been released on the property or which is present upon the property by migration from an external source on the property and shall notify National Grid in writing as soon as reasonably practicable after learning of the presence of Hazardous Substance upon said property interest. Solvay shall provide NMPC with a copy of any report or data generated as a result of such sampling or soil testing activities. Solvay agrees to indemnify, defend, and save National Grid, its agents and employees, harmless from and against any loss, damage, liability (civil or criminal), cost, suit, charge (including reasonable attorneys' fees), expense, or cause of action, for the removal or management of any Hazardous Substance relating to any damages to any

person or property resulting from the presence of such Hazardous Substance.

4.2.4 National Grid, at Solvay's sole cost and expense, shall be given the opportunity to inspect, perform final testing and approve Modifications to the Solvay Substations and Solvay Interconnection Facilities and review all appropriate approvals, certificates, permits, and authorizations. Solvay shall be responsible for correcting any situations contrary to Good Utility Practice, Bulletin No. 752, National Grid's standards, procedures, practices and functional specification requirements, standard National Grid environmental, construction, forestry, and right-of-way management practices and procedures, National Grid's ROW Access, Maintenance and Construction Best Management Practices and National Grid's Transmission Right-of-Way Management Plans or any applicable NYISO requirements, which such requirements shall govern in the event of a conflict between the rules and regulations of the NYISO and any other requirement listed in this subsection 4.2.4, which materially and adversely affect the operability of the Interconnection Facilities or are contrary to applicable laws or permits, and for correcting any material deficiencies which could impede the Interconnection Facilities pursuant to this Agreement. Solvay shall be responsible for the costs associated with making such corrections.

4.2.5 Solvay shall be given the opportunity to inspect, perform final testing and approve new or modified National Grid Interconnection Facilities and review all appropriate approvals, certificates, permits, and authorizations. National Grid shall correct any situations contrary to Good Utility Practice, Bulletin No. 752, National Grid's standards, procedures, practices and functional specification requirements, standard National Grid environmental, construction, forestry, and right-of-way management practices and procedures, National Grid's ROW Access, Maintenance and Construction Best Management Practices and National Grid's Transmission Right-of-Way Management Plans or any applicable NYISO requirements, which such requirements shall govern in the event of a conflict between the rules and regulations of the NYISO and any other requirement listed in this subsection 4.2.5, which materially and adversely affect the operability of the Interconnection Facilities or are contrary to applicable laws or permits, and for correcting any material deficiencies which could impede the Interconnection Facilities pursuant to this Agreement. Prior to commercial operation of Modifications to the Solvay Substations, Solvay shall provide National Grid with written acceptance of the National Grid Interconnection Facilities.

4.3 NATIONAL GRID DESIGN, ENGINEERING AND CONSTRUCTION ACTIVITIES

4.3.1 At Solvay's expense, National Grid agrees to design, engineer, and construct the National Grid Interconnection Facilities or Modifications and Upgrades in accordance with: (a) any Interconnection Study, (b) Good Utility Practice, (c) National Grid's standards and (d) to the extent applicable, the Scope of Work in Exhibit D, the Estimated Project Costs in Exhibit E and the Project Milestone Schedule in Exhibit F.

- 4.3.2 At Solvay's expense, National Grid agrees to procure any and all equipment necessary for National Grid to construct or modify the National Grid Interconnection Facilities and Upgrades.
- 4.3.3 All design, engineering, procurement, and construction activities performed by National Grid or a third party selected by National Grid shall be performed in accordance with a schedule and an estimated budget mutually agreed to by the Parties in advance of the commencement of such activities and set forth in Exhibit B to this Agreement. National Grid, at Solvay 's expense, agrees to inform Solvay at such times as Solvay reasonably requests of the status of all design, engineering, procurement, and construction activities performed by National Grid or a third party selected by National Grid, including, but not limited to, the following information: progress to date; a description of upcoming scheduled activities and events; the delivery status of all ordered equipment; a revised budget and cost report; and the identification of any event which National Grid reasonably expects may delay construction of the Upgrades or Modifications to the National Grid Interconnection Facilities.
- 4.3.4 No design, engineering, procurement, or construction activities not previously authorized by any Cost Reimbursement Agreement between Solvay and National Grid shall be undertaken by National Grid prior to Solvay's receipt of the Interconnection Study and until such time as Solvay issues a written notice to proceed with such activities and a money deposit is received by National Grid for services to be rendered.
- 4.3.5 Solvay reserves the right, upon thirty (30) days prior written notice to National Grid, to suspend at any time all work by National Grid associated with the design, engineering, procurement, construction of the Upgrades or with any design, engineering, and construction activities relating to National Grid Interconnection Facilities or Modifications. Solvay acknowledges and agrees to reimburse National Grid for all costs incurred by National Grid that cannot be avoided, due to Solvay's suspending said work in accordance with Article IX of this Agreement.
- 4.3.6 National Grid shall, at Solvay's expense, test the National Grid Interconnection Facilities, Modifications, and Upgrades to ensure their safe and reliable operation in accordance with Good Utility Practice.

4.4 ACCESS RIGHTS

- 4.4.1 National Grid hereby grants to Solvay access, and licenses, as Solvay may require in connection with the construction and permitting of Modifications to the Solvay Stations and the Interconnection Facilities.
- 4.4.2 Solvay hereby grants to National Grid all necessary access, and licenses, including adequate and continuing rights of access to Solvay's property, as is necessary for National Grid to construct, operate, maintain, replace, and remove National Grid Interconnection Facilities and Modifications in

accordance with the terms of this Agreement and to exercise any other of its obligations under this Agreement. Solvay hereby agrees to execute such grants, deeds, licenses, instruments or other documents as National Grid may require to enable it to record such rights of way, easements, and licenses. Solvay also grants to National Grid rights of access to Solvay's property for any purpose reasonably related to this Agreement.

- 4.5 All expenditures incurred in acquiring necessary rights-of-way and associated permits and authorizations shall be the sole responsibility of Solvay. All costs associated with the transfer of real property rights to National Grid shall also be the responsibility of Solvay, including, but not limited to, closing costs, subdivision costs, transfer taxes and recording fees. National Grid shall be reimbursed for all costs it incurs in connection thereto and in carrying out the responsibilities hereunder as provided in Article IX of this Agreement.
- 4.6 The rights-of-way for National Grid Interconnection Facilities constructed or modified by Solvay pursuant to this Agreement shall be conveyed to National Grid in fee simple or by an easement approved by National Grid, with good and marketable title free and clear of all liens and encumbrances for a sum of \$1.00. With respect to any approved conveyance of easements, Solvay shall subordinate pertinent mortgages to easement rights. Solvay shall indemnify, defend, and hold harmless National Grid, its agents and employees, from all liens and encumbrances against the property conveyed. Solvay further agrees to provide a complete field survey with iron pin markers showing the centerline of the entire right-of-way, a 40-year abstract of title, and a 10-year tax search. Solvay shall be required to provide National Grid, as a condition of and pursuant to conveyance to National Grid of any and all interests in real property acquired by Solvay on behalf of National Grid for any new or modified National Grid Interconnection Facilities, title insurance with a complete title report issued by a reputable title insurance company. In the event Solvay is unable to convey to National Grid good and marketable title to any parcel of land acquired pursuant to this Agreement, whether said defect in title is discovered prior to or after conveyance of said parcel of land, or in the event of a failure by Solvay to comply with National Grid's engineering standards or any applicable law, code, rule or regulation, then Solvay shall cure such defect or failure to comply, to the reasonable satisfaction of National Grid within six (6) months after receipt of written notice from National Grid to Solvay specifying the defect or failure to comply or within such other time as the parties may agree. All expenses and costs associated with curing said defects or failure to comply shall be Solvay's sole responsibility.
- 4.7 Each Party shall provide to the other Party copies of all necessary environmental, right-of-way, engineering, and other licenses, certificates, permits, approvals and as-built drawings.
- 4.8 Each Party shall also provide to the other, upon request and at the costs of the requesting Party, reasonable documentation necessary to verify costs relating to the Interconnection Facilities or Modifications, including, but not limited to, any costs relating to the design, engineering, construction, operation or maintenance of the Interconnection Facilities or Modifications. Each Party shall have the right to request reasonable supporting documents which is necessary to substantiate its costs.

ARTICLE V
OPERATION, MAINTENANCE, AND MODIFICATION

5.1 OPERATION AND MAINTENANCE

- 5.1.1 National Grid shall own, operate, maintain and repair (repair includes, but is not limited to, replacement of existing equipment when required due to failure) National Grid Interconnection Facilities in accordance with Good Utility Practice. Under this Agreement, Solvay will reimburse National Grid for the actual costs associated with owning, operating, maintaining and repairing the National Grid Interconnection Facilities in accordance with Good Utility Practice. National Grid shall notify Solvay of the schedule for scheduled outages of National Grid Interconnection Facilities and transmission facilities in accordance with Good Utility Practice and National Grid standard practices and, upon making any changes to such schedules thereafter, shall promptly notify Solvay of any such changes.
- 5.1.2 Solvay, at its own expense, shall operate, maintain and repair (repair includes, but is not limited to, replacement of existing equipment when required due to failure) the Solvay Substations and Solvay Interconnection Facilities in accordance with Good Utility Practice and this Agreement. Solvay shall notify National Grid of the schedule for scheduled outages of the Solvay Substations in accordance with Good Utility Practice and National Grid standard practices and, upon making any changes to such schedules thereafter, shall promptly notify National Grid of any such changes.
- 5.1.3 In furtherance of the Parties' mutual objective to preserve and maintain the reliability of the Transmission System, the Solvay System and the Solvay Substations, the Parties agree to coordinate the planning and scheduling of any outages and any changes thereto in a manner that will preserve and maintain the reliability of, and minimize the effect on, the National Grid Transmission System and the Solvay System consistent with Good Utility Practice, Bulletin No. 752, NYISO practices and National Grid standard practices.
- 5.1.4 In furtherance of the Parties' mutual objective to preserve and maintain the reliability of the Transmission System, the Solvay System and the Solvay Substations, the Parties agree to coordinate the planning and scheduling of preventative and corrective maintenance in a manner that will preserve and maintain the reliability of the Transmission System, the Solvay System and the Solvay Substations. The Parties shall conduct preventative maintenance and corrective maintenance activities as scheduled and planned, or as they become necessary, consistent with Good Utility Practice.
- 5.1.5 If Solvay requests that National Grid perform maintenance during a time period other than as scheduled by National Grid, National Grid will use Commercially Reasonable Efforts to meet Solvay's request as long as meeting the request would not reasonably be expected, as determined by National Grid, to have an adverse

impact upon National Grid's operations or the operations of National Grid's customers. Notwithstanding the foregoing, should Solvay request to perform maintenance that National Grid in good faith determines may have an adverse impact on National Grid's operations or the operations of National Grid's customers, and if such maintenance may be delayed until after such period, National Grid may reject Solvay's scheduling request. Solvay shall reimburse National Grid for all actual costs incurred by National Grid related to satisfying Solvay's request.

5.2 MODIFICATION OF THE INTERCONNECTION FACILITIES

- 5.2.1 National Grid shall retain the discretion to determine whether, when, and in what manner Modifications to the National Grid Interconnection Facilities are required by Good Utility Practice and, as soon as reasonably practicable, but no later than on three months advance written notice including an estimate of the cost of the Modification, shall advise Solvay when it makes such a determination and whether performing the Modification, or the Modification itself, is expected to interrupt the flow of power over the Interconnection Facilities. National Grid shall construct, operate, maintain and repair any such Modification, and Solvay shall reimburse National Grid for all actual costs and expenses of constructing, operating and maintaining the Modification.
- 5.2.2 If a Modification to the National Grid Interconnection Facilities is required to support the operations of Solvay at the Solvay Stations, National Grid shall construct, operate, maintain and repair, at Solvay's expense, any such Modification, and Solvay shall reimburse National Grid for all actual costs and expenses of constructing, operating and maintaining the Modification. National Grid shall provide three (3) months advance written notice including an estimate of the cost of the Modification to Solvay to the extent reasonably practicable.
- 5.2.3 Solvay shall give National Grid three (3) months advance written notice of any planned Modifications to the Solvay Interconnection Facilities or Solvay Substations.
- 5.2.3.1 Such notice shall include plans, specifications, information and operating instructions relating to the impact of planned Modifications on the National Grid Transmission System and Interconnection Facilities, National Grid's electric operations and the Solvay System.
- 5.2.3.2 If National Grid determines that such Modification would have a material adverse effect upon National Grid's operations or the operations of National Grid's customers, then National Grid shall so notify Solvay. In the event that Solvay elects to continue with such Modification, National Grid shall be entitled to designate the earliest date upon which Solvay may begin the Modification, provided, however, that National Grid shall not designate a beginning date that is later than eighteen (18) months after receipt

of the notice mandated by subsection 5.2.3. Solvay shall be responsible for all costs associated with such Modification, including any actual costs incurred by National Grid associated with ensuring that the National Grid Interconnection Facilities would be compatible with such Modification.

5.2.3.3 Notwithstanding the foregoing, should Solvay propose a schedule for performing a Modification that National Grid in good faith determines may adversely affect National Grid's operations or the operations of National Grid's customers, National Grid may reject such schedule, but only to the extent such schedule is not in accordance with Good Utility Practice.

5.2.3.4 All such Modifications to the Solvay Stations or the Interconnection Facilities, and any resulting effects on the National Grid Transmission System, shall meet the rules and requirements of NERC, NPCC, NYSRC, the Nuclear Regulatory Commission, and the NYISO or their respective successors, the standards of Good Utility Practice, and the requirements of Bulletin No. 752; provided, however, that in the event of a conflict between the rules and requirements of the NYISO and the requirements of Bulletin No. 752, the rules and requirements of the NYISO shall govern.

5.2.4 If Solvay elects to construct, at its own expense, a Modification to the National Grid Interconnection Facilities subject to the terms of this Agreement, then Solvay shall transfer all rights, title and interest in such Modification to National Grid upon completion of construction and shall execute all necessary documents to effectuate transfer of ownership thereof to National Grid, provided however, that design, engineering, and construction activities on to the existing National Grid Interconnection Facilities shall be performed by National Grid, or by a third party selected by National Grid in accordance with Good Utility Practice and at Solvay's expense, Solvay shall obtain any necessary permits, authorizations and rights-of-way for the Modification, in accordance with this Agreement, the costs thereof to be paid by Solvay. Solvay shall transfer any such rights-of-way to National Grid. National Grid will accept transfer of ownership and energize the Modification, upon Solvay's satisfaction, at Solvay's expense, of the following: (a) the Modification shall comply with National Grid's engineering standards and all applicable laws, codes, rules and regulations; (b) the transfer of all rights of way necessary for the Modification shall be made in fee simple (by warranty deed free and clear of all liens and encumbrances) for consideration in the amount of One Dollar and (c) a land survey and title insurance for the Modification shall be provided to National Grid by Solvay in a form and amount acceptable to National Grid.

5.3 MODIFICATION, RELOCATION, REARRANGEMENT, ABANDONMENT OR RETIREMENT OF THE NATIONAL GRID TRANSMISSION SYSTEM.

- 5.3.1 If, during the term of this Agreement, National Grid determines that it is required by Good Utility Practice to make a Modification, relocate, rearrange, abandon, or retire the National Grid Transmission System, National Grid shall use good faith efforts to give Solvay no less than one (1) year advance written notice and shall, to the extent consistent with Good Utility Practice, defer such action, to the extent reasonably practicable, so that Solvay's operation of the Solvay Stations may continue with minimal interruption.
- 5.3.2 If National Grid is required or ordered by a governmental authority or the NYISO to make a Modification, relocate, rearrange, abandon, or retire the National Grid Transmission System, National Grid shall use good faith efforts to give Solvay no less than one (1) year advance written notice.
- 5.3.3 If the Modification, relocation, rearrangement, abandonment, or retirement is required pursuant to Paragraph 5.3.1 or 5.3.2, National Grid shall perform or have performed, at Solvay's expense, the studies necessary to identify any Modifications to the Interconnection Facilities, the Solvay Stations or the Solvay System necessary for the continued operation of the Solvay Stations and shall inform Solvay of the estimated costs. Solvay shall at its option either: (a) reimburse National Grid for all actual costs and expenses of such Modification to the Interconnection Facilities, the Solvay Stations or the Solvay System, studies and estimates in accordance with Article IX of this Agreement; (b) construct, at its own expense, new Interconnection Facilities subject to the terms of this Agreement; provided, however, that design, engineering, and construction activities relating to the existing National Grid Transmission System and National Grid Interconnection Facilities shall be performed by National Grid, or by a third party selected by National Grid at Solvay 's expense; or (c) terminate this Agreement, upon no less than sixty (60) days advance written notice to National Grid.

ARTICLE VI

METERING AND LOSSES

6.1 METERING

- 6.1.1 Solvay shall, at Solvay's expense, provide, own, and maintain compatible revenue quality metering equipment. Such metering equipment shall record the delivery of energy, including reactive power, in such a manner so as to measure total facility power output and consumption. Solvay shall provide suitable space within its facilities for installation of such metering equipment.
- 6.1.2 Solvay, at its own expense, shall provide all necessary communication equipment and transmission mediums such as telephone lines and any necessary protection for such communication equipment and related equipment, and shall furthermore be responsible for all communication required by National Grid for observability of the station load and equipment status, NYPA, the NYPSC or the NYISO. At Solvay's expense, National Grid

shall purchase, own and maintain all telemetering equipment located at Solvay's facilities. Solvay shall provide, install and own National Grid approved or specified test switches in the transducer circuits that have been approved or specified by National Grid. Solvay shall be responsible for actual costs involved in the relocation of communication circuits and transmission mediums that may be required by National Grid, NYPA, the NYPSC, or the NYISO from time to time.

- 6.1.3 Electricity received at the Delivery Points by Solvay hereunder shall be measured by revenue quality electric watt hour meters of a type approved by the NYPSC and NYPA. The metering equipment shall conform to the requirements of the NYISO Control Center Communications Manual and the NYISO Revenue Metering Requirements Manual. These metering facilities will be installed, owned, and maintained by NYPA and shall be sealed by NYPA, with the seal broken only upon occasions when the meters are to be inspected, tested or adjusted and representatives of both National Grid and Solvay are present. The metered data shall be telemetered to one or more locations designated by NYPA and NYISO. Such telemetered data shall be used, under normal operating conditions, as the official measurement of the amount of Electricity delivered to the Delivery Points. The metering and installation costs are to be borne by Solvay. The meters shall be maintained in accordance with the rules set forth in 16 NYCRR Part 92, as amended from time to time, and in accordance with Good Utility Practice.
- 6.1.4 National Grid, at its own expense, may elect to install its own meters in addition to Solvay or NYPA's meters. Such meters shall meet the requirements of 16 NYCRR Part 92, as may be amended from time to time.
- 6.1.5 In the event the Solvay desires access to meter information, Solvay, at its own expense, shall be responsible for purchasing and installing software, hardware and/or other technology that may be required to access such meter information. The software, hardware and/or other technology installed for this purpose shall be in compliance with any applicable NYPSC, NYPA and National Grid rules, requirements, or standards.
- 6.1.6 Solvay grants to the employees and agents of National Grid the right of access to the Solvay Stations at all reasonable times for such purposes of the reading of meters; inspection of meters, their wiring and related equipment; and installing, operating, maintaining, disconnecting and removing of any or all of the property belonging to National Grid. If Solvay refuses such access to the meters or other National Grid equipment, or if access is obstructed or hazardous, National Grid shall provide notice that Solvay shall have five (5) days in which to permit access, or remove any obstruction or hazard. If, after five (5) days from the receipt of the notice, Solvay does not permit access or remove any obstruction or hazard, it will constitute an event of breach, and National Grid may take any action in accordance with this Agreement, including disconnecting the Solvay Stations from the National Grid Transmission System in accordance with Good Utility Practice, after providing reasonable notice.

Notwithstanding any other provisions of this Agreement, in the event that the employees or agents of National Grid damage any of the Interconnection Facilities or the Solvay System or the National Grid Transmission System in the course of performing work under this subsection, then, subject to the provisions of Article XXI of this Agreement, National Grid shall be solely responsible for all costs and expenses arising from such damage but only to the extent such costs and expenses are the direct result of National Grid's sole negligent actions or omissions; provided however, each Party shall be liable for all claims of the Party's own employees arising out of any provision of the Workers' Compensation Law.

6.2 LOSSES

If the metering equipment and the Delivery Points are not at the same location, the metering equipment shall record delivery of Electricity in a manner that accounts for losses occurring between the metering points and the Delivery Points, which shall be calculated by National Grid. The metering point, the Delivery Points, associated equipment and distance between the metering point and the Delivery Points shall be as set forth in Exhibit A. If the metering points are changed to another location, losses in accordance with this section will be recalculated. In addition, Solvay will be responsible for actual costs associated with the change in metering points.

ARTICLE VII
INSURANCE PROVISIONS

7.1 By the date on which construction of the Interconnection Facilities begins, Solvay agrees to maintain at its own expense insurance policies issued by reputable insurance companies acceptable to National Grid which provide insurance coverage which meets or exceeds the following requirements:

7.1.1 Workers Compensation and Employers Liability Insurance as required by the State of New York. If required, coverage shall include the U.S. Longshoremen's, and Harbor Workers Compensation Act & the Jones Act.

7.1.2 Commercial General Liability (Including Contractual Liability and Products/Completed Operations), covering all activities and operations to be performed by it under this Agreement, with the following minimum limits:

(A) Bodily Injury - \$1,000,000/\$1,000,000

Property Damage - \$1,000,000/\$1,000,000

OR

(B) Combined Single Limit - \$1,000,000

OR

(C) Bodily Injury and Property Damage per Occurrence - \$1,000,000

General Aggregate & Product Aggregate - \$2,000,000 each.

- 7.1.3 Automobile Liability, for coverage of owned, non-owned and hired vehicles with a minimum combined single limit of \$1,000,000 per occurrence for bodily injury and property damage
- 7.1.4 Umbrella or Excess Liability, coverage with a minimum limit of \$ 4,000,000.
- 7.2 Solvay shall name National Grid USA, its subsidiaries and affiliates as an additional insured for all coverage's except Workers Compensation and Employers Liability Insurance in order to provide National Grid protection from liability arising out of activities of Solvay relating to the Interconnection Facilities, and/or the Upgrades as the case may be.
- 7.3 In the event Solvay uses subcontractors in connection with this Agreement, Solvay shall require all subcontractors to provide the same insurance coverage's set forth in paragraphs 7.1.1, 7.1.2, 7.1.3. and 7.1.4
- 7.4 Upon request by National Grid, Solvay shall promptly provide National Grid with either evidence of insurance or certificates of insurance evidencing the insurance coverage required under paragraphs 7.1.1, 7.1.2, 7.1.3, 7.1.4 and 7.2. Solvay shall provide such certificates or evidence of insurance to National Grid at the following address:
- To: National Grid
Attention: Risk Management
Bldg. A-4, 300 Erie Blvd.
West Syracuse, NY 13202
- Solvay shall provide at least thirty (30) days prior written notice to National Grid in the event of any cancellation or diminution of coverage. The certificates shall outline the amount of deductibles or self-insured retention's which shall be for the account of the insured Party.
- 7.5 If Solvay fails to secure or maintain any insurance coverage, or any insurance coverage is canceled before the completion of all services provided under this Agreement, and Solvay fails immediately to procure such insurance as specified herein, then National Grid has the right to procure such insurance and, at its option, either bill the cost thereof to Solvay or deduct the cost thereof from any sum due Solvay under this Agreement.
- 7.6 To the extent requested, Solvay shall furnish to National Grid copies of any accidents report(s) sent to Solvay's insurance carriers covering accidents or incidents occurring in connection with or as a result of the performance of the work under this Agreement.
- 7.7 Solvay shall comply with any governmental and/or site specific insurance requirements

even if not stated herein.

- 7.8 By the date that such coverage is required, Solvay represents that it will have full policy limits available and shall notify National Grid in writing when coverage's required herein have been reduced as a result of claim payments, expenses, or both.
- 7.9 Nothing contained in these insurance requirements is to be construed as (A) limiting the extent, if any, to which Solvay is responsible for payment of damages, or (B) limiting, diminishing, or waiving the obligation of Solvay to indemnify, defend and save harmless National Grid in accordance with this Agreement.

ARTICLE VIII COMPLIANCE WITH LAWS

- 8.1 National Grid and Solvay each agree to comply in all material respects with all applicable federal, state and local laws, ordinances, rules, regulations, permits, licenses, approvals, certificates, and requirements thereunder in connection with all its activities performed pursuant to this Agreement, including, but not limited to all design, environmental, regulatory, engineering, construction, and property acquisition activities.
- 8.2 If either Party observes that any requirement specified in this Agreement is at variance with any governing laws, ordinances, rules, regulations, permits, licenses, approvals, certificates and requirements thereunder, such Party shall promptly notify the other in writing before incurring any further liability, expense or obligation. National Grid and Solvay shall in good faith attempt to reform this Agreement to comply with the aforementioned laws, ordinances, rules, regulations, permits, approvals, or certificates. If National Grid and Solvay are unable to do so, either Party may terminate this Agreement.
- 8.3 Environmental Releases by Solvay. Solvay shall notify National Grid first verbally, and then in writing, of the Release of Hazardous Substances as soon as possible but not later than twenty-four (24) hours after the incident, and shall promptly furnish to National Grid copies of any reports filed with any governmental agencies addressing such events. If Hazardous Substances are released or reasonably believed to have been released onto National Grid's property, Solvay, at its own expense, shall conduct, or cause to be conducted, sampling, soil testing, and any other methods of investigation which would disclose the presence and extent of contamination by any Hazardous Substance which has been released onto National Grid's property and shall notify National Grid in writing as soon as reasonably practicable after learning of the presence of any Hazardous Substance upon National Grid's property. Solvay shall provide National Grid with a copy of any report or data generated as a result of such sampling or soil testing activities. Solvay shall notify National Grid immediately of any type of remediation activities. Solvay shall provide National Grid thirty (30) days written notice prior to conducting any asbestos or lead abatement activities, and shall promptly furnish to National Grid (i) copies of any reports filed with any governmental or regulatory agencies pertaining to such abatement activities, (ii) copies of applications for permits to conduct abatement activities, and (iii) copies of all permits authorizing abatement activities. Solvay agrees to indemnify, defend, and save harmless National Grid, its agents

and employees, from and against any loss, damage, liability (civil or criminal), cost, suit, charge (including reasonable attorneys' fees), expense, or cause of action, for the removal or management of any Hazardous Substance and/or relating to any damages to any person or property resulting from the presence of such Hazardous Substance.

- 8.4 Environmental Releases by National Grid. National Grid shall notify Solvay first verbally, and then in writing, of the Release of Hazardous Substances as soon as possible but not later than twenty-four (24) hours after the incident, and shall promptly furnish to Solvay copies of any reports filed with any governmental agencies addressing such events. If Hazardous Substances are released or reasonably believed to have been released onto Solvay's property at the Solvay Stations, National Grid, at its own expense, shall conduct, or cause to be conducted, sampling, soil testing, and any other methods of investigation which would disclose the presence and extent of contamination by any Hazardous Substance which has been released onto Solvay's property at the Solvay Stations and shall notify Solvay in writing as soon as reasonably practicable after learning of the presence of any Hazardous Substance upon Solvay's property at the Solvay Stations. National Grid shall notify Solvay immediately of any type of remediation activities. National Grid shall provide Solvay thirty (30) days written notice prior to conducting any asbestos or lead abatement activities, and shall promptly furnish to Solvay (i) copies of any reports filed with any governmental or regulatory agencies pertaining to such abatement activities, (ii) copies of applications for permits to conduct abatement activities, and (iii) copies of all permits authorizing abatement activities. National Grid agrees to indemnify, defend, and save harmless Solvay, its agents and employees, from and against any loss, damage, liability (civil or criminal), cost, suit, charge (including reasonable attorneys' fees), expense, or cause of action, for the removal or management of any Hazardous Substance and/or relating to any damages to any person or property resulting from the presence of such Hazardous Substance.
- 8.5 Both Parties shall promptly provide to the other Party, all relevant information, documents, or data regarding the Solvay Stations which may reasonably be expected to pertain to the safety, security or reliability of the immediate National Grid Transmission System that the Solvay Stations are connected to.

ARTICLE IX COST PAYMENTS

- 9.1 National Grid shall invoice Solvay at the start of each calendar quarter in an amount equal to National Grid's actual costs and expenses for which National Grid is to be reimbursed under this Agreement. However, if and as requested by National Grid, Solvay shall reimburse National Grid for costs and expenses in advance of National Grid incurring the aforementioned costs or expenses.
- 9.2 Solvay shall pay National Grid within thirty (30) calendar days of invoicing for all costs

incurred by National Grid under this Agreement, including, but not limited to, the cost of: constructing the National Grid Interconnection Facilities, Upgrades and Modifications; relocations, rearrangements, abandonments or retirements; operation, maintenance, repair and spare parts; metering, telemetering and communication media; and miscellaneous studies, testing, documentation and items performed by National Grid at the request of Solvay.

- 9.2.1 Solvay shall be responsible for all actual costs of National Grid, including, but not limited to, capital costs, labor (direct and distributable); labor fringe benefits and payroll taxes; invoices for material, contractors, consultants, etc.; employee expenses; storeroom material and handling; any and all costs and expenses resulting from damage to National Grid property not otherwise covered by insurance including risk of loss of the National Grid Interconnection Facilities during construction; sales and/or use taxes on invoices and material; transportation; allowance for funds used during construction (AFUDC); administrative and general expense (A&G) at the current rate applied to the total of all costs; and state, county, local sales and use taxes applied to the total of all costs and administrative and general and expenses associated with the acquisition, ownership, operation, repair, spare parts, A&G, inspection, design review, engineering, surveying, project management and coordination, testing of electrical equipment and installation of energy management system remote terminal units and revenue meters, construction, construction monitoring, financing, maintenance, environmental and regulatory permitting and licensing of, taxes and transfer of title of any new facilities and Modifications.
- 9.2.2 Solvay shall be responsible for any and all costs or expenses that are incurred by National Grid pursuant to this Agreement for the operation, maintenance and repair of the National Grid Interconnection Facilities including any Modifications transferred to National Grid.
- 9.2.2.1 Solvay shall reimburse National Grid on a quarterly basis for operation, maintenance, and repair costs and expenses. However, if and as requested by National Grid, Solvay shall reimburse National Grid for operation, maintenance, and repair costs and expenses in advance of National Grid incurring the aforementioned costs or expenses.
- 9.2.2.2 Operation, maintenance and repair costs and expenses shall include all actual costs and expenses associated with operation, maintenance, repair, spare parts, inspection, engineering and legal services, contract administration, right-of-way acquisition, A&G, working capital (including material adders, overhead charges, and transportation charges), and allowed earnings and/or rates of return approved by a regulatory body having jurisdiction.
- 9.2.3 Solvay shall be responsible for all legal fees, costs, liabilities, judgments, fines, penalties and other sanctions against National Grid arising out of Solvay's exercise of eminent domain powers, except to the extent that such fees, costs,

liabilities, judgments, fines, penalties and other sanctions are attributable to the rightful exercise of such powers.

9.2.4 Solvay shall be responsible for any and all federal, state, local, and foreign taxes levied or assessed upon National Grid for payments made to National Grid by Solvay for services provided under this Agreement including, but not limited to, the following: transfer tax, property tax, federal income tax, and New York State taxes, including New York income or gross receipts, sales and use taxes; provided, however, that National Grid shall pay any applicable interest or penalty incurred as a result of National Grid's delay in paying such taxes or seeking reimbursement from Solvay. If any form of tax, other than income or excess profits tax, under any present or future federal, state or other law different from or in addition to the taxes for which participation in or payment by Solvay is provided herein or elsewhere in this Agreement, is required to be paid, levied or assessed against or incurred by National Grid with respect to any property, property right, commodity, or service involved in, resulting from or accruing from National Grid's performance under this Agreement, which such different or additional tax would not be required to be paid by National Grid in the absence of this Agreement and, with respect to such different or additional tax, no obligation of Solvay to participate or pay would have attached under the provisions of this Agreement elsewhere than in this subsection, then in such event Solvay shall fully reimburse National Grid for the full amount of such different or additional tax paid by National Grid.

9.2.4.1 If National Grid receives a refund from the taxing authorities of any amounts paid by Solvay, National Grid shall refund to Solvay such amount refunded National Grid (net of expenses related to obtaining the refund) within thirty (30) days of receiving such refund.

9.2.4.2 Notwithstanding the foregoing, Solvay, at its own expense, shall have the right to require National Grid to seek a Private Letter Ruling from the Internal Revenue Service on whether any of the sums paid to National Grid by Solvay under the terms of this Agreement for the construction of the facilities contemplated herein are subject to U.S. federal taxation. To the extent that the Private Letter Ruling concludes that any such sums are taxable to National Grid, Solvay shall reimburse National Grid for all such taxes consequently imposed upon National Grid in accordance with the terms of this Agreement. Solvay shall reimburse National Grid for all costs, including but not limited to legal fees, associated with seeking the Private Letter Ruling.

9.2.5 Increased income tax to National Grid arising from Solvay's payment or reimbursement of tax under the preceding provisions will be addressed in the following manner. Any net actual U.S. federal income tax or New York State tax (collectively, for this subsection 9.2.5 "Tax"), if any, arising out of any payment or reimbursement of any tax by Solvay under this Article shall be reimbursed to National Grid. The amount reimbursed to National Grid under this subsection shall consist of (1) the Tax arising under this subsection (the "First Amount"); plus

(2) the net actual Tax imposed on the First Amount (the "Second Amount"); plus
(3) the net actual Tax imposed on the Second Amount (the "Third Amount"); and
plus (4) the net actual Tax imposed on the Third Amount and on each succeeding
amount until the final amount is less than one dollar.

- 9.2.6 Solvay as a municipality is generally exempt from taxation and upon execution of the Agreement, Solvay shall immediately provide to National Grid all documentation required by National Grid to verify Solvay's tax exemption status.
- 9.3 National Grid agrees to cooperate with Solvay in attempting to minimize National Grid's costs under this Article, provided Solvay reimburses National Grid for all costs incurred by National Grid in connection with such cooperation, including reasonable attorneys' fees and expenses, and provided further that Solvay shall indemnify, defend, and save harmless National Grid, its agents and employees, against any and all penalties, judgments, fines (civil or criminal), or other costs that may be imposed by any governmental authority as a result hereof.
- 9.4 National Grid shall include, with each invoice documentation supporting the costs, expenses, and/or taxes incurred by National Grid in the previous quarter, or to be incurred in the next quarter, as provided for in 9.2.2.1. National Grid will provide such documentation from its standard accounting methods. Within thirty (30) days from date of the invoice, Solvay shall pay the invoice and/or notify National Grid that Solvay disputes, in whole or in part, any of the costs, expenses, and/or taxes reflected in the invoice and shall specify with particularity the reasons for such dispute. If Solvay disputes any invoice or portion thereof, Solvay shall immediately place into an independent escrow account an amount equal to the portion of the invoice it disputes. Such amount shall remain in escrow until the dispute between the Parties is resolved in accordance with Article XX of this Agreement. If any portion of any invoice Solvay has not disputed remains unpaid thirty (30) days from the invoice date, National Grid shall apply to the unpaid balance, and Solvay shall pay, a finance charge at the rate of one and one-half percent (1.5%) per month, but in no event more than the maximum allowed by law.
- 9.5 Solvay acknowledges and agrees that National Grid has undertaken to construct the National Grid Interconnection Facilities in a particular configuration solely at the request of Solvay and in reliance on Solvay's commitment to pay all of the costs of constructing and maintaining the National Grid Interconnection Facilities. Accordingly, Solvay and National Grid agree that the National Grid Interconnection Facilities and all of its components shall at all times be classified as substation leads that may be directly charged to Solvay and not as improvements to the National Grid Transmission System, except to the extent that National Grid hereafter voluntarily elects to reclassify those facilities as improvements to the National Grid Transmission System. Solvay hereby waives its right to challenge any of the provisions of this Section 9.5 under Section 206 of the Federal Power Act ("FPA"). Nothing contained in this Section 9.5 shall be construed as limiting Solvay's rights under Section 206 of the FPA with respect to the appropriate treatment of costs attributable to any portion of the National Grid Interconnection Facilities that National Grid may hereafter voluntarily reclassify or through National Grid's actions functionally reclassify as improvements to the National Grid Transmission System rather

than as substation leads.

ARTICLE X
NOTICES

- 10.1 All notices required or permitted under this Agreement shall be in writing and shall be personally delivered or sent by certified or registered first class mail (return receipt requested, postage prepaid), facsimile transmission, or overnight express mail or courier service addressed as follows:

To Solvay:

ELECTRICAL SUPERINTENDENT
VILLAGE OF SOLVAY
Village Hall
1100 Woods Road
Solvay, New York 13209
Tel: (315) 468-6229
Fax: (315) 468-3652

To National Grid:

DIRECTOR
TRANSMISSION COMMERCIAL
NATIONAL GRID
40 Sylvan Road
Waltham, MA 02451
Phone: (781) 907-2422
Fax: (781) 907-5707

- 10.1.1 All notices required for billing purposes under this Agreement shall be in writing and shall be delivered to the following address:

To Solvay:

ELECTRICAL SUPERINTENDENT
VILLAGE OF SOLVAY
Village Hall
1100 Woods Road
Solvay, New York 13209
Tel: (315) 468-6229
Fax: (315) 468-3652

To National Grid:

DIRECTOR
TRANSMISSION COMMERCIAL
NATIONAL GRID
40 Sylvan Road
Waltham, MA 02451
Phone: (781) 907-2422
Fax: (781) 907-5707

- 10.1.2 If given by electronic transmission (including telex, facsimile or telecopy), notice shall be deemed given on the date received and shall be confirmed by a written copy sent by first class mail. If sent in writing by certified mail, notice shall be deemed given on the second business day following deposit in the United States mails, properly addressed, with postage prepaid. If sent by same-day or overnight delivery service, notice shall be deemed given on the day of delivery.

- 10.2 Either Party may change its address for notices by notice to the other in the manner provided above.

- 10.3 Notwithstanding paragraph 10.1, any notice hereunder, with respect to an Emergency Condition or other occurrence requiring prompt attention, shall be communicated in an expedited manner and may be made by telephone provided that such notice is confirmed in

writing promptly thereafter.

- 10.4 The representatives noted in paragraph 10.1, or their designees, shall be authorized to act on behalf of the Parties, and their instructions, requests, and decisions will be binding upon the Parties as to all matters pertaining to this Agreement and the performance of the Parties hereunder. Only these representatives shall have the authority to commit funds or make binding obligations on behalf of the Parties. The Parties shall be permitted to change their respective representatives by providing notice to the other Party of the change of representative.

ARTICLE XI TERM AND TERMINATION

- 11.1 This Agreement shall become effective as of the date first above written (the "EFFECTIVE DATE"), subject to its approval or acceptance for filing by the FERC (if applicable) or if filed unexecuted, upon the date specified by the FERC, and shall continue in effect for twenty (20) years thereafter.
- 11.2 This Agreement shall not merge with or be terminated or superseded by any future agreement between the Parties that does not specifically so provide.
- 11.3 In the event either National Grid or Solvay abandons its work or facilities under this Agreement; becomes insolvent; or assigns or sublets this Agreement in a manner inconsistent with this Agreement, or is violating any of the material conditions, terms, obligations, or covenants of this Agreement, or is not performing this Agreement in good faith, the other Party may terminate this Agreement by providing written notice. Before instituting proceedings before FERC to terminate the Agreement, National Grid must give Solvay written notice of the reasons for termination. If, within a period of ten (10) days of receiving such notice, Solvay or National Grid cures the default or breach cited by the other in such written notice, to the reasonable satisfaction of the Party that provided such notice, and shall have complied with the provisions of this Agreement, such notice shall become null and void and of no effect. Otherwise, such notice shall remain in effect and, except to the extent expressly provided for herein, the obligations of the Parties under this Agreement shall terminate ten (10) days after such notice was provided.
- 11.4 In the event of a billing dispute between National Grid and Solvay, National Grid will not apply to remove the National Grid Interconnection Facilities or any part of the National Grid Transmission System from service or to terminate transmission service thereon as long as Solvay: (i) continues to make all payments and (ii) adheres to the dispute resolution procedures set forth in Article XX of this Agreement and pays into an independent escrow account the portion of any invoice in dispute, pending resolution of such dispute. If Solvay fails to meet these two requirements, then a default shall be deemed to exist, to which the procedures set forth in this Article XI for the removal of the National Grid Interconnection Facilities from service shall apply.
- 11.5 Termination of this Agreement shall not relieve Solvay or National Grid of any of its liabilities and obligations arising hereunder prior to the date termination becomes

effective, and Solvay or National Grid may take whatever judicial or administrative actions as appear necessary or desirable to enforce its rights hereunder. The rights specified herein are not exclusive and shall be in addition to all other remedies available to either Party, either at law or in equity, for default or breach of any provision of this Agreement; provided, however, that in no event shall National Grid or Solvay be liable for any incidental, special, indirect, exemplary or consequential costs, expenses, or damages sustained by the other, as provided for in Article XXI hereto.

- 11.6 If a Party provides to the other written notice of termination pursuant to paragraph 11.3 and, in accordance therewith, such notice remains in effect ten (10) days after such notice was provided (thereby terminating the obligations of the Parties under this Agreement), the Party that received such notice shall be liable to the other for all costs, expenses, liabilities and obligations, including reasonable attorneys' fees, incurred by the other Party resulting from or relating to the termination of this Agreement.
- 11.7 In the event of termination of this Agreement, National Grid, at its sole option and at Solvay 's expense, will physically disconnect the Solvay Substations from the National Grid Transmission System, return the National Grid Transmission System to its original state prior to this Agreement, and remove any or all of National Grid's Interconnection Facility equipment.

ARTICLE XII FORCE MAJEURE

- 12.1 Neither Party shall be considered to be in default or breach hereunder, and shall be excused from performance hereunder, if and to the extent that it shall be delayed in or prevented from performing or carrying out any provisions of this Agreement by reason of flood, lightning strikes, earthquake, fire, epidemic, war, act of terrorism as confirmed by a governmental authority having jurisdiction, invasion, riot, civil disturbance, sabotage, explosion, insurrection, military or usurped power, strikes, stoppage of labor, labor dispute, failure of contractors or supplies of material, action of any court or governmental authority, or any civil or military authority de facto or de jure, change in law, act of God or the public enemy, or any other event or cause beyond such Party's control, including, without limitation, disconnection or limited operation of National Grid's electric system, unscheduled repairs or maintenance, fuel or energy shortages, or equipment breakdown resulting even with Good Utility Practice which are beyond such Party's reasonable control; provided, however, that neither Party may claim force majeure for any delay or failure to perform or carry out any provision of this Agreement to the extent that such Party has been negligent or engaged in intentional misconduct and such negligence or misconduct contributed to that Party's delay or failure to perform or carry out its duties and obligations under this Agreement.
- 12.2 The Party claiming force majeure shall give notice to the other Party of the occurrence of force majeure no later than ten (10) business days after such occurrence and shall use due diligence to resume performance or the provision of service hereunder as soon as practicable.

ARTICLE XIII
INDEMNIFICATION

- 13.1 To the fullest extent allowed by law and to the extent not otherwise articulated in this Agreement, Solvay shall indemnify, defend, and save harmless National Grid, its agents and employees, from and against any loss, damage, liability, cost, suit, charge, expense, or cause of action, whether unconditionally certain or otherwise, as they exist on the Effective Date of this Agreement or arise at any time thereafter, (including but not limited to fees and disbursements of counsel incurred by National Grid in any action or proceeding between National Grid and Solvay or between National Grid and any third party or otherwise) arising out of any damage or injury to its property or property of third parties (including real property, personal property and environmental damages), persons, (including injuries resulting in death), caused by or arising out of or in any way connected with this Agreement, or the work performed hereunder, or any equipment, property or facilities used by the other Party, its agents, employees, contractors, and suppliers except unless such loss, damage, injury or expense are the result of National Grid's sole negligent actions or omissions; provided however, each Party shall be liable for all claims of the Party's own employees arising out of any provision of the Workers' Compensation Law.
- 13.2 Solvay agrees to indemnify, defend, and save National Grid and its agents and employees harmless from and against any loss, damage, liability (civil or criminal), cost, suit, charge, expense (including reasonable attorneys' fees) or cause of action arising from violations by Solvay of said laws, ordinances, rules, regulations, permits, licenses, approvals, certificates and requirements thereunder. Solvay agrees to bear fully all civil and criminal penalties that may arise from its activities or from its violations or from its failure to comply with the aforementioned laws and requirements, whether such penalties are assessed against Solvay or National Grid. The provisions of this paragraph shall survive termination of this Agreement.
- 13.3 In the event that the claims, damages, losses, judgments, or settlements are the result of the negligence of Solvay, Solvay shall be liable to the extent or degree of its negligence, as determined by the adjudication of comparative negligence.
- 13.4 Solvay shall take prompt action to defend and indemnify National Grid against claims, actual or threatened, but in no event later than the service of notice, summons, complaint, petition to other service of process against Solvay alleging damage, injury, liability, or expense attributed in any way to the Agreement, the work or acts, fault, negligence, equipment, materials, properties, facilities, personnel, or property of Solvay, it's agents, employees, contractors or suppliers. Solvay shall defend any such claim or threatened claim, including as applicable, engagement of legal counsel, to respond to, defend, settle, or compromise any claim or threatened claim.
- 13.5 Furthermore, Solvay understands and agrees it is responsible for any and all costs and expenses incurred by National Grid to enforce this indemnification provision.
- 13.6 The obligations set forth in this Article shall survive the later of the completion of the

work, termination or expiration of the Agreement.

ARTICLE XIV
RELATIONSHIP OF THE PARTIES

- 14.1 Nothing contained in this Agreement shall be construed or deemed to cause, create, constitute, give effect to, or otherwise recognize Solvay and National Grid to be partners, joint venturers, employer and employee, principal and agent, or any other business association, with respect to any matter.
- 14.2 Unless otherwise agreed to in writing signed by both Parties, neither Party shall have any authority to create or assume in the other Party's name or on its behalf any obligation, express or implied, or to act or purport to act as the other Party's agent or legal empowered representative for any purpose whatsoever.
- 14.3 Neither Party shall be liable to any third party in any way for any engagement, obligation, commitment, contract, representation or for any negligent act or omission of the other Party, except as expressly provided for herein.
- 14.4 The rights and obligations of the Parties shall be limited to those expressly set forth herein.

ARTICLE XV
THIRD PARTY BENEFICIARY/ASSIGNMENT

- 15.1 No person or party shall have any rights or interests, direct or indirect, in this Agreement or the services or facilities to be provided hereunder, or both, except the Parties, their successors, and authorized assigns.
- 15.2 The Parties specifically disclaim any intent to create any rights in any person or party as a third-party beneficiary to this Agreement.
- 15.3 Except as provided for in paragraphs 15.3.1, 15.3.2 and 15.3.3, neither Party may assign this Agreement or any of its rights, interests, or obligations hereunder without the prior written consent of the other Party, which such consent shall not be unreasonably withheld.
 - 15.3.1 Solvay may, with only prior written notice to National Grid, assign, transfer, pledge, or otherwise dispose of its rights and interests under this Agreement to any lender or financial institution in connection with the financing or refinancing of Solvay Interconnection Facilities, the Solvay Stations or property acquisition therefore.
 - 15.3.2 National Grid may, with only prior written notice to Solvay, assign, transfer, pledge, or otherwise dispose of National Grid's rights and interests under this Agreement to any lender or financial institution in connection with the financing or refinancing of the National Grid Transmission System or property acquisition therefore.
 - 15.3.3 Any company or entity which succeeds by purchase, merger or consolidation of the properties and assets, substantially or entirely, of National Grid or Solvay shall

be entitled to the rights and shall be subject to the obligations of National Grid or Solvay under this Agreement.

- 15.4 Each Party agrees to reimburse the other Party for any costs and expenses (including reasonable attorneys' fees) incurred in connection with the other Party's review, execution and delivery of instruments, agreements or documents necessary in connection with the assigning Party's assignment, transfer, sale or other disposition of this Agreement or any interest in the Interconnection Facilities or the Transmission System.
- 15.5 Any assignment in violation of Article XV shall be considered null and void from its inception and National Grid reserves the right to disconnect the Solvay Substations from National Grid Interconnection Facilities.
- 15.6 Any authorized assignment shall not relieve the assigning Party of the responsibility of full compliance with the requirements of this Agreement, unless the other Party consents and the assignee agrees in writing to be bound by all of the obligations and duties of the assigning Party provided for in this Agreement and has provided written assurances to the other Party of continued performance and protection against liability upon assignment.
- 15.7 Assignment contrary to the provisions of this Agreement shall make the assigning Party the indemnitor of the other Party and its successors against any liabilities and costs, including attorneys' fees as to which the assigning Party's transferee fails to indemnify, defend, and hold harmless the other Party, its agents, employees and its successors, from and against any loss, damage, liability, cost, suit, charge, expense (including reasonable attorney's fees) or cause of action, incurred by the other Party as a result of said assignment or as a result of any dispute between the assigning Party and its transferees, or between any subsequent transferees, that arises from or relates to any assignment by the assigning Party.
- 15.8 This Agreement shall bind and inure to the benefit of the Parties to this Agreement, their successors and permitted assigns.

ARTICLE XVI APPROVAL

- 16.1 National Grid shall file this Agreement with the appropriate regulatory authorities. If any such regulatory body materially modifies the terms and conditions of this Agreement and such modification(s) materially affect the benefits flowing to one or both of the Parties, the Parties agree to attempt in good faith to negotiate an amendment or amendments to this Agreement or take other appropriate action(s) so as to put each Party in effectively the same position in which the Parties would have been had such modification not been made. In the event that, within sixty (60) days or some other time period mutually agreed upon by the Parties after such modification has been made, the Parties are unable to reach agreement as to what, if any, amendments are necessary and fail to take other appropriate action to put each Party in effectively the same position in which the Parties would have been had such modification not been made, then either Party shall have the right to unilaterally terminate this Agreement.

ARTICLE XVII
WAIVER

- 17.1 No provision of this Agreement may be waived except by mutual agreement of the Parties as expressed in writing and signed by both Parties.
- 17.2 Any waiver that is not in writing and signed by both Parties shall be null and void from its inception.
- 17.3 No express waiver in any specific instance as provided in a required writing shall be construed as a waiver of future instances unless specifically so provided in the required writing.
- 17.4 No express waiver of any specific default shall be deemed a waiver of any other default whether or not similar to the default waived, or a continuing waiver of any other right or default by a Party.
- 17.5 The failure of either Party to insist in any one or more instances upon the strict performance of any of the provisions of this Agreement, or to exercise any right herein, shall not be construed as a waiver or relinquishment for the future of such strict performance of such provision or the exercise of such right.

ARTICLE XVIII
AMENDMENT AND MODIFICATION

- 18.1 This Agreement may be amended or modified if the amendment or modification is in writing and executed by both Parties.
- 18.2 No express amendment or modification in any specific instance as provided herein shall be construed as an amendment or modification of future instances, unless specifically so provided in the required writing.
- 18.3 Except as provided for in Section 9.5, nothing in this Agreement shall be construed as affecting in any way the right of National Grid to unilaterally make application to FERC (or any successor agency) for a change in rates, terms and conditions, charges, classifications of service, rule or regulation under Section 205 of the FPA and pursuant to FERC's rules and regulations promulgated thereunder.

ARTICLE XIX
GOVERNING LAW

- 19.1 This Agreement and the rights and obligations of the Parties to this Agreement shall be governed by and construed in accordance with the laws of the State of New York, without giving effect to the conflict of laws principles thereof.
- 19.2 Solvay and National Grid agree to submit to the jurisdiction of the courts in the State of

New York for the purposes of interpretation and enforcement of this Agreement.

- 19.3 Solvay and National Grid waive personal service by manual delivery and agree that service of process on Solvay or National Grid in any action concerning or arising out of this Agreement may be made by registered or certified mail, return receipt requested, delivered to Solvay or National Grid at the addresses set forth in Article X of this Agreement.

ARTICLE XX DISPUTE RESOLUTION

- 20.1 Should a claim or dispute among the Parties arise under this Agreement, the Parties shall continue, in good faith, to perform their respective obligations hereunder. Notice of any claim or dispute that any Party may have against another Party, arising out of the Agreement shall be submitted in writing to the other Parties in a manner that clearly identifies the nature of the claim or dispute and requests that the Parties engage in negotiations to resolve the claim or dispute.
- 20.2 Upon receipt of the notice of claim or dispute under section 20.1, the Parties shall use Commercially Reasonable Efforts to resolve any such dispute without resorting to judicial resolution, through good faith negotiations between representatives with authority to resolve or settle the claim or dispute. The Parties agree to keep confidential any documents or materials exchanged and/or confidential information revealed in furtherance of resolving or settling the claim or dispute under Article XX of this Agreement and that such documents, materials, or information shall be considered confidential settlement information and that, pursuant to Rule 408 of the Federal Rules of Evidence and parallel doctrines of state law, shall not be admissible as evidence in any subsequent judicial or regulatory proceeding.
- 20.3 If the dispute remains unresolved for more than sixty (60) days after receipt of the notice of claim or dispute under section 20.1, any Party may seek resolution of its rights and remedies under this Agreement through any available forum in accordance with Articles XIX, XX, and, to the extent applicable, at FERC.

ARTICLE XXI LIMITATION OF LIABILITY

- 21.1 Notwithstanding any other provision of this Agreement, neither Party shall be responsible to the other for incidental, indirect, exemplary, special or consequential damages (including punitive damages or loss of profits) in connection with this Agreement, except in cases of intentional misconduct, unless otherwise stated in this Agreement.
- 21.2 Third-Party Claims Against National Grid. Notwithstanding the provisions of this Article as they may apply with respect to an indemnifying Party's responsibility for claims asserted against an indemnified Party by a third-party, under no circumstances shall National Grid, or its directors, officers, employees, agents and Affiliates, be liable to Solvay, its directors, officers, employees, agents or Affiliates, for third-party claims, actions or causes of action

for incidental, punitive, special, exemplary, indirect, treble, multiple or consequential damages of any kind (including attorneys' fees, litigation costs, losses or damages caused by reason of the unavailability of the Solvay Stations, plant shutdowns or service interruptions, losses of use, profits or revenue, inventory or use charges, costs of purchased or replacement power, interest charges or costs of capital) resulting from or related to curtailments or interruptions of deliveries of Electricity over the Transmission System, including any such damages which are based upon causes of action for breach of contract, tort, breach of warranty or strict liability, except for National Grid's sole negligence resulting in damages under this Section not to exceed \$200,000.00.

- 21.3 Survival. The provisions of this Article shall apply regardless of fault and shall survive termination, cancellation, suspension, completion or expiration of this Agreement.

ARTICLE XXII
SEVERABILITY

- 22.1 If any term of this Agreement, or the interpretation or application of any term or provision to any prior circumstance, is held to be unenforceable, illegal, or invalid by any governmental agency or court of competent jurisdiction, the remainder of this Agreement, or the interpretation or application of all other terms or provisions to persons or circumstances other than those that are unenforceable, illegal, or invalid, shall not be affected thereby and each term and provision shall be valid and be enforced to the fullest extent permitted by law.

ARTICLE XXIII
HEADINGS

- 23.1 The headings in this Agreement are included herein for convenience of reference only and shall not constitute a part of this Agreement for any other purpose, or limit or be used as an aid in construing the provisions of this Agreement.

ARTICLE XXIV
INTEGRATION/MERGER/SURVIVABILITY

- 24.1 This Agreement sets forth the entire understanding and agreement of the Parties as to the subject matter of this Agreement. This Agreement merges and supersedes all prior agreements, commitments, representations, writings and discussions between the Parties with respect to the Interconnection Facilities.

ARTICLE XXVI
COMPLIANCE WITH GOOD UTILITY PRACTICE

- 25.1 The Parties shall comply with Good Utility Practice.

ARTICLE XXVI
COUNTERPARTS

26.1 This Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the Parties hereto have caused this instrument to be executed as of the day and year first above written.

Niagara Mohawk Power Corporation d/b/a National Grid

By: William L. Malee

William L. Malee

Title: Director, Transmission Commercial

Authorized Representative of Niagara Mohawk Power Corporation

Date: 6-13-12

Village of Solvay:

By: Patricia A. Marinelli Mayor

Title: Mayor

Date: 6-14-12

Exhibit A

Description of Interconnection Facilities for Mathews Avenue Substation:

Mathews Avenue is an electrical substation owned by the Village of Solvay with a maximum rating of 144 MVA located at Mathews Avenue, Village of Solvay, New York.

National Grid Interconnection Facilities:

Line #12 tap – All facilities on the line (jaw) side of the switch located on structure #8-1 up to and including the insulators on the station take-off structure at National Grid's Geres Lock substation

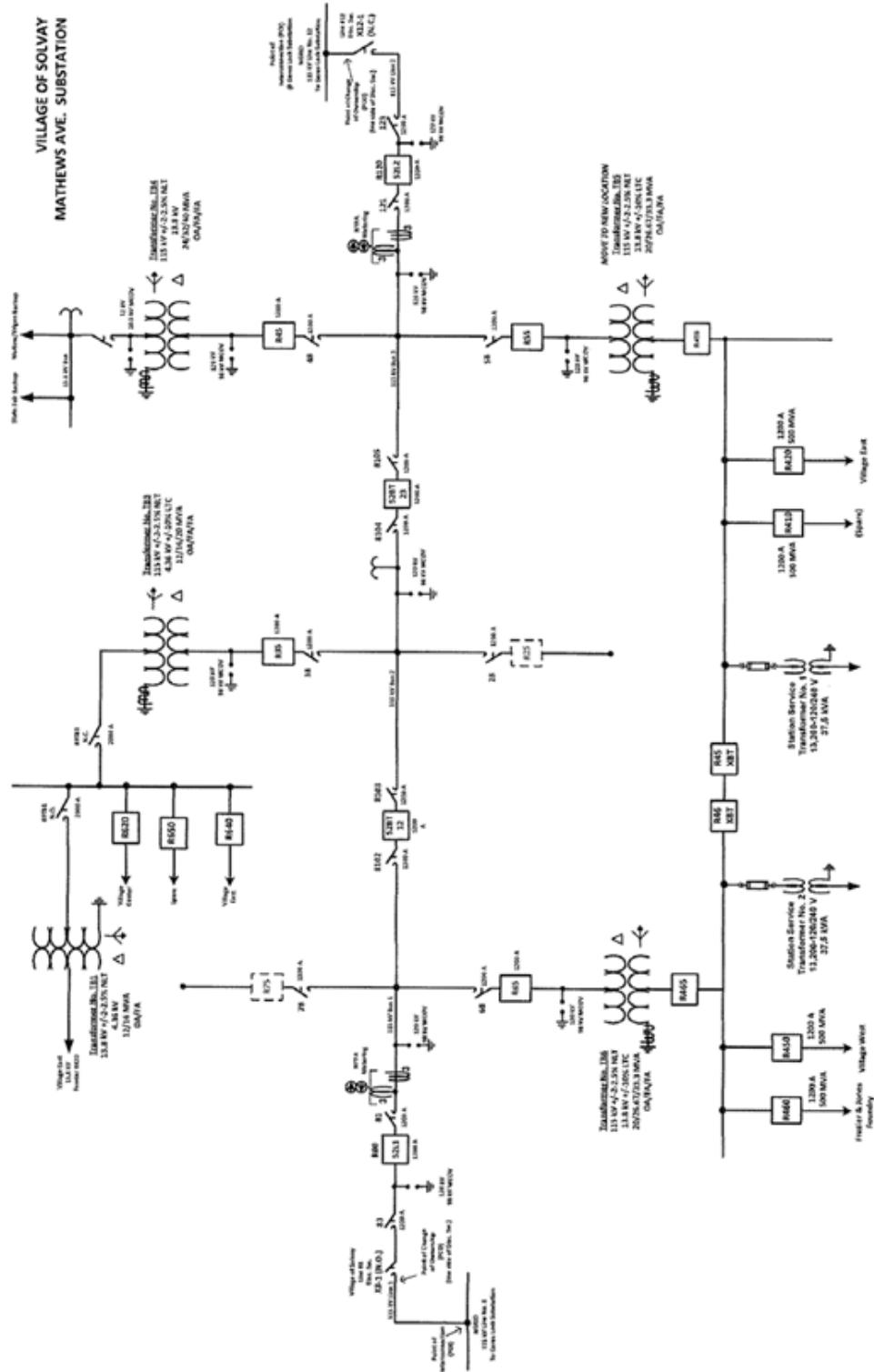
Line #8 tap – All facilities on the line (jaw) side of the switch located on structure #454.5-1 up to and including the insulators on National Grid structure #454.5 on National Grid's transmission line #8.

Solvay Interconnection Facilities:

Line #12 tap – Includes the switch and switch pole structure #8-1 and all facilities on the station side of that switch back to Solvay's Mathews Avenue Substation.

Line #8 tap – Includes the switch and switch pole structure #454.5-1 and all facilities on the station side of that switch back to Solvay's Mathews Avenue Substation.

One-Line Diagram for Mathews Avenue Substation:



Description of Interconnection Facilities for Lakeland Substation:

Lakeland substation is an electrical substation owned by the Village of Solvay with a maximum rating of 20 MVA and located in the Town of Geddes, County of Onondaga, New York.

National Grid Interconnection Facilities:

All facilities including the dead-end insulators on the line (jaw) side of the switching structure up to and including the dead-end insulators at the Interconnection Point on National Grid's #4 transmission line.

Solvay Interconnection Facilities:

All facilities on the station side of the Delivery Point from and including the disconnect switch and switch pole on the tap line feeder back to Solvay's Lakeland Substation.

Description of Interconnection Facilities for Industrial Substation:

Industrial substation is an electrical substation owned by the Village of Solvay with a maximum rating of 120 MVA located at Bridge Street, Village of Solvay, New York.

National Grid Interconnection Facilities:

Line #14 tap - All facilities up to and including the dead-end insulators on the line (jaw) side of switch X14-2 on switch pole #1-1 (Delivery Point) back to the dead-end insulators at the Interconnection Point (Pole #1) on National Grid's Line #14.

Line #2 tap – All facilities on the line side of switch X2-1 from and including the switch and switch pole #459-3 (Delivery Point) back to the dead-end insulators at the Interconnection Point (Pole #459) on National Grid's Line #2.

Solvay Interconnection Facilities:

Line #14 feeder – All facilities on the station side of the Delivery Point from and including switch X 14-2 and switch pole #1-1 back to Solvay's Industrial Station.

Line #2 – All facilities up to and including the dead-end insulators on the station side of the Delivery Point, not including the National Grid owned switch or switch pole, back to Solvay's Industrial Station.

One-line Diagram for Industrial Substation:

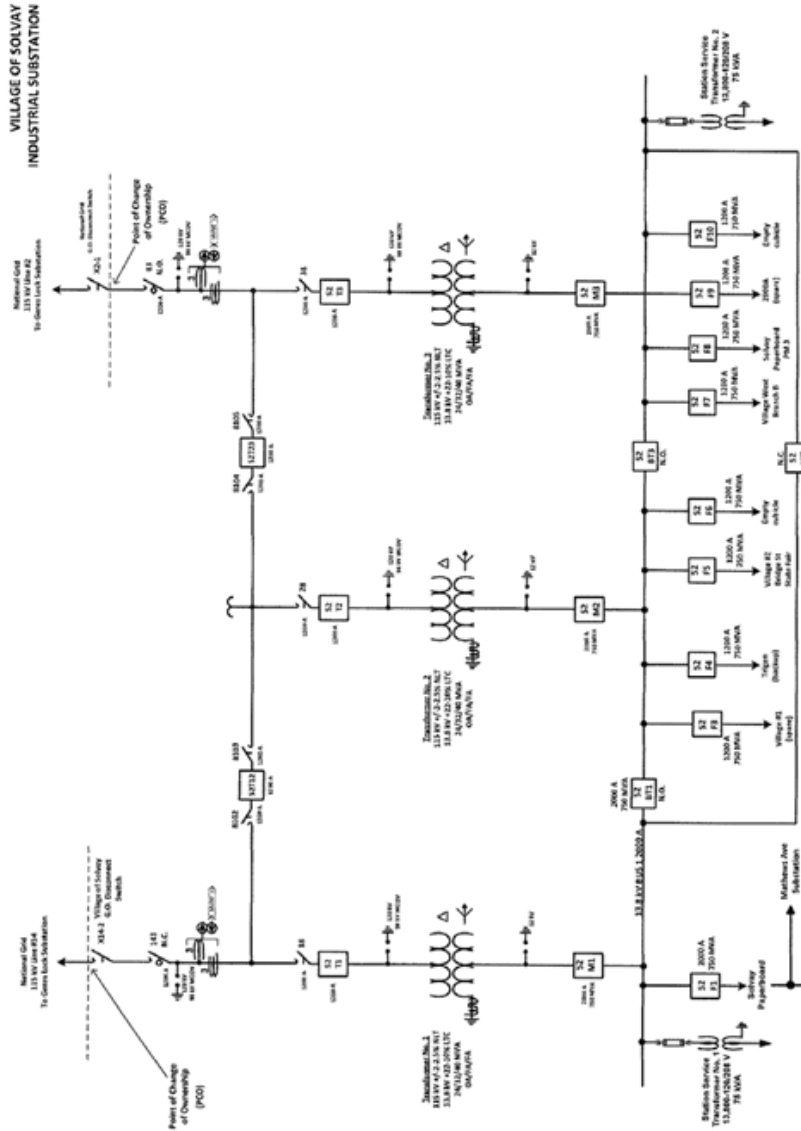


Exhibit B – Interconnection Studies

Interconnection Study for Matthews Avenue Substation:

nationalgrid	DISTRIBUTION PLANNING DOCUMENT	Doc. # SP.COSSOLV.4
	Specification: Service Plan	Page 1 of 16
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	Solvay Village Matthews Ave. 115kV Electric Service	Final

**National Grid Upstate New York
115kV Electric Service Modification
for the
Interconnection Customer Facilities
of
Village of Solvay
Mathews Ave.
Solvay, NY
(Work Order #9000105367)**

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INTRODUCTION:

This document defines the electrical installation requirements for the Village of Solvay's ("Village") interconnection to the National Grid ("Company") electric system. The requirements specified herein are specific to the Village of Solvay Mathews Ave. Substation Upgrade Project ("Project").

ACRONYMS/SYNONYMS USED IN THIS PROJECT DOCUMENT:

- Energization - "In Service"
- ESB - "Electric System Bulletin"
- FERC - "Federal Energy Regulatory Commission"
- IA - "Interconnection Agreement"
- NY ISO - "New York Independent System Operator"
- NY PSL - "NYS Public Service Law"
- NY PSC - "New York Public Service Commission"
- NYPA - "New York Power Authority"
- OATT - "Open Access Transmission Tariff"
- PSL - "Public Service Law"
- WO - "Work Order"

1.0 SCOPE

1. This Service Plan describes the Village's upgrade of their Mathews Ave substation connecting to the 115kV electric power system (EPS) located in Solvay, N.Y. This plan identifies the expected scope, schedule, and costs of providing support services and 115kV modifications and additions specific to the Village's installation requirements subject to the Company's typical specifications in the ESB 750 series bulletins to supply the upgrade of Mathews Ave. substation. This Service Plan may be used in conjunction with other Company agreements with the Village to provide service.
2. The Company has evaluated the service proposal and the following is the Village's service plan along with the Company's requirements for the Village's decision to proceed with any design development and installation activities. Also, the Company requires the information listed in ESB's 752 and 755 (as applicable) and items requested in this plan for review and acceptance to continue with the Village's written commitment to proceed.

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2.0 OBJECTIVES

The objectives of this service plan include:

- Define the engineering design parameters, installation and operating requirements associated with the Village's facilities and
- Describe all submittals required for review and acceptance of the Village's facilities at various stages of the Project, including: engineering design, construction, testing and commissioning, energization, and close out, and the process for completing such submittals.

3.0 REFERENCES

3.1 Company:

The following Company electric system bulletins¹ pertain to this Project and are incorporated into this service plan:

- ESB No. 750 – Specifications for Electrical Installations, April 2010 ("ESB 750")
- ESB No. 750 series Errata and Change Revision List, September 2010 ("ESB 750 Errata")
- ESB No. 752 – Service above 15,000 Volts, October 2004, 2nd printing April 2002 ("ESB 752")
- ESB No. 755 – Operation & Maintenance Requirements for Services Above 600 Volts, June 2003 ("ESB 755")

In addition to these bulletins as specific to this project,

- February 23, 2011 meeting between Warner Consulting Group, Village of Solvay, and National Grid.

3.2 Other:

Other references pertaining to this Project include:

- PSC No. 220 – Niagara Mohawk Power Corporation Electricity Tariff
<https://www2.dps.state.ny.us/ETS/jobs/display/download/4912540.pdf>
- New York State Consolidated Laws, Public Service, Article 4, Section 65.²
- Regarding unqualified persons approaching the area of work: Laws of New York – Labor - Article 7 § 202-h. High-voltage proximity.
<http://www.labor.state.ny.us/workerprotection/safetyhealth/sh57.shtm>

4.0 PROJECT DESCRIPTION

(See Attachments A and B)

¹ All ESB's are available at <http://www.nationalgridus.com/electricalspecifications>.

² The NY Public Service Law is the governing document where the utility derives its authority to assert its electric service connection requirements to those who take electric service from the utility's electric system. The utility is responsible to provide safe and adequate service in a just and reasonably charged manner. This is achieved through the Company's electricity tariff, PSC No. 220 in NY State and its Specifications for Electrical Installations. Refer to: <http://public.leginfo.state.ny.us/menugetf.cgi?COMMONQUERY=LAWS> then select "PBS".

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4.1 Customer Proposal

1. The Nov. 8th, 2010 scoping document from Warner Consulting Group in **Attachment A** describes the Village of Solvay's proposed upgrade of their 115kV Mathews Ave. substation.
 - The Village is planning to be within the same load parameters discussed in the Nov. 22nd, 2010 Support Services Agreement with the Company.
2. The construction start of the Village's project is expected **end-June 2011** for the 115kV circuit tap change at their Industrial Substation site on Bridge St.
 - The Village plans to de-energize their Mathews Ave. Substation at the end of August 2011 to begin upgrades.
 - The Village plans to re-energize their Mathews Ave. Substation in **early January 2012**.
3. The Village desires scope, cost, and schedule for providing service to meet their needs for their Mathews Ave. substation upgrade.

4.2 National Grid Work Scope

From the Company's perspective, the work will be comprised of two projects. The first project will include the reconfiguration of the tap outside the Industrial substation, as well as de-energizing the existing tap lines to Solvay Village Mathews Ave. The intent of this phase is to enable the load transfer from Mathews Ave to the Industrial substation in order to allow Mathews Ave to be de-energized for its rebuild. The second project involves the construction of two new tap lines to Mathews Ave, including any structural installations required, and removal of existing tap lines. The intent of this phase is to allow Mathews Ave substation to support the increased loading associated with the growth in the area. Refer to **Attachment B**.

This service plan excludes any relocation for the 115kV span of line #12 which is intended to make space available for the Empire Tissue facility.

National Grid will review the Village's engineering design documents in accordance with the terms of an executed Cost Reimbursement Agreement.

4.3 Customer Responsibilities

The Village is responsible for:

1. Providing the design and operating documentation for their 115kV substation's installation upgrades in accordance with the Company's ESB's 750, 752, and 755.

4.4 Company Costs

1. The Company shall provide the Village any estimated cost contributions, as well as any required reconciliation, in accordance with the terms and conditions established in the Cost Reimbursement Agreements and Interconnection Agreement.

4.5 Company Scheduling

1. The Company is aware of the Village's project schedule referenced in Section 5.1; however, the dates may be impacted by the Company's obligations to serve others, execution of the Cost Reimbursement Agreement and Interconnection

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Agreement, payment of all applicable charges, update (if necessary) of the NY ISO service arrangement, and any other regulatory filing requirements.

4.6 Company's Conditions and Limitations

1. Refer to Section 5.4 for costs to be recovered that are associated with the supply additions and service.
2. The Company will strive to meet the Village's desired in-service dates depending upon execution of the Cost Reimbursement Agreement and Interconnection Agreement, final design and installation acceptance by the Company. However, equipment delivery, weather and soil conditions, right-of-way, environmental permits, and construction obstacles may affect this schedule.
3. The service recommendations in this plan are contingent upon the Company's review of the Village's 115kV construction design submittal. Once the review is completed, a detailed service configuration and a revised service plan, if necessary, with detailed estimates can be provided.
4. If the Village takes exception to this plan, they shall submit it in writing to the Company.

5.0 COMPANY 115kV SERVICE CONFIGURATION and SYSTEM IMPACTS

5.1 115kV Supply

The Company has reviewed the request from the Village of Solvay to upgrade their substation at Mathews Avenue, as well as all associated work required in conjunction with that upgrade, and has concluded the following:

1. The existing configuration of the Solvay area 115kV electric power system (EPS) is adequate to meet the current loading at Mathews Ave. substation, as well as any loadings at the Village's Industrial substation on Bridge St. However, based on the details of the work planned by the Village to upgrade these two stations, the Company determines additional work is required to satisfactorily and reliably serve the loading at these two Municipal-owned substations.
2. The Village's Industrial substation which is being upgraded as a temporary site to supply load during the construction at their Mathews Ave. substation cannot support the entirety of the increased load from its existing configuration. During thermal and voltage analysis performed by the Company on the 115kV EPS, it was found that the #8 line cannot sufficiently supply the entirety of the existing load without needing upgrades. Prior to moving load to this station, the tap that currently exists to line #8 should be moved to the other line in the double circuit, line #2. This line has adequate capability to serve any needs at the station. This should be a permanent change to the line configuration for the Industrial substation, in order to facilitate additional load growth (if needed), as well as to allow it to serve as a backup to Mathews Ave. substation should that be required at a future date.
3. Similarly to the situation with the Industrial substation, the Company sees cause for concern should the Mathews Ave. substation continue to be served from the existing taps once the increased load is added to the substation. To prepare for expected growth in the full time loading on the Mathews Ave. substation (once

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placed back into service following the upgrades), the taps currently in place will be reconfigured..The tap which currently extends from the #8 line will be reconnected to the Mathews Avenue substation. The second tap should extend from the Eastern end of the station to the #12 line. This will not be a new tap position, but will replace the existing tap from the #2 line. In addition to better serving the load at the station, these taps will reduce the number of line crossings in the area, increasing reliability. Refer to **Attachment B**.

4. The combination of these changes will alleviate any voltage and thermal concerns for the Mathews Ave. substation.

5.2 115kV Outage Coordination Risk Assessment

1. At this time, National Grid has not performed an outage coordination risk assessment or scheduling analysis. This type of study is generally performed during the final engineering assessment.

5.3 115kV Operations

1. The Company's 115kV overhead transmission delivery voltage typically operates between +/-5% of normal operating 115kV nominal conditions. Under emergency operation, voltage on this system could reach 110% or 90% of nominal prior to corrective action being taken.
2. The Company has reviewed the Village's proposed scope of work in **Attachment A** and has concluded that the requested protection scheme for the Industrial substation (automatic throw over with live transfer capability) is not acceptable on this 115kV EPS. However, live transfer on the low voltage side (i.e. secondary bus of the main transformers) is acceptable provided that the closed transition switching is supervised by a 15 second timer that will trip the Village's bus tie.
3. Attention is called to Sections 10.0 and 12.0 of ESB 750-2010 regarding disturbances and capacitor installation. Also, reactive power loading by the Village on the Company's system may be subject to added costs.

6.0 115kV CUSTOMER-OWNED SUBSTATION

6.1 Interrupting Rating

1. The Village's service equipment shall be suitable for the maximum fault current available at its supply. Without any of the Village's equipment contribution, the following are National Grid's 115kV system characteristic maximum values³ on a 100MVA base at the Village's 115kV bus locations from the proposed new sources.

Source: 115kV #12 circuit at Mathews Ave. Substation

Available Fault Current:

I(3-Phase) = 20,660 Amp, X/R Ratio = 5.81

I(L-G) = 18,947 Amp, X/R Ratio = 6.55

³ Refer to Section 1.10 of the Company's ESB750-0410 regarding the use of the information provided by the Company. Also, refer to Section 1.7 of the Company's ESB750-0410 and ESB 755 regarding their responsibility for their electric service operating and maintenance requirements. NFPA 70E provides information where to find work safety practices for premises wiring.

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System Impedance:

Z1 = 0.55434 + j3.22098 Ohm
Z0 = 0.50343 + j4.12653 Ohm

Source: 115kV #8 circuit at Mathews Ave. Substation

Available Fault Current:

I(3-Phase) = 20,797 Amp, X/R Ratio = 5.13
I(L-G) = 17,995 Amp, X/R Ratio = 5.41

System Impedance:

Z1 = 0.62069 + j3.18704 Ohm
Z0 = 0.80552 + j4.69478 Ohm

Source: 115kV #2 circuit at Industrial Substation

Available Fault Current:

I(3-Phase) = 20,262 Amp, X/R Ratio = 5.15
I(L-G) = 17,355 Amp, X/R Ratio = 5.38

System Impedance:

Z1 = 0.63485 + j3.27162 Ohm
Z0 = 0.86338 + j4.93151 Ohm

Source: 115kV #14 circuit at Industrial Substation

Available Fault Current:

I(3-Phase) = 19,479 Amp, X/R Ratio = 5.60
I(L-G) = 17,002 Amp, X/R Ratio = 6.16

System Impedance:

Z1 = 0.60914 + j3.41145 Ohm
Z0 = 0.68841 + j4.93360 Ohm

As changes occur to the Company's system these values will be affected. Future system modifications or load growth may require the service equipment to have a larger interrupting rating. Any costs associated with changes to Municipal-owned equipment shall be borne by the Village.

6.2 Facility Provisions

1. The Village shall submit their construction design submittal to the Company for acceptance review according to the Company's ESB 752, sealed by their design professional licensed in NY State (see Section 1.7 in ESB 750).
2. The Company's 115kV supply to the Village's substations is an effectively grounded wye source, 121kV maximum, 550kV BIL rating. Refer to the Company's ESB's 752 and 755 for required submittals and installation requirements of the Village's 115kV substations' modifications.
3. **The Company does not provide any guarantees or warranties, expressed or implied, with respect to work, equipment, and materials, otherwise referenced in this service plan.**

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7.0 INSPECTIONS and COMPLIANCE VERIFICATION

7.1 Inspections

The Village shall adhere to the requirements of ESB 752, Section I.G for approvals and inspections prior to energization following any prior approved modification of the 115kV service installation.

1. Prior to energization, the Customer's outdoor substation physical protection shall be in place in accordance with applicable codes and local requirements, i.e., fence, gates, signs, locks, grounding system.
2. Since the Village is classified as an "Electric Corporation", as defined in the NYS Public Service Law (PSL), then, under the purview of the PSC, a third party electrical inspection approval for this project is not required.

7.2 Compliance and Verification

The Village shall adhere to all other Company related verification and compliance requirements as set forth in ESB's 750, 752, and 755. Such requirements include, but are not limited to:

7.2.1 Notifications to the Company

1. **Six (6) weeks** prior to the Company's field audit, the Village shall provide written documentation of their satisfactory construction completion status. This documentation from the Village or their NYS licensed professional engineer shall include:
 - i. All final corrected construction drawings.
 - ii. Their qualified contractor's functional testing schedule for the protective relay systems related to the interconnection with the Company's electric system. This notice shall include the final Testing and Commissioning Plan ("TCP"), pursuant to Section 9.0 below.
2. **Two (2) weeks** prior to the Company's field audit, the Village or their NYS licensed professional engineer shall provide written assurance of their field verification for the protective devices designated for utility interconnection before witness testing that includes at least the following:
 - i. Confirmation of the Company's accepted relay settings as set on the designated devices,
 - ii. Satisfactory relay calibration and functional tests of the designated relays, and
 - iii. Village supplied documentation:
 - a. Letter stating that all Company-designated protective device control wiring, including the wiring from the instrument transformers, has been verified against the accepted design drawings. Refer to the Company's ESB 755 for a sample letter.
 - b. Letter stating the satisfactory acceptance calibration and test performed on protective relays affecting the designated protective devices. A copy of the relay calibration test reports will be needed accompanying this letter for the designated devices.

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7.2.2 Company's Field Audit

For this Project, documented satisfactory completion of the Village's station according to the Company-accepted design and electric system bulletins applied as stated above is required for the Company's field audit acceptance.

7.2.3 Company's Witness of Interconnection Customer's Functional Tests

1. For this Project, the following are required for the Company's witness of the Village's station functional tests:
 - i. The Company's witness of the Village's functional testing shall be satisfied. This activity shall be coordinated with the 2 weeks advance notice requirement in Section 8.2.1 above directly with the Company's Protection & Telecommunications Operations Supervisor.
 - ii. The Village shall acknowledge satisfactory compliance with the requirements in Section 8.2.1 above of their protective system.
2. All other major equipment installation acceptance testing shall be affirmed with the Company in writing within **10 business days** after completion of the verification activities, refer to the Company's ESB 755 for a sample letter.

8.0 TESTING and COMMISSIONING

1. The Village's Testing and Commissioning Plan ("TCP") shall be submitted to the Company for review and acceptance. The TCP must be finalized, including Company acceptance, no later than **six (6) weeks** prior to functional testing and shall include, but not be limited to:
 - Referencing the accepted relay settings sheet, design functional one-line, three-line, and ac and dc elementary diagrams.
 - Identifying what systems and components will be witness tested.
 - Analog inputs are required to be injected in the microprocessor relays to actuate the output, and to see the correct device operate.
 - Jumpering of output contacts will not be accepted as it only verifies the circuit from the back of the relay and is not a true test with current or voltage injected into the relay to check operation at desired set points and output contacts picking up to operate and prove the protective scheme.
 - Phase relation angles between sources and relay inputs need to be verified.
3. Review by the Company's Protection & Telecommunications Operations department prior to implementation is required. If the Company's acceptance is conditional thereby requiring modifications to the TCP, the Village shall submit the final TCP, with the required modifications completed, at the same time that it provides the 6-week functional testing notification under Section 8.0 above.
4. The Village shall provide all testing documentation in accordance with the electric system bulletins referenced above.
 - i. Testing documentation required during witness testing will need to show correct functional operation consisting typically of a set of control schematics that are highlighted as each control function is successfully tested.
 - ii. The Village's qualified person shall submit to the Company a written summary of the satisfactory test results within **five (5) business days** after energization. This

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summary shall include the event reports from the microprocessor relays of the Company's designated protective devices showing the results of the witnessed functional tests.

- iii. Refer to Exhibit 2 in ESB 755 for a sample letter to affirm the results.
- 5. Once the Company's designated protective devices have been witnessed for satisfactory operation, the Company has the right to seal or password protect the relay devices.

9.0 ENERGIZATION

9.1 Authorizations

- 1. The Company's Transmission Outage Authorization ("TOA") will be administered by the Company's Project Manager or Energization Coordinator to ensure all requirements are completed under the terms of this service plan. Typically a **Thirty-day (30)** advance notice is required when 115kV system interruptions are to be scheduled to ensure processing TOA requirements.
- 2. The Company's field audit including any witness testing of the Village's installation must be satisfied before energization.

9.2 Energization Plan

9.2.1 Energization Coordinator

- 1. Prior to the start of construction, the Village shall designate an Energization Coordinator ("EC"), and prepare and submit an Energization Plan ("EP") to the Company for review and comment.
- 2. The EP schedule shall be communicated with the Company's Transmission Control Center according to the TOA.

9.2.2 Energization Plan Development and Execution

- 1. The EP shall be developed in conjunction with the TCP, and shall comply with the Company's ESB 755 and NESC Section 44. The EP shall be submitted to the Company as part of the 6-week advanced notice of functional testing (see Section 1.0 above), and shall, pursuant to NESC Section 44, include but not be limited to, such items as:
 - Steps for the removal of grounds and releasing of corresponding clearances;
 - Switching control procedures;
 - Required phasing and synchronization tests; and
 - Load and operational tests required to place the apparatus or systems on line without risk to the electrical infrastructure.
- 2. The EP shall be executed upon meeting the following minimum pre-energization requirements for the Village's 115kV substation:
 - The Company requires advance written assurance of the Village's satisfactory completion of Sections 8.0 and 9.0 above.
 - Preoperational checks are required of the station DC battery and AC station service to be used for the control power during pre-energization testing.

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10.0 CUSTOMER's AS-BUILTS

The Village shall provide the Company "As Built" drawings, information and documents in accordance with the provisions of the service plan and the Company's ESB 752 within **ninety (90) days** after energization. Refer to Section 3.0 of this specification for submittal requirements.

11.0 REVISION HISTORY

<u>Version</u>	<u>Date</u>	<u>Description of Revision</u>
1.0	05/11/2012	Final version of document for Village of Solvay 115kV Mathews Ave. Substation Upgrade Project.

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ATTACHMENT A: Interconnection Customer's Proposal

November 8, 2010 - Revision #1
 Village of Solvay, NY
 Electric Department

Proposed Upgrade to Mathews Avenue 115-13.8-4.36 kV Substation

1. Overview
 (See dwg 001L-E1.5)

The existing 115 kV facilities are 60 years old and in deteriorated condition. The Village has reviewed its options and has decided to demolish the 115 kV lattice structure and 115 kV oil circuit breakers and replace those facilities with new tubular structural steel, 115 kV disconnect switches, 115 kV SF6 power circuit breakers, protective relaying, etc.

The Village proposes to de-energize Mathews Avenue substation, excepting 13.8-4.36 kV transformer TB1 and the 5 kV outdoor structure, and switch all substation load to 115-13.8 kV Industrial substation. The Village is in the process of upgrading Village feeders and installing necessary sectionalizing loadbreak switches to permit the transfer of distribution load to Industrial substation. This work will be completed in early 2011. Transfer of Mathews Avenue substation load to Industrial substation will result in loading to approximately the 80 MVA firm capability of the substation.

2. New Mathews Avenue Substation Facilities
 (see dwgs , 001Q-E21.2 to E30.0 and 001Q-E32 to 001Q-E38.1)

The new substation structures will be installed on the same footprint as the existing lattice structure. Existing structure foundations will be examined by a structural engineer to determine viability for future use. Existing 115 kV circuit breaker foundations will be reused and the power transformers, except 115-13.8 kV transformer TB5, will remain on existing foundations. Transformer TB5 will be relocated to a new foundation on the south side of the 115 kV structure. The 115 kV line entrance on the south-center of the lattice structure will be relocated to the east side of the structure. The 115 kV line entrance on the west side of the structure will remain at that location. Substation de-energization and upgrade construction work is proposed to be completed in the 2011 time frame, per the attached revised proposed schedule.

The proposed configuration for the new 115 kV substation facilities are presented on the above noted drawings. The electrical drawings are presented on sheets 001Q-E21.2 to E30.0. One line diagram E21.2, shows the proposed electrical configuration. The Village would like the capability to operate the substation off two 115 kV lines with live transfer and automatic throw over capabilities to eliminate the existing preferred/alternate supply arrangement.

The proposed 115 kV substation physical configuration, as seen on drawings 001Q-E32 to

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ATTACHMENT A (cont'd)

001Q-E37, will consist of 3 bus sections with 2 bus tie circuit breakers and 2 line breakers. Because of physical limitations, property is not available to construct a low profile substation. Rather, the existing structure footprint can be reused and the necessary 115 kV line entrances and exits for connections to the power transformer circuit breakers can be realized by employing a 2 layer strain bus configuration. The top layer strain buses are the main buses and the lower layer strain buses are tie buses for connections to the transformer circuit breakers. The line entrance phase spacing is 10 feet and interior strain bus spacing is 8 feet. All 115 kV disconnect switches are proposed to be group-operated, double end break type similar to the Southern States RDA-1 to maximize phase-phase clearances in the substation. Revenue metering current and voltage transformers ,as seen on drawings 001N-E35.0 and 001N-E37.0, are mounted on the incoming line structures.

3. Changes at Industrial Substation 115 kV Facilities

(See dwgs 001A-E10.4, 001A-E11.7 and 001A-E10.4ALT)

Industrial substation is currently configured for primary/alternate operation with 115 kV line #14 serving as the preferred source. The isolating devices on incoming lines #14 and #8 are motor-operated disconnect switches. The disconnect switches are electrically interlocked with break before make logic. This logic requires dropping the station before switching sources. The Village wants to modify the operation of the station from primary/alternate to dual line operation with the capability to operate the substation off two 115 kV lines with live transfer and automatic throw over capabilities similar to that being requested for Mathews Avenue substation. There are currently no transmission line relays at the substation, although that equipment could be added rather easily.

Drawing 001A-E10.4ALT shows the one line configuration with the addition of 115 kV line circuit breakers. Addition of these line breakers would produce a one line diagram similar to that proposed for Mathews Avenue substation, and would provide the improved capability to perform line switching operations with breakers instead of motor-operated airbreak switches. We have reviewed the station arrangement drawings and the incoming structure arrangement could be modified to accommodate the new line breakers.

4. 115 kV Transmission Issues

(See dwg 001Q-E38.1)

The pressing transmission issue is to firm Industrial substation for the 80 MVA load when Mathews Avenue substation load is switched to Industrial substation in 2011 for the Mathews Avenue rebuild. Capacity on the #14 line is adequate to serve the entire load as the Suez generator provides approximately 100 MW to line #14 where it connects to NGRID adjacent to Solvay's Industrial substation. Much of the Industrial substation load is Solvay Paperboard (now Rocktekn) to which the Suez generating plant serves as steam host. If the Suez generator is down, then the Solvay Paperboard load will also be down. Therefore, the 80 MVA firm capacity requirement is somewhat tempered by that relationship. Currently the

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capacity of the #8 alternate line is well below the 80 MVA level. 115 kV Line #12, which connects to Onondaga generating plant, crosses Bridge Street within a few hundred feet of the #8 line entrance to Industrial substation. This is a relatively new line with larger conductor that could provide the required firm capacity to Industrial substation for very little cost. Also, it is possible the necessary line capacity is available on the existing #8 line (#4/0 AWG conductor), but limited by the three terminal line connection to the G.E station just outside Geres Lock substation. Perhaps upgrade of one or two line sections could resolve the capacity issue on the #8 line.

The second issue is dealing with upgrade of the firm capacity to Mathews Avenue substation. The Village is anticipating construction of a new tissue manufacturing factory adjacent to Mathews Avenue substation. The factory, with load estimated at 22-24 MVA, is expected to go commercial in late 2012 or early 2013. Both 115 kV lines #11 and #12 pass by Mathews Avenue substation rather closely on the north side of the station. These lines, both of recent construction and with larger conductor than the #2 and #8 lines currently serving the substation, could provide the required firm capacity to Mathews Avenue substation for very little cost. Also note that reconfiguration of the line entrance from the existing #2 line from the south-central side of the substation will likely make connection to line #2 from the east difficult. If line #2 is retained as a supply to the substation, it would probably be preferable to route it to the west side line entrance location.

5. Project Schedule
(see attached bar chart schedule)

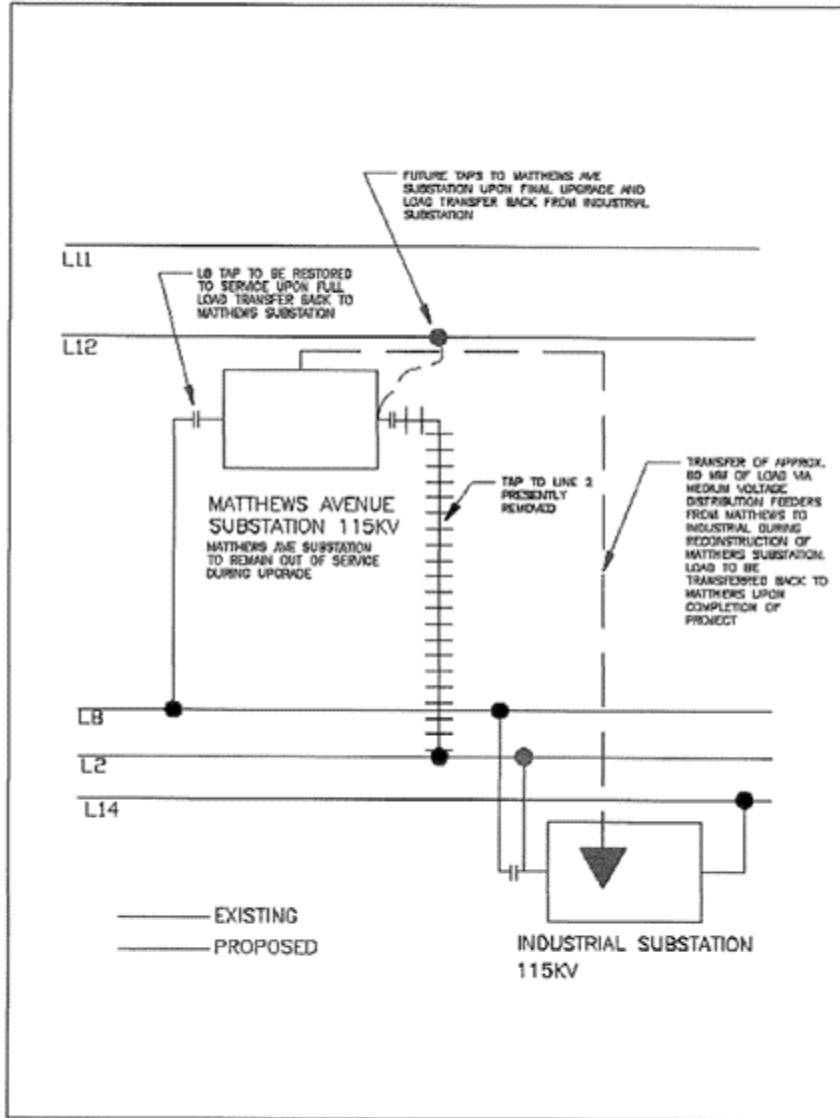
The attached project schedule shows our preliminary plans for implementation of the 115 kV line work and rebuild of the Mathews Avenue substation. Studies, engineering and equipment procurement activities are proposed to be completed in year 2010. Construction is proposed for year 2011. As indicated above, the Village will be completing the necessary distribution upgrade work to switch Mathews Avenue load to Industrial substation by early 2011.

November 2, 2010
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ATTACHMENT B: Company's Proposed 115kV Modifications & Additions Sketch



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File: SP.COSILON.2 ENG.CFS.108.1.S.6 App File: Solvay Village Matthews Ave_115kV Service Plan_05 11 2012 FINAL.doc	Originating Department: EDO Distribution Planning; Field Engineering - NY	Sponsor: Energy Solutions Services - NY

Interconnection Study for Lakeland Substation:

New York Independent System Operator, Inc.
Service (Interconnection) Agreement No. 325
Under FERC Electric Tariff
Original Volume No. 1

Original Sheet No. 48

Exhibit B
[Interconnection Study]
Village of Solway Municipal Electric Department Lakeland Distribution Station
July 24, 2003

Purpose

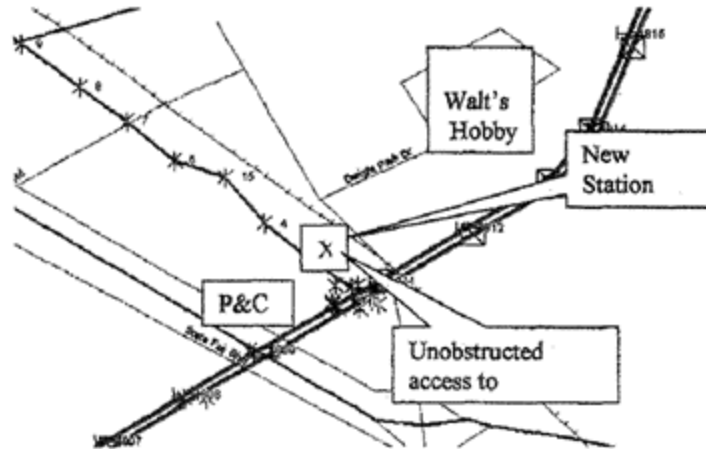
This report is prepared in response to a specific request from the Village of Solway Municipal Electric Department (the Village) to interconnect a new distribution station to NMPC/National Grid 115 kV circuits in the vicinity of Lakeland N.Y. This report will serve to confirm the scope of Village's proposed project and specify aspects of the interconnection.

Background

The Village intends to build a new distribution substation in Lakeland N.Y. immediately adjacent to NMPC/National Grid 115 kV Transmission circuits. **Figure One** indicates this location.

This new station will consist of a single step-down transformer with a top rating of 20 MVA. The Village has provided a conceptual single line diagram and plot plan as shown in the attached **Exhibits One** and **Two**, respectively.

Figure One



Issued by:
Herbert Schrayshuen
V.P. Transmission Commercial Services National Grid USA
For: Niagara Mohawk Power Corporation
Issued on: September 5, 2003

Effective: August 13, 2003

New York Independent System Operator, Inc.
Service (Interconnection) Agreement No. 325
Under FERC Electric Tariff
Original Volume No. 1

Original Sheet No. 49

Exhibit B
[Interconnection Study Cont.]
Village of Solvay Municipal Electric Department Lakeland Distribution Station
July 24, 2003

Interconnection

Access can be provided to two NMPC 115 kV circuits at this location. The station will be permitted to tap both the Elbridge-Woodard #4 and the Gerelock- G.E. #8 circuits.

The station will normally operate from the circuit immediately adjacent to the station, which is the Elbridge-Woodard #4 circuit. The second tap from the Gerelock- G.E. #8 line will be used for emergency purposes only when prevailing system conditions allow such operation.

This interconnection is limited to a maximum of 20 MVA. The Village is required to maintain a minimum Power Factor of 95% on peak at the points of interconnection. Operation within these limits will help ensure normal operational supply voltages will remain within the standard range of +/- 5 % of nominal 115kV.

Emergency Use of the #8 Line

At the present time, NMPC can use the Gerelock- G.E. #8 line to supply the Village's Mathews Ave or Industrial (Bridge St.) substations in emergency or maintenance conditions. The new Lakeland station will be the third Village station that will use the line for such purposes.

Since NMPC does not receive telemetry for operational loading and equipment status at any of the Village Stations, it must be assumed that the stations are near maximum levels when switching requests are received. The overall size of the station loads may require that NMPC limit the use of the #8 line by the Village to one station at a time. That is, simultaneous use of the #8 line by more than one Village Station will in all likelihood not be permitted.

Interconnection Construction

Project information supplied to date indicates the new station will be located immediately adjacent to the 115 kV circuits with unobstructed access to the station.

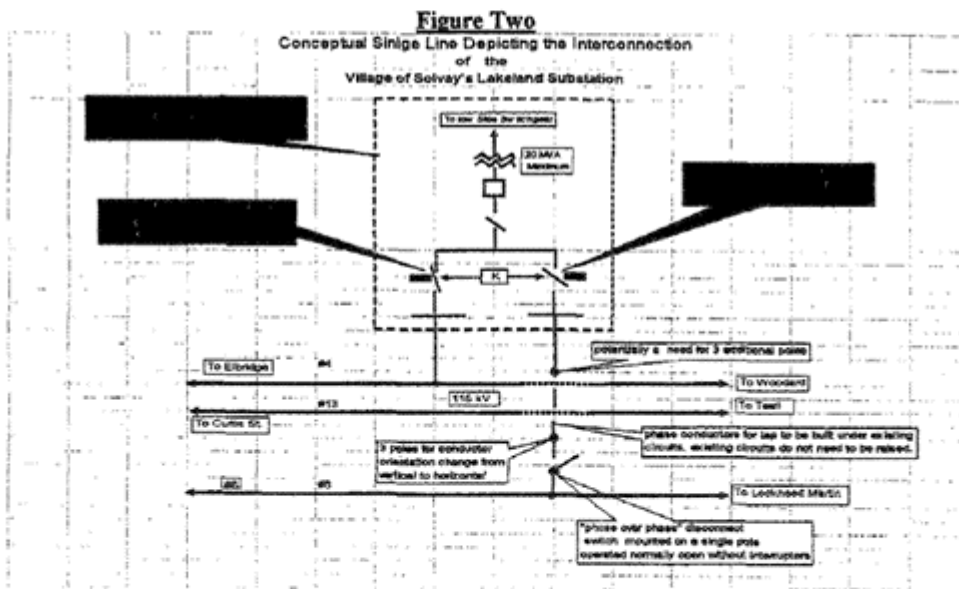
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Exhibit B
 [Interconnection Study Cont.]
 Village of Solvay Municipal Electric Department Lakeland Distribution Station
 July 24, 2003

Figure Two below conceptually depicts the interconnection in a single line format. The tap from the #8 line will be physically constructed under the existing #4 and #13 circuits.

The #4 and #13 circuits will not need to be raised. An additional pole mounted disconnect switch located on the Right-of-Way is included in this design. This switch will be used to keep the conductors comprising the tap that cross beneath the #4 and #13 circuits de-energized when the emergency supply from the #8 line is not in use. This will help prevent the loss of the #8 line in the event conductors fall from the #4 or #13 circuits.



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Exhibit B
[Interconnection Study Cont.]
Village of Solvay Municipal Electric Department Lakeland Distribution Station
July 24, 2003

Construction Schedule and Costs

The following general schedule and cost will apply:

- Summer 2003Sign Interconnection Agreement
- Winter 2003/2004Complete design of taps
- Spring 2004Construction of taps

The conceptual cost estimate for this interconnection is \$228,000.

Installation Requirements

Solvay shall submit all design drawings approved and stamped by their design professional licensed in the State of New York. Six (6) copies of all design documents according to NMPC ESB 752 shall be submitted to NMPC for design review and acceptance. Refer to the following web link for NMPC ESB's 750, 752 and 755 as applicable to Solvay's station installation, operation and maintenance requirements:

<http://www.niagaramohawk.com/electricalspecifications>.

Solvay will be required to install NYPA approved metering at the 115kV delivery voltage.

Operational Considerations

The lack of telemetry indicating both the 115 kV switch status and overall station load is a concern. It is therefore required that NMPC will have control authority over the 115 kV disconnect switches inside this new station. The Village is required to arrive at a mutually agreed upon operating procedure and conform to NMPC's ESB 755.

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New York Independent System Operator, Inc.
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Exhibit B
[Interconnection Study Cont.]
Village of Solvay Municipal Electric Department Lakeland Distribution Station
July 24, 2003

Parallel switching between the #4 and #8 circuits will not be permitted. The station transformer must first be de-energized before 115 kV switches will be operated to make either the #4 line (normal supply) or #8 line (emergency use) available for service.

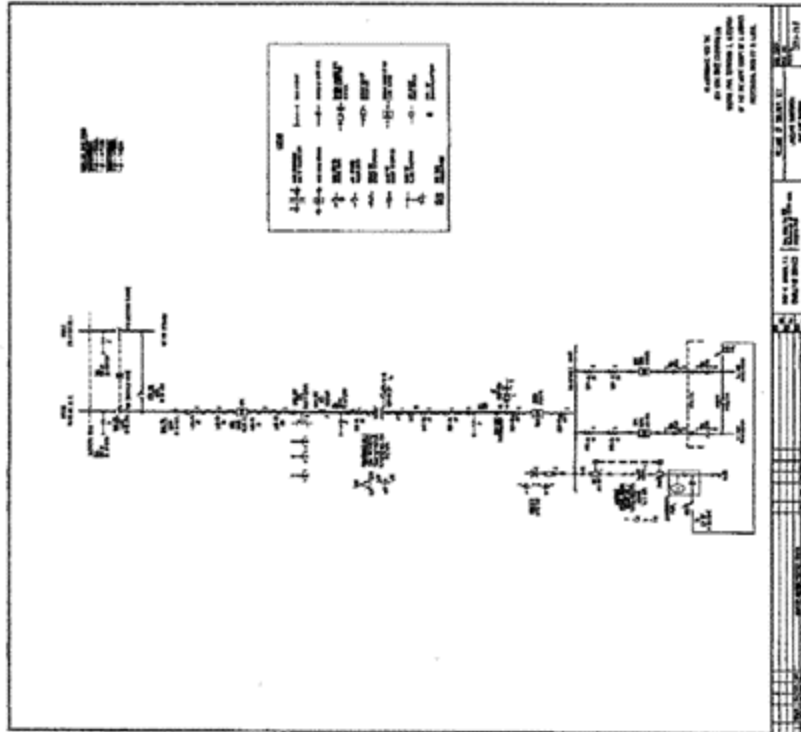
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Issued on: September 5, 2003

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New York Independent System Operator, Inc.
Service (Interconnection) Agreement No. 325
Under FERC Electric Tariff
Original Volume No. 1

Original Sheet No. 53

Exhibit B
[Interconnection Study Cont.]
Village of Solvay Municipal Electric Department Lakeland Distribution Station
July 24, 2003
Exhibit One



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Herbert Schrayshuen
V.P. Transmission Commercial Services National Grid USA
For: Niagara Mohawk Power Corporation
Issued on: September 5, 2003

Effective: August 13, 2003

Interconnection Study for Industrial Substation:

Interconnection Study
For
The Village of Solvay's
New Substation

October 9, 1998

Niagara Mohawk Power Corporation
Transmission Planning

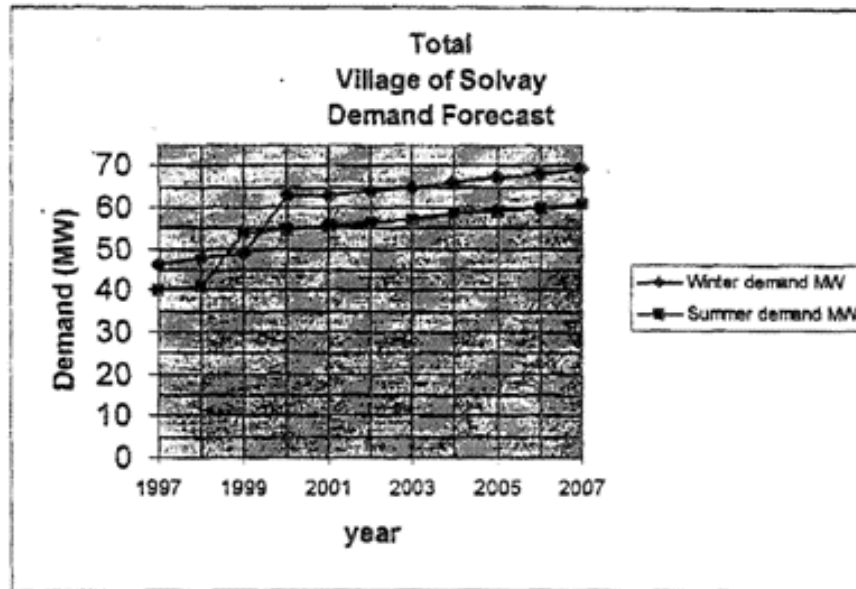
**Interconnection Study
For
The Village of Solvay's**

New Substation

I) Background

The Village of Solvay plans to build a new 115/13.8 kV substation located on Bridge Street in the Village in close proximity to Niagara Mohawk Power Corporation's (NMPC's) Solvay Station. This new station will ultimately have a delivery capability of 80 MVA and will be constructed in two phases. The first phase will consist of two 40 MVA transformers resulting in an initial station rating of 40 MVA. The final phase will add a third bank for a total of 120 MVA of transformation and 115 kV breakers completing the associated bus. Appendix A contains a single line of the proposed station

A ten year demand forecast was provided for the Village in total as well as for both the new station and their existing Mathew's Ave station. This information (appendix B) is



displayed in Figures one and two and shows that the new station will initially be loaded to approximately 22 MW, 12 MW of new load and 10 MW transferred from their Mathew's Ave station.

Figure One

Interconnection Study
For
The Village of Solvay's
New Substation

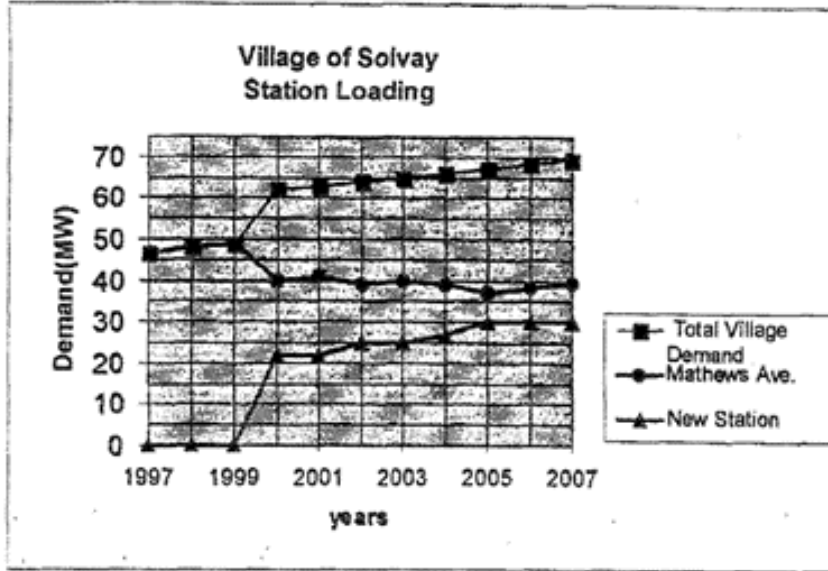


Figure Two

Recent discussions with the Village have indicated the possibility that the new station's initial loading may be somewhat higher than indicated in this forecast.

II) Existing System

The existing portion of the 115 kV transmission system between Geres Lock and Solvay delivers a peak demand of approximately 109 MVA in the summer and 118 MVA in the winter. A single line of the area is shown in Figure three.

Presently the Village's Mathews Ave station, Crucible Steel and NMPC's Solvay station are supplied via two circuits (the #2 and #14 lines). For reliability purposes each of circuits has the thermal capability of delivering the area's peak demand. On an emergency basis (after manual switching) the Mathews Ave station can be supplied from the #8 line. This circuit is today an extension of the #8 Geres Lock to G.E. line created by an approximately 0.5 mile tap.

**Interconnection Study
For
The Village of Solvay's**

New Substation

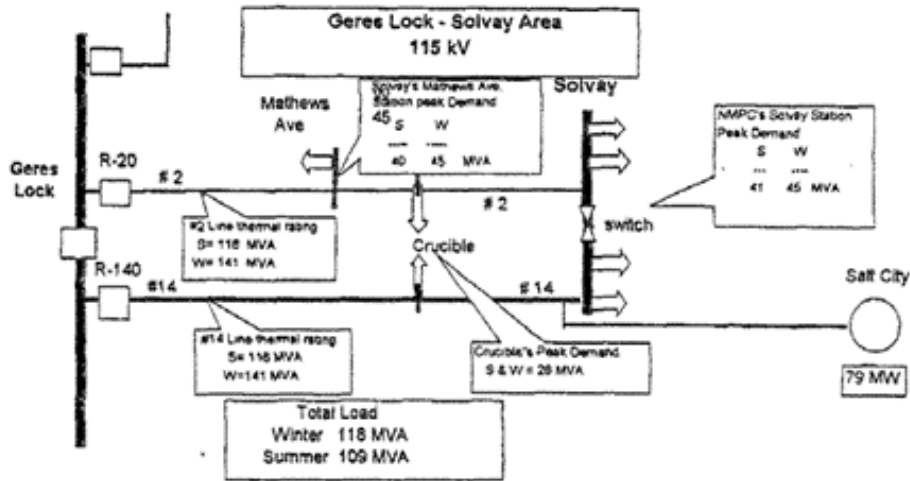


Figure Three

The #14 line today is considered to have approximately 40 MVA of "margin" during summer peak conditions for the loss of the #2 line.

III) Interconnection Plan

The interconnection plan recommended in this study differs from those recommended in previous studies. Changes to the delivery capability of the proposed station, its bus configuration, the availability of transmission facilities and problems associated with right-of-way acquisition have all contributed to the changes in the recommended plan.

The presently proposed station will have a rating in excess of 80 MVA when completed and represents a capability far larger than considered in previous studies. A station with this capability is typically provided with redundant ties to the system and designed with a bus configuration to provide continuous service for the loss of any transformer or 115 kV tie line.

In addition, previous investigations have assumed that 115 kV lines interconnecting Independent Generators (NUGS) were available for use. This investigation has revealed that these lines are considered part dedicated NUG interconnection facilities and thus for all practical purposes their use is not an option.

**Interconnection Study
For
The Village of Solvay's
New Substation**

It has, in addition, come to NMPC's attention that land acquisition necessary for access to the NUG interconnection facility is also a problem that may severely impact plans..

The Interconnection Plan recommended in this study will provide two 115 kV circuits to the new substation from either end of the Geres Lock bus and will progress in phases following capability additions to the new substation.

Phase I of this plan provides a normal and emergency supply and is shown in Figure Four. The normal supply will be provided via a tap from the #14 line. An emergency supply is provided by an extension of the #8 line. Both supplies are provided with disconnect switches as shown. The emergency supply (#8 ckt) can be used by either the Mathew's Ave station or the new station. The simultaneous emergency use by both stations may not be allowed due to a voltage concern with R-80 open at Geres Lock. This phase of the plan is rated for 40 MVA (summer) and 50 MVA (winter). The total cost of Phase I is estimated to be \$481,000.

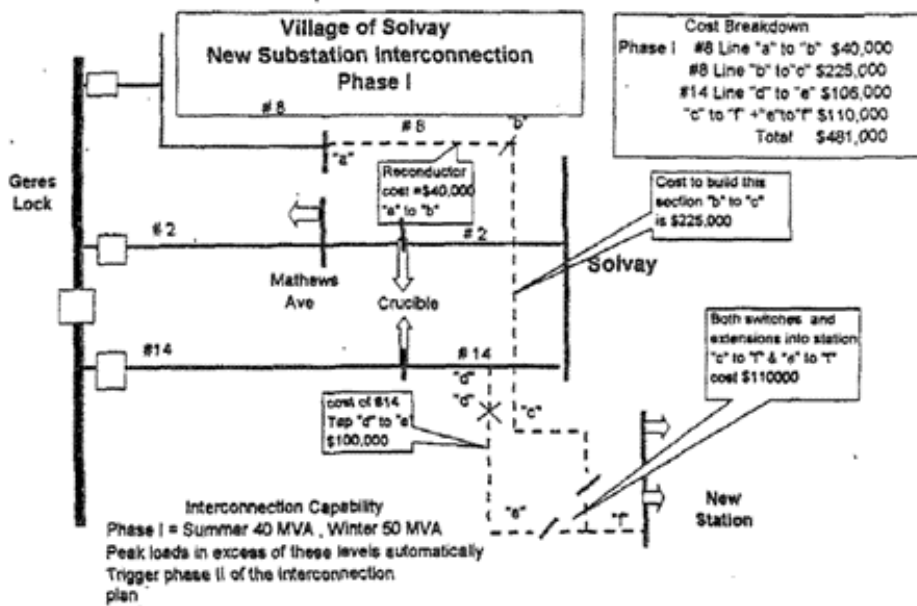


Figure Four

**Interconnection Study
For
The Village of Solvay's
New Substation**

Phase II of this interconnection plan is shown in figure Five. This phase consists of extending the "western end" of #8 line into Geres Lock substation and providing an associated new breaker position. A second 115 kV circuit will be provided from the South end of the Geres Lock bus again via a new breaker position.

The new #26 line will be realized with either new 115 kV line construction (approximately 1-1.5 miles in length) or with the use of an existing 34.5 kV circuit re-commissioned to 115 kV. Using this line would require the replacement of the 34.5 kV circuit with new construction (again 1- 1.5 miles in length). The most economical of these two options at the time will be implemented. Associated cost of phase II (in 1998 dollars) is estimated to be \$1,800,000.

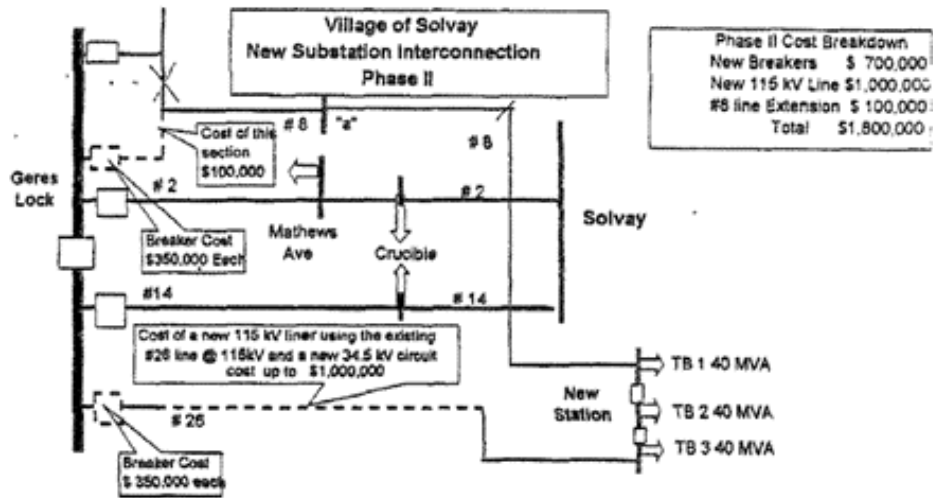


Figure Five

**Interconnection Study
For
The Village of Solvay's
New Substation**

IV) Study Recommendations

a. Interconnection Plan

The recommended plan is shown in **Figure six**. The plan will progress in two phases as explained above with Phase II automatically being triggered by either of the following:

- A) actual peak demand at the new station in any (30 minute) interval exceeding 40 MVA in a summer rating period or 50 MVA in a winter rating period.
- B) forecasted demands above 45 MVA (summer) or 55 MVA (winter).
Project plans will commence 18 months prior to the dates indicated for these levels

b. Schedule

The proposed interconnection plan will meet the station in service date requirement of June 1, 1999 by first providing a tap to the #14 line. The extension of the #8 line will follow shortly thereafter.

c. Operating Requirements

It is required that the ten year demand forecast provided annually by the Village be changed to indicate separately the future demand requirements of each station.

It is required that the minimum power factor at the Delivery Points to the new station be not less than 95 % (lagging).

After the completion of phase II of the project, shunt compensation will be added to the Geres Lock 115 kV bus if power factors of less than 95 % exist. The Village of Solvay will bear the expense for the installation of this compensation which will be sized to maintain the net power factor of the new station to a minimum of 95 % as measured from the Interconnection points at Geres Lock.

Interconnection Study
For
The Village of Solvay's
New Substation

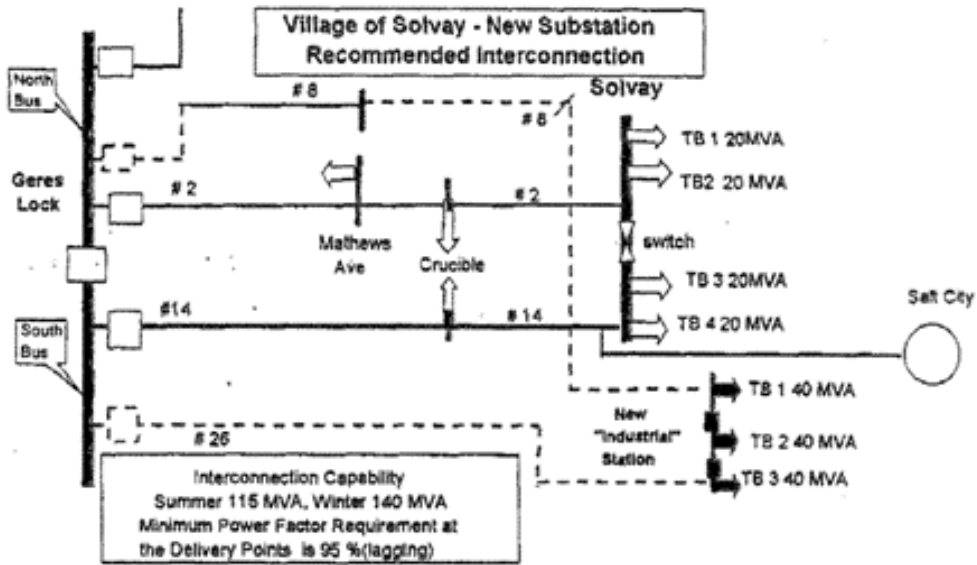
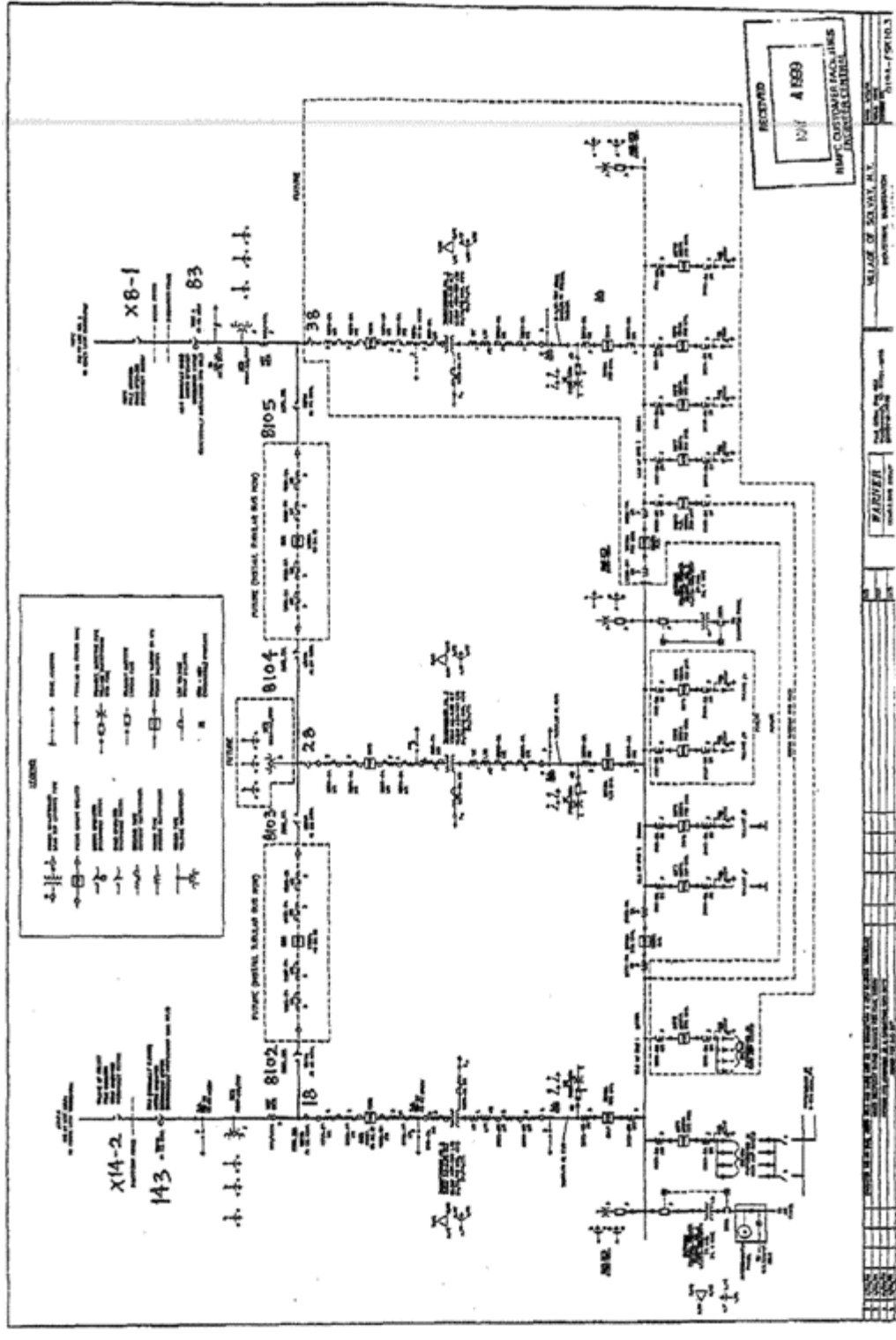


Figure Six

APPENDIX A

Proposed Substation Single Line





APPENDIX B

Village of Solvay

Demand Forecasts



VILLAGE OF SOLVAY
ELECTRIC DEPARTMENT

*Ext
rec'd 7/13/98
A.M.*
507 Charles Ave
Solvay, New York 13209
(315)468-6229

DEMAND FORECAST
Mathews Ave. & Industrial Substation

The Solvay Mathews Avenue Substation is winter peaking with a peak demand of 46,382 KW at 0.94 Lagging power factor in the 1996-1997 winter period. The corresponding summer period was 40,105 KW at 0.90 Lagging power factor.

YEAR	MATHEWS AVE. SUBSTATION	INDUSTRIAL SUBSTATION	TOTALS
Actual 1996-1997	46,382 K.W.		
Forecast 1997-1998	48,000 K.W.		
1998-1999	48,960 K.W.		48,960 K.W.
1999-2000	39,939 K.W. <i>Δ10</i>	22,000 K.W. <i>→</i>	61,939 K.W.
2000-2001	40,938 K.W.	22,000 K.W.	62,938 K.W.
2001-2002	38,957 K.W.	25,000 K.W.	63,957 K.W.
2002-2003	39,996 K.W.	25,000 K.W.	64,996 K.W.
2003-2004	39,056 K.W.	27,000 K.W.	66,056 K.W.
2004-2005	37,137 K.W.	30,000 K.W. <i>⇒</i>	67,137 K.W.
2005-2006	38,240 K.W.	30,000 K.W.	68,240 K.W.
2006-2007	39,364 K.W.	30,000 K.W.	69,364 K.W.



ATTACHMENT E

Village of Solvay, New York
 Electric Department
 Peak Demand Load Forecast - 1997 - 2007

Period	Winter Peak Demand (kW)			Comments
	Growth	Spot Load	Total	
1996-1997	46382		46382	Actual
1997-1998	48000		48000	Actual
1998-1999	48960		48960	
1999-2000	49939	12000	61939	12MW Solvay Paperboard
2000-2001	50938	12000	62938	
2001-2002	51957	12000	63957	
2002-2003	52996	12000	64996	
2003-2004	54056	12000	66056	
2004-2005	55137	12000	67137	
2005-2006	56240	12000	68240	
2006-2007	57364	12000	69364	

Period	Summer Peak Demand (kW)			Comments
	Growth	Spot Load	Total	
1997	40105		40105	Actual
1998	40907		40907	
1999	41725	12000	53725	12MW Solvay Paperboard
2000	42580	12000	54580	
2001	43411	12000	55411	
2002	44279	12000	56279	
2003	45165	12000	57165	
2004	46068	12000	58068	
2005	46989	12000	58989	
2006	47929	12000	59929	
2007	48888	12000	60888	

Note: Forecast assumes 2% annual growth off of 1997-1998 winter and 1997 summer period peak loads. Solvay Paperboard additional load is not included in growth rate calculation.

Exhibit C – Bulletin 752

<http://www.nationalgridus.com/electricalspecifications/>

Exhibit D – Scope of Work for Mathews Avenue Substation

Construct a new Geres Lock-Onondaga #12 tap line and reconnect GE-Geres Lock #8 tap line to Mathews Avenue substation. The tap lines will be built by National Grid and Village of Solvay. National Grid will remove existing #2 tap line previously connected to Mathews Avenue substation.

1.) Reconnect GE-Geres Lock #8 tap line to Mathews Avenue substation

Work by Village of Solvay:

- a. Replace structure #454.5-1 – 3 Pole DEPO – with new laminated wood switch structure.
- b. Install new one way load break switch at new structure 454.5-1
- c. Install new conductor 795 ACSR Drake 26/7 from structure #454.5-1 to Mathews Avenue substation

Work by National Grid:

- a. Reconnect GE-Geres Lock #8 tap line to structure 454.5-1 - new laminated wood switch structure.
- b. Maintain structure 454.5 wood pole tap structure
- c. Remove structure 454.5-1

2.) Construct new Geres Lock-Onondaga #12 Tap line to Mathews Avenue substation

Work by Solvay Village:

- a. Install new structure #8-2 – single wood pole DE structure
- b. Install new structure #8-1 – laminated wood switch structure.
- c. Install new load break switch on structure #8-1
- d. Install new 795 ACSR Drake 26/7 conductor (1500# initial tension NESC Heavy) & 3/8” EHS shield wire (1000# initial tension NESC Heavy) from structure #8-1 to Mathews Avenue substation

Work by National Grid:

- a. Install new tap structure #8 – single wood pole davit arm suspension tap structure
- b. Remove existing structure #8 – single wood pole line post suspension
- c. Install new 795 ACSR Drake 26/7 conductor (1500# initial tension NESC Heavy) & 3/8” EHS shield wire (1000# initial tension NESC Heavy) from structure #8 to structure #8-1

3.) Remove existing #2 tap line to Mathews Avenue substation

Work by National Grid:

- a. Remove conductor between structure #455 and Mathews Avenue substation.
- b. Remove structures #455-1, #455-2, #455-3, #455-4, #455-4a

4.) Engineering review and compliance verification of Village owned substation modifications per ESB 752 requirements

Work by Solvay Village:

- a. Submit all project documentation as required by National Grid, including but not limited to drawings, specifications, relay settings, test plans, etc.
- b. Coordinate all functional and witness testing as required by National Grid.

Work by National Grid:

- a. Review and acceptance of all submittals requested from the Village of Solvay
- b. Coordinate all functional and witness testing as required by National Grid

Exhibit E – Estimated Project Costs for Mathews Avenue Substation

Engineering and PM Labor including indirects = \$128,450

Field Labor including indirects = \$54,112

Materials = \$47,224

Transportation= \$11,203

Capital Overheads = \$13,463

Contingency = \$36,148

Administrative & General = \$62,828

Total Estimated Project Costs = \$353,428

This estimate includes a \$100,000 prepayment collected under a Cost Reimbursement Agreement between the Parties dated November 22, 2011.

Exhibit F – Project Milestone Schedule for Mathews Avenue Substation

Task	Milestone	Date	Responsible Party
1.	Engineering Review and Acceptance of Customer-Owned Facilities	April 2012	National Grid
2.	Construction of Solvay Interconnection Facilities	May 2012	Solvay
3.	Construction of National Grid Interconnection Facilities	June 2012	National Grid
4.	Field Verification of Customer-Owned Facilities	May/June 2012	National Grid
5.	As-Built Facilities Collected/Accepted	July 2012	National Grid/Solvay
6.	As-Built Facilities Completed	September 2012	National Grid/Solvay
7.	Project Closeout	November 2012	National Grid