ATTACHMENT A

Amended and Restated Continuing Site/Interconnection Agreement By and Between Orange and Rockland Utilities, Inc. and AER NY-Gen, LLC Pertaining To Gas Turbine Generating Stations

AMENDED AND RESTATED

CONTINUING SITE/INTERCONNECTION AGREEMENT

BY AND BETWEEN

ORANGE AND ROCKLAND UTILITIES, INC.

AND

AER NY-GEN, LLC

PERTAINING TO GAS TURBINE GENERATING STATIONS

August 12, 2010

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AMENDED AND RESTATED CONTINUING SITE/INTERCONNECTION AGREEMENT

AMENDED AND RESTATED CONTINUING SITE/INTERCONNECTION AGREEMENT ("Agreement"), dated as of August 12, 2010, by and between Orange and Rockland Utilities, Inc. ("Seller"), a New York corporation with a principal place of business located at One Blue Hill Plaza, Pearl River, New York 10965, and AER NY-GEN, LLC (f/k/a Mirant NY-GEN, LLC (f/k/a Southern Energy NY-GEN, LLC)) ("Buyer"), a Delaware limited liability company with a principal place of business located at 613 Plank Road, Forestburgh, NY 12777.

WITNESSETH:

WHEREAS, Seller and Southern Energy NY-GEN, L.L.C. ("<u>Southern Energy</u>") entered into the Gas Turbine and Hydroelectric Generating Stations Sales Agreement dated as of November 24, 1998 ("<u>ASA</u>") for the sale of certain of Seller's generating assets to Southern Energy; and

WHEREAS, Seller has continued to operate its transmission and distribution business in the same locations as it did in 1998; and

WHEREAS, in the ASA, Seller agreed to transfer to Southern Energy certain Purchased Assets (hereinafter defined), including certain designated real and personal properties, contracts, and licenses pertaining to Seller's generating assets and to retain certain Excluded Assets (hereinafter defined) including designated real and personal properties, contracts and licenses all as to be more specifically set forth in the Separation Document (hereinafter defined); and

WHEREAS, Southern Energy needed certain Interconnection Services (hereinafter defined) from Seller for the Purchased Assets; and

WHEREAS, Seller needed access to parts of the Purchased Assets, and Southern Energy needed access to parts of the Excluded Assets; and

WHEREAS, Southern Energy and Seller entered into that certain Continuing Site/Interconnection Agreement, dated as of November 24, 1998, as amended by the First Amendment, dated as of May 10, 1999 (the "<u>Original Agreement</u>"); and

WHEREAS, Southern Energy changed its name to Mirant NY-GEN, LLC ("Mirant NY-GEN") on January 19, 2001; and

WHEREAS, the membership interests in Mirant NY-GEN were sold to Alliance Energy Renewables, LLC on May 7, 2007; and

WHEREAS, Mirant NY-GEN changed its name to AER NY-GEN, LLC on May 11, 2007; and

WHEREAS, Buyer and Seller wish to bifurcate the Original Agreement into two identical agreements that differ only in that Buyer's gas turbine generating stations are covered by one agreement and its hydroelectric generating stations are covered by a second agreement, so as to contractually segregate Buyer's distinct business lines; and

WHEREAS, Buyer and Seller have agreed to execute this mutually acceptable Agreement in order to provide certain Interconnection Services to Buyer for its gas turbine generating stations and to define the continuing responsibilities and obligations of the Parties with respect to the use of the other Party's property, assets and facilities,

NOW THEREFORE, in consideration of the mutual representations, covenants and agreements hereinafter set forth, and intending to be legally bound hereby, the Parties hereto agree as follows:

ARTICLE 1 DEFINITIONS

1.0 <u>Definitions</u>. As used in this Agreement, the following terms shall have the meanings specified or referred to in this <u>Article 1</u>. Any term not defined herein has the meaning set forth in the ASA.

1.1 "<u>Affiliate</u>" means with respect to a corporation, partnership, or other entity, each other corporation, partnership or other entity that directly or indirectly through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

1.2 "<u>Agreement</u>" means this Amended and Restated Continuing Site/Interconnection Agreement, dated as of August 12, 2010, between Buyer and Seller.

1.3 "<u>Ancillary Agreements</u>" means the Operating Easement, the Load Pocket Agreement and the Transition Agreement.

1.4 "<u>Asset Sales Agreement</u>" or "ASA" means the Gas Turbine and Hydroelectric Generating Stations Sales Agreement dated as of November 24, 1998 by and between Seller and Southern Energy.

1.5 "<u>Buyer</u>" means AER NY-GEN, LLC.

1.6 "<u>Closing Date</u>" means the date and time at which the closing of the transactions contemplated by the ASA actually occurs.

1.7 "<u>Excluded Assets</u>" means those transmission, distribution, substation, and communication facilities and related support equipment of Seller located on, or adjacent to, the Purchased Assets which will not be sold to Buyer, but will be retained by Seller under the ASA, and which are described or referred to in the Separation Document.

1.8 "<u>Good Utility Practices</u>" means any of the practices, methods or acts engaged in or approved by a significant portion of the electric utility industry with respect to similar facilities during the relevant time period which in each case, in the exercise of reasonable judgment in light of the facts known or that should have been 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, law, regulation, environmental protection, and expedition. Good Utility Practices are not intended to be limited to the optimum practices, methods or acts to the exclusion of all others, but rather to delineate the acceptable practices, methods or acts generally accepted in such industry.

1.9 "<u>Governmental Authority</u>" means any nation or government, any state or other political subdivision thereof, and any entity exercising executive, legislative, police, judicial, regulatory, taxation or administrative functions of or pertaining to a government.

1.10 "Interest Rate" means the publicly announced prime rate of The Chase Manhattan Bank on the date such amount was required to be paid.

1.11 "<u>Interconnection Facilities</u>" means facilities or portions of facilities that are identified as interconnection facilities and associated equipment in <u>Schedule A</u>, as amended from time to time.

1.12 "Interconnection Service" means the services provided by Seller to interconnect the Purchased Assets with the T&D System, such services being at least equivalent to that which the Seller currently provides to the Purchased Assets. Interconnection Service shall not mean the provision of capacity or energy, transmission service, ancillary services, or any other service which are available or required under any NYPP agreement, the ISO Tariff or Seller's Open Access Transmission Tariff, or any retail

wheeling tariff, including any distribution service tariff or contract, in each case as amended from time to time.

1.13 "<u>ISO</u>" means the New York Independent System Operator, or its successor or its equivalent, which has assumed responsibility and operational control over certain electric transmission facilities located in New York State and the administration of the ISO Tariff, subject to regulation by the FERC.

1.14 "<u>ISO Tariff</u>" means the ISO's Open Access Transmission Tariff as filed with FERC by the NYPP member systems on December 19, 1997 in Docket Nos. ER97-1523-000, ER97-1523-000, and ER97-4234-000, as it may be modified, amended, or superceded from time to time, and related agreements.

1.15 "Joint Tag List" means the personnel approved by Buyer and Seller in accordance with the Parties' Switching, Tagging and Grounding Rules.

1.16 "<u>Maintain</u>" means construct, reconstruct, install, inspect, test, repair, replace, operate, patrol, maintain, use, modernize, expand, upgrade, or other similar activities.

1.17 "<u>NERC</u>" means North American Electric Reliability Council or its successors.

1.18 "<u>NPCC</u>" means Northeast Power Coordinating Council, a regional reliability governing body or its successors.

1.19 "<u>NYPP</u>" means New York Power Pool or its successors.

1.20 "<u>NYPSC</u>" means the New York Public Service Commission.

1.21 "<u>Operating Easement</u>" means with respect to the Purchased Assets the easements to be granted or reserved by the Parties as contemplated by the ASA and the Separation Document.

1.22 "<u>Parties</u>" means Seller and Buyer and Party means either Seller or Buyer.

1.23 "<u>Point of Interconnection</u>" means each ownership point of demarcation, at each of the Purchased Assets, where capacity, energy and ancillary services each are transferred between the Purchased Assets and the T&D System, each point shall have a unique identifier, meter location, meter number, metered voltage and meter compensation terms, as shown in the Separation Document.

1.24 "<u>Primary Equipment</u>" means bulk power equipment such as transformers, circuit breakers, rigid or strain bus and other equipment operating at 2,400 volts or above, as set forth in Schedule A or the Separation Document.

1.25 "<u>Purchased Assets</u>" means the Hillburn Gas Turbine Generating Station and the Shoemaker Gas Turbine Generating Station and related assets transferred by Seller to Buyer through the ASA and as more fully set forth in the ASA.

1.26 "<u>Qualified Personnel</u>" means individuals trained for their positions by Buyer and/or Seller in accordance with Good Utility Practices.

1.27 "<u>Release</u>" means release, spill, leak, discharge, dispose of, pump, pour, emit, empty, inject, leach, dump, or allow to escape into or through the environment.

1.28 "<u>Revenue Meters</u>" means all Kwh, Kvah, Kvah and demand meters, pulse isolation relays, pulse conversion relays, transducers used by the NYPP, ISO, the Seller or the Buyer for billing purposes, and associated totalizing and Remote Access Pulse Recorder (RAPR) equipment required to measure the transfer of capacity, energy or ancillary services between the Parties, the current locations of which are set forth in <u>Schedule F</u> (Part I) hereto, and the anticipated meter locations of which are set forth in <u>Schedule F</u> (Part II) hereto.

1.29 "Secondary Systems" means control or power circuits that operate below 600 volts, AC or DC including but not limited to any hardware, control or protective devices, cables, conductor, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers where signals or energy may be used by Buyer, Seller and/or its affiliates, as set forth in <u>Schedule A</u> or the Separation Document.

1.30 "<u>Seller</u>" means Orange and Rockland Utilities, Inc.

1.31 "<u>Seller's Open Access Transmission Tariff</u>" means the Open Access Transmission Tariff of Seller on file with the FERC, as the same may be modified, amended or superceded from time to time.

1.32 "Separation Document" means the Separation Document to be agreed upon by the Parties under Section 3.5.2 including any documents or exhibits referred to or incorporated by reference in the Separation Document and any documents or exhibits otherwise indicated in any such document which shall set forth, with specificity, the demarcation of the Purchased Assets and Excluded Assets. The Separation Document shall (A) consist of one-line drawings, elementary diagrams, three-line diagrams, relay and control panel front view and wiring diagrams, and other physical drawings showing equipment layout and site plans (in each case, where available), (B) be consistent with Schedule A hereto, and Schedules to the ASA, as amended or supplemented, and (C) be mutually agreed upon as provided in Section 3.5.2 hereof. The Separation Document will also identify the Operating Easement which will be granted or reserved by the Parties.

1.33 "<u>Switching, Tagging, and Grounding Rules</u>" shall have the meaning set forth in Section 3.14.2.

1.34 "<u>System Operator</u>" means the energy control center staff responsible for central dispatch as provided in any NYPP agreement or the ISO Tariff, as amended or superseded.

1.35 "<u>T&D System</u>" means the facilities controlled or operated by Seller, including the Interconnection Facilities, for purposes of providing point-to-point transmission service, network integration service interconnection service and distribution service, including services under NYPP Agreement and the ISO Tariff.

1.36 "<u>Transition Agreement</u>" means the Transition Power Sales Agreement dated as of November 24, 1998, by and between Seller, Southern Energy, Southern Energy Bowline, L.L.C. and Southern Energy Lovett, L.L.C.

1.37 Each of the following terms has the meaning specified in the Section set forth opposite such term:

<u>Term</u>	<u>Section</u>
ASA	Recitals
CEI	15.4
Direct Claim	10.5.2
Disclosing Party	7.1
EMS	3.8.10
Force Majeure Event	12.2
Indemnification Floor	10.4.3
Indemnifying Party	10.4.2
Indemnitee	10.4.1
Net Worth	15.1
Operating Metering and Equipment Protection Requirements	3.1.2
Parties' Switching, Tagging and Grounding Rules	3.14.2
RAPR	3.6.4
Recipient	7.1
RTU	3.6.4
SCADA	3.6.4
Seller's Incremental Cost	3.8.10
Seller Indemnifiable Losses	10.1

ARTICLE 2 <u>TERM</u>

2.1 Except as provided herein, this Agreement shall become effective as of the Closing Date, and shall continue in full force and effect with respect to each specific Purchased Asset until the date that all of the generating units located at each such Purchased Asset are retired and not replaced or such other mutually agreeable termination date.

2.2 The applicable provisions of this Agreement shall continue in effect after cancellation or termination hereof to the extent necessary to provide for final billings, billing adjustments and payments pertaining to liability and indemnification obligations arising from acts or events that occurred while this Agreement was in effect.

ARTICLE 3 CONTINUING OBLIGATIONS AND RESPONSIBILITIES

3.1 <u>Interconnection Service</u>.

3.1.1 Seller shall provide Buyer with such Interconnection Service as Buyer determines that it requires under the terms and conditions specified in this Agreement and Seller's Open Access Transmission Tariff. Interconnection Service shall be provided under this Agreement only with respect to the Purchased Assets and any costs associated with establishing or providing Interconnection Service for or in connection with an expansion of generating capacity, including any costs associated with any reinforcements to or other capital expenditures with respect to the T&D System (or any studies regarding the same), shall be borne by the Parties in accordance with the ISO Tariff or Seller's Open Access Transmission Tariff, whichever is applicable.

3.1.2 Seller agrees to permit Buyer to interconnect the Purchased Assets to the T&D System as long as (a) Buyer continues to operate such facilities pursuant to Good Utility Practices and (b) the Buyer has not committed an event of default which it has failed to cure as provided hereunder. In the event of (a) or (b) above, Seller may interrupt Interconnection Service in accordance with Section 3.12. In the event Buyer fails to maintain the Purchased Assets in accordance with Good Utility Practices or has not cured an event of default, such interconnection right shall only be affected to the extent set forth in this Agreement.

3.1.3 Buyer shall be responsible for making arrangements and payments under the applicable tariffs for transmission, distribution and ancillary services associated with the delivery of capacity and/or energy from the Purchased Assets. Buyer shall also be responsible for making arrangements and payments for capacity, energy, transmission, distribution and ancillary services associated with the acquisition and/or delivery of capacity and/or energy to the Buyer's facilities for the Buyer's station service requirements, and <u>Schedule G</u> hereto identifies the electric and gas meters which Seller will use to measure the services which Seller itself will provide to Buyer under this <u>Section 3.1.3</u>. Seller shall cooperate with Buyer with respect to such arrangements. Buyer may deduct the amount of electric energy delivered to the Buyer's facilities for the Buyer's station service requirements from the gross metered amount of electric energy delivered from the Purchased Assets. In the event Buyer installs additional metering equipment for the purpose of calculating such adjustment, Buyer shall be responsible for the cost thereof.

3.2 Access Easements, Conveyances, Licenses, and Restrictions.

3.2.1 <u>General</u>. The dispatch and ownership points of demarcation for the Interconnection Facilities, the Purchased Assets and the T&D System are set forth in <u>Schedule A</u> and will be set forth in the Separation Document. The Parties hereby agree to provide each other access to facilities, properties, equipment, and records and to grant or reserve the easements comprising the Operating Easement as may be necessary and convenient to enable each other to maintain their respective facilities, equipment, and property in a manner consistent with Good Utility Practices, or to defend themselves in any litigation relating to the T&D System, the Purchased Assets or the Excluded Assets. Such access shall be provided in a manner so as not to interfere unreasonably with the ongoing business operations, rights, and obligations of the other Party.

3.2.2 Without limiting the generality of <u>Section 3.2.1</u>, Seller shall have access to all of its substation, telecommunication, transmission, or distribution systems, equipment and Secondary Systems and facilities located on the Purchased Assets, and Buyer shall have access to all of its equipment and property located on the Excluded Assets, according to the terms and conditions of the Operating Easement.

3.2.3 The easements comprising the Operating Easement granted to Seller by Buyer and by Buyer to Seller are intended to be of a permanent nature and shall not be revoked by the grantor, nor shall the grantor take any action that would impede, restrict, diminish, or terminate the rights of access or use granted by the Operating Easement. Notwithstanding the foregoing, (a) should the grantee, or its successors or assigns, decide to permanently abandon the use of any Operating Easement or portion thereof, the grantee shall send the grantor written notice of such intent, and the grantee shall cause a release of said Operating Easement or appropriate portion thereof to be recorded in the appropriate county clerk's office, or other office for recording real estate documents; and (b) either Party may request the other to relocate any or all of the Operating Easement locations within a generating station or upon a generating station site if such relocation is necessary for such Party to operate its facilities, whereupon the Parties shall negotiate in good faith an appropriate relocation; provided, however, that the Party requesting the relocation shall pay all reasonable costs and expenses associated with the relocation and the grantor shall execute or obtain, in a form reasonably satisfactory to the grantee and suitable for recording, all instruments necessary to establish the new easement location. Both Parties agree to use commercially reasonable efforts to establish a mutually agreeable new easement location if requested.

3.2.4 Buyer shall grant Seller and Seller shall grant Buyer additional conveyances, easements, or licenses as are necessary for ownership, possession, maintenance, operation, or repair of the grantee's equipment and facilities as long as said conveyances, easements or licenses do not have a material adverse effect upon grantor's operations and are consistent with the purpose of this Agreement and the ASA. The grantee of such easement shall use all reasonable measures to exercise its rights thereunder in a manner which does not interfere with grantor's operations.

3.2.5 During the six months following the execution of this Agreement, Buyer and Seller shall cooperate in the development of documentation necessary to prepare and record the Operating Easement. Seller shall be responsible for developing the initial draft of such documentation, which Seller shall submit to Buyer for comment within three months following the execution of this Agreement. If such documentation has not been agreed upon by Seller and Buyer within said six month period, those aspects of the Operating Easement which remain in dispute shall be resolved as provided in <u>Article 13</u>. The Operating Easement must be prepared prior to the Closing Date.

3.2.6 Both Parties shall provide keys, access codes, or other access methods necessary to enter each other's facilities for purposes of exercising rights under the Operating Easement. Access shall only be granted to Qualified Personnel and access shall be exercised to minimize interference with the grantor's operations.

3.3 Facility and Equipment Maintenance.

3.3.1 Each Party shall maintain, at its own expense, the roadways, property, equipment, and facilities and access to said facilities that it owns that are subject to this Agreement and the Operating Easement pursuant to Good Utility Practices.

3.3.2 Unless otherwise specified herein, or unless the Parties mutually agree to a different arrangement, neither Party shall be responsible for the maintenance of the other Party's Primary Equipment or Secondary Systems, as set forth in Schedule A hereto or the Separation Document, regardless of the location of the Primary Equipment or Secondary Systems.

3.3.3 Equipment Maintenance and Testing Obligations.

3.3.3.1 Buyer and Seller shall each Maintain, at its own expense, its own property, equipment, facilities, and appurtenances and access thereto in a safe and efficient manner and in accordance with Good Utility Practices.

3.3.3.2 Buyer shall test, calibrate, verify or validate the telemetering, data acquisition, protective relay, control equipment or systems or other equipment or software related to the Purchased Assets pursuant to Good Utility Practice. Buyer shall perform such additional testing as Seller may reasonably request, provided however, Seller shall pay the costs thereof unless such testing, calibration, verification or validation required by Seller reveals an inaccuracy by a margin of greater than that allowed under applicable criteria, rules and standards under Good Utility Practices for the facilities being tested calibrated, verified or validated. Except as otherwise provided herein, Buyer shall be responsible for all costs to test, calibrate, verify or validate Buyer's equipment or software.

3.3.3.3 Pursuant to the foregoing <u>Section 3.3.3.2</u> and subject to <u>Section 3.6.1</u>, Buyer shall make available to Seller for copying, at Seller's reasonable request and expense, copies of inspection reports, installation and maintenance documents, test and calibration records, verifications and validations of the telemetering, data acquisition, protective relay, control equipment or systems or other equipment or software connected to the T&D System.

3.4 <u>New Construction or Modifications</u>.

3.4.1 Seller may construct or modify the T&D System interconnected to the Purchased Assets pursuant to Good Utility Practices and Buyer may install, construct or modify the Purchased Assets interconnected to the T&D System pursuant to Good Utility Practices. Unless otherwise required by law, regulation, or Good Utility Practices, Seller

shall not be required at any time to upgrade or otherwise modify the T&D System, provided however, Seller shall make such transmission upgrades as Buyer may request in connection with Buyer's addition of generating capacity at, or repowering of, any of the Purchased Assets. The Parties will bear the cost of such upgrades in accordance with the ISO Tariff or Seller's Open Access Transmission Tariff, whichever is applicable.

3.4.2 In the event the Seller plans to undertake additions, modifications, or replacements of the T&D System, including the Interconnection Facilities, Seller shall submit to Buyer all engineering plans and specifications that Buyer may reasonably request related to such modifications. If such additions, modifications, or replacements might affect the Buyer's operation of the Purchased Assets, Seller shall give Buyer not less than 120 days' prior written notice of the additions, modifications, or replacements prior to undertaking such additions, modifications, or replacements. Any such additions, modifications, or replacements shall comply with Good Utility Practices. Seller shall use all commercially reasonable efforts with respect to any such additions, modifications, or replacements to avoid any adverse impact on the Purchased Assets.

3.4.3 In the event the Buyer plans to increase or decrease the capacity of the Purchased Assets, the Buyer shall submit to Seller all engineering plans and specifications that Seller may reasonably request related to such increase. Such specifications and plans shall be submitted by the Buyer to Seller not later than 12 months prior to the respective commercial operation date for additions, modifications, or replacements to the Purchased Assets that will result in such increase, except as otherwise agreed to by Seller. All such additions, modifications, or replacements shall comply with Good Utility Practices. Buyer shall use commercially reasonable efforts with respect to any such additions, modifications, or replacements to avoid any adverse impact on the T&D System.

3.4.4 If the Buyer plans any additions, modifications, or replacements to the Purchased Assets that may not increase or decrease their capacity, but could reasonably be expected to affect the T&D System, the Buyer shall give Seller reasonable notice, but not less than 60 days' prior written notice thereof; provided, however, that the Buyer shall provide Seller with at least six months' prior written notice, and shall submit to Seller the plans and specifications for such additions, modifications, or replacements if they will involve an outage of the Purchased Assets for 30 days or more. All such additions, modifications, or replacements shall comply with Good Utility Practices.

3.4.5 Seller shall inform the Buyer in writing within 60 days of any additions, modifications, or replacements to the T&D System that are necessary as a result of the addition, modification, or replacement to the Purchased Assets made pursuant to this <u>Section 3.4</u>.

3.4.6 Unless otherwise provided by law, regulation or rule, the Buyer shall reimburse Seller for reasonable and documented costs incurred by Seller in accordance with governing laws, regulations or rules for such additions, modifications, or replacements made to the T&D System (a) that is not a transmission facility under ISO operational control, including the Interconnection Facilities; (b) are a direct result of such additions, modifications, or replacements of the Purchased Assets, regardless of whether the Purchased Assets enter (or have entered into) service, or are interconnected with the T&D System; and (c) are necessary to ensure the reliability of the T&D System. Seller shall provide Buyer with the estimated cost of such additions, modifications, or replacements of the T&D System no later than 30 days prior to the initiation of such addition, modification, or replacement. Nothing herein shall affect Buyer's right to dispute the necessity or amount of such costs.

3.4.7 A Party's acceptance of another Party's interconnection plans and specifications for any proposed addition, modification or replacement of the Purchased Assets, and either Party's participation in interconnected operations with the other Party, are not and shall not be construed as: (a) confirmation or endorsement of the design of the other Party's facilities; (b) a warranty of safety, durability or reliability of the other Party's facilities; or (c) responsibility for strength, details of design, adequacy, or capability of the other Party's facilities.

3.4.8 Upon completion of any addition, modification, or replacement to the Purchased Assets that may reasonably be expected to affect the T&D System, but no later than 90 days thereafter, the Buyer shall issue "as built" drawings to Seller. Upon completion of any addition, modification, or replacement to the T&D System that may reasonably be expected to affect the operation of the Purchased Assets, but no later than 90 days thereafter, Seller shall issue "as built" drawings to the Buyer.

3.5 <u>Inspections</u>.

3.5.1 <u>General</u>. Each Party shall, at its own expense, have the right, but not the obligation, to inspect or observe all maintenance activities, equipment tests, installation, construction, or other modifications to the other Party's equipment, systems, or facilities which might reasonably be expected to affect the observing Party's operations. The Party desiring to inspect or observe shall notify the other Party in accordance with the notification procedures set forth in <u>Section 3.13</u>.

3.5.1.1 If the Party inspecting the equipment, systems, or facilities observes any deficiencies or defects, which might reasonably be expected to adversely impact the operations of the observing Party, the observing Party shall notify the Party owning the equipment or systems and

said owner shall make any corrections necessitated by Good Utility Practices. Notwithstanding the foregoing, the inspecting Party shall have no liability whatsoever for any failure to fully or adequately observe any deficiency or to give such notice, it being agreed that such owning Party shall be fully responsible and liable for all such deficiencies, activities, equipment tests, installation, construction or modification.

3.5.2 Development of Separation Document; Initial Inspection. During the three months following the execution of this Agreement, Buyer and Seller shall cooperate in the development of documentation necessary to prepare the Separation Document. Seller shall be responsible for developing the initial draft of such documentation, which Seller shall submit to Buyer for comment within three months following the execution of this Agreement. The Separation Document must be completed prior to the Closing Date. Buyer shall, without derogation of and in addition to any rights it may have under the ASA, be entitled prior to the Closing Date to inspect, in accordance with this Section 3.5.2, all Purchased Assets, and Excluded Assets to verify and/or determine the accuracy of the data, drawings, and records contained in Schedule A or the Separation Document and to ascertain the points of demarcation between the Purchased Assets and the Excluded Assets. The Parties shall cooperate to schedule Buyer's inspections at each generating station included in the Purchased Assets so that any interference with the operation of each generating station is minimized, to the extent reasonably feasible, and so that Buyer may complete, to the extent reasonably practicable, the inspections of (i) all generating stations/equipment included in the Purchased Assets within 30 working days of commencing the inspections and within four months after the execution of this Agreement, and (ii) all real estate, including any surveys that Buyer may elect to conduct, within 30 working days of commencing the inspections and within four months after the execution of this Agreement. Seller shall provide Buyer with access to the generating stations at the times scheduled for the inspection. Buyer shall provide qualified engineering, operations, and maintenance personnel to conduct the inspections and Seller shall provide qualified engineering, operations, and maintenance personnel to escort Buyer's personnel and to assist Buyer's personnel in conducting the inspections.

3.5.2.1 At one or more mutually convenient times not more than three months after Buyer has completed its inspection, the Parties shall meet to discuss whether, as a result of the inspection, it is appropriate to modify the Separation Document to more adequately portray the Primary Equipment and ownership points of demarcation and the Secondary Systems ownership points of demarcation. Any modification to any portion of the Separation Document to which the Parties agree shall thereafter be deemed part of the Separation Document for all purposes under this Agreement and the ASA.

3.5.2.2 Each Party shall bear its own costs of participating in the inspections referred to in <u>Section 3.5.2</u> and in the development of the Separation Document.

3.6 <u>Information Reporting Obligations</u>.

3.6.1 Notwithstanding anything to the contrary in this Agreement, any obligation set forth in this Agreement for Buyer to provide information, reports, or data to Seller shall be subject to the following limitations: (a) such information, reports, or data shall be subject to <u>Section 7.1</u>; (b) Buyer shall be required to provide such information, reports or data only to the extent Seller reasonably requires such information to operate, Maintain, or plan the T&D System pursuant to Good Utility Practices or to fulfill its obligations pursuant to this Agreements; (c) Seller shall request information, reports, and data from Buyer on a non-discriminatory basis with respect to generators interconnected to the T&D System, as necessary, in Seller's judgment, for the purposes set forth in clause (d), below; and (d) Seller shall use any information provided by Buyer pursuant to this Agreement only for the purposes of Maintaining the T&D System pursuant to Good Utility Practices.

3.6.2 Subject to <u>Section 3.6.1</u>, in connection with Seller's maintenance of Interconnection Service, Buyer shall promptly provide Seller with such information as is reasonably requested by Seller, the ISO, NYPP, NYPSC, NPCC, NERC, or the System Operator.

3.6.3 Subject to <u>Section 3.6.1</u>, Buyer shall supply such information as the Seller reasonably requests in connection with the operations, maintenance, regulatory requirements and analysis of the T&D System. Such information may include metered values for MW, Mvar, voltage, current, amperage, frequency, breaker status indication, or any other information reasonably required by Seller for reliable operation of the T&D System pursuant to Good Utility Practices.

3.6.4 Subject to <u>Section 3.6.1</u>, reasonable information pertaining to generation, transmission and distribution operating parameters shall be gathered by Buyer for electronic transmittal to Seller, using one or more of the following: supervisory control and data acquisition ("<u>SCADA</u>"), remote terminal unit ("<u>RTU</u>") equipment, and remote access pulse recorders ("<u>RAPR</u>") or other analog or digital telemetering equipment.

3.7 <u>Local Services</u>.

Service Agreement No. 1620 3.7.1 <u>General</u>. The Parties agree that, due to the integration of certain control schemes, revenue metering applications, and communication networks, it is cost effective to provide each other with the services set forth in <u>Sections 3.8</u> and <u>3.9</u> below at the prices referenced therein.

3.7.1.1 The Parties shall use commercially reasonable efforts to ensure that services provided by one Party to the other Party pursuant to <u>Sections 3.8</u> and <u>3.9</u> shall be available at all times and in the manner and at the prices specified herein. Notwithstanding the foregoing, either Party may change the services, provided that (a) there is no cost to the receiving Party, and (b) the quality, reliability and integrity of the replacement services are equivalent to the existing services.

3.7.1.2 Neither party shall terminate any services set forth in <u>Sections 3.8</u> and <u>3.9</u> below that it agrees to provide to the other Party, without the other Party's written consent, which shall not be unreasonably withheld, or without, in the case of the services set forth in <u>Sections 3.9.4</u> and <u>3.9.5</u>, at least one month's prior written notification, and, with respect to all other services set forth in <u>Sections 3.8</u> and <u>3.9</u>, at least 12 months' prior written notification; provided, however, that if either Party no longer needs or desires a particular service provided under <u>Sections 3.8</u> and <u>3.9</u> said Party shall notify the other Party and the providing Party shall terminate said services as soon thereafter as practicable.

3.7.2 <u>Temporary Suspension of Services</u>. The Party providing the services set forth in <u>Sections 3.8</u> and <u>3.9</u> below shall notify and obtain approval, which approval shall not be unreasonably withheld, from the affected Party of any scheduled temporary suspension of services at least five working days in advance of such suspension. Such notification shall include an estimated time duration for a return to normal conditions.

3.7.2.1 In the event of any unscheduled or forced suspension of the services set forth in <u>Sections 3.8</u> and <u>3.9</u> below, the providing Party shall promptly notify the other Party first verbally and then in writing in accordance with <u>Article 20</u>. The providing Party shall use all reasonable efforts to minimize the duration of said suspension.

3.7.2.2 The Parties agree to use commercially reasonable efforts to complete any repairs, modifications or corrections that are necessary to restore suspended services pursuant to <u>Sections 3.8</u> and <u>3.9</u> below to the other Party as soon as reasonably practicable.

3.8 <u>Seller Provided Local Services</u>.

3.8.1 <u>Substation Service Power</u>. Seller shall provide Buyer at the Buyer's request and at no charge, with AC and DC substation service power in the quantities, at the levels, and in the substation locations where such power is provided from substation facilities immediately prior to Closing.

3.8.2 <u>Building Services</u>. At no cost to Buyer, Seller shall own, repair, Maintain, and provide Buyer with heating, ventilation, air conditioning, lighting, and other building services, at the levels in existence for winter and summer conditions immediately prior to Closing, to the Purchased Assets located within the Excluded Assets. If Buyer desires a higher level of service, Buyer and Seller shall mutually agree upon the upgrade and price for said upgrade. Buyer shall reimburse Seller for such upgrade.

3.8.3 <u>Revenue Metering</u>. Buyer shall own and Maintain all Revenue Meters, conduct meter accuracy and tolerance tests, and prepare all calibration reports required for equipment that measures energy transfers between Buyer and Seller. Said testing reports shall be in accordance with NYPP or ISO, as applicable, requirements, as amended from time to time, and any applicable State regulatory requirements, as amended from time. Seller shall have the opportunity to review and comment upon said reports prior to issuance. All Revenue Meters shall be sealed, and the seals shall be broken only by Buyer, upon occasions when the meters are to be inspected, tested or adjusted. The installations of any replacement metering required by Seller shall be at Seller's expense.

3.8.4 Seller shall, at its own expense, Maintain and have the right to use a back-up metering system.

3.8.5 The Parties agree that if the metering equipment and the Point of Interconnection are not at the same location electrically, the metering equipment shall be compensated to record the delivery of electricity in a manner that accounts for energy losses occurring between the metering point and the Point of Interconnection both when the generating unit is delivering energy to the Seller and when Seller is delivering energy to Buyer.

3.8.6 If at any time, any primary metering equipment is found to be inaccurate by a margin of greater than that allowed under the applicable criteria, rules and standards, such metering equipment shall be made accurate or replaced at Buyer's expense. Meter readings for the period of inaccuracy shall be adjusted so far as the same can be

reasonably ascertained based upon Seller's back-up metering system; provided, however, no adjustment shall be made prior to the point of time halfway between the time of the last successful test and the time the inaccuracy is corrected, except by agreement of the Parties. Each Party shall comply with any reasonable request of the other concerning the sealing of meters, the presence of a representative of the other Party when the seals are broken and tests are made, and other matters affecting the accuracy of the measurement of electricity delivered from each Purchased Asset. If either Party believes that there has been a meter inaccuracy, failure or stoppage, it shall immediately notify the other.

3.8.7 The Parties shall each keep and maintain accurate and detailed records relating to the delivery of energy for a period of not less than six years. Such records shall be made available for inspection by either Party or any governmental agency having jurisdiction with respect thereto during normal business hours upon reasonable notice.

3.8.8 Seller shall own and maintain equipment for real-time communications, real-time reactive power, hourly KWH information, and such other information as required by the NYPP, ISO, and/or the System Operator or as reasonably required by Seller. The Buyer shall Maintain operating telephone links to provide information deemed necessary by the NYPP, ISO, and/or the System Operator to integrate operation of the Purchased Assets with the T&D System.

3.8.9 <u>Line Operation Information</u>. Both Parties shall require remote access to site specific line operation information at Seller's facilities. Seller shall make such information available to Buyer at no cost in accordance with FERC Order 889 and 889-A and any successor orders thereto.

3.9 <u>Buyer Provided Local Services</u>.

3.9.1 <u>Substation Service AC and DC Power</u>. Buyer shall provide Seller, at no charge, with AC and DC substation service power in the quantities, at the levels, and in the substation locations where such power is provided from generation facilities sold to Buyer immediately prior to Closing. If Seller desires a higher level of service, Seller and Buyer shall mutually agree upon the upgrade and price for said upgrade. Seller shall pay Buyer for the upgrade.

3.9.2 <u>Building Services</u>. At no cost to Seller, Buyer shall own, repair, maintain and provide Seller with heating, ventilation, air conditioning, lighting, and other building services at the levels in existence for winter and summer conditions immediately prior to Closing to the Excluded Assets located within the Purchased Assets. If Seller desires

a higher level of service, Seller and Buyer shall mutually agree upon the upgrade and price of said upgrade. Seller shall pay Buyer for the upgrade.

3.9.3 <u>Line Operation Information</u>. Both Parties shall require remote access to site specific line operations information at Buyer's facilities. Buyer shall make such information available to Seller at no cost, as permitted in accordance with FERC Order 889 and 889-A and any successor orders thereto.

3.9.4 <u>Meter Reader Services</u>. Buyer may provide Seller, at a cost to be mutually agreed upon by the Parties, with meter reading services at locations which require a manual read.

3.10 Spare Parts.

3.10.1 Where practicable and available, and subject to applicable regulatory and other approvals, each Party shall provide the other Party with spare parts in the event of emergencies or equipment failures. The Parties shall mutually agree upon payment for or replacement of said spare parts. Seller presently occupies a minimal amount of space at the Purchased Assets for the purpose of storage of spare substation parts.

3.10.2 Seller has the right to Maintain the storage of spare parts at the levels as of the time of the Closing. Such storage shall not interfere unreasonably with the Buyer's ongoing business operations, rights and obligations. The specific arrangements for the storage of spare parts by Seller shall be set forth in the Separation Document. If Buyer desires Seller to maintain spare parts that are not in Seller's possession, if Seller has the physical space to do so, Seller shall maintain said parts.

3.11 <u>Emergency Procedures</u>.

3.11.1 Seller shall provide Buyer with prompt verbal notification of T&D System emergencies which may reasonably be expected to affect Buyer's operation of its facilities, and Buyer shall provide Seller with prompt verbal notification of generation equipment emergencies which may reasonably be expected to affect Seller's operations. Said verbal notification shall be followed within 24 hours with written notification. The written notification shall describe the extent of damage or deficiency, anticipated length of outage and the corrective action.

3.11.2 If a Party determines in its good faith judgment that an emergency endangers or could endanger life or property, the Party recognizing the problem shall take such action as may be reasonable and necessary to prevent, avoid, or mitigate injury, damage, or loss. If, however, the emergency involves transmission or distribution electrical equipment, Buyer shall notify the System Operator, and shall obtain the consent of such personnel, prior to performing any switching operations.

3.11.3 Buyer and Seller each may, consistent with Good Utility Practices, have the System Operator take whatever actions or inactions it deems necessary during emergency operating conditions, without liability to the other Party for such actions or inactions, in order to: (i) preserve public safety; (ii) preserve the integrity of the T&D System or Buyer's equipment or property, (iii) limit or prevent damage, or (iv) expedite restoration of service.

3.12 <u>Service Interruptions</u>.

3.12.1 If at any time, in the reasonable exercise of (i) the System Operator's judgment, or (ii) with respect to portions of the T&D System subject to Seller's dispatch, the Seller's judgment, operation of Buyer's equipment might reasonably be expected to have an adverse impact on the quality of service or interfere with the safe and reliable operation of the T&D System, Seller may discontinue Interconnection Service until the condition has been corrected. Unless the System Operator, or Seller perceives that an emergency exists or the risk of one is imminent, Seller shall give Buyer reasonable notice of its intention to discontinue Interconnection Service and, where practical, allow suitable time for Buyer to remove the interfering condition. Seller's judgment with regard to the interruption of service under this paragraph shall be made pursuant to Good Utility Practices. In the case of such interruption, Seller shall promptly confer with Buyer regarding the conditions causing such interruption and its recommendation concerning timely correction thereof. In the event Interconnection Service is interrupted under this Section due to Buyer's events of default, Buyer shall compensate Seller for all costs reasonably incurred by Seller attributable to the interruption and restoration of Interconnection Service.

3.13 Scheduled Maintenance Notification and Coordination.

3.13.1 <u>T&D System Maintenance</u>. Subject to applicable FERC regulations and policy, and the requirements of the NYPP or the ISO Tariff, Seller shall consult with Buyer regarding timing of scheduled maintenance of the transmission facilities which might reasonably be expected to affect the normal operations of the Purchased Assets. Seller shall, to the extent reasonably practicable, schedule any testing, shutdown, or withdrawal of said facilities to coincide with Buyer's scheduled outages. To facilitate such consultation, within

60 days after the Closing Date, each Party shall provide the other Party, a non-binding schedule of planned outages and planned overhauls (including expected commencement date and duration) for the following calendar year. In addition, each Party shall provide a non-binding two-year forecast of planned overhauls in accordance with ISO procedures. Buyer shall furnish Seller with non-binding updates to such schedules to reflect significant changes thereto.

3.13.1.1 If Buyer desires Seller to perform maintenance during a time period other than a scheduled outage, Seller shall use commercially reasonable efforts to meet Buyer's request as long as it might not reasonably be expected to have an adverse economic impact upon Seller or Seller's other transmission customers. If Buyer's request has, or is estimated in Seller's reasonable opinion to have, an adverse economic impact upon Seller, and Buyer is willing to reimburse Seller for the costs incurred by Seller, Seller shall make best efforts to comply with Buyer's request.

3.13.1.2 In the event Seller is unable to schedule the outage of its facilities to coincide with Buyer's schedule, Seller shall promptly notify Buyer, in advance, of reasons for the outage, the time scheduled for it to take place, and its expected duration. Seller shall restore the facilities to service as quickly as possible.

3.13.2 <u>Routine Inspection and Maintenance</u>. Seller and the Buyer agree that, due to the integration of certain control and protective relaying schemes between the Purchased Assets and Interconnection Facilities, it will be necessary for the Parties to cooperate in the inspection, maintenance and testing of these areas of integration. Each Party shall provide advance notice to the other Party before undertaking any work in these areas, especially in electrical circuits involving circuit breaker trip and close control, and current transformers or potential transformers. Seller shall provide advance notice by telephone to the Buyer's security personnel before Seller's employees, including contractors or agents, enter the Buyer's facilities. The Buyer shall provide advance notice by telephone to Seller's dispatch personnel (or equivalent) before the Buyer's employees, including authorized contractors or agents, enter Seller's facilities.

3.14 <u>Safety</u>.

3.14.1 <u>General</u>. Subject to <u>Article 9</u>, the Parties agree to be solely responsible for and assume all liability for the safety and supervision of their own employees, agents, representatives, and subcontractors.

3.14.1.1 The Parties agree that all work performed by either Party which could reasonably be expected to affect the operations of the other Party shall be performed in accordance with all applicable laws, rules, and regulations pertaining to the safety of persons or property, including without limitation, compliance with the safety regulations and standards adopted under the Occupational Safety and Health Act of 1970 as amended from time to time, the National Electric Safety Code as amended from time to time and Good Utility Practices.

3.14.2 <u>Switching, Tagging and Grounding</u>. Each Party shall comply with the Switching, Tagging and Grounding Rules set forth in Schedule H hereto (the "<u>Parties'</u> <u>Switching, Tagging and Grounding Rules</u>") at all utility Primary Equipment and Secondary System equipment interconnections or demarcation points.

3.14.2.1 Each Party, in accordance with the Parties' Switching, Tagging and Grounding Rules, shall be responsible for training, testing, and certifying operations for inclusion on a Joint Tag List. Every three months, each Party shall provide the other Party with an updated list of employees qualified for inclusion on the Joint Tag List. Buyer shall be responsible for all switching, tagging and grounding on Buyer's side of the demarcation point, as set forth in the Separation Document; and Seller shall be responsible for all switching, tagging and grounding at the demarcation point and on Seller's side of the demarcation point.

3.14.2.2 Each Party, in accordance with the Parties' Switching, Tagging and Grounding Rules, shall be responsible for training, testing, and certifying operators for inclusion on a Joint Tag List. Every three months, each Party shall provide the other Party with an updated list of employees qualified for inclusion on the Joint Tag List. Either Party may request the other Party to remove an employee from the Joint Tag List in its reasonable discretion, and such other Party shall comply with such request.

3.15 Environmental Compliance and Procedures.

3.15.1 Except as otherwise provided in the ASA, the Buyer and Seller shall each be responsible for (a) complying with all Environmental Laws applicable to the Purchased Assets and the Excluded Assets, respectively, (b) obtaining and maintaining in force all applicable and required permits and approvals under such Environmental Laws and regulations applicable to the Purchased Assets and the Excluded Assets, respectively, and (c)

making all required reports and notifications applicable to the Purchased Assets and the Excluded Assets, respectively, required by those laws and regulations.

3.15.2 Each Party shall notify the other first verbally and then in writing, of any Release of Hazardous Substances (as defined in the ASA) or any type of remediation activities, relating to the Purchased Assets and/or the Excluded Assets, within 24 hours of occurrence, and shall promptly furnish to the other Party copies of any reports filed with any governmental agencies relating to such releases or remediation.

3.15.3 Buyer shall not knowingly take any actions which might reasonably be expected to have a material adverse environmental impact upon the operations of the T&D System without prior written notification and agreement from Seller. Seller shall not knowingly take any actions which might reasonably be expected to have a material adverse environmental impact upon the operations of the Purchased Assets without prior written notification and agreement from Buyer.

3.16 <u>Compliance with Laws</u>. Seller will comply with all applicable laws, rules, regulations, codes, and standards of all Federal, state, and local governmental agencies having jurisdiction over Seller or the transactions under this Agreement, including the ISO, and with which failure to comply could reasonably be expected to have a material adverse effect on the Purchased Assets. Buyer will comply with all applicable laws, rules, regulations, codes, and standards of all Federal, state, and local governmental agencies having jurisdiction over Buyer or the transactions under this Agreement, including the ISO, and with which failure to comply could reasonably be expected to have a material adverse having jurisdiction over Buyer or the transactions under this Agreement, including the ISO, and with which failure to comply could reasonably be expected to have a material adverse effect on the T&D System.

ARTICLE 4 OPERATIONS

4.1 <u>General</u>. Buyer agrees to conduct all its operations that could reasonably be expected to have a material impact on the operations of the T&D System in a safe and efficient manner and in accordance with all applicable Federal, state, and local laws, and the rules, regulations, and codes of governmental agencies, and Good Utility Practices. Seller agrees to conduct all its operations that could reasonably be expected to have a material impact on the operations of the Purchased Assets in a safe and efficient manner and in accordance with all applicable Federal, state, and local laws, and the rules, regulations, and codes of governmental agencies, and Good Utility Practices.

4.2 <u>Buyer's Operating Obligations</u>.

4.2.1 <u>General</u>. Buyer shall request permission from Seller's dispatch personnel or the System Operator, to the extent required by applicable rules or regulations, prior to opening and/or closing circuit breakers in accordance with applicable switching and operations procedures. The Buyer agrees to operate the Purchased Assets in accordance with the directives of the System Operator, and in accordance with Good Utility Practices.

4.2.1.1 Buyer shall carry out all switching orders from Seller's dispatch personnel, or the System Operator in a timely manner, to the extent required by applicable rules or regulations.

4.2.1.2 Buyer shall keep the System Operator, to the extent required by applicable rules or regulations, advised of its generating units' capabilities of participation in system restoration and/or if it has black start capability. Upon Seller's request, Buyer will participate in system restoration and/or provide black start capability to Seller if reasonably available and Seller will compensate Buyer according to the applicable provisions of the ISO Tariff.

4.2.1.3 The electrical supply to the Point of Interconnection shall be in the form of three-phase 60 HERTZ alternating current at a voltage class determined by mutual agreement of the Parties.

4.2.1.4 Buyer's equipment shall conform with industry standards for harmonic distortion and voltage fluctuation.

4.2.2 <u>Voltage or Reactive Control Requirements</u>. Unless otherwise agreed to by the Parties, Buyer shall operate its existing interconnected generation facilities with automatic voltage regulators. The voltage regulators will control voltage at the Points of Interconnection consistent with the range of voltage set forth in Schedule C as may be amended by the Parties, or the System Operator. Compensation to Buyer, if any, for providing such reactive power and voltage support shall be in accordance with the applicable provisions the ISO Tariff, or as otherwise agreed by the Parties.

4.2.2.1 Buyer acknowledges that the System Operator may direct Buyer to deactivate the automatic voltage regulator and to supply reactive power pursuant to a schedule provided by the System Operator and Seller will compensate Buyer according to the applicable provisions of the ISO Tariff.

4.2.2.2 If Buyer fails to operate a generating facility included in the Purchased Assets in accordance with Schedule C and to the extent the generating facility is operating, Seller will provide written notice to Buyer of Seller's intent to remedy that situation. If Buyer does not promptly commence appropriate action after receiving such notice, Seller may then take necessary action, to remedy such failure, including the installation of capacitor banks or other reactive compensation equipment necessary to ensure the proper voltage or reactive supply at the generating facility. The cost of such Seller shall, to the extent feasible, minimize the impact of such action on Buyer's generation operations, including, at a minimum, by installing such equipment outside any building housing a generating unit. Nothing in this Section 4.2.2.2 shall obligate Buyer to operate any Purchased Asset beyond the available design capability of such Purchased Asset.

4.2.2.3 Buyer shall notify the System Operator, to the extent required by the System Operator, if a generating unit(s) reaches a VAR limit, if there is any deviation from the assigned voltage schedule, or if any automatic voltage regulator is removed from or restored to service.

4.2.2.4 In addition to voltage regulation, Buyer shall adhere to the System Operator's Service Restoration Plan, as amended from time to time. A copy of the Service Restoration Plan in existence immediately prior to Closing is attached hereto as Schedule D and incorporated by reference as if fully set forth herein.

4.2.3 Seller or the System Operator in accordance with Good Utility Practices may from time to time reasonably request, order, or direct the Buyer to adjust generator controls that impact the T&D System, such as excitation, droop, and automatic generation control settings. The Buyer agrees to comply with such requests, orders, or directions.

4.2.4 Buyer acknowledges that the System Operator may have the right to require reduced or increased generation from the Purchased Assets in accord with the NYPP requirements or the ISO Tariff, as applicable, or in accordance with the applicable rules of the System Operator.

4.3 <u>Seller's Operating Obligations</u>.

Service Agreement No. 1620 4.3.1 <u>General</u>. All operations, including start-up, shutdown and determination of hourly generation, will be coordinated by the System Operator.

4.3.2 Seller's system operator may, pursuant to the ISO reliability criteria, Seller's Open Access Transmission Tariff, any applicable rule or practice of Seller's system operator, require reduced or increased generation in accordance with Good Utility Practices, at times when T&D System conditions threaten transmission system reliability. The Seller shall not request a reduction or increase in generation except to solve a transmission line energy limit violation so that voltage reduction or load shedding is not required. Seller will use best efforts to resolve any such conditions in order to allow Buyer to return to the operating level prior to the notice to reduce or increase generation.

4.4 <u>Auditing of Accounts and Records</u>. Within two years following the end of a calendar year, during normal business hours, either Party, or a public accounting firm designated to represent said Party, shall have the right to audit the other Party's accounts and records pertaining to transactions under this Agreement at the offices where such accounts and records are maintained; provided that appropriate notice shall have been given prior to any audit and provided that the audit shall be limited to those portions of such accounts and records that relate to services provided to the other under this Agreement for said calendar year. The Party being audited will be entitled to review the audit report and any supporting materials, which shall be subject to the provisions of <u>Article 7</u>.

4.5 Seller shall use commercially reasonable efforts to operate and maintain the T&D System, or cause the T&D System to be operated and maintained, in accordance with all material laws and Good Utility Practices. Seller shall notify Buyer promptly of any event affecting the T&D System that would cause Buyer to be unable to deliver power to any of Buyer's customers or would adversely affect the Facility, and, as soon as possible thereafter, of the expected duration of such event. Seller shall use best efforts to alleviate any such event.

ARTICLE 5 COST RESPONSIBILITIES AND BILLING PROCEDURES

5.1 Cost Responsibilities for Local Services.

5.1.1 Each Party shall be responsible for the costs for services provided to the other Party in Sections 3.8 and 3.9 as set forth in said Sections.

5.1.2 For services which have identified price/rate Schedules set forth herein, said payment shall be in accord with said Schedules as in effect from time to time. For

services which require reimbursement but do not have identified price/rate schedules, the Parties shall agree upon the price/rate to be paid prior to performing or providing said services.

5.2 <u>Billing Procedures</u>.

5.2.1 <u>General</u>. Within ten days after the first day of each month, each Party shall prepare an invoice for those reimbursable services provided to the other Party under this Agreement during the preceding month.

5.2.2 Each invoice shall delineate the month in which the services were provided, shall fully describe the services rendered and shall be itemized to reflect the services performed or provided.

5.2.3 The invoice shall be paid within 30 days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named by the invoicing Party.

5.2.4 Disputed amounts shall be placed in an interest bearing escrow account, subject to resolution.

5.3 <u>Payment Not a Waiver</u>. Payment of invoices by either Party shall not relieve the paying Party from any responsibilities or obligations it has under this Agreement; nor shall it constitute a waiver of any claims arising hereunder.

5.4 <u>Interest on Unpaid Balances</u>. The rate of interest on any unpaid amounts (including amounts placed in escrow) shall be equal to the Interest Rate in effect from time to time plus two percent per annum. Interest on delinquent amounts shall be calculated from the due date of the bill to the date of payment. When payments are made by mail, bills shall be considered as having been paid on the date of receipt by the other Party.

5.5 <u>Default</u>. In the event either Party fails to make payment to the other Party on or before the due date as described above, and such failure of payment is not corrected within ten calendar days after the Party notifies the Party in default to cure such failure, a default by said Party shall be deemed to exist and the provisions of <u>Article 8</u> shall apply. If Buyer defaults upon an Interconnection Facilities charge payment, Seller may initiate a proceeding with the FERC, as set forth below, to terminate such service but shall not terminate service

Service Agreement No. 1620 until the FERC authorizes any such request. If the Parties default on any other payment, the provisions of <u>Article 13</u> shall apply.

5.5.1 In the event of a billing dispute between Seller and Buyer, Seller and Buyer will continue to provide services as long as the other Party (i) continues to make all payments not in dispute, and (ii) pays into an escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Buyer fails to meet these two requirements for continuation of Interconnection Service, then Seller may provide notice to Buyer of its intention to suspend such service in 60 days, in accordance with the FERC's policy. If neither party disputes a bill within six months after the due date of such bill, such bill shall be deemed correct.

ARTICLE 6 DOCUMENTATION

6.1 <u>Drawings</u>.

6.1.1 Drawings that exclusively describe the Purchased Assets will be transferred by Seller to the Buyer prior to the Closing Date. Copies of drawings that exclusively describe the Excluded Assets, including the Interconnection Facilities and the T&D System shall be made available to Buyer upon reasonable request. Drawings describing the Purchased Assets and the Excluded Assets on the same drawing will be identified and marked as "common drawings." Seller shall retain a copy of the common drawings and shall provide a copy of same to the Buyer prior to the Closing Date. A list of drawings common to both Parties will be developed prior to the Closing Date.

6.1.2 Each Party shall be responsible for drawing updates and corrections to their respective drawings and all shall provide copies to the other Party as soon as practicable thereafter to the extent such update or connection impacts the operation of the other Party's assets.

6.2 <u>Maintenance or Operations Documentation</u>. Seller shall provide Buyer with technical maintenance or operations documentation, if available, for protection, communications and primary electrical equipment.

ARTICLE 7 CONFIDENTIALITY

7.1 General. Each Party (the "Recipient") and its representatives shall hold in confidence, unless compelled or required to disclose by judicial or administrative process or other provisions of law, all documents and information furnished by the other Party (the "Disclosing Party") or its representatives in connection with this Agreement. Except to the extent that such information or documents are (i) generally available to the public other than as a result of a disclosure by the Recipient in violation of this Agreement, (ii) available to the Recipient on a non-confidential basis prior to disclosure to the Recipient by the Disclosing Party, or (iii) available to the Recipient on a non-confidential basis from a source other than the Disclosing Party provided that such source is not known, and by reasonable effort could not be known, by the Recipient to be bound by a confidentiality agreement with the Disclosing Party or otherwise prohibited from transmitting the information to the Recipient by a contractual, legal or fiduciary obligation, Recipient shall not release or disclose such information to any other person, except to its Affiliates and their respective directors, officers, employees, contractors and agents on a need-to-know basis for the purpose of assisting the Recipient with respect to its obligations under this Agreement who has not first been advised of the confidentiality provisions of this Section 7.1 and has agreed in writing to comply with such provisions. In no event shall such information be disclosed in violation of the requirements of FERC Orders 889 and 889-A, and any successor thereto. The Recipient shall promptly notify the Disclosing Party if it receives notice or otherwise concludes that the production of any information subject to this Section 7.1 is being sought under any provision of law (by regulation, rules, deposition, interrogatories, requests for information or documents in legal proceedings, subpoenas, civil investigative demand or similar process) so that the Disclosing Party may seek an appropriate protective order or other remedy and/or waive compliance with the provisions of this Article, and the Parties shall cooperate, at the Disclosing Party's expense, to obtain such protective order. In the event that such protective order or other remedy is not obtained or the Disclosing Party waives compliance with the relevant provisions of this Article, the Recipient will furnish only that portion of material which is legally required to be disclosed and, upon the Disclosing Party's request, cooperate, at the Disclosing Party's expense, to obtain assurances that confidential treatment will be accorded to such information. A Party may utilize information subject to this Section 7.1 in any arbitration proceeding or litigation relating to this Agreement and pursuant to Article 13, provided that with respect to arbitration, the arbitrator(s) and other participants enter into a confidentiality agreement regarding the materials that will be disclosed.

7.2 <u>Confidentiality of Audits</u>. The independent auditor performing any audit, as referred to in <u>Section 4.4</u>, shall be subject to a confidentiality agreement between the auditor and the Party being audited. Such information shall be treated as confidential except to the extent that its disclosure is required by regulatory or judicial order, for reliability purposes pursuant to Good Utility Practices, pursuant to the FERC's rules and regulations, as amended

from time to time, or as required by the System Operator pursuant to ISO information sharing policies. Except as provided herein, neither Party will disclose the audit information to any third party, without the other Party's prior written consent. Audit information in the hands of the Party not being audited shall be subject to all provisions of <u>Section 7.1</u> or <u>7.2</u>, as applicable.

7.3 <u>Remedies</u>. The Parties agree that monetary damages by themselves would be inadequate to compensate a Party for the other Party's breach of its obligations under this <u>Article 7</u>. Each Party accordingly agrees, subject to <u>Section 19.1</u>, that the Disclosing Party shall be entitled to specific performance and other equitable relief, by way of injunction or otherwise if the Recipient breaches or threatens to breach its obligations under this Article, which specific performance or other equitable relief shall be granted without bond or proof of damages and in addition to any other remedies that the Disclosing Party may have under applicable law, and the Recipient shall not plead in defense that there would be an adequate remedy at law.

ARTICLE 8 DEFAULT

8.1 <u>Events of Default</u>. Any one of the following shall constitute an event of default under this Agreement, unless such event is otherwise excused hereunder or is due to the action or inaction of the non-defaulting Party:

8.1.1 (a) The failure to pay any amount when due;

(b) A breach of any material term or condition of this Agreement, including but not limited to any material breach of a representation, warranty or covenant made in this Agreement, including the Schedules. Failure by a Party to provide any required schedule, report or notice hereunder may constitute a material breach hereof if such failure is not cured within 30 days after notice to the defaulting Party;

(c) The appointment of a receiver or liquidator or trustee for either Party or of any property of a Party, and such receiver, liquidator or trustee is not discharged within 60 days;

(d) The entry of a decree adjudicating a Party or any substantial part of the property of a Party bankrupt or insolvent, and such decree is continued undischarged and unstayed for a period of 60 days; (e) The filing of a voluntary petition in bankruptcy under any provision of any Federal or state bankruptcy law by a Party; or

(f) The failure or refusal of the Buyer to permit Seller's representatives access to information, or the Purchased Assets, to the extent required hereunder for Seller to operate the T&D System in order to examine, inspect and test such information and the Purchased Assets.

(g) The failure or refusal of the Seller to permit the Buyer's representatives access to information, or the Excluded Assets, to the extent required hereunder for Buyer to examine, inspect and test such information and the Excluded Assets.

8.1.2 (a) Upon the occurrence of an event of default, the Party not in default may give written notice of the default to the defaulting Party. Such notice shall set forth, in reasonable detail, the nature of the default and, where known and applicable, the steps necessary to cure such default. Except with respect to a payment default as described in <u>Section 8.1.1(a)</u>, the defaulting Party shall have 30 days following receipt of such notice either to (i) cure such default, or (ii) commence in good faith all such steps as are reasonable and appropriate to cure such default in the event such default cannot, in the reasonable judgment of such non-defaulting Party, be completely cured within such 30 day period. With respect to the payment default described in <u>Section 8.1.1(a)</u>, the defaulting party, shall have ten days from receipt of such default notice to cure such default.

(b) If the defaulting Party fails to cure such default or take such steps as provided under subparagraph (a) above, this Agreement may be terminated by written notice to the Party in default hereof. This Agreement shall thereupon terminate and the non-defaulting Party may exercise all such rights and remedies as may be available to it to recover damages, subject to <u>Article 19</u> of this Agreement, caused by such default.

(c) Notwithstanding the foregoing, upon the occurrence of any such event of default, the non-defaulting Party shall be entitled (i) to commence an action to require the defaulting Party to remedy such default and specifically perform its duties and obligations hereunder in Service Agreement No. 1620 accordance with the terms and conditions hereof, and (ii) to exercise such other rights and remedies as it may have at equity or at law.

8.2 <u>Rights Cumulative</u>. The rights and remedies of both Parties in this <u>Article 8</u> and elsewhere set forth in this Agreement are cumulative and non-exclusive.

8.2.1 Seller shall be entitled to operate such DC power systems, protection and metering circuit components, SCADA equipment, transformers, Secondary Systems, communications equipment, building facilities, software, documentation, structural components; and other facilities and appurtenances that are necessary for Seller to Maintain the T&D System if: (a) the Buyer shall commence any case under Federal bankruptcy laws or other proceeding under any similar law of any jurisdiction for the relief of debtors, or a decree or order shall be entered appointing a trustee or other custodian, liquidator, or receiver for the Buyer or for any substantial part of the Purchased Assets, and such decree or order shall not be dismissed within 60 days after it is entered; or (b) the Buyer shall cease its operations without having as assignee, successor, or transferee in place, which cessation shall remain in place for a period of 30 days; or (c) the Buyer, or the Buyer's assignee, successor, or transferee, shall fail to comply with the material obligations or duties set forth in this Agreement, which failure adversely affects the T&D System and remains uncorrected for a period of 30 days.

8.2.2 Seller shall give the Buyer or the Buyer's assignee, successor or transferee written notice, pursuant to <u>Article 20</u>, of its intent to implement its rights under this <u>Section 8.2</u>, which notice shall specify the event giving rise to such implementation. If the event endangers life or property, or impairs or creates a significant risk to the safety, reliability, stability, or integrity of the T&D System, Seller may implement this <u>Section 8.2</u> without such prior notice as necessary in its reasonable judgment to avert such condition. Seller shall return operational control of such facilities to the Buyer as soon as practicable after the event permitting Seller to exercise such operational control has ceased. Seller shall operate such facilities in accordance with law, Good Utility Practices and agreements to which the Buyer is a party.

ARTICLE 9 DAMAGE TO EQUIPMENT, FACILITIES AND PROPERTY

9.1 <u>Buyer's Responsibility</u>. Except to the extent of Seller's or its Affiliates', or their respective officers', directors', employees', agents' or subcontractors', gross negligence or willful misconduct, and subject to <u>Sections 10.2</u> and <u>10.3</u>, Buyer shall be responsible for all physical damage to or destruction of property, equipment and/or facilities owned by Buyer and/or its Affiliates, employees, agents, or subcontractors, regardless of who brings

the claim and regardless of who caused the damage and Buyer shall not seek recovery or reimbursement from Seller for such damage.

9.2 <u>Seller's Responsibility</u>. Except to the extent of Buyer's or its Affiliates', or their respective officers', directors', employees', agents' or subcontractors', gross negligence or willful misconduct and subject to <u>Section 10.1</u>, Seller shall be responsible for all physical damage to or destruction of property, equipment and/or facilities owned by Seller and/or its affiliates, regardless of who brings the claim and regardless of who caused the damage and Seller shall not seek recovery or reimbursement from Buyer for such damage.

ARTICLE 10 INDEMNIFICATION

10.1 <u>Buyer's Indemnification</u>. The Buyer shall indemnify, hold harmless, and defend Seller, its parent, Affiliates, and successors, and their respective officers, directors, employees, agents, subcontractors, and successors, from and against any and all claims, demands, liabilities, costs, losses, judgments, damages, and expenses (including, without limitation, reasonable attorneys' and experts' fees, and disbursements incurred by Seller in any action or proceeding between Seller and a third party, the Buyer, or any other party) for damage to property, injury to or death of any person, including Seller's employees, the Buyer's employees and their Affiliates' employees, or any third parties, to the extent not covered by insurance and to the extent caused by the gross negligence or willful misconduct of the Buyer and/or its officers, directors, employees, agents, contractors and subcontractors arising out of this Agreement and not caused by the negligence or willful misconduct of any such Indemnitee (collectively, "Seller Indemnifiable Losses").

10.2 <u>Seller's Indemnification</u>. Seller shall indemnify, hold harmless, and defend the Buyer, its parent, Affiliates, and successors, and their respective officers, directors, employees, agents, subcontractors, and successors from and against any and all claims, liabilities, costs, damages, and expenses (including, without limitation, reasonable attorneys' and experts' fees and disbursements incurred by the Buyer in any action or proceeding between the Buyer and a third party, Seller, or any other party), arising out of (i) Seller's operation of any of the Buyer's Facilities pursuant to <u>Section 8.2</u> or (ii) damage to property, injury to or death of any person, including Seller's employees, the Buyer's employees and their Affiliates' employees, to the extent not covered by insurance and to the extent caused by the gross negligence or willful misconduct of Seller and/or its Affiliates, or their respective officers, directors, employees, agents, and subcontractors arising out of this Agreement and not caused by the negligence or willful misconduct of any such Indemnitee.

Service Agreement No. 1620 10.3 <u>Limitation on Seller's Responsibility</u>. Buyer acknowledges that Seller's sale of the Purchased Assets was on an "as is" basis (except as expressly provided in the ASA), and the parties agree and acknowledge that any claims arising out of or caused by Seller's ownership, use or maintenance of the Purchased Assets during the period of Seller's ownership, regardless of who brings the claims shall be governed solely by the ASA.

10.4 Indemnification Procedures.

10.4.1 Any person entitled to receive indemnification under this Agreement (the "Indemnitee") having a claim under these indemnification provisions shall make a good faith effort to recover all losses, damages, costs and expenses from insurers of such Indemnitee under applicable insurance policies so as to reduce the amount of any Indemnifiable Loss hereunder. The amount of any Indemnifiable Loss shall be reduced (i) to the extent that Indemnitee receives any insurance proceeds with respect to an Indemnifiable Loss and (ii) to take into account any Tax or Income Tax benefit recognized by the Indemnitee arising from the recognition of the Indemnifiable Loss, net of any Tax or Income Tax detriment, and any payment actually received with respect to an Indemnifiable Loss.

10.4.2 The expiration, termination or extinguishment of any covenant, agreement, representation or warranty shall not affect the parties' obligations under this <u>Section 10</u> if the Indemnitee provided the person required to provide indemnification under this Agreement (the "<u>Indemnifying Party</u>") with proper notice of the claim or event for which indemnification is sought prior to such expiration, termination or extinguishment.

10.4.3 The Seller and the Buyer shall have indemnification obligations with respect to Indemnifiable Losses asserted against or suffered by the Seller or the Buyer, as the case may be, to the extent that the aggregate of all such Indemnifiable Losses exceed the Indemnification Floor. It is agreed and understood that neither the Seller nor the Buyer, as the case may be, shall have any liability at any time for Indemnifiable Losses asserted against or suffered by the other party until the aggregate amount of Indemnifiable Losses asserted or suffered by such other party under this Section 10.4 shall exceed the Indemnification Floor, and then only to the extent that the aggregate amount of Indemnifiable Losses exceeds the Indemnification Floor. The term "Indemnification Floor" means an amount equal to \$200,000.

10.5 <u>Defense of Claims</u>. If any Indemnitee receives notice of the assertion of any claim or of the commencement of any claim, action, or proceeding made or brought by any Person who is not a party to this Agreement or any affiliate of a party to this Agreement (a "<u>Third Party Claim</u>") with respect to which indemnification is to be sought from an Indemnifying Party, the Indemnitee will give such Indemnifying Party reasonably prompt

written notice thereof, but in any event not later than ten calendar days after the Indemnitee's receipt of notice of such Third Party Claim. Such notice shall describe the nature of the Third Party Claim in reasonable detail and will indicate the estimated amount, if practicable, of the Indemnifiable Loss that has been or may be sustained by the Indemnitee. The Indemnifying Party will have the right to participate in or, by giving written notice to the Indemnitee, to elect to assume the defense of any Third Party Claim at such Indemnifying Party's own expense and by such Indemnifying Party's own counsel, and the Indemnitee will cooperate in good faith in such defense at such Indemnitee's own expense.

10.5.1 If within ten calendar days after an Indemnitee provides written notice to the Indemnifying Party of any Third Party Claim the Indemnitee receives written notice from the Indemnifying Party that such Indemnifying Party has elected to assume the defense of such Third Party Claim as provided in the last sentence of Section 10.5, the Indemnifying Party will not be liable for any legal expenses subsequently incurred by the Indemnitee in connection with the defense thereof; provided, however, that if the Indemnifying Party fails to take reasonable steps necessary to defend diligently such Third Party Claim within 20 calendar days (unless waiting 20 calendar days would prejudice the Indemnitee's rights) after receiving notice from the Indemnitee that the Indemnitee believes the Indemnifying Party has failed to take such steps, the Indemnitee may assume its own defense, and the Indemnifying Party will be liable for all reasonable expenses thereof. Without the prior written consent of the Indemnitee, the Indemnifying Party will not enter into any settlement of any Third Party Claim which would lead to liability or create any financial or other obligation on the part of the Indemnitee for which the Indemnitee is not entitled to indemnification hereunder. If a firm offer is made to settle a Third Party claim without leading to liability or the creation of a financial or other obligation on the part of the Indemnitee for which the Indemnitee is not entitled to indemnification hereunder and the Indemnifying Party desires to accept and agree to such offer, the Indemnifying Party will give written notice to the Indemnitee to that effect. If the Indemnitee fails to consent to such firm offer within ten calendar days after its receipt of such notice, the Indemnitee may continue to contest or defend such Third Party Claim and, in such event, the maximum liability of the Indemnifying Party as to such Third Party Claim will be the amount of such settlement offer, plus reasonable costs and expenses paid or incurred by the Indemnitee up to the date of such notice. Notwithstanding the foregoing, the Indemnitee shall have the right to pay, compromise or settle any Third Party Claim at any time, provided that in such event the Indemnitee shall waive any right to indemnity hereunder, unless the Indemnitee shall have first sought the consent of the Indemnifying Party in writing to such payment, settlement, or compromise and such consent was unreasonably withheld or delayed, in which event no claim for indemnity hereunder shall be waived.

10.5.2 Any claim by an Indemnitee on account of an Indemnifiable Loss which does not result from a Third Party Claim (a "<u>Direct Claim</u>") will be asserted by giving the Indemnifying Party reasonably prompt written notice thereof, stating the nature of such

claim in reasonable detail and indicating the estimated amount, if practicable, but in any event not later than ten calendar days after the Indemnitee becomes aware of such Direct Claim, and the Indemnifying Party will have a period of 30 calendar days within which to respond to such Direct Claim. If the Indemnifying Party does not respond within such 30 calendar day period, the Indemnifying Party will be deemed to have accepted such Direct Claim. If the Indemnifying Party rejects such Direct Claim, the Indemnitee will be free to seek enforcement of its rights to indemnification under this Agreement.

10.5.3 If the amount of any Indemnifiable Loss, at any time subsequent to the making of an indemnity payment in respect thereof, is reduced by recovery, settlement or otherwise under or pursuant to any insurance coverage, or pursuant to any claim, recovery, settlement or payment by or against any other entity, the amount of such reduction, less any costs, expenses or premiums incurred in connection therewith (together with interest thereon from the date of payment thereof at the prime rate then in effect of the Chase Manhattan Bank), will promptly be repaid by the Indemnitee to the Indemnifying Party. Upon making any indemnity payment, the Indemnifying Party will, to the extent of such indemnity payment, be subrogated to all rights of the Indemnitee against any third party in respect of the Indemnifiable Loss to which the indemnity payment relates; provided, however, that (i) the Indemnifying Party will then be in compliance with its obligations under this Agreement in respect of such Indemnifiable Loss and (ii) until the Indemnitee recovers full payment of its Indemnifiable Loss, any and all claims of the Indemnifying Party against any such third party on account of said indemnity payment is hereby made expressly subordinated and subjected in right of payment to the Indemnitee's rights against such third party. Without limiting the generality or effect of any other provision hereof, each such Indemnitee and Indemnifying Party will duly execute upon request all instruments reasonably necessary to evidence and perfect the above-described subrogation and subordination rights. Nothing in this Section 10.5 shall be construed to require any Party to obtain or maintain any insurance coverage.

10.5.4 A failure to give timely notice as provided in this <u>Section 10.5</u> will not affect the rights or obligations of any Party except if, and only to the extent that, as a result of such failure, the Party which was entitled to receive such notice was actually prejudiced as a result of such failure.

10.6 <u>Survival; No Limitation</u>. The indemnification obligations of each Party under this <u>Article 10</u> shall continue in full force and effect regardless of whether this Agreement has expired or been terminated or canceled and shall not be limited in any way by any limitation on insurance, on the amount or types of damages, or by any compensation or benefits payable by the Parties under any applicable workers' compensation acts, disability benefit acts or other employee acts.

ARTICLE 11 INSURANCE

11.1 <u>General</u>. The Parties agree to maintain at their own cost and expense, fire, liability, workers' compensation, and other forms of insurance relating to their property and facilities in the manner and amounts set forth in Schedule E, as both Parties may from time to time agree to amend. A Party may utilize self insurance to the extent such self insurance is consistent with then current industry practice, and all deductibles, self-insured amounts under any insurance set forth in Schedule E shall be for the account of the Party placing the insurance.

11.2 <u>Certificates of Insurance</u>. The Parties agree to furnish each other at the Closing with certificates of insurance evidencing the insurance coverage set forth in Schedule E and additional insured status.

11.3 <u>Notice of Cancellation</u>. Every contract of insurance providing the coverages required in Schedule E shall contain the following or equivalent clause: "No reduction, cancellation or expiration of the policy shall be effective until 90 days from the date written notice thereof is actually received by said Party." Upon receipt of any notice of reduction, cancellation or expiration, the Party shall immediately notify the other Party in accordance with <u>Article 20</u>.

11.4 <u>Additional Insureds</u>. Each Party and its Affiliates shall be named as additional insureds on the general liability insurance policies set forth in Schedule E under this Agreement; and each Party shall waive its rights of recovery against the other for any loss or damage covered by such policy.

11.5 <u>Waiver of Subrogation</u>. The Parties on behalf of themselves, their parents, and Affiliates, each waive any right of subrogation under their respective insurance policies for any liability each has agreed to assume under this Agreement. Evidence of this requirement shall be noted on all certificates of insurance.

11.6 Each Party shall have the right to inspect the original policies of insurance applicable to this Agreement at the other Party's place of business during regular business hours.

ARTICLE 12 FORCE MAJEURE

12.1 <u>General</u>. Notwithstanding anything in this Agreement to the contrary, Buyer and Seller shall not be liable in damages or be otherwise responsible to the other for a failure to carry out any of its obligations under this Agreement, other then any obligation to pay an amount when due, if and only to the extent that they are unable to so perform or are prevented from performing by a Force Majeure Event. Such exclusion from liability shall extend for the period of time necessitated by such Force Majeure Event.

12.2 <u>Content of Term</u>. The term "Force Majeure Event" means any occurrence beyond the reasonable control of a Party which causes such Party to be delayed in or prevented from performing or carrying out any of its obligations under this Agreement and which by the exercise of due diligence in accordance with Good Utility Practices, that Party is unable to prevent, avoid, mitigate, or overcome, including any of the following: any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, ice, explosion, breakage or accident to machinery or equipment, order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities provided that a Force Majeure Event shall not include lack of finances or change in market conditions, and provided further that any failure of Buyer to obtain fuel or services for the Facility due to the failure of any supplier or subcontractor of Buyer to perform any obligation to Buyer will not constitute a Force Majeure Event hereunder unless such subcontractor or supplier is unable to perform for reasons that would constitute a "Force Majeure Event" hereunder.

12.3 <u>Procedures</u>. If a Party shall rely on the occurrence of an event or condition described above as a basis for being excused from performance of its obligations under this Agreement, then the Party relying on the event or condition shall: (i) provide prompt written notice of a Force Majeure Event to the other Party giving a detailed written explanation of the event, an estimation of its expected duration and the probable impact on the performance of its obligations hereunder; (ii) exercise all reasonable efforts in accordance with Good Utility Practices to continue to perform its obligations under this Agreement; (iii) expeditiously take commercially reasonable action to correct or cure the event or condition excusing performance; provided that settlement of strikes or other labor disputes will be completely within the sole discretion of the Party affected by such strike or labor dispute; (iv) exercise all reasonable efforts to mitigate or limit damages to the other Party; and (v) provide prompt notice to the other Party of the cessation of the event or condition giving rise to its excuse from performance.

ARTICLE 13 DISPUTES

13.1 Any disagreement between Seller and the Buyer as to their rights and obligations under this Agreement shall first be addressed by the Parties. If within 30 days the representatives of the Buyer and Seller are unable in good faith to resolve their disagreement satisfactorily, they shall refer the matter to their respective senior management. If after using their good faith efforts to try to resolve the dispute, senior management cannot resolve the dispute in 30 days, either Party may exercise any right or remedy available under this Agreement, at law or in equity. The Parties agree to cooperate in good faith to expedite the resolution of any disputes arising under this Agreement.

13.2 Nothing in this Agreement shall preclude, or be construed to preclude, any Party from filing a petition or complaint with the FERC with respect to any claim over which the FERC has jurisdiction, provided however, that any Party filing a petition or complaint with the FERC provide written notice to the other Party no less than ten days prior to such filing.

ARTICLE 14 REPRESENTATIONS AND WARRANTIES

14.1 <u>Representations of Seller</u>. Seller represents and warrants to Buyer as follows:

14.1.1 <u>Organization</u>. Seller is a corporation duly organized, validly existing and in good standing under the laws of the State of New York and Seller has the requisite corporate power and authority to carry on its business as now being conducted;

14.1.2 <u>Authority Relative to this Agreement</u>. Seller has the requisite corporate power and authority to execute and deliver this Agreement, subject to the procurement of applicable regulatory approvals, and to carry out the actions required of it by this Agreement. The execution and delivery of this Agreement and the actions it contemplates have been duly and validly authorized by all required corporate action. The Agreement has been duly and validly executed and delivered by Seller and, assuming it is duly and validly executed and delivered by the Buyer, constitutes a legal, valid and binding Agreement of Seller; and

14.1.3 <u>Compliance With Law and Agreements</u>. (A) Seller is not in violation of any applicable law, statute, order, rule, or regulation promulgated or judgment entered by any Federal, state, or local governmental authority, which violation individually or in the aggregate would adversely affect Seller's entering into or performance of its obligations

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under this Agreement; and (B) Seller's entering into and performance of its obligations under this Agreement will not give rise to any default under any agreement to which it is a party.

14.2 <u>Representations of Buyer</u>. Buyer represents and warrants to Seller as follows:

14.2.1 <u>Organization</u>. Buyer is a limited liability company duly organized, validly existing and in good standing under the laws of Delaware, and Buyer has the requisite power and authority to carry on its business as now being conducted;

14.2.2 <u>Authority Relative to this Agreement</u>. Buyer has the requisite power and authority to execute and deliver this Agreement and, subject to the procurement of applicable regulatory approvals, to carry out the actions required of it by this Agreement. The execution and delivery of this Agreement and the actions it contemplates have been duly and validly authorized by the Managers or Members of the Buyer and no other Company proceedings on the part of the Buyer are necessary to authorize this Agreement or to consummate the transactions contemplated hereby. This Agreement has been duly and validly executed and delivered by Buyer and, assuming it is duly and validly executed and delivered by the Seller, constitutes a legal, valid and binding Agreement of Buyer; and

14.2.3 <u>Compliance With Law and Agreements</u>. (A) Buyer is not in violation of any applicable law, statute, order, rule, or regulation promulgated or judgment entered by any Federal, state, or local governmental authority, which, individually or in the aggregate, would adversely affect Buyer's entering into or performance of its obligations under this Agreement; and (B) Seller's entering into and performance of its obligations under this Agreement will not give rise to any default under any agreement to which it is a party.

ARTICLE 15 ASSIGNMENT/CHANGE IN CORPORATE IDENTITY

15.1 <u>General</u>. This Agreement and all of the provisions hereof shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and permitted assigns, but neither this Agreement nor any of the rights, interests, or obligations hereunder shall be assigned, except to an Affiliate of Seller that owns the T&D System or to the Purchased Assets, by either Party hereto, whether by operation of law, without the prior written consent of the other Party, said consent not to be unreasonably withheld. Any assignment of this Agreement in violation of the foregoing shall be, at the option of the nonassigning Party, void. Notwithstanding the foregoing, Buyer or its permitted assignee may assign, transfer, pledge or otherwise dispose of its rights and interests hereunder to (i) a trustee or lending institution(s) for the purposes of financing or refinancing the Purchased

Assets, including upon or pursuant to the exercise of remedies under such financing or refinancing, or by way of assignments, transfers, conveyances of dispositions in lieu thereof; provided, however, that no such assignment or disposition shall relieve or in any way discharge Buyer or such assignee from the performance of its duties and obligations under this Agreement, (ii) an affiliate of the Buyer or (iii) a purchaser, transferee or lessor of all or substantially all of Buyer's right, title and interest in and to the Purchased Assets, provided such purchaser, transferee or lessor (A)(1) has a "net worth", or "consolidated net worth", if applicable, as determined in accordance with U.S. generally accepted accounting principles and reflected in an audited balance sheet (or consolidated balance sheet, if applicable) ("Net Worth") at least equal to an amount equal to one-third of the Purchase Price (as described in Section 3.1 of the ASA), or (2) provides a guaranty from an affiliate which has a net worth at least equal to the amount specified in (A)(1) above and (B) demonstrates its ability to operate the Purchased Assets to O&R's reasonable satisfaction in accordance with Good Utility Practices. Seller agrees to execute and deliver such documents as may be reasonably necessary to accomplish any such assignment, transfer, conveyance, pledge or disposition of rights hereunder for purposes of the financing or refinancing of the Purchased Assets, so long as Seller's rights under this Agreement are not thereby altered, amended, diminished or otherwise impaired.

15.2 Party to Remain Responsible. No assignment, transfer, pledge, conveyance, or disposition of rights or obligations under this Agreement by a Party shall relieve that Party from liability and financial responsibility for the performance thereof after any such assignment, transfer, conveyance, pledge, or disposition unless and until the transferee or assignee shall agree in writing to assume the obligations and duties of that Party under this Agreement and the non-assigning Party under this Agreement has consented in writing to such assumption and to a release of the assigning Party from such liability, such consent shall not be unreasonably withheld.

15.3 <u>Termination of Corporate Existence</u>. If either Party terminates its existence as a corporate entity, by merger, acquisition, sale, consolidation, or otherwise, or if all or substantially all of such Party's assets are transferred to another person or business entity, without complying with <u>Section 15.1</u> above, the other Party shall have the right enforceable in a court of competent jurisdiction, to enjoin the first Party's successor from using the property in any manner that interferes with, impedes, or restricts such other Party's ability to carry out its ongoing business operations, rights and obligations.

15.4 <u>Merger with Con Edison</u>. The Buyer acknowledges that Seller has entered into an Agreement and Plan of Merger whereby Seller will become a wholly-owned subsidiary of Consolidated Edison, Inc. ("<u>CEI</u>"). Notwithstanding any other provision of this <u>Article 15</u>, the Buyer agrees that this Agreement may be assigned to CEI, or a wholly-owned affiliate of CEI without the Buyer's consent.

Service Agreement No. 1620 15.5 <u>Regulatory Approval; Effective Date</u>. This Agreement shall not become effective and binding upon the Parties until is has been: (i) signed by each of the Parties hereto,(ii) the FERC and NYPSC have entered a final order in form and substance satisfactory to the Parties approving this Agreement, and (iii) the Closing Date shall have occurred. The Parties agree to use their best efforts to obtain such regulatory approval as promptly as practicable following execution of this Agreement.

ARTICLE 16 SUBCONTRACTORS

16.1 <u>Use of Subcontractors Permitted</u>. Nothing in this Agreement shall prevent the Parties from utilizing the services of subcontractors as they deem appropriate, provided, however, that all said subcontractors shall comply with the applicable terms and conditions of this Agreement including but not limited to compliance with Good Utility Practices.

16.2 <u>Party to Remain Responsible</u>. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. Each Party shall be fully responsible to the other Party for the acts and/or omissions of any subcontractor it hires as if no subcontract had been made. Any obligation imposed by this Agreement upon the Parties, where applicable, shall be equally binding upon and shall be construed as having application to any subcontractor.

16.3 <u>Liability for Conduct of Subcontractors</u>. The Parties shall each be liable for, indemnify, and hold harmless the other Party, their affiliates and their officers, directors, employees, agents, servants, and assigns from and against any and all claims, demands, or actions, from the other Party's subcontractors to the extent not caused by the negligence or willful misconduct of the other Party or its Affiliates, or their respective officers, directors, employees, agents or subcontractors; and shall pay all costs, expenses and legal fees associated therewith and all judgments decrees and awards rendered therein.

16.4 <u>No Limitation by Insurance</u>. The obligations under this <u>Article 16</u> shall not be limited in any way by any limitation on subcontractor's insurance.

ARTICLE 17 LABOR RELATIONS

17.1 Each Party agrees promptly to notify the other Party, verbally and then in writing, of any labor dispute (including a strike) or anticipated labor dispute which may reasonably be expected to affect the operations of the other Party.

ARTICLE 18 INDEPENDENT CONTRACTOR STATUS

18.1 Nothing in this Agreement shall be construed as creating any relationship between Seller and Buyer other than that of independent contractors. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

ARTICLE 19 <u>LIMITATION OF LIABILITY</u>

19.1 <u>Consequential Damages</u>. Neither Seller nor Buyer, nor their respective officers, directors, agents, employees, parent or affiliates, successors or assigns or their respective officers, directors, agents or employees, successors or assigns, shall be liable to the other Party or its parent, subsidiaries, affiliates, officers, directors, agents, employees, successors or assigns, for claims, suits, actions or causes of action for incidental, punitive, special, indirect, multiple or consequential damages (including without limitation, attorneys' fees and other litigation costs, or claims for lost profits) connected with or resulting from performance or non-performance of this Agreement, or any actions undertaken in connection with or related to this Agreement, including without limitation any such damages which are based upon causes of action for breach of contract, tort (including negligence and misrepresentation), breach of warranty, strict liability, statute, operation of law, or any other theory of recovery. The provisions of this <u>Section 19.1</u> shall apply regardless of fault and shall survive termination, cancellation, suspension, completion or expiration of this Agreement.

ARTICLE 20 NOTICES

20.1 At or prior to the Closing Date, each Party shall indicate to the other Party, by notice, the appropriate person during each eight-hour work shift to contact in the event of an emergency, a scheduled or forced interruption or reduction in services. The notice last received by a Party shall be effective until modified in writing by the other Party.

20.2 All notices, requests, claims, demands and other communications hereunder shall be in writing and shall be deemed effective upon receipt when delivered either by hand delivery, cable, telecopy (confirmed in writing) or telex, or by mail (registered or certified, postage prepaid) to the respective Parties as follows:

Service Agreement No. 1620

If to the Seller, to:

Orange and Rockland Utilities, Inc. c/o Consolidated Edison Company of New York, Inc. 4 Irving Place, Room 1810-S New York, New York 10003 Attention: General Counsel Fax: (212) 674-7329

With a copy to:

Orange and Rockland Utilities, Inc. 390 West Route 59 – Dept SVOC Spring Valley, New York 10977 Attention: Vice President - Operations Fax: (845) 577-3074

If to the Buyer to:

AER NY-GEN, LLC 613 Plank Road Forestburgh, NY 12777

or such other address as is furnished in writing by such Party.

ARTICLE 21 HEADINGS

21.1 The descriptive headings of the Articles and Sections of this Agreement are inserted for convenience only and do not affect the meaning or interpretation of this Agreement.

ARTICLE 22 WAIVER

22.1 Except as otherwise provided in this Agreement, any failure of any of the Parties to comply with any obligation, covenant, agreement, or condition herein may be waived by the Party entitled to the benefits thereof only by a written instrument signed by the Party granting such waiver, but such waiver or failure to insist upon strict compliance with such obligation, covenant, agreement, or condition shall not operate as a waiver of, or estoppel with respect to, any subsequent or other failure.

Service Agreement No. 1620

ARTICLE 23 COUNTERPARTS

23.1 This Agreement may be executed in two or more counterparts, all of which will be considered one and the same Agreement and each of which will be deemed an original.

ARTICLE 24 GOVERNING LAW

24.1 This Agreement and all rights, obligations, and performances of the Parties hereunder, are subject to all applicable Federal and state laws, and to all duly promulgated orders and other duly authorized action of governmental authority having jurisdiction.

24.2 When not in conflict with or pre-empted by Federal law, this Agreement will be governed by and construed in accordance with the laws of the State of New York, without giving effect to the conflict of law principles thereof. Except for those matters covered in this Agreement and jurisdictional to FERC or the appellate courts having jurisdiction over FERC matters, any action arising out of or concerning this Agreement must be brought in the Federal or State courts of the State of New York. Both Parties hereby consent to the jurisdiction of the State of New York for the purpose of hearing and determining any action not pre-empted by Federal law; and to the jurisdiction of FERC for those matters governed by FERC rules and regulations or by the Federal Power Act.

ARTICLE 25 CONFLICT WITH ASA

25.1 In the event there is a conflict between the provisions of this Agreement and the ASA, the provisions of the ASA shall prevail.

ARTICLE 26 SEVERABILITY

26.1 In the event that any of the provisions of this Agreement are held to be unenforceable or invalid by any court of competent jurisdiction, the Parties shall, to the extent possible, negotiate an equitable adjustment to the provisions of this Agreement, with a view toward effecting the purpose of this Agreement, and the validity and enforceability of the remaining provisions hereof shall not be affected thereby.

ARTICLE 27 AMENDMENTS

27.1 Seller may unilaterally make application to FERC under Section 205 of the Federal Power Act and pursuant to the FERC's rules and regulations promulgated thereunder for a change in any rates, terms and conditions, charges, classification of service, rule or regulation for any services Seller provides under this Agreement over which FERC has jurisdiction.

27.2 Buyer may exercise its rights under Section 206 of the Federal Power Act and pursuant to FERC's rules and regulations promulgated thereunder with respect to any rate, term, condition, charge, classification of service, rule or regulation for any services provided under this Agreement over which FERC has jurisdiction.

27.3 In addition to the terms set forth in <u>Sections 27.1</u> and <u>27.2</u>, this Agreement may be amended, modified, or supplemented by written agreement of both Seller and Buyer.

ARTICLE 28 ENTIRE AGREEMENT

28.1 This Agreement, the ASA, the Ancillary Agreements and the Separation Document constitute the entire understanding between the Parties, and supersede any and all previous understandings, oral or written, which pertain to the subject matter contained herein or therein. If there is any conflict in said documents, the ASA shall control over this Agreement.

ARTICLE 29 NO THIRD PARTY BENEFICIARIES

29.1 Nothing in this Agreement, express or implied, is intended to confer on any person, other than the Parties, any rights or remedies under or by reason of this Agreement.

ARTICLE 30 FURTHER ASSURANCES

30.1 The Parties hereto agree to execute and deliver promptly, at the expense of the Party requesting such action, any and all other and further information, instruments and documents that may be reasonably requested in order to effectuate the transactions contemplated hereby, including but not limited to, such instruments or documents to establish, if necessary, an alternative arrangement, for access to services under this Agreement.

Service Agreement No. 1620 IN WITNESS WHEREOF, the Parties have executed and delivered this Agreement as of the date and year first above written.

ORANGE AND ROCKLAND UTILITIES, INC.

<u>/s/James W. Tarpey</u> By: James W. Tarpey Title: Vice President, Operations

AER NY-GEN, LLC

<u>/s/Joseph Klimaszewski, Jr.</u> By: Joseph Klimaszewski, Jr. Title: Vice President, OPs and New Development

SCHEDULES TO THE

CONTINUING SITE/INTERCONNECTION AGREEMENT BY AND BETWEEN O&R AND NY-GEN LLC

Schedule A to Continuing Site/Interconnection Agreement

Confidential Energy Infrastructure Information ("CEII")

Schedule A (Part II) to Continuing Site/Interconnection Agreement

Schedule A (Part II)

PLANT: HILLBURN (3. Ţ.		<u></u>	
	······································		OWN	ER
TRIPS BREAKER	RELAY TYPE	DEVICE #	ORU	<u>SC</u>
86T 86T 86T 86G-1 86G-1 86G-1 86G-1 86G-1 86G-1 86G-1 86G-1 6T1-2 GT1-2 GT1-2 GAS SHUT OFF GAS SHUT OFF GAS SHUT OFF LIQUID SHUT OFF LIQUID SHUT OFF LIQUID SHUT OFF	HU HU HU KLF CV-8 CV-5 PT-3 CW SA-1 DT-3 COQ CEB RPM SC SC SC SC SC SC SC SC SC SC	87T-1 87T-2 87T-3 40L 64G 59G 49G-1 32 87G 49G-2 46 21 21GX/TX UNIT-A IJ UNIT-A IJ UNIT-A IK UNIT-B IL UNIT-B IL UNIT-A IN UNIT-A IP IQ IR		× × × × × × × × × × × × × × × × × × ×

The parties acknowledge that the designation of ownership of the various relays listed in Schedule A, Part II is based upon the functionality of the relays. Relays with the primary purpose of protecting transmission facilities have been designated as Seller's relays and relays with the primary purpose of protecting generation facilities have been designated as Buyer's relays. The parties agree to revise this list from time to time to the extent the ownership designation does not reflect such functionality.

	T		OWN	<u>ER</u>
TRIPS BREAKER	RELAY TYPE	DEVICE #	ORU	<u>SC</u>
511-2	HU	87T-1 87T-2		X. X
LOWSIDE (GE) BREAKER 86T LOCKOUT	HU	87T-3		X
86G-1	KLF	40L 64G	-	XX
86G-1	CV-8 CW	32		Х
86G-1 86G-1	SA-1	87G		Х
86G-1	DT-3	49G-1	-	X
ALARM	DT-3	49G-2 46		X X X
GEN. LOWSIDE BREAKER	COQ CEB	21		
LOWSIDE BREAKER	RPM	21GXTX		. X
86G-2 LOCKOUT	SC-1	IJ		X X
B6G-2 LOCKOUT	SC-1 SC-1			x,
86G-2 LOCKOUT 86G-2 LOCKOUT	SC-1	IM		Х
B6G-2 LOCKOUT	SC-1	IN .		X X
B6G-2 LOCKOUT	SC-1	IP IQ		x
36G-2 LOCKOUT 36G-2 LOCKOUT	SC-1 SC-1	IR III		Х
CLOSES BKR. GT1-2	DSM	25		X
TRIPS 86G-1, 511-2,	CV-5	59G		Х

PLANT - HILLBURN 69KV YARD					
DIVESTED ASSET	OCB GT-17-2X FK72.5-38000-3				
		OW	NER		
CABLE #	FUNCTION	ORU	SEI		
217 216 214 225 226 211 215 218 219 220 205	CONTROL BANK 617 DIFFERENTIAL 69KV BUS DIFFERENTIAL CONTROL DC CONTROL POWER CONTROL SPARE SPARE CONTROL AC CONTROL POWER	X X X	X X X X X X X X		

PLANT - HILLBURN 69KV YARD						
DIVESTED ASSET -	OCB 617-2Y FK72.5-38000-3					
		ÓW	VER			
CABLE #	FUNCTION	ORU	SEI			
213 216 226 221 222 212 224 223 206	69KV BUS DIFFERENTIAL BANK 617 DIFFERENTIAL CONTROL SPARE DC CONTROL POWER CONTROL CONTROL AC CONTROL POWER	x x x	X X X X X			

HILLBURN OCB 617-2Y

PLANT - SHOEMAK	ER 69KV YARD		
DIVESTED ASSET -	OCB 511-2 FK-72.5, 69KV, 5000MVA, 2000AMP		
		OW	VER
CABLE #	FUNCTION	ORU	SEI
809	DC POWER	x	
238	CONTROL		Х
807	CONTROL	X X	
810	AC CONTROL POWER		х
239	SPARE		x
244	RELAY CURRENTS	X ·	~
808	69KV BUS DIFFERENTIAL	^ '	х
240	SPARE		<u>A</u>

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Schedule B

SELLER PROVIDED SYSTEM INFORMATION

- Hourly billing (MWH) Actual output in MW 1.
- 2.
- AGC signals sent by the ISO з.
- VAR contributions 4.
- Voltages of busses at plants MW at busses at plants 5.
- 6.
- MVAR at busses at plants 7.
- Breaker positions on busses 8.
- Station service MWH at busses at plants 9.

250479.04-New Ymrk56A

Schedule C to Continuing Site/ Interconnection Agreement

VOLTAGE LEVEL FOR SYSTEM LOADS

SYSTEM LOAD		300	400	<u>600</u>	600	<u>80</u>	800	006	1000	1100	1160
LOVETT	138	140.0	141.0	141.5	142.3	142.6	142.9	143.8	144.4	144.8	144.6
RAMAPO	138	140.5	141.0	141.5	142.0	142.8	143.0	143.7	144,5	144.7	144.8
SOUTH MAHWAH	138	140.5	140.5	142.0	142.5	142.9	143.5	144.0	144.5	144.8	144.8
WEST HAVERSTRAW 138	138	140.0	141.0	141.5	142.7	143.0	143.5	143.7	144.0	144.5	144.8
BURNS	69	70.0	70.0	70.5	71.0	71.4	71.8	72,0	72,0	72.2	72.2
HARINGS CORNER	69	69.5	70.0	70.5	71.2	71.5	71.8	72.2	72.5	72.5	72.5
HILLBURN	69	69.5	70.0	70.5	71.2	71.5	7.17	72.0	72.2	72.6	72.8
LOVETT	69	70.0	71.0	71.0	71.4	71.5	71.8	72.2	72.2	72.2	72.4
SOUTH MAHWAH	60	70.0	70.5	71.0	71.3	71.5	7.1.7	72.0	72.1	72.4	72.5
SUGARLOAF	69	70.0	70.5	70.5	71.0	71.6	71.8	72.0	72.2	72.2	72.2
WEST NYACK	69	69.5	70.0	70,5	71.2	71.5	71.9	72.2	72.5	72.5	72.5
PORT JERVIS	34	35.0	35.5	35.5	35.5	35.6	35.6	36,0	36.0	36.0	36.0
SHOEMAKER	34	35.0	35.5	35.5	35.5	35,0	35.6	36.0	36.0	36.3	36.3
CUDDEBACKVILLE	34	35,0	35.4	35.4	35.5	35.6	35.8	35.8	36.0	36,1	36.2
LOAD		BMW	10MW	16MW					·		-
CRESSKILL	34	33.4	33.8	34.3							

Voliana Lavela for Svalem Loads

NOTE: THE 345KV TIE (RAMAPO, SOUTH MAHWAH, WEST HAVERSTRAW) STATION VOLTAGES ARE ASSUMED TO RANGE FROM 362KV TO 350KV THESE STATION VOLTAGES ARE CONTROLLED BY NYPP.

Schedule D to Continuing Site/Interconnection Agreement

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ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS

SUBJECT	01	6-E-	-11		
BLACK START AND SYSTEM RESTORATION PLAN	SHEET	- 1	9	of	32

General

This plan is to be implemented following a total blackout of the Orange and Rockland system. It defines the general strategies to be employed for restarting the system from any available tie or available black start generation source. In addition, this plan will serve as a guide for the complete restoration of service to all customers of the franchise area.

Organization

Critical to the success of this operation is the strict adherence to an organizational plan which will oversee and direct the startup and complete restoration of the system. It will be the responsibility and authority of this organization to accomplish the following:

- Provide timely and thorough communication with appropriate inter-company and intra-company personnel. 1.
- To effectively deploy company field crews and generating personnel in such manner as to re-energize the O&R bulk power system as expeditiously as possible and to direct as frequency and stability 2. considerations permit, the restoration of the distribution system.
 - To implement this operating procedure with discretion such that the risk of damage to company
- 3. transmission, generation and distribution facilities is at all time minimized.

This organization will be divided into two groups: The Directing Group and the Control Group. The former will be comprised of the Director of System Operations, and the managers of Substation Operations, and Delivery Systems Design. Under the leadership of the Director of System Operations, the Directing Group will be located in the Observation Room of the Energy Control Center (ECC) and will be responsible for the following:

- The direction and overall implementation of this procedure. 1.
- Communicating system status with the Executive Staff and O&R Corporate Communications Department. 2.
- Directing the deployment of line crews by communication with the Director of Operations. 3.
- Providing advice and consultation for the Control Group. 4.
- Deploying substation, relay and hydro crews as requested by the Senior System Operator.
- Directing the ECC computer group to cover remote terminal unit, uninterruptible power supply and 5. 6.
- computer problems.

The Control Group will be comprised of the Manager of System Operations, three Senior System Operators and three System Operators. This group will be positioned on the Operating Floor of the PCC. The Control Group will be responsible for the following:

- Effecting the specific steps for starting up and restoring the system. 1.
- Communicating system status with the New York Power Pool and coordinating with that body, the restoration of the 345 KV system in the O&R franchise territory under O&R responsibility as detailed in the 2. NYPP Operating Policy 13.

Revised by: System Operations Dept. - January 1999

Distributed to: G. V. Bubolo, Jr. **Distribution List**

Approved by:

ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS

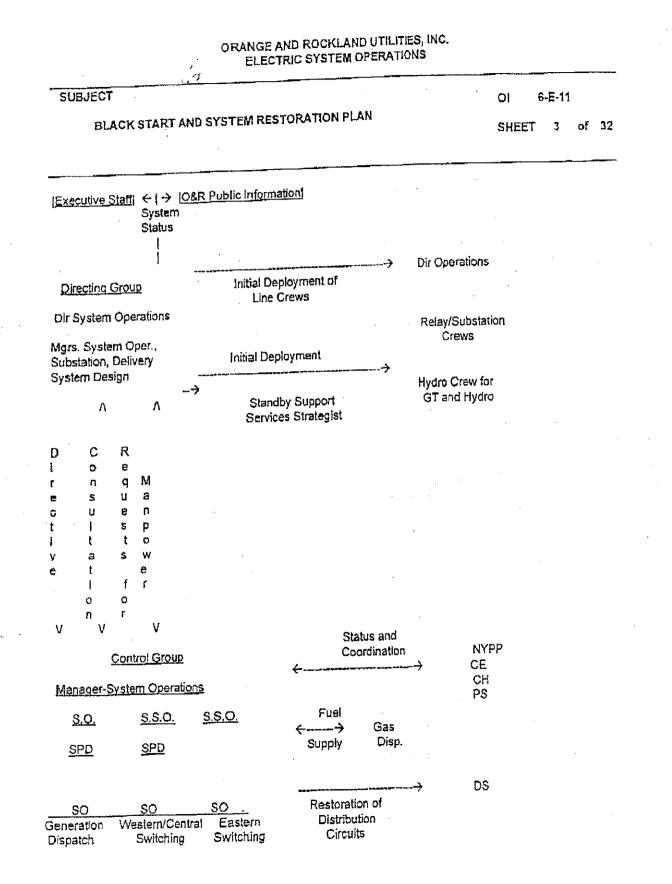
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SUBJECT	01	6-E-1	1	
BLACK START AND SYSTEM RESTORATION PLAN	SHEET	2	of	32

- Coordinating with Consolidated Edison, Central Hudson and Public Service the synchronization of the systems. (Appendix I - list of substation with synchronizing scopes and breakers with sync-check relays.) 3. Advising the Distribution Supervisor of circuits to be restored on the Distribution system.
- 4.
- Maintaining the generation-load balance such that frequency is held at 60 Hz. Maintaining reactive balance and system voltages such that the 5% plus or minus criteria is not violated. 5.
- Maintaining Transmission line ratings within the limits defined under OI 2-E. 6.
- Coordinating, whenever possible, with the DS, the restoration of critical loads such as hospitals, police 7.
- and fire departments, military installations, gas, water, sewer plants and medical emergencies. 8.

Communications with the various system operator functions is extremely important to the restoration and should be handled via the specific phone numbers as follows:

 Senior System Operator Eastern Switching (SO) Westem/Central Switching (SO) Relay Department Generation Emergency 	a) 577-3354 a) 577-3350 a) 577-3353 a) 577-3351 577-3352 352-0098	b) 352-0096 b) 352-2114 b) 352-2114 b) 352-2114 b) 352-2114
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O&R EDCC

ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS

SUBJECT

BLACK START AND SYSTEM RESTORATION PLAN

6-E-11 01

SHEET 4 of 32

Procedural Outline

The restoration of the system will proceed in general as outlined below:

- System Assessment and Initial Operations
- I. Tie Line, Gas Turbine, Co-generation, and Hydro Black Start Procedure
- 1. Startup Power for Lovett
- III. Startup Power for Bowline and Restoration of the 345 KV System under O&R authority
- IV. Restoration of the 138 KV System and Islanded Systems
- V. Selective Simultaneous Restoration of 69KV Loops Vľ.
 - South Mahwah Hillburn Montvale Α.
 - Hillburn Harriman Sugarloaf West Point ₿.
 - Sterling Forest Ċ.
 - Harings Corper
 - D. Western Division E.
- Restoration of the 34.5 KV Systems VII.
 - Eastern A.
 - Western 8.
 - Central C.

1.

System Assessment and Initial Operations

The Senior System Operator will determine and use the most advantageous point of restart whether it be Islanded generation, interconnection point or black start generation.

- Generation Following a major disruption on the bulk power interconnection which has caused a total shutdown or separation of systems, the Senior System Operator will communicate with all A. generating plants to make a determination whether any Islanding of units has occurred. If units at Lovett have been islanded the following principles must be strictly observed.
 - A sustained high or low frequency can result in catastrophic failure of turbine generators. 1. According to the EPRI report on Operation Below Normal Frequency, turbines can run at 58.5 Hz for one hour before sustaining damage and as low as 55 Hz for only 10 minutes. It is, therefore, absolutely critical to return frequency to 60 Hz as rapidly as possible. Otherwise, a controlled shutdown of the islanded units is mandatory. Adjustment of turbine throttle control and the connection or disconnection of load will return frequency within limits.
 - High voltage in excess of 110% of rated voltage can cause severe damage if sustained 2. for longer than 10 minutes. Generator terminal voltage below 90% of rated voltage can cause instability - units going out of step or losing auxiliaries. Again, it is absolutely crucial to return voltages to within the plus or minus 5% criteria. This will be done by adjustment of generator excitation controls, connection or disconnection of load, and adjustment of load tap changers.
 - As quickly as possible supply islanded generators with sufficient load to meet their 3, minimum load requirements.

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	ORANGE AND ROCKLAND UTILITIES, INC.	
•	FI ECTRIC SYSTEM OPERATIONS	

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SUBJECT	01	6-E-11		
BLACK START AND SYSTEM RESTORATION PLAN	SHEET	5	of	32
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B. Transmission - The Senior System Operator will check all the points and communicate with neighboring systems as to whether startup power is available from the interconnection. Should a tie be available proceed with the express route as outlined on the accompanying one-line diagram and described in this instruction.

If no startup is available from the tie points proceed with the express route to the black start generation (i.e., Hillburn GT, Shoemaker GT, Lederle Co. Gen. And/or Mongaup Hydro).

The following tie points must be opened by the SO prior to any attempted black start:

6108-2 194E-27-2Y T194W-541 671-94-4 T258-J3410 1300-4	Sugarioaf West Haverstraw West Haverstraw West Haverstraw South Mahwah Ramapo	1300-A 2300-4 2300-A	Катаро Катаро Катаро
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C. The Senior System Operator and System Operator will initiate the callout of company manpower by calling additional operating personnel required to staff the ECC Control Group, the Directing Group and the Distribution Supervisor who, in turn, will notify those people on the Required Notification list (see page 6).

Directing Group

G. V. Bubolo, Jr. - Vice President, Energy Delivery Services Ext. 2557 Home (914) 744-3178

V. J. Budd - Manager, System Operations Ext. 3211 Home (914) 343-3629

D. A. Hunt - Manager, Substation Operations Ext. 3104 Home (914) 361-4052

P. T. McGoldrick - Manager, Delivery System Design Ext. 2644 Home (914) 928-2688 Alternate - J. M. Koza

Ext. 2672

Home (914) 429-0946

ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS

SUBJECT OI 6-E-11 BLACK START AND SYSTEM RESTORATION PLAN SHEET 6 of 32

REQUIRED NOTIFICATIONS

R. J. Biederman, Jr Vice President, Operations	Ext. 2722 or 3430	Home (914) 353-2343
A. M. Freedman - Director, Public Policy & Communi Alternate - J. Lois	cations Ext. 2922 Ext. 2941	Home (914) 359-3309 Home (914) 634-6983
W. A. Palmatier, Jr Director, Electric Operations	Ext. 3358	Home (914) 268-9768
M. M. D'Auria - Manager, System Distribution	Ext. 3501	Home (914) 354-9550

The Director of Englneering & System Operations will inform the members of the Executive Staff of system status. The Manager of Substation Operations will notify the Substation and Relay Supervisors who will, in turn, be responsible for Initially calling all available personnel.

Relay and Substation men will be assigned to the following locations:

Ramapo		1 Substation Crew	1 Relay Crew
Hillburn		1 Substation Crew	1 Relay Crew
West Haverstri	we	1 Substation Crew	1 Relay Crew
Harings Corne West Nyack Sparkill	r) })	1 Substation Crew	1 Relay Crew
Burns		1 Substation Crew	1 Relay Crew
Shoemaker	•	1 Substation Crew	1 Relay Crew
Sugarloaf		1 Substation Crew	1 Relay Crew
Ladentown		1 Substation Crew	1 Relay Crew
Franklin Lakes South Mahwal	•	1 Substation Crew	1 Relay Crew
Lovett		1 Substation Crew	1 Relay Crew
Bowlina		1 Substation Crew	1 Relay Crew
Mongaup		1 Substation Crew	1 Relay Crew
Monroe Harriman)	1 Substation Crew	1 Relay Crew
Montval e Pearl Riv o r))	1 Substation Crew	1 Relay Crew

15-2-2B 15-3-2B

15-6-2K

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ORANGE AND ROCKLAND UTILITIES, INC.
ELECTRIC SYSTEM OPERATIONS

	7	ELECTRIC SY	STEM OPERATI					
SUBJECT					01 ·	6-E-11	ł	
BLAG	CK START AND SYST	EM RESTORATI	ON PLAN		SHEET	7	of	32
	The SO on generation addition, the Manage hydro and gas turbin at Hillburn and the V	er of Hydro and G le sites are imme	the Bowline and as Turbines of s diately manned in	Lovett Plant Sup ystem conditions preparation for	erintendent s. The later the black s	s and, will se tart op	in ee tha erati	at ai
	The Manager of Sys	tem Operations w	/ill call out an app	propriate staff for	r computer :	suppo	rt.	
	The Directing Group 354-9550) at least e Operations and the	will advise the M very half hour of t Director of Corpor	anager - System system status. H rate Communical	Distribution (exi le, in turn, will no lions.	t 3501, hon tify the Dire	ne actor o	f Ele	
	The SO on Generati generation is availat in his system.	ole, he will be requ	JERICO IO MOLTA	o poniping time		•	-	
D,	All distribution break minimize the possib procedure resulting	istu at manvettetti	IA GURIATURI no		O. This wild during the r	l be de estora	one t ition	D
West	em Division Rio		3-1D-2					
	Port Jervis		6-7-2K 6-8-2K 6-9-2K Line 7 distrib 10-6-2	11-5-2 Julion 7-6-2K				
	Shoemaker	11-1-2K 11-2-2K 11-3-2K 11-4-2K 11-5-2K 4-11-2		6-11-2 20-11-2 19-11-2 11-11-2 120-11-2				
	Silver Lake		122-113-2 113-1-2K 113-2-2K 113-3-2K		·	,		
•.	Cuddebackville		10-5-2 4-5-2 3-5-2					
	Mongaup	·	2-1-2K					
	East Wallkill	15-1-2B 15-2-2B		15-4-2K 15-5-2K				

ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS ¢ 7 SUBJECT OI 6-E-11 BLACK START AND SYSTEM RESTORATION PLAN of 32 SHEET 8 Central Division 67-1-2K Sterling Forest 67-2-2K 71-1-28 71-3-2B Hamman 71-2-28 71-4-28 71-7-28 71-5-28 71-8-2B 71-6-28 89-1-2K South Goshen 89-2-2K 89-3-2K 89-10-2K 89-11-2K 78-1-2K Ringwood 78-2-2K 79-7-28 79-1-28 79-4-2K West Milford 79-8-28 79-2-2B 79-5-2K 79-3-28 79-6-2K 80-1-2K Wisner 80-2-2K 80-3-2K 80-4-2K 80-5-2K 82-61-2 Monroe 83-61-2 61-1-2K 61-2-2K 61-3-2K 61-4-2K 84-1-2K Hunt 84-2-2K 82-1-28 Lake Road 82-2-2B

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SUBJECT			01 €	5-E-11		
BLACK START AND SYSTEM REST	FORATION PLAN		SHEET	9 (of 32	
	76-1-2K		<u></u>			
Blooming Grove	76-3-2K 76-4-2K					
	73-1-2K					
Highland Falls	73-5-2K					
	73-6-2K					
Eastern Division	· · · ·	•				
	17-1-2K		•			
Hillburn	17-2-2K					
	29-1-28					
Montvale	29-2-28					
· · · ·	29-3-2B					
	29-4-2B					
	43-29-4					
	44-29-4					
Ailendale	39-1-2B					
1. Ji 1 (1) (1	39-2-2B					
	39-3-28 39-4-28					
	39-4-20 39-5-2B					
	39-6-2B					
	39-7-2B					
	39-8-2B					
klanust	.53-1-2B					
Nanuet	53-2-2B					
	53-3-2B					
·	53-4-2B					
	53-5-2B 53-6-2B					
	53-0-20 53-7-2B	-				
	53-8-28					
· · · · ·	54-1-2B					
Orangeburg	54-2-2B					
	54-3-28		×,			

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ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS

BUBJECT		01 6	E-11		
BLACK START AND SYSTEM REST	ORATION PLAN	SHEET	10	of	3
	60-1-28				
Grand Avenue	60-2-2B				
	60-3-2B				
	60-4-2K				
	60-5-2K				
6. (.0. D iver	49-1-2B				
Upper Saddle River	49-2-2B				
	49-3-2B				
	49-4-2B				
	50-1-28				
Sparkill	50-2-2B				
	50-3-2B				
	50-4-2B				
	52-1-2B				
South Mahwah	52-2-2B				
	52-3-2B				
	52-4-2B				
	58-1-2K				
	58-2-2K	,			
	58-3-2K				
Franklin Lakes	35-5-2B				
1.1 datateurs zereseen	35-6-2B				
	35-7-2B				
	35-8-2B				
	35-9-2B 35-10-28				
	33-10-20				
Oakland	36-1-2K				
	36-2-2K				
	36-3-2K				
	36-4-2K				
Cresskill	37-1-2B				
	37- 2- 2B				
· · · ·	37-3-28				
Hadana Dornor	30-1-2B				
Harings Corner	30-2-2B				
	30-3-2B				
	30-4-2K				
	30-5-2K				

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BLACK START AND SYSTEM RESTORATION PLAN SHEET 11 of Congers 22-1-28 22-3-28 22-5-28 22-5-28 22-5-28 22-5-28 22-5-28 22-5-28 22-5-28 22-5-28 22-5-28 22-5-28 27-3-28 27-3-28 27-3-28 27-3-28 27-3-28 27-5-28 27-5-28 27-5-28 27-5-28 27-5-28 27-5-28 28-5-28 </th <th>SUBJECT</th> <th></th> <th>0) 6-E-11</th>	SUBJECT		0) 6-E-11
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51-2-28 51-3-28	Taliman		
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		51-3-20 51 A 3D (500 5000)	

ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS SUBJECT OI 6-E-11 BLACK START AND SYSTEM RESTORATION PLAN SHEET 12 of 32 19-8-28 Burns 19-9-28 19-12-2B 19-13-28 19-10-28 19-11-2B 19-14-2B (ECC Feed) 19-15-2B 21-9-2B West Nyack 21-10-28 21-11-2B 21-12-2B 21-13-2B 21-14-2B 21-15-2B 21-18-28 21-17-28 38-1-2B Ford 38-2-2B 38-3-2K 38-4-2K 42-1-2B Sloatsburg 42-2-28 42-3-2B If in service and on supervisory control, open Mobile low side: Mobile #1 Mobile #2 Mobile #3 Mobile #4 In preparation for receiving startup power E. Direct the Lovett Senior Shift Supervisor to open all low side breakers on At Lovett: the station service and startup busses off Banks 533, 647, 733. Direct the Bowline Senior Shift Supervisor to open all low side breakers At Bowline: on the station service and startup busses off Banks 555 and 655. Direct available Relay Technicians and Substation Electricians to reset the under frequency relays F. at the following stations: Banks 819 and 719 Burns Bank 150 Sparkill

ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS

SUBJECT

6-E-11 Öl

BLACK START AND SYSTEM RESTORATION PLAN

. 1

of 32 SHEET 13

Resat via supervisory the under frequency relays at the following stations: Ġ.

> Bank 429 Montvale Banks 521 and 621 West Nyack Banks 230 and 330 Harings Comer Bank 161 Monroe Bank 260 Grand Avenue Bank 115 and 215 East Wallkill Bank 15 Cuddebackville Bank 384 Hunt Bank 136 Oakiand Bank 137 Cresskill Bank 222 Congers Bank 235 Franklin Lakes Bank 153 and 253 Nanuet Bank 658 South Mahwah

Tie Line, Gas Turbine and Hydro Black Start Procedure Н.

Critical to the recovery of the O&R system is the availability of an energized tie or the success achieved in the black start of the Hillburn Gas Turbine or Lederle Cogen units.

The path for restart will be set up to follow an isolated express route which would allow startup power from any of the following points to Lovett Bank 533, 647 and 733:

West Haverstraw	Hillburn GT
Ramapo	Sugarloaf
South Mahwah	Lederle Co-generators

Concurrent with the procedure to provide start up power to Lovett, we will attempt to black start the Mongaup River Hydro and the Shoemaker Gas Turbine to form an island in the Western Division. (See Section

11G).

A.

Black Start Procedure from West Haverstraw to Lovett

At Lovett

Close or check closed switch L-33-2X 1.

Close or check closed switch L-33-2Y 2.

Close or check closed switch 733-2X З.

Close or check closed switch 733-2Y 4.

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ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS

SUBJECT

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SHEET 14 of 32

Close or check closed switch 147-33-2X

- 5. Close or check closed switch 147-33-2Y б.
- Open or check open switch 333-2X 7.

BLACK START AND SYSTEM RESTORATION PLAN

- Open or check open switch 333-2Y 8.
- Open or check open switch 55-33-2X 9.
- Open or check open switch 55-33-2Y 10.
- Open or check open switch 633-A 11.
- Close or check closed switch 147-2 12.
- Open or check open switch 56-47-2 13.
- Open or check open switch 447-2 14.
- Close or check closed switch T1-47-2 15.
- Open or check open switch 53-47-2 16.
- Close or check closed switch 647-2
- 17. Close or check closed switch T2-47-2 18.
- Open or check open switch 547-2 19.
- Close or check closed switch 54-47-2 20.

At West Haverstraw

. . 7

(West Haverstraw 345 to Lovett - Line 54)

if station is energized (345KV)

- Open or check open switch 53-27-2Y 1.
- Open or check open switch 530-27-2X 2.
- Open or check open switch T53-530 3.
- Open or check open switch 541-27-2X 4.
- Close or check closed switch T54-227 5.
- Close or check closed switch 54-27-2Y 6.
- Open or check open switch 194E-27-2Y 7.
- Open or check open switch T194W-541
- 8. Close or check closed switch 671-94-4
- 9. Close or check closed switch 194E-27-2Y
- (This supplies startup power to Lovett Banks 533, 647 and 733 -10. Note Dist. Banks 127 & 227 available for voltage control.)

If station is dead

- Open or check open switch 194E-27-2Y 1.
- Open or check open switch 53-27-2Y 2.
- Open or check open switch 530-27-2X 3.
- Open or check open switch T53-530 4.
- Close or check closed switch 541-27-2X 5.
- Close or check closed switch T64-227 6.

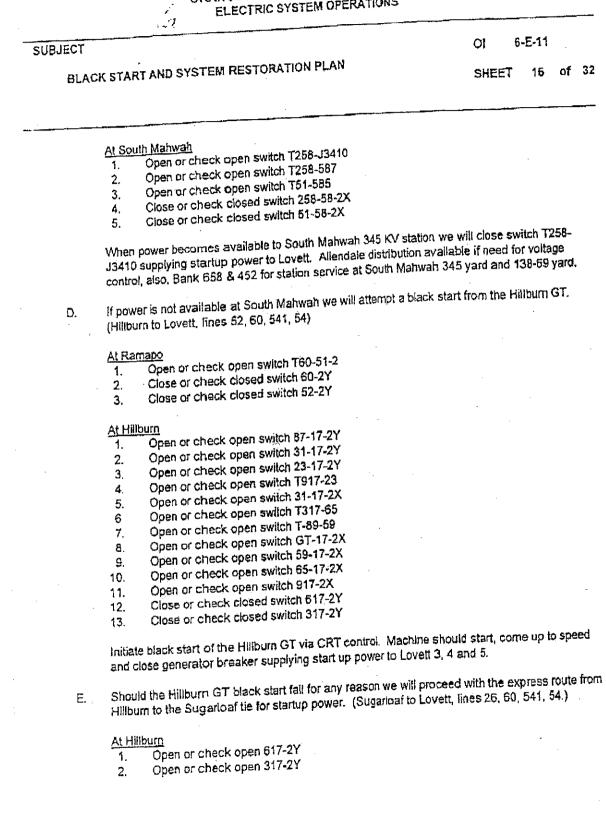
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		SUBJECT OI 6-E-11					
BLA	CK START AND SYSTEM RESTORATION PLAN	SHEE	T 15	of	32		
В.	If no power is available at West Haverstraw, proceed on to Ramapo for available. (Ram 345 to Burns to West Haverstraw to Lovett, Lines 60.8	black sta 541, 54)	art powe	r if			
	At Burns1.Open or check open switch 531-19-2X2.Close or check closed switch 60-19-2X3.Close or check closed switch 819-2X4.Open or check open switch 519-25.Open or check open switch 7702-5316.Close or check closed switch 7541-607.Open or check open switch 702-19-2Y8.Open or check open switch 541-19-2Y						
	At Ramapo If 345 KV station is energized 1. Open or check open switch 51-2X 2. Open or check open switch 26-2X 3. Open or check open switch T-60-5102 4. Open or check open switch T-52-26-2 5. Open or check open switch 60-2Y 6. Open or check open switch 52-2Y 7. Close or check closed switch 2300-A 8. Close or check closed switch 2300-4 9. Close or check closed switch 60-2Y which will give Banks 533 power.	3, 647 and	1 733 siz	artup			
C.	With no power available at Ramapo, we will proceed on to South Mah and the Lederle's co-generators. <u>If South Mahwah 345 KV station is energized</u> : (South Mahwah 345 to Lovett, lines 51, 60, 541, 54)	wah or H	illburn ga	as tur	bin		

- At Ramapo1.Open or check open 2400-42.Open or check open 2300-A3.Close or check closed 60-2Y4.Close or check closed T60-51-2

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ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS



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ORANGE AND ROCKLAND UTILITIES, INC.

ELECTRIC SYSTEM OPERATIONS . 1 6-E-11 OL SUBJECT BLACK START AND SYSTEM RESTORATION PLAN of 32 17 SHEET At Ramapo Open or check open 1300-A 1. Open or check open 1300-4 2. Open or check open 52-2Y 3. Open or check open 60-2Y 4. Close or check closed 26-2X 5. Close or check closed 51-2X 6. Close or check closed T60-51-2 7. At South Mahwah Open or check open 51-58-2X 1. Open or check open T51-585 2. At Sugarloaf Open or check open switch 993-108-2 1. Open or check open switch 313-108-2 2. Open or check open switch 25-108-2 3. . Open or check open switch 27-108-2 4. Open or check open switch 24-108-2 5. Close or check closed switch T1-108-2 6. Close or check closed switch 7108-2 7. When power becomes available from Central Hudson to Bank 6108 we will close switch 6108-2 providing startup power to Lovett. Should the Lederle co-generators be available for service, advise them we will utilize their black start capability to provide start up for the Lovett units. (Pearl River to Lovett, lines 491, 49, 541, F. 54.) At Pearl River Open or check open 50-31-2 1. Open or check open 45-31-2 2. Open or check open 491-31-2 3. At Montvale Open or check open 491-29-2 1. At Nanuet Close or check closed T1-53-: 1.

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ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS 1 6-E-11 ٥١ SUBJECT BLACK START AND SYSTEM RESTORATION PLAN 18 of 32 SHEET At Burns Open or check open 319-2 1. Open or check open 419-2 2. Open or check open 591-19-2 3. Close or check closed 519-2 4. Close or check closed T2-19-2 5. Close or check closed 49-19-2 6. Open or check open 819-2 7. Open or check open 531-19-2X 8. Close or check closed 60-19-2X 9. Close or check closed T541-60 10. Open of check open 541-19-2Y 11. AL Ramapo Open or check open 60-2Y 1. Open or check open T60-51-2 2. Request Lederle to black start their co-generators. Coordinate generation load balance and system voltages to minimize equipment damage with the Lederle operator. When units are stabilized, request them to energize the 34.5KV yard at Pearl River. When power becomes available close 491-31-2 which provides start up power to Lovett. Mongaup and Shoemaker Black Start - Western Division Island G. At Shoemaker Open or check open switch 4-11-2 1. Open or check open switch 6-11-2 2. Open or check open switch 11-11-2 3. Open or check open switch 19-11-2 4 Open or check open switch 20-11-2 5. Open or check open switch 120-11-2 6. Open or check open switch 12-11-2 7. Open or check open switch 13-11-2 8. Open or check open switch 119-11-2 9. Open or check open switch 24-11-2 10. Open or check open switch C1-11-2 11. Open or check open switch 25-11-2 12. Open or check open switch T211-5 13. Open or check open switch 27-11-2X 14. Open or check open switch T111-27 15.

ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS

.7 6-E-11 01 SUBJECT BLACK START AND SYSTEM RESTORATION PLAN 19 of 32 SHEET Close or check closed switch 811-2 16. Close or check closed switch 211-11-2Y 17 Close or check closed switch 111-11-2Y 18. Close or check closed switch 211-2 19. Glose or check closed switch 111-2 20. Close or check closed switch 511-2 21. At Swinging Bridge Open or check open switch 11-2 1. Open or check open switch 21-2 2. At Mongaup Close or check closed switch 12-2-2 1. Close or check closed switch 131-2-2 2. Close or check closed switch 15-2-2 3. Close or check closed switch 9-2-2 4. Close or check closed switch 52-2 5 At Rio Open or check open switch 18-3-2 1. Close or check closed switch 53-2 2 Close or check closed switch 15-3-2 3. Close or check closed switch 3-1D-2K 4. Close or check closed switch 13-2 5. At Shoemaker Initiate black start of the Shoemaker GT. Machine should start, come up to speed and close generator breaker. Pick up Bank 311 distribution circuits by: Close or check closed switch 11-1-2K

- 1.
- Close or check closed switch 11-2-2K 2.
- Close or check closed switch 11-3-2K 3:
- Close or check closed switch 11-4-2K 4.
- Close or check closed switch 12-11-2 (This provides startup power for Mongaup, Swinging Bridge and Rio energizes the St. Joseph and Glen Spey distribution circuit.) 5. Synchronize Mongaup, Swinging Bridge and Rio machines
- 6.
- Close or check closed switch 13-11-2 (This energizes the Shoemaker 69KV Y Bus, the 34.5KV cables and Bank 911 station service.) This also energizes Cuddebackville 7. substation.
- Close or check closed switch T211-5 8.

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Should excess generation be available at this point in the restoration, switch 119-11-2 should be closed and the East Wallkill and Silver Lake distribution circuits re-energized. This will conclude Islanding of the Western Division in which all 69KV facilities have been restored. Lines 24, 25 and 27 will be restored when synchronization of this island is ready.

Should the black start of the Shoemaker GT fail for any reason, we will proceed with Mongaup H. Hydro black start.

At Shoemaker

- Close or check closed switch 12-11-2 1.
- Close or check closed switch 13-11-2 2.

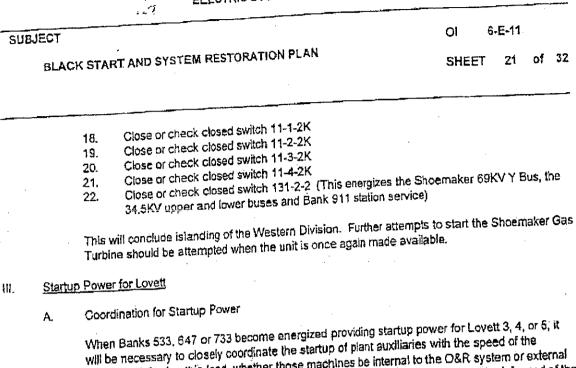
At Rio

- Open of check open switch 18-3-2 1.
- Close or check closed switch 53-2 2.
- Close or check closed switch 15-3-2 3.
- Close or check closed switch 3-1D-2K 4.
- Close or check closed switch 13-2 5.

At Mongaup

- Open or check open switch 12-2-2 1,
- Open or check open switch 131-2-2 2
- Open or check open switch 15-2-2 З.
- Open or check open switch 52-2 4. Open St. Joseph distribution circuit bkr. 2-1-2K
- 5. Close or check closed switch 9-2-2
- 6.
- Place Mongaup #1 governor on manual control 7.
- Open governor to bring machine up to 60 cycles Close on Mongaup #1 generator breaker on 2300 KV bus (This will give plant auxiliary 8.
- 9. power of -1MW-)
- Place governor for Mongaup #1 on automatic control
- 10. Synchronize Mongaup #2, #3, and #4 to bus 11.
- Close St. Joseph distribution circuit bkr. 2-1-2K
- Close or check closed switch 52-2 (This energizes and picks up auxiliary for Swinging 12. 13.
- Bridge #1 and #2) Startup and synchronize Swinging Bridge #1 and #2
- Close or check closed switch 15-2-2 (This picks up Glea Spey distribution circuit and 14. 15.
- provides startup for Rio #1 and #2)
- Synchronize Rio #1 and #2 on line 16.
- Close or check closed switch 12-2-2 (This energizes Bk 311 and the Shoemaker 69KV X 17.
 - Bus) As loading permits restore the distribution circuits off Bank 311.

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machines following this load, whether those machines be internal to the O&R system or external via the tie points. Neighboring System Operators who offer startup power must be informed of the requirement at Lovett, approximately 5MW to start one unit. Operators at gas turbine and hydro stations must be notified immediately prior to load being put on their units.

Determination of the Preferred Unit В.

After consultation with the Lovett Senior Shift Supervisor, a determination will be made regarding which unit can be more readily brought up to speed and synchronized.

Interim Operations C.

While the startup of the preferred Lovett unit is being accomplished, a restoration of power to the ECC will be accomplished:

At Burns

Close or check closed switch 541-19-2Y (This energizes Burns Bank 719.)

- Close or check closed switch 19-14-28 (Normal feed) (This energizes the 13.2 primary 1. 2.
- If more load is required to stabilize the Hillburn GT, close the distribution breakers as 3.
 - required.

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BLACK START AND SYSTEM RESTORATION PLAN	SHEET	22	of	32

Stabilizing Lovett D.

Once synchronized to the 138KV bus, the unit must be stabilized with sufficient load to at least meet its minimum load requirement. Closely coordinate all load pickups with Lovett operating personnel and direct them to maintain 60 Hz on their machine. To that end the following switching will be performed.

At West Haverstraw

- Close or check closed switch 54-27-2Y 1.
- Close all distribution circuits via supervisory. (This will pickup approximately 45 MVA of 2.
 - load.)

At Lovett

Close or check closed switch L-33-2X (This energizes Lovett Bank 533 - startup for the 69KV units - Bank 633 which feeds New York Trap Rock and local Tomkins Cove 1.

- distribution.)
- Close or check closed switch L-33-2Y 2.
- Close or check closed switch 53-47-2 3.

At West Haverstraw

Close or check closed switches 530-45-2, 531-45-2 and T1-45-2

- Close all distribution circuits via supervisory. (This will pick up approximately 55MVA of 1. 2.
 - ioad).

Having stabilized Lovett with load, startup of the second Lovett generator may commence. Power dispatch under Automatic Generation control may also begin. Operations will be in the constant or flat frequency control mode with scheduled frequency at 60 Hz. Beware that the bias setting is based on peak connected load. If the load prior to the black out was considerably under peak, the bias will result in an indication of greater deficiency than actually exists. It should therefore, be adjusted accordingly.

Startup for Bowline and Restoration of the 345/500KV System IV.

Bowline Startup A,

With one Lovett unit stabilized, startup power will be supplied to Bowline.

At Bowline

- Open or check open switch 561-55-2X 1.
- Open or check open switch 561-55-2Y 2.
- Close or check closed switch 56-55-2X 3.
- Close or check closed switch 56-55-2Y 4.

At Lovett

- Close or check closed switch 56-47-2 (This energizes Bowline startup transformers 555 1. and 665)
- Once again closely coordinate the startup of Bowline auxiliarles with Lovett operators.

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- Restoration of the 345/500KV system will be accomplished under the direction of the New York Power Pool as defined on OP 13. All switching performed at Ladentown, South Mahwah and West Haverstraw will be done with the assent and permission of all interconnected parties who В. share or own completely facilities in these substations.
- Requests to supply startup power to neighboring companies generating facilities may now be C.

granted.

V.

Restoration of the 138KV System and Islanded Systems

Synchronization of Western Division and Lovett Islands Α.

Assuming that Lovett has been successfully provided with startup capability either from Hillburn or any of the 345KV ties and has been synchronized, and that a successful island has been established in the Western Division, it will be advantageous to synchronize the two systems in order to improve stability. Synchronization will be accomplished by means of the 138KV system Line 26 Ramapo to Sugarloaf and Line 27 Sugarloaf to Shoemaker.

At Ramapo

- Open or check open switch 26-2X 1.
- Open or check open switch T52-26-2 2.

At Sugarloaf

- Open or check open switch 6108-2 1.
- Open or check open switch 313-108-2 2.
- Close or check closed switch 7108-2 3.
- Open or check open switch 993-108-2 4.
- Close or check closed switch 27-108-2 5.
- Open or check open switch 25-108-2 6.
- Open or check open switch 24-108-2 7.
- Close or check closed switch T1-108-2 8.

At Shoemaker

- Close or check closed switch 27-11-2X 1.
- Close or check closed switch T111-27 2.

- NOTE: Synchronizing scopes and sync. Check relays available. Close or check closed switch 26-2X (This synchronizes the two islands)
- 1 Close or check closed switch T52-26-2
- 2.

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At Sugarical

Close or check closed switch 25-108-2 (This energizes South Goshen Banks 189 and 1.

289)

Close or check closed switch 24-108-2 2.

At Shoemaker

Close or check closed switch 24-11-2 1.

Close or check closed switch 25-11-2 2.

Restoration of the 138KV Loop Β.

If excess generation is available from the synchronized Lovett unit or the second Lovett unit has come on, the 138KV loop will be completed.

At West Nyack

Open or check open switch 75-21-2 1.

- Clase or check closed switch 701-21-2 2.
- Close or check closed switch 221-2Y З.
- Close or check closed switch 221-2X 4.
- Open or check open switch 551-21-2 5.
- Open or check open switch 562-21-2 6.

At Harings Comer

- Open or check open switch 46-30-2 1.
- Open or check open switch 130-2 2.
- Open or check open switch 658-30-2 3.
- Close or check closed switch 701-30-2 4.
- Close or check closed switch 702-30-2 5.
- Close or check closed switch T1-30-2 6.

At Congers

- Close or check closed switch 562-22-2 1.
- Close or check closed switch 561-22-2 2.

At New Hempstead

- Close or check closed 530-45-2 1.
- Close or check closed 531-45-2 2.

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E	BLACK START AND SYSTEM RESTORATION PLAN	SHE	ET	25	of	32
	At Burns 1. Close or check closed switch 60-19-2X 2. Close or check closed switch 531-19-2X 3. Close or check closed switch T702-531 (This energizes Harin 130; West Nyack Banks 621, 521, 421, and 321) 4. Close or check closed switch 702-19-2Y 5. Close or check closed switch 819-2X (This energizes Burns E At Harings Corner 1. 1. Close Bank 230 and 330 distribution breakers (This picks up and 130 distribution breakers)	ank 819))			
a.	1. Close Bank 250 and 550 distribution load)					
	At West Nyack 1. Close Banks 321, 421, 521, and 621 distribution breakers (Th 49.0MVA of load) 2. Close or check closed switch 562-21-2 (This energizes Bank	is picks 222 at (up a Cong	ipprox iers)	imal	əly
	At Bowline Point 1. Close or check closed switch 561-55-2X (This completes the 2. Close or check closed switch 561-55-2Y	138KV	loop)		
	At Lovett 1. Close or check closed switch 55-33-2X (This picks up Grass 2. Close or check closed switch 55-33-2Y	y Point	ioad	of 3.5	MVA)
	At West Nyack 1. Close or check closed switch 551-21-2					
• 4	Selective Simultaneous Restoration of the 69KV System					-
	When sufficient internal generation permits, or external sources have been s system, selective simultaneous restoration of 69KV loops may commence. I generating capability, priorities need to be established, follow successively the order.	e restor	ized con: ation	to the straint as lis	O&f s on ted i	R n
	A. Restoration of the 69KV loop Hillburn - Burns - Montvale - South Ma	nwan				
	This restoration provides support for the 138KV loop and thus reinfo system. In addition, it allows the continued restoration of heavily po Division and New Jersey.					
	Points of energization for this loop may be South Mahwah vie the 69 Harings Corner via the 138KV system.)KV sys	lem,	Hilbu	m, E	ums or

At Ramapo 1. Close or check closed switch T-60-51-2

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SUBJE	<u>c</u> t		01 6	5-E-11		
1	BLACK STAF	RT AND SYSTEM RESTORATION PLAN	SHEET	26	of	32
	<u></u>					
	<u>At Bur</u>	Open or check open switch 319-2				
	1. 2.	A LINE AN ANAL ANAL SWITCH 4 1974				
	3.	Class of theck clased switch 291-19-2				
	з. 4.	Close or check Closed SWICH 42-13-2				
	5.	Close or check closed switch T2-19-2				
	<u>At Na</u>	nuet				
	1.	Close or check closed T1-53-2				
	At Pe	arl River				
	1.	Open or chack open switch 491-31-2				
	2.	Close or check closed switch 50-31-2				
	3.	Close or check closed switch 45-31-2				
		Close or check closed switch 491-29-2				
	1,	Close or check closed switch 656-29-2				
	2.	Close or check closed switch T-29-2				
	3. 4.	Close of check closed switch 658-29-2				
	At Hi					
	<u></u> 1.	Class of chack closed SWIICh DY-11-24				
	2.	Close or check closed switch bo-11-24				
	3.	Close or check closed switch 917-2X				-
	At Sc	outh Mahwah				
	1.	Open or check open switch 585-58-2Y				
	2.	Open or check open switch 587-58-2Y Close or check closed switch T51-585				
	3.					
	4,	a) If the South Mahwah interconnection is unavailable	• .			
		Onen or check open switch Legovort				
	-	Clean or chack closed SWIICD D/-24-4				
	5. e	Cince of check closed switch 052-02-2				
	6. 7.	Close or check closed switch Do-D4~4				
	7. 8.	Close or check closed switch 65-52-2				
	9. 9.	Close or check closed switch 852-2	-			
	10.	Close or check closed switch T1-52-2				
÷	11.	Open or check open switch 36-52-2				

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ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS -7 6-E-11 01 SUBJECT BLACK START AND SYSTEM RESTORATION PLAN of 32 27 SHEET At Franklin Lakes

Close or check closed switch 58-35-2

Close or check closed switch 57-35-2 1.

Close or check closed switch T1-35-2 2.

З. Close or check closed 570-35-2

4. Close or check closed 580-35-2

This loop may now be energized from Burns by closing 519-2, from Harings Corner by closing 558-30-2, from Hillburn by closing T317-65 or from South Mahwah (if available) by closing T258-J3410, 587-58-2Y and 585-58-2Y. Close as many feeds as are available. This operation energizes the following banks:

	151 and 251
Tailman	
• •	319 and 419
Bums	153 and 253
Nanuet	•
Pearl River	431
	917
Hillburn	146 and 246
Blue Hill	
Grand Avenue	150 and 260
Gianu Archiel	149
Upper Saddle River	
South Mahwah	452
	335 and 435
Franklin Lakes	
Montvale	429
· · · · · · · · · · · · · · · · · · ·	136
Oakland	

Following this restoration Allendale may be energized.

At Allendale

5.

- Close or check closed switch T587-139 1.
- Close or check closed switch T588-239 2.
- Close or check closed switch T139-2Y 3.
- Close or check closed switch T239-2Y 4.

Close Allendale distribution breakers.

Β.

Restoration of the Hillburn to Sugarloat 69KV path and the West Point Loop

This restoration continues to reinforce the tie between Western and Eastern Division and begins the re-energization of Central Division loads. Prior to energizing West Point, coordinate restoration activities with the West Point Power House.

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SUBJECT		01	6-E-11		
BLAC	START AND SYSTEM RESTORATION PLAN	SHEE	T 28	of	3
	At Harriman				
	Overs as shack open SWIICII 991-11-4				
	 Close of check closed switch 312-71-2 Close or check closed switch 312-71-2 				
	At MORICE				
	At Monide 1. Close or check closed swlich 312-61-2 1. Close or check closed swlich 313-61-2				
	 Close or check closed switch 313-61-2 Close or check closed switch 313-61-2 				
	At Hillburn 1. Close or check closed switch 31-17-2Y (This energizes Sh	oatsburg Ba	nk 242 al	nd pik	cks
	1. Close or check closed switch 31-17-21 (This chergener up 2.6 MVA of load, Harriman Bank 471, Monroe Banks 16	1,561)			
	up 2.6 MVA of load, Harnman Bark of 1, monton =				
	 Close or check closed switch 31-17-2X 				
	At Sugarioal	ha faan)		•	
	At Sugarioal 1. Close or check closed switch 313-108-2 (This completes t	ne noh)			
	At West Point #2				
	 Close or check closed switch op 1-50-2 				
	2 Close of check closed SWIGH 11-90-2				
	3. Open or check open switch 853-90-2				
	At Harriman 1. Close or check closed switch 851-71-2 (This energizes Bi	ank 671 and	West Po	int 2	
	1. Close or check closed switch 851-71-2 (This energines be		• • • •		
	Substation)	eok 571 and	West Po	Int 1	
	 Close or check closed switch 841-71-2 (This energizes D Highland Falls, Stoney Lonesome, Long Pond, Dean and Highland Falls, Stoney Lonesome, Long Pond, Dean and 	Queensbord	substati	ons)	
с.	Restoration of the 69KV Harings Corner Loop				
μ.					
	At Harings Corner 1. Open or check open switch 45-30-2				
	エー・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・				
	2. Close of check closed switch 42 00 2				
	At Closter				
	1. Close or check closed switch 46-28-2				
-					
	 Close or check closed switch 751-28-2 Close or check closed switch 328-2 				
	4. Close of check closed switch 526 2				
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SUBJECT	K START AND SYSTEM RESTORA	TION PLAN	OI (5-E-11 29 o	! 32
	At Sparkill 1. Close or check closed swit 2. Close or check closed swit This loop may now be energized fri closing 46-30-2. Close as many fe Banks:	om West Nyack by closing 75-21- eds as are available. This operat	2, or from Ha ion energizes	rings Com the follow	ier by Ing
	Orangeburg Sparkill Closter Cresskill RC Sewer District	Bank 254 Bank 150 Banks 128 and 228 Banks 137 and 237 Bank 196			
'n	Restoration of the 69KV Sterling F	orest Loop			

At Sterling Forest

Close or check closed switch 99-67-2 1.

Close or check closed switch 98-67-2 2.

At Lakes Road

- Close or check closed switch 981-82-2 1.
- Open or check open switch 98-82-2 2.

At Ringwood

- Close or check closed switch 982-78-2 1.
- Close or check closed switch B9-78-2 2.

Close or check closed switch 984-78-2 З.

Close or check closed switch 983-78-2 4.

At West Milford

- Close or check closed switch 983-79-2 1.
- Open or check open switch 964-79-2 2.

At Hillburn

Close or check closed switch 89-17-2Y 1.

Close or check closed switch T-89-59 2.

This energizes the following Banks:

Ringwood	Bank 278
Blue Lake	Bank 177
=	Bank 279
West Milford	Banks 182 and 282
Lakes Road	

			ORANG	E AND ROCKLAND UTI CTRIC SYSTEM OPER	LITIES, INC. ATIONS				
SUE	JECT					0 6	-E-11		
	BLAC	K STAR	T AND SYSTEM R	ESTORATION PLAN		SHEET	30	of	32
		Load w distribu	ill be picked up off and the following the f	all banks except 27B and llowing loads will be rest	the Lakes Road circu ored:	iit 82-4. C	losing	the	
		<u>At Suq</u> 1.	arloaf Close or check clo	sed switch 993-108-2					
		This er	nergizes the followin	g Banks:					
۰.			Wisner 280 Wisner 380	Hunt 184 Hunt 284	Sterling Forest	367			
		<u>At Lake</u> 1.	<u>es Road</u> Close or check clo	osed switch 98-82-2 (Thi	is completes the loop)	Ì			
	E.	Reston	ation of the Westerr	Division	• .				
		<u>At Port</u> 1. 2. 3.	<u>dervis</u> Close or check ck Close or check ck Open or check op	osed switch 18-6-2					
		<u>At Sho</u> 1.	emaker Close or check ck distribution taps)	osed switch 11-11-2 (Th	is energizes Port Jen	vis and Lin	es 11 :	and '	18
		<u>At Rio</u> 1.	Close or check clo	osed switch 18-3-2					
VII.	Resto	ration of I	the 34.5KV System	· ·					
	А.	Easten	n Division						
		At Hills 1. 2. 3. 4. <u>At Bun</u> 1. 2. 3. 4.	Close or check ck Close or check ck Close or check ck Close or check ck Slose or check ck Close or check ck Close or check ck	osed switch 917-2X osed switch T917-23 osed switch 17-1-2K osed switch 17-2-2K osed switch 731-19-2 osed switch 741-19-2 osed switch 50-19-2 osed switch T1-19-2					

ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS .1 6-E-11 01 SUBJECT BLACK START AND SYSTEM RESTORATION PLAN of 32 31 SHEET At Ford Close or check closed switch T-38-2 1. Close or check closed switch 73-38-2 2. Close or check closed switch 74-38-2 3. At Pearl River Close or check closed switch 50-31-2 1. Close or check closed switch 45-31-2 2. Close as available the following feeds to this system: 419-2 319-2 At Burns 491-31-2 At Pearl River 130-2 45-30-2 At Harings Corner Western Division В. Close or check closed 120-11-2 1. Close or check closed 19-11-2 2.

3. Close or check closed 20-11-2

Restoration of 34.5/19/9KV circuits 4 and 6 emanating from Shoemaker and 7 from Port Jervis Lines 3, 4, 10 from Cuddebackville will be accomplished under the direction of the Distribution Supervisor.

C. Central Division

Monroe and Blooming Grove and the associated 34.5/13.2KV loads may be energized.

At Monroe

1.

Close or check closed 96-61-2

Under direction from the Distribution Supervisor

- 1. Close or check closed switch 82-61-2
- 2. Close or check closed switch 83-61-2

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SUBJECT	·····			ol	6-E-11
BLACK START AND S	YSTEM RESTO	RATION PLAN	i .	SHEET	32 of 32
		APPENDIX ⁴ February 199	1		
Synchronizing Scopes Grahamsville Power House Swinging Bridge Power House Mongaup Power House Rio Power House Shoemaker Substation Shoemaker Gas Turbine Lovett Plant		Rama West Hillbu Hillbu	po 138 Substation po 345 Substation Haverstraw Subs rn Gas Turbine rn Substation ne 345 Plant	n	
Sync-Check Relays				-	
Swinging Bridge	11-2	21-2		1000	
Mongaup	9-2-2	12-2-2	13-2-2	15-2-2	
Shoemaker	12-11-2 T111-27 6-11-2	13-11-2 111-11-2Y 11-11-2	24-11-2 211-11-2Y 211-2	25-11-2 T211-5 111-2	27 -11-2X 4-11-2
Sugarioaf	610B-2			-	
Lovett	547-2	447-2	56-47-2	54-47-2	53-47-2
Ladentown	6-56-2	3-56-2	4-56-2	1-56-2	
Ramapo 138	All 138 OCBs				
West Haverstraw	All breakers				
Hillburn	89-17-2Y T-89-59 65-17-2X	317-2Y T317-65 417-2X	31-17-2Y T417-31 917-2X	23-17-2Y T917-23	59-17-2X
South Mahwah	T258-J3410 587-58-2Y		258-58-2X T2-52-2		T258-587 585-58-2Y
Bowline	T255-68	T155-67			
Burns	50-19-2				
Harings Corner	45-30-2				

Schedule E

INSURANCE

Each Party at its cost and expense, shall maintain and keep in full force and effect during the term of this Agreement the following insurance forms and with insurance companies acceptable to the other Party:

(a) Workers' Compensation Insurance for statutory obligations imposed by Workers' Compensation or Occupational Disease Laws, and Employer's Liability Insurance with a minimum limit of \$1,000,000. When applicable, coverage shall include the United States Longshoreman's and Harbor Workers' Compensation Act and the Jones Act.

(b) General Liability Insurance including Bodily Injury, Personal Injury, Broad Form Property Damage, Excess Auto Liability, Products/Completed Operations, Explosion, Collapse and Underground (XCU) Liability, Contractual Liability and Contractors Protective Liability Insurance with minimum limits of liability of \$25,000,000 per occurrence. If any such coverage is maintained on a "claims made" basis, each Party agrees the retroactive date shall be no later than the effective date of this Agreement and the policy shall carry a minimum 5 year extended discovery period in the event the policy is cancelled or non-renewed.

(c) Automobile Liability Insurance, including coverage for all owned, nonowned and hired automotive equipment used by the Parties with minimum limits of liability of \$1,000,000 per occurrence.

(d) If applicable, Builders risk insurance or an installation floater with minimum limits of two times the probable maximum loss of the facilities as determined by a recognized expert, including, but not limited to coverage for earthquake and flood; collapse, faulty workmanship, materials and design, testing of machinery or equipment, freezing or changes in temperature, debris removal, partial occupancy and loss of revenues.

(e) During commercial operation of the facilities, property damage insurance including boiler and machinery coverage, with minimum limits of two times the probable maximum loss of the facilities as determined by a recognized expert.

(f) Business interruption and extra expense insurance covering expenses and losses due to business interruption, resulting from damage to facilities.



222732.01-New YorkSIA

(g) Each Party shall have the right to accept reasonable deductibles or self insured retentions for the insurance listed in this Schedule E and each Party shall be responsible for such deductibles or self insured retentions under their respective policies.

(h) Each Party shall name the other an additional insured under the General Liability coverage listed above in clause (b), however such additional insured status shall only apply for each Parties' vicarious liability arising out of the other's facilities.

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Schedule F (Part I) to Continuing Site/Interconnection Agreement

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Schedule F (Part I)

PRODUCTION METER LOCATIONS - GT/

COMPENSATION REQUIRED	Bank 511 Bank 511	Bank 617, 69KV U/G Bank 617, 69KV U/G	
LOCATION	13.2KV System 13.2KV System	13.2KV System 13.2KV System	
ACCT/METER#			-
PURPOSE	Unit Generation Station Service	Unit Generation Station Service	
COMPANY USE	Electric	Electric	
DESCRIPTION	Shoemaker GT	Hilburn GT	

PRODUCTION METER LOCATIONS - GT-HYDRO

Schedule F (Part II) to Continuing Site/Interconnection Agreement

ANTICIPATED METER POINTS FOR PRODUCTION METERS

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	STATION NAME	STATION NO.	DATE
í · ·			
Б.		÷	
		<i></i>	
-			ά.
HILLBURN		GDM17-A	5-6-99
SHOEMAKER		GDM11-A	5-6-99
SHOEMAKER		GDM11-B	5-6-99

Confidential Energy Infrastructure Information ("CEII")

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Schedule G to Continuing Site/Interconnection Agreement

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Schedule G

METERING FOR RETAIL ACCOUNTS - GT/HYDRO

DESCRIPTION	COMPANY USE	PURPOSE	ACCT/METER#	OWNER	~1	COMMENTS
-	120			ORU	SEI	
NYC Water Substation Neversink Drive - PJ	Electric	Lights	033641950		×	Secondary Service
Mongaup	Electric	Well Pump	045485914		×	Secondary Service
NYC Water Substation North Street - PJ	Electric	Lights	055021053		×	Secondary Service
NYC Water Substation Neversink Drive - PJ	Electric	Lights	055021054		×	Secondary Service
Hydro Shop and Garage	Electric	Lights	055333410		×	Secondary Service
Rio Plant	Electric	Lights/Heat	05090324		×	Secondary Service
Mongaup Hydro	Electric	Lights	061000148		×	Second try Service
Rio Dam	Electric	Warning Siren	076958874		×	Secondary Service

Schedule G

DESCRIPTION	<u>COMPANY</u> USE	PURPOSE	ACCT/METER #	NO	OWNER	COMMENTS
				ORU	SEI	
Swinging Bridge Plant	Electric	Heat and Lights	076958909		×	Secondary Service
NYC Water Substation Neversink Drive - PJ	Electric	Lights	078776798		×	Secondary Service
Mongaup Plant	Electric	Lights	079189344		×	Secondary Service
Mongaup Hydro	Electric	Hydro-Gas Pumps	096841136	- 11	×	Secondary Service

۶..... / Schedule H to Continuing Site/Interconnection Agreement

ORANGE AND ROCKLAND UTILITIES, INC System Operations Department

Operating Instruction 1S

1.0 PURPOSE

This Operating Instruction defines the responsibility of the System Operations Department in directing and performing switching on equipment under the authority of the System Operator.

2.0 ACRONYMS & DEFINITIONS

CSO – Chief System Operator DS – Distribution Supervisor ECC – Energy Control Center (Spring Valley) EMS – Energy Management System LCC – Local Control Center NYISO – New York independent System Operator PJM – Pennsylvania, New Jersey, and Maryland Regional Transmission Operator SO – System Operator SSO – Senior System Operator

<u>Definitions –</u>

3.0 PERIODICITY OF REVIEW -

This policy shall be reviewed annually.

4.0 COMMUNICATIONS

All communications conducted by the S.O. concerning any action, request for action, response to such request, or information having a potential impact on any ongoing operations during normal or emergency conditions, will be conducted via the use of a taped communications device using Three-Part-Communication. Recorded telephones should be used for switching whenever available, keeping radio use to a minimum.

5.0 SCHEDULING AND SWITCH ORDER PREPARATION

Scheduling work on equipment under System Operator jurisdiction:

• All requests to schedule removal of equipment will be made in accordance with OI 3 S "Switch Order Preparation, Execution and Approval" and the employee safety manual section 43.3, paragraph A.

DATE: June 2010	SUPERSEDES: 1-S-8	DEPT. Control Center
Preparer: System Operations	ECC Switching Practices	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 1S

New construction and equipment under the jurisdiction of the System Operator:

• See the employee safety manual section 43.3

In preparing switch orders, the following guidelines should be observed where practical:

- Perform only necessary switching to provide complete safety clearance; unnecessary switching should be eliminated.
- Always interrupt load with a breaker where one is available; a load break device would be a second choice if no breaker is available.
- Switching should be written such that it will minimize unnecessary travel; assume only one crew will be available to switch.
- Disable relaying only when necessary, such as for breaker failure relays during trip tests.
- Switch order steps should not include those steps which are part of routine responsibilities such as to "check and adjust voltage," "check loop closed," etc.
- In switching transformers into or out of service, the transformer is always de-energized and reenergized from the high side.

6.0 GUIDELINES FOR REMOVAL AND RESTORATION OF EQUIPMENT

Removing Equipment from service:

- Supervisory control will always be used to open or close breakers, air breaks, or any remotely controlled switch to verify supervisory capability.
- Place a Control Inhibit Tag and verify a blue "C" on the CRT screen.
- Have the supervisory control turned off at the station for the device(s) that are included in the area of isolation.
- Have the switchman turn the recloser off, before switching a breaker out of service.
- Have the switchman make a check of the breaker to verify the open position and place a red tag on it before opening the line disconnects. Disconnect switches should be operated in the deenergized mode whenever possible.
- In the case of a motor operated air breaker or motor operated disconnect, request the switchman turn off the control power at the switch in addition to placing the supervisory in the off or local manual position.
- After all operation by supervisory are complete, proceed with the manual portion of the switch order as detailed in the Orange and Rockland Safety Manual.
- Always adhere to the testing and grounding procedures as detailed in the Orange and Rockland Employee Safety Manual.

DATE: June 2010	SUPERSEDES: 1-S-8	DEPT, Control Center
Preparer: System Operations	ECC Switching Practices	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 1S

Restoring equipment to service:

Complete the restoration process in the reverse order as above with the following exception: When a line has been removed for maintenance and when one end of the line is equipped with a circuit breaker and the other disconnect or air break switch, the SO shall first test the line by energizing via the circuit breaker. If the line proves to be fault free then the circuit breaker shall be re-opened, the disconnect or air break closed and the circuit breaker closed to place the line back in service.

NOTE: Care must be taken that a control inhibit tag is not removed from the CRT screen until all personnel having clearance are clear of facilities or in the case of an OCB until we are ready to close the particular breaker.

7.0 LIVE LINE RECLOSER CLEARANCE

- Perform necessary steps to change recloser to off position
- Verify change on screen
- Perform necessary steps to install live line recloser clearance tags
- Verify "control inhibit C" on screen
- Issue Clearance making certain person receiving same is aware he has live line recloser protection only.

8.0 TAGGING PROCEDURE

See Section 43.2 of the Employee Safety Manual for information on tags and their proper use. This includes both red and green tags.

Additional Considerations for System Operations

- All transmission and distribution equipment inside the substation fence and the entire high
 voltage electrical system (34.5KV* and over) is under the jurisdiction of the System Operator
 and no work or switching may be done on any part of it without orders or permission from the
 System Operator. When any piece of electrical apparatus is removed from service for repairs or
 maintenance each switch or control mechanism the operation of which might endanger workmen,
 must be properly tagged with standard safety tags so that no one may operate any portion of this
 equipment by mistake. (*The 34.5KV transmission has no 19.9KV Distribution taps.)
- Each Department Manager, Superintendent or Supervisor shall designate the qualified employees who may have equipment tagged out. Equipment shall be tagged only for the persons on these lists (Section 43.5.1, paragraph A). Each Manager, Superintendent or Supervisor shall provide System Operation with a quarterly updated list of qualified employees.

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Operating Instruction 1S

• All tags must be made out in the name of the person in charge of the job. This person will be responsible for all others working under his tags. If the equipment is available in an emergency, the person in charge must be available at the job site to clear people off equipment to facilitate a rapid restoration.

9.0 <u>GENERAL PROCEDURE FOR REMOVING A LINE FROM SERVICE UNDER SYSTEM</u> <u>OPERATOR JURISDICTION</u>

- A. The switchman performing the switching at the first (sending) station (A) will be notified by the System Operator that the circuit breaker will be opened by supervisory control. The System Operator then will open the breaker via supervisory control and tag the breaker on the CRT with a control inhibiting tag.
- B. After the switchman in station A has reported that the procedure above has been completed, the System Operator will notify the switchman in the second (receiving) switching station (B) that the circuit breaker will be opened by supervisory control.
 - The System Operator will then open the breaker via supervisory control and tag the breaker on the EMS with a control inhibiting tag. When there is no circuit breaker in the line but a motor operated switch is available the switch will be opened via supervisory control.
 - The switchman will be directed to confirm the breaker open and on all breakers equipped with automatic reclosing equipment, the reclosing will be disabled. On switches which are remotely controlled by supervisory equipment, the control power will be turned off, and the proper switch will be placed in the "local" position.
 - The Switchman will check open the by-pass switch where one exists.
 - The Switchman will open the appropriate disconnect's and, if gang operated, secure with lock or fastening device. Manually operated disconnect switches shall be locked as designated.
 - The Switchman will remove all secondary fuses (open secondary cutouts) on all metering and relay transformers installed in the line and disable all associated coupling capacitor potential devices.
 - Upon completion of these steps the switchman will report to the System Operator.
- C. After the switchman in station B has reported that the above procedure has been completed, the System Operator will instruct the employee at the first (sending) switching station (A) to:
 - Confirm the breaker open and on all breakers equipped with automatic reclosing equipment, the reclosing will be disabled. On switches which are remotely controlled by supervisory equipment, place the switch in the "local" position.
 - Check open the by-pass switch where one exists.

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Operating Instruction 1S

- Open the appropriate disconnects.
- Remove all secondary fuses (open secondary cutouts) on all metering and relay transformers installed in the line and disable all associated coupling capacitor potential devices.
- Close the ground switch. Check that all ground switch blades are in correct positions.
- Apply the necessary red tags and report to the System Operator.
- D. After the switchman in station A has reported that the procedure described in C is complete, the System Operator will instruct the operator at the second (receiving) switching station (B) to:
 - Close the ground switch.
 - Apply the necessary red tags and report to the system Operator.
- E. If other work is to be done simultaneously which involves any station apparatus at either end of the line, the System Operator will order safety equipment tagging placed in accordance with Standard Tagging Rules.

10.0 <u>GENERAL PROCEDURE FOR RESTORING A LINE TO SERVICE UNDER SYSTEM</u> OPERATOR JURISDICTION

- A. After work has been completed on a line or piece of equipment, the tag holder will report this to the System Operator who, in turn, will instruct the tag holder to remove all field grounds. After all tag holders report work complete, all grounds removed and all who received clearance have returned the line to the System Operator, the System Operator will then instruct the operator at the first (sending) switch station (A) to:
 - Remove the tag from the ground switch.
 - Open the ground switch and lock it open. Visually check that all switch blades are open.
 - Report to the System Operator.
- B. The switchman at the second (receiving) station (B) will then be instructed by the System Operator to:
 - Remove all tags.
 - Open the ground switches and lock them open. Visually check that all switch blades are open.
 - Replace all secondary fuses in all metering on relay transformers if any are installed on the line and restore all coupling capacitor potential devises to normal operating conditions.
 - Request relay techs enable any relaying that may have been disabled to complete the switching.

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Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 1S

- Close the appropriate disconnects. Before closing any breaker disconnect switches, it is the
 responsibility of the switchman to visually check that the breaker position indicator is at the
 open position. Only when the open position has been confirmed, shall the disconnect be
 closed.
- Report to the System Operator.
- C. The switchman at the first (sending) switching station will then be instructed to:
 - Remove all remaining tags.
 - Replace all secondary fuses in all metering and relay transformers if any are installed on the line and restore all coupling capacitor potential devices to normal operating condition.
 - Request relay techs enable any relaying that may have been disabled to complete the switching.
 - Close the appropriate disconnects. Before closing any breaker disconnect switches, it is the responsibility of the switchman to visually check that the breaker position indicator is at the open position. Only if the open position is observed or confirmed shall the disconnect be closed.
 - Report to the System Operator.
- D. The switchman at the first (sending) switching station (A) will be instructed to:
 - Close the circuit breaker. On all breakers equipped with Automatic Reclosing equipment, the reclosing will be enabled after the breaker is closed, unless ordered otherwise.
 - Report to the System Operator.
- E. The switchman at the second (receiving) switching station (B) will be instructed to:
 - Close or synchronize the circuit breaker. On all breakers equipped with Automatic Reclosing equipment, the reclosing will be enabled after the breaker is closed, unless ordered otherwise. On switches which are remotely controlled by supervisory equipment, place the proper switch in the remote control position.
 - Note the reading of the voltmeters and ammeters on the line.
 - Report to the System Operator.

11.0 RECEIVING CLEARANCE FROM THE SYSTEM OPERATOR

Line Clearances will be given as outlined in the employee safety manual section 17.6.3.

Clearance to "Work", is a permission to proceed with a specific task (maintenance, testing) as requested through the scheduling process (Or emergency), for specific identified equipment and for a specific purpose.

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Operating Instruction 1S

Clearance to "Work" is facilitated through a two part process as follows:

- Once all switching to isolate a piece of equipment is complete, the System Operator will issue clearance to "test and ground" on a facility. Upon completion of the testing for potential and after having installed field grounds, the tag holder will notify the System Operator of same.
- The System Operator will then issue a "Clearance for Work" as communicated below: (In certain instances, application of field grounds may be declined by the tag holder)
 - The time clearance is given.
 - The name of the person receiving the clearance.
 - The line or equipment that has been tagged.
 - The work clearance is being given to do.
 - The locations (if any) where substation grounds have been applied.

Additional tags:

Should there be a need to provide clearance to personnel on equipment that is being worked on by others, tags may be installed if requested. The SO will evaluate and discuss with the requestor precisely what clearance points are needed and provide tags as necessary following the same switching guidelines as if the equipment was in service. Once tags have been added to the required devices the SO shall discuss he need for additional grounds, or if existing grounds shall be used, and provide clearance to the individual after verification of grounding.

12.0 DISTRIBUTION SWITCHING

Principles of distribution switching:

In Substations with breaker & ½ schemes (Allendale, Burns, Montvale, New Hempstead, West Haverstraw)

- When removing a bus breaker and placing the circuit on the tie breaker, all switching must be done by local control in the substation and not by supervisory control. (Breaker inter-lock does not allow three breakers (2 bus and their tie) closed at one time.
- Both circuit reclosers in the bay the switching is being performed shall be off until all switch moves are complete.
- When returning a bus breaker all switching must be done by local control as in (1 & 2) above.
- See Appendix B for an example

In Substations (Breaker & ½ schemes) equipped with "Pro-logic" relays (i.e. Congers, Orangeburg):

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Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 2S

Orange & Rockland

OI 2-S-14

SWITCHING/JURISDICTIONAL AUTHORITIES AT DIVESTED GENERATION AND SUBSTATION FACILITIES

DATE: January 11, 2010	SUPERSEDES: 2-S-13	DEPT.System Operations
Preparer: System Operations	SWITCHING/JURISDICTIONAL AUTHORITIES AT DIVESTED GENERATION AND SUBSTATION FACILITIES	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 2S

	REVISION TABLE		
Revision Level	Author	Date	Description
10	Buhler/Poynton	1/11/10	Updated format and information related to Bowline
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DATE: January 11, 2010	SUPERSEDES: 2-S-13	DEPT.System Operations
Preparer: System Operations	SWITCHING/JURISDICTIONAL	APPROVED BY: Thomas Buhler
	AUTHORITIES AT DIVESTED GENERATION AND	
	SUBSTATION FACILITIES	
Distributed to: SO/SSO		Title: Chief System
· ·		Operator

Operating Instruction 2S

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· · ·		
DATE: January 11, 2010	SUPERSEDES: 2-S-13	DEPT.System Operations
Preparer: System Operations	SWITCHING/JURISDICTIONAL AUTHORITIES AT DIVESTED GENERATION AND SUBSTATION FACILITIES	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 2S

1.0 **<u>PURPOSE</u>**

The purpose of this instruction is to delineate and clarify the jurisdictional authorities of Orange and Rockland (ORU), Mirant New York, Inc. (Mirant), and Alliance Energy as they relate to interconnected switching between the companies and facilities.

This procedure does not supersede any conditions set forth in the Asset Purchase and Continuing Operating Agreement or any other provisions stipulated as a condition of sale.

2.0 ACRONYMS & DEFINITIONS

SO – System Operator SSO – Senior System Operator

Definitions

Switching Authority

The company that operates and directs switching associated with a facility or certain piece of equipment. Generally speaking, Orange and Rockland is the switching authority for all devices under the control of the SO / SSO set forth in the "Jurisdictions" portion of this procedure.

3.0 **PERIODICITY OF REVIEW**

This policy shall be reviewed annually.

4.0 **PROCEDURE**

Scheduling

All Scheduled switching outages needed on the interconnection shall be made to the O&R Switching Coordinator in accordance with System Operations Operating Instruction 3S.

Switching Principles

- 1) Switching operations will be performed in accordance with the <u>O&R Employee Safety</u> <u>Manual</u>.
- 2) The System Operator will issue all switching and tagging steps.

DATE: January 11, 2010	SUPERSEDES: 4-S-7	DEPT. System Operations
Preparer: System Operations	ORANGE AND ROCKLAND JOINT SWITCHING PRACTICES	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 2S

- 3) Switching is strictly limited to personnel listed on the "Qualified Switching List". Updated lists will be emailed to O&R System Operations per the periodicity set forth in the "Continuing Operating Agreement" which states "Every Three months, each party shall provide the other party with an updated list of employees qualified for the inclusion on to the list". Switching with newly approved personnel <u>will not</u> take place until the updated "Qualified Switching List" is disseminated to the O&R operating floor.
- 4) Upon arrival at any of Mirant's or Alliance's properties, ORU personnel will contact the onsite personnel and inform them of the purpose of their visit. Likewise, Mirant or Alliance's employees will notify the System Operator upon entering ORU facilities.
- 5) Either party will parallel tag the other party's equipment in accordance with the procedures set out in the O&R Safety Manual. For example, in performing maintenance work for Mirant, ORU personnel will parallel tag Mirant owned switches to provide the proper safety clearance.

<u>Bowline</u>

In the 345KV yard the power circuit breakers and associated switches designed for isolation and grounding will be switched and tagged by the Bowline Shift Team Leaders, at the direction of the ORU System Operator.

The past practice of tagging these switches for the ORU System Operator during unit outages will no longer be performed. The Bowline Shift Team leader will install Mirant Switching tags in place of the ORU System Operator Red tags. Should Mirant be performing specific work whereby they are issuing a work permit under their internal Lock-Out / Tag-Out procedures these tags may also be installed in parallel with the tags installed under the direction of the System Operator.

In the 138KV yard, ORU maintains and operates the substation facilities that serve as terminations for lines 56 and 561. This would include the ring bus oil circuit breakers. Mirant personnel may also tag this equipment when clearance is required for maintenance on one of the start up banks 555 or 655.

Bank 455 provides a 400MVA tie from the 345KV yard to the 138KV yard. Mirant and ORU have a 25%:75% shared ownership respectively of the Bank 455. ORU will maintain and operate Bank 455 up to and including the 345KV ACB 455-2. Mirant will maintain and operate, at the direction of the ORU System Operator, from the MOD 455-1 on into the 345KV yard as outlined above.

DATE: January 11, 2010	SUPERSEDES: 4-S-7	DEPT. System Operations
Preparer: System Operations	ORANGE AND ROCKLAND JOINT SWITCHING PRACTICES	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 2S

Alliance Facilities

Any time there is switching being performed by Alliance personnel, where their switching steps are being performed to provide O&R personnel with safety clearance, a Substation Supervisor shall be on-site to observe the switch moves being performed.

Gas Turbine Sites

All generating plant alarms will require notification to the Alliance Energy (AE) 24 hour desk. AE will call out Hydro and Gas Turbine Maintenance personnel who will determine whether ORU substation or relay personnel are required to assist. Priority one alarms to be addressed immediately. Each party will switch and tag the equipment it owns.

Hydro Stations

As in the case of the gas turbines, Swinging Bridge, Mongaup, and Rio generating plant alarms will require notification to the Alliance Energy (AE) 24 hour desk. AE will determine whether or not to call out Hydro and Gas Turbine Maintenance personnel who will determine whether ORU substation or relay personnel are required to assist. Priority one alarms to be addressed immediately.

The System Operator will direct all switching and tagging of equipment shown on the system diagram and substation one-line diagrams. This equipment includes generator and line circuit breakers, disconnects, transformers, potential devices, and supervisory – local/remote switches.

In accordance with Exhibit "A" attached, Alliance Operators will perform all switching inside the Hydro Plants including such devices as supervisory local/remote switches for OCB's in the O&R yard. Orange and Rockland Electricians or Relay Technicians will perform all switching outside the plant buildings including such devices as station service disconnects.

Hydro and Gas Turbine personnel are responsible to provide clearance of the generator equipment. This equipment includes controls, exciter breakers, gates and valves.

Emergency Switching at Alliance Facilities

If an Alliance qualified switch crew is not readily available to respond to an emergency situation, the System Operator will notify the Alliance 24hr desk that

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Preparer: System Operations	ORANGE AND ROCKLAND JOINT SWITCHING PRACTICES	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 2S

O&R personnel will be entering the applicable Alliance facility. Upon notification, the O&R Substation Supervisor will be directed to enter the Alliance control room and perform the Supervisory/Local switching step allowing switching to proceed in the most expeditious manner.

Alliance has granted O&R full access to both the Hillburn GT and Shoemaker GT facilities.

This emergency switching exception will only address system emergencies requiring switching in an Alliance facility for the purpose of isolating O&R equipment. This exception will be strictly limited to the Supervisory to local switching and tagging steps normally performed by Alliance personnel and associated with equipment necessary to clear an emergency condition.

5.0 **RESPONSIBILITES**

The responsible organization for this Procedure shall be the System Operations Department.

6.0 **EXCEPTIONS**

There are no exceptions or exclusions to compliance with the NERC standard, and any references to exceptions are only to the O&R policies and or procedures.

Should exceptions to this policy be required or necessary due to operational needs, technical limitations, special situations including construction or emergencies; the reasons and actions taken shall be documented.

Temporary changes may not require written changes to policy but may be handled as written documented interim changes to security policy, procedures or post orders during this temporary situation.

7.0 ADVICE AND COUNSEL

The Chief System Operator shall provide advice and counsel on this instruction.

8.0 EXHIBIT A

DATE: January 11, 2010	SUPERSEDES: 4-S-7	DEPT. System Operations
Preparer: System Operations	ORANGE AND ROCKLAND JOINT SWITCHING PRACTICES	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 2S

SEE OI 2-S-

EXHIBIT "A" Memorandum of Agreement between Mirant, Orange & Rockland Utilities, Inc. and Local Union 503 LB.E.W.

Operationally speaking (Switching), Mirant Operators are responsible for all switching inside the plants. O&R Electricians are responsible for all operations outside the Plants in accordance with the one line (demarcation) diagrams.

Mechanically, (Maintenance) each Company is responsible for the maintenance and repair of their own equipment.

Robert V. Citrolo 7/20 Date President/Business Manager

President/Business Manage Local Union 503 I.B.E.W.

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Manager – Substation Operations Engineer Orange & Rockland Utilities, Inc.

9/25 Date A. Hans Hasnay CT/Hydro Group Manager Mirant

DATE: January 11, 2010	SUPERSEDES: 4-S-7	DEPT. System Operations
Preparer: System Operations	ORANGE AND ROCKLAND JOINT SWITCHING PRACTICES	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

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Operating Instruction 3S

1.0 PURPOSE

This instruction shall be used for guidance on scheduling, preparing and approving scheduled switch orders as well as outline basic responsibilities of the System Operations Switching Coordinator. This instruction will outline notification requirements for scheduled outages with internal and external entities which include NYISO, PJM, other utilities and large commercial customers.

2.0 ACRONYMS & DEFINITIONS

CSO – Chief System Operator DS – Distribution Supervisor ECC – Energy Control Center (Spring Valley) EMS – Energy Management System NYISO – New York independent System Operator PJM – Pennsylvania, New Jersey, and Maryland Regional Transmission Operator SIRS – Scheduling Interface Recording System SO – System Operator SSO – Senior System Operator SVOC – Spring Valley Operations Center T&D – Transmission and Distribution WMS – Work Management System

<u>Definitions –</u>

N-1 - The loss of any single generating unit, transmission line, transformer.

3.0 PERIODICITY OF REVIEW --

This policy shall be reviewed annually.

4.0 SCHEDULED OUTAGE REQUESTS

The System Operations Switching Coordinator, upon receiving a T&D Clearance Request, will review all areas of the request and if necessary, contact the requester for clarification or additional information.

The Switching Coordinator will then notify any other Orange and Rockland department that may have pending work on the facilities to ensure maximum coordination of activities for this particular outage.

The Switching Coordinator will then notify any other Orange and Rockland department that may have pending work on the facilities to ensure maximum coordination of activities for this particular outage.

DATE: April 2010	SUPERSEDES: 3-S-13	DEPT. Control Center
Preparer: System Operations	Switch Order Scheduling, Preparation and Approval	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 3S

The Switching Coordinator and Distribution Supervisor together will coordinate, establish, and provide a contingency plan for any loss of transmission and distribution facilities for all scheduled switching to mitigate exposure and maintain system reliability per N-1 criteria.

The Switching Coordinator must ensure that new equipment instructions are reviewed and approved before equipment is energized, and that all necessary EMS configuration changes have been modeled and tested.

Written work requests must be submitted to the Switch Coordinator no less than 72 hours before the requested switch start time. This will enable the creation of an efficient, safe, and fully approved switch order. Failure to comply with this request will normally result in postponement of the job.

All switch orders will be prepared and reviewed by Senior System Operators and System Operators in accordance with timelines in the SIRS and ECC personnel responsibilities portion of this section (5).

ENGINEERING, SUBSTATION AND EHV

Major construction and maintenance jobs will be requested in WMS as far in advance as possible. It is the responsibility of the requesting party to submit the WMS request. At no time will the Switching Coordinator be responsible for submitting WMS requests.

All job requests must contain a description of the work intended with a listing of adequate clearance points provided in the request. Any job requests that involve switching or clearances that cannot be adequately described on the WMS request form will be accompanied by an e-mail to the Switching Coordinator and Senior System Operators. This e-mail will provide a full description of the job scope and the work required to complete the job.

All requests must be made by 11 a.m. with no less than 72 hours notice prior to its scheduled date of execution. Jobs scheduled for Mondays must be scheduled no later than 11 a.m. Thursday of the previous week.

Emergency requests such as Hot Spots, Low Oil Levels, etc. do not require 72 hours notification. A phone call to the SSO is required and a WMS request should be submitted when time permits.

The Working Groups (Engineering, Substation & EHV) will meet with the Switching Coordinator on a regular basis to review upcoming jobs for scope and timing.

DATE: April 2010	SUPERSEDES: 3-S-13	DEPT. Control Center
Preparer: System Operations	Switch Order Scheduling, Preparation and Approval	APPROVED BY: Thomas Bubler
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The night SO will prepare switching for requests on a rolling fourteen-day schedule.

Example: The night SO on Monday will be preparing the switching for the Monday two weeks from then. The day SO will look at current day scheduled work, checking for both accuracy and any scheduling conflicts.

5.0 SWITCH ORDER PREPARATION

The basic guidelines to follow in preparing a switch order are:

1. Check the request information to determine exactly what clearance is needed.

2. Check the one-line diagrams of stations and lines to determine that continuity will be maintained and that no service interruption or voltage problems will take place.

3. Follow all O&R safety procedures in accordance with the Orange & Rockland Switching and Tagging section of the Safety Book. Check one-line diagrams for devices such as secondary pots, which must be disabled for safety.

4. Check Substation Instruction Book as well as one-line diagrams and SCADA memos for special instructions, which apply to a particular station, line or piece of equipment.

5. Under normal circumstances all switching will be prepared in SIRS. When preparing a switch order, all fields will be filled out in their proper location on the appropriate sheets.

6. The clear (Headers and footers section) shall be completed to the extent possible. This section will be completed when the switch order is executed.

7. The "Job Briefing" section will include the clearance points provided on the switch order, including any additional clearance points provided by System Operations that may not have been requested in the "clearance points requested" section.

At this point the switch order will be reviewed by the SSO and if acceptable approved as detailed in section 4.

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Operating Instruction 4S

Orange & Rockland

OI 4-S-8

ORANGE AND ROCKLAND JOINT SWITCHING PRACTICES

DATE: January 11, 2010	SUPERSEDES: 4-S-7	DEPT.System Operations
Preparer: System Operations	ORANGE AND ROCKLAND JOINT SWITCHING PRACTICES	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 4S

		REVISION TAI	BLÆ
Revision Level	Author	Date	Description
10	Buhler/Poynton	1/11/10	Updated format and information related to Bowline
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Operating Instruction 4S

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Operating Instruction 4S

1.0 PURPOSE

Orange and Rockland, Consolidated Edison, Public Service, Mirant NY, and Alliance Energy share in the direction of switching on several jointly owned facilities. These facilities are the Ramapo, Ladentown, Bowline, South Mahwah, and West Haverstraw substations; and various generating facilities.

This Instruction will clarify the responsibilities of the previously mentioned companies regarding each facility with respect to initiating requests for clearance, responsibility for authorizing work on equipment and the preparation and direction of switching.

2.0 ACRONYMS & DEFINITIONS

NYISO – New York Independent System Operator PJM – Pennsylvania, Jersey, Maryland Independent System Operator SO – System Operator SSO – Senior System Operator

Definitions

Switching Authority

The company that operates and directs switching associated with a facility or certain piece of equipment. Generally speaking, Orange and Rockland is the switching authority for all devices under the control of the SO / SSO set forth in the "Jurisdictions" portion of this procedure.

3.0 **PERIODICITY OF REVIEW**

This policy shall be reviewed annually.

4.0 **PROCEDURE**

Transmission Switching

Clearance for routine maintenance outages will be initiated by the company who is the switching authority. That company will assume responsibility for notification of all involved parties including New York Independent System Operator & PJM, describing the work and clearances required. Approval from all entities having termination points is required prior to the scheduling of the outage.

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Jurisdictions

Orange and Rockland System Operators will direct company O&R substation/relay crews and qualified Mirant & Alliance personnel in switching and tagging the following facilities:

• The Mirant, NY owned facilities of Bowline 345KV yard – All switches and devices from where the lines come into the station from the Bulk Power System up to and including the T155-3 for Unit 1 and the 255-55-1 for Unit 2. Any switching beyond those devices will be under the direction of the Bowline Shift Team Leader only after switching has been completed with the Orange and Rockland System Operator isolating the unit from the Bulk Power System.

- Alliance Energy owned facilities of Monguap, Hillburn, Rio, Swinging Bridge and Shoemaker.
- Bowline: All 138 KV facilities.
- Ladentown: All 345 KV facilities.
- West Haverstraw: All facilities 345 KV to 13.2 KV.
- Ramapo: All facilities from and including the 345 KV 1300-4 and 2300-4 switches and the entire 138 KV yard.
- South Mahwah: All 345 KV switches in station 59, all 138 KV switches in station 58 and all 69 KV and 13.2 KV switches in station 52.

Joint Switching practices with other connected utilities

Any facility where two or more companies must switch in order to provide safety clearances, such as Y88, W72, Bank 1300/138 KV Bus "X", Bank 2300/138 KV Bus "Y", Bank 258, will be coordinated with the remote end company as appropriate, in accordance with individual company safety practices. None of the above-mentioned facilities, other than those owned by Mirant & Alliance need be directed by any one company on a step by step basis.

Routine maintenance and emergency repairs on certain 345 KV lines emanating from Ramapo will continue to be performed by O&R line crews. Clearance to O&R line crews will be issued by the O&R System Operator after being notified by the Con Edison system operator that switching for safety clearance has been completed and that clearance

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to begin work may be issued. The O&R System Operator will issue clearance "to test and ground."

Relay Maintenance (In Service)

Request for routine in-service relay maintenance will be initiated by the Orange and Rockland Switching Coordinator or Senior System Operator. Orange and Rockland will be responsible for notifying the New York Independent System Operator Scheduling Department, or PJM via EDART as well as any other affected parties as required.

Mirant, NY will coordinate their in service relay maintenance with the O&R Switch Coordinator.

Emergency relay work will be coordinated directly by the Orange and Rockland Senior System Operator.

5.0 **RESPONSIBILITES**

The responsible organization for this Procedure shall be the System Operations Department.

6.0 **EXCEPTIONS**

There are no exceptions or exclusions to compliance with the NERC standard, and any references to exceptions are only to the O&R policies and or procedures.

Should exceptions to this policy be required or necessary due to operational needs, technical limitations, special situations including construction or emergencies; the reasons and actions taken shall be documented.

Temporary changes may not require written changes to policy but may be handled as written documented interim changes to security policy, procedures or post orders during this temporary situation.

7.0 ADVICE AND COUNSEL

The Chief System Operator shall provide advice and counsel on this instruction.

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Program details can be obtained from the Safety Department as well as in the most recent version of O&R's "Safety Guidelines 7025" and "7026" and the Drug and Alcohol Misuse addendure, which are available on the Safety Web site.

17.0 Electrical Safety

17.1 Qualifications/Training

Qualified trainers who perform training shall be competent in the skills and techniques necessary to satisfactorily train personnel to distinguish exposed live parts from other parts of electric equipment, to determine the nominal voltage of exposed live parts and to know the safe working clearance distances specified in this manual.

Only qualified persons and trainees working under the direct supervision of a qualified person may work on or with energized lines or exposed live parts of 50 volts or greater.

17.2 Hand and Portable Power Tools

All hand and portable power tools shall be either double-insulated or equipped with a three-wire cord that is wired to ground the frame of the tool. It is recommended that a Ground Fault Circuit Interrupter (GFCI), which provides additional protection against electrical shock, be utilized with all extension cords when the GFCI is located at the source of the extension cord. The use of the GFCI is required in all wet or damp areas. Cords shall be inspected prior to use. Ground pins shall not be removed at any time from extension cords or electrical powered equipment.

17.3 Safe Approach Distances

No person(s) shall approach or bring any conductive object without an insulating handle closer to energized lines or exposed live parts than the distance(s) set forth in Table 17.3.1.

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17.3.1 AC LIVE-LINE WORK

Minimum Approach Distances

in kilovolts, phase to phase	Distance			
	Phase to Ground Exposure		Phase to Phase Exposure	
	(<u>ft-in</u>)	(m)	<u>(ft-in)</u>	(m)
0.05 to 1.0	(*)	()	(°)	(')
1.1 to 15.0	2-1	0.64	2-2	0.66
15.1 to 36.0	2-4	0.72	2-7	0.77
36.1 to 46.0	2-7	0.77	2-10	0.85
16.1 to 72.5	3-0	0.90	3-6	1.05
72.6 to 121	3-2	0.95	4-3	1.29
138 to 145	3-7	1.09	4-11	1.50
161 to 169	4-0	1.22	5-8	1.71
230 to 242	5-3	1.59	7-6	2.27
345 to 362	8-6	2.59	12-6	3.80
500 to 550	11-3	3.42	18-1	5.50
765 to 800	14-11	4.53	26-0	7.91

Note 1: These distances take into consideration the highest switching surge an employee will be exposed to on any system with air as the insulating medium and the maximum voltages shown

Note 2: The clear live-line tool distance shall equal or exceed the values for the indicated voltage ranges.

() Avoid Contact

- A. For areas restricted to qualified persons, the materials therein may not be stored within the allowable working space of energized lines or equipment.
- B. For areas that can be accessed by persons without the relevant qualifications, the distance at which materials and equipment shall be placed or stored is dependent on the power of the lines and equipment therein. If the power is:
 - 1. 50 kV or less, the distance is 10 feet (305 cm).
 - 2. More than 50 kV, the distance is 10 feet (305 cm) plus four (4) inches for every 10 kV over 50 kV.

Employee Safety Manual

- C. All wires, regardless of the type of covering, must be considered live, unless they are positively known to be dead and grounded.
- D. All conductors, terminations and related equipment shall be considered energized until de-energized, tested, grounded and tagged.
- E. When working with equipment, switches, cutouts and grounding devices, the worker shall place himself in a safe position with all components in clear view.

17.4 Work Clearances in Substations

When employees are required to perform work near energized high-voltage equipment, care must always be taken to ensure that proper clearances are maintained by all personnel.

- A. When lifting or handling loads in proximity to energized conductors and/or equipment in substations, ground trucks or cranes should be used (see Substation Work Procedure Manual).
- B. The antennae of either mobile or portable radios shall be kept at a safe distance from energized conductors and/or equipment at all times.
- C. Only trained personnel can enter an energized substation unescorted by a qualified person.
- D. All personnel entering a substation or switching station that is under the control of the System Operator shall notify the System Operator upon their arrival and prior to unlocking the locked gates of the substation. Once work activities are completed, all personnel shall notify the System Operator that they have left the substation.

17.5 Switching

17.5.1 Basic Principles of Switching (Substations/Switching Stations)

Information regarding this subject can be found in the Substation Department Work-Procedures.

17.5.2 Substation Backfeed Situations

Information on this subject can be found in Substation Department Work Procedures.

17.5.3 Distribution Switching and Tagging

For all distribution switching and tagging, please reference the company's/department's most current work procedures in the OHL, URD and the Control Center Procedures Book.

17.6 Clearances

Employee Safety Manual

17.6.1 Use of Electrical Mechanical Equipment within Substation Properties

Mechanical equipment shall be operated so that the required clearance distances are maintained for exposed energized lines and equipment.

Equipment and the attached load operating near energized lines or equipment shall be treated as energized by persons on the ground.

Further information can be found in the most recent version of the Substation Work Procedures SP 0110-1.

17.6.2 Procedure for Removing from Service a Line that is Under the Jurisdiction of the System Operator

Reference S.O. Operating Instructions 1-S and any revisions thereto in the Control Center Procedures Book.

17.6.3 Receiving Clearance from the System Operator

- A. Use of the term "Clearance" Upon completion of the steps of a Switch Order executed by a System Operator, the term "Clearance" will always be accompanied by a statement that defines its purpose. For example, upon completion of the required switching for a relay technical to perform his/her relay tests, the System Operator will issue "Clearance to (name of field person) on OCB (Name) for testing."
- B. All lines are considered energized until ALL of the following have been completed:
 - 1. The system operator issues clearance, AND
 - 2. the designated tests to prove absence of potential have been performed at the work location, AND
 - 3. the lines have been grounded.
- C. Clearance is issued when the System Operator contacts the employee for whom the line or equipment has been tagged. Upon completing all switching steps to isolate a line, facility or piece of equipment for work or maintenance, the System Operator will proceed by making the following statement to the employee who is to receive the clearance: "At (state time) you have clearance to Test and Ground."

The employee receiving clearance to Test and Ground can now proceed to test the isolated area for potential and to install personal field grounds as required. After completing the testing and grounding procedures, the employee will then contact the System Operator to inform him/her that the testing and grounding have been completed. The System Operator will then issue the following declaration: "At this time (state time) you have clearance on (equipment) to do (purpose), e.g. Doble class #3 inspection, etc."

Employee Safety Manual

D. If Testing and Grounding is <u>not</u> required by field personnel, due to the nature of the work at hand (such as trip testing or work that is distant from the de-energized equipment), the fact that personal grounds will not be installed should be made known to the System Operator when the switching steps are completed. Since clearance to test and ground will not be issued, the System Operator can then issue clearance to perform the work that is needed.

17.6.4 Procedure to Be Used when Field Personnel Surrender Clearance

- A. Upon completion of their work, field personnel will notify the System Operation that their work is done. At this time, field personnel will be instructed by the System Operator to remove all personal field grounds, if any.
- B. After removing all personal field grounds, field personnel will report clear of the isolated area to the System Operator and clearly state that all field grounds have been removed. Switching to restore the isolated area can then begin.

17.6.5 General Procedure for Returning to Service a Line That Is Under the Jurisdiction of the System Operator

Reference S.O. Operating Instructions 1-S in the Control Center Procedure Book.

17.7 De-energization and Grounding Transmission and Distribution Lines and Equipment

Reference the most recent version of the following Department Work Procedures and:

Substation SP-0107-2 Electric Operations C3100 and C3201 UGL 3017 and 3018

- A. De-energized lines shall be tested and found absent of nominal voltage before installing grounds or performing work on the lines or equipment.
- B. Before de-energized lines are worked on, temporary protective grounds shall be installed at the work location, in compliance with the various department work procedures.
- C. The grounds shall have impedance to ground low enough to permit for the prompt operation of protective devices, in case the lines or equipment is unexpectedly energized.
- D. Protective grounds shall be capable of conducting the maximum ground-fault current that could flow at the point of grounding for the time necessary to clear the fault.
- E. The ground-end connection shall be attached first, and then the other end shall be attached to the de-energized conductor by means of live-line tools.

Employee Safety Manual

- F. Where facilities are 600 volts or less, grounds may be applied using appropriate PPE rated for the voltage to be worked on.
- G. The grounding device shall be removed from the lines or equipment first, using liveline tools or other insulated devices, and removed from the grounding point last.

17.8 Fault-Locating Equipment Use

When using the fault-locating equipment, the truck and equipment shall be grounded per the manufacturer's recommendation. For all fault locating, Class 2 rubber gloves are required.

17.9 Guarding of Rooms Containing Electric Supply Equipment

Unqualified employees are prohibiting from entering rooms/spaces where electric-supply lines and equipment exist, without direct control from and the supervision of a qualified person. The unqualified employees shall heed the instructions of the qualified employees at all times.

17.10 Testing and Test Facilities

For information on this subject, reference Protective Equipment Test Center Work Procedures.

17.11 Handling Fallen Wires

- A. Only trained, qualified and authorized persons shall handle fallen wires.
- B. All wires, primary or secondary, that are on the ground but still attached to the pole on one end must be considered and treated as energized.
- C. A line technician alone shall not attempt to put back up an energized primary wire which is down on the ground, but shall guard it and send for or seek assistance.
- D. In handling a case of "wires down," a person must never climb a pole, unless climbing space is clear. If necessary, before repairs are made, wires must be cut dead on an adjacent pole that has clear climbing space, but only after any required temporary guying has been provided.

17.12 Inducted Voltage(s)

Before lines are installed parallel to existing energized lines, a determination shall be made of the approximate voltage to be induced in the new lines, or work shall proceed on the assumption that the induced voltage is hazardous. Unless it can be demonstrated that the lines being installed are not subject to the induction of a hazardous voltage or unless the lines are treated as energized, the following requirements also apply:

A. Each bare conductor shall be grounded at least every two miles.

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- B. The grounds shall remain in place until the conductor installation is completed between the dead ends, including during the aerial cleanup.
- C. Grounds shall also be installed at each location where persons are working on bare conductors and at all open dead-end and catch-off points or at the next adjacent structure.
- D. When two overhead conductors must be spliced, they shall be bonded and grounded.
- E. Grounding procedures shall be in accordance with the work procedures of the various departments.

17.13 Current Transformer Secondaries

- A. The secondary of a current transformer shall not be opened while the transformer is energized.
- B. If the primary of the current transformer cannot be de-energized before work is performed on an instrument, a relay or another section of the current transformer secondary circuit, the circuit shall be bridged to prevent the current transformer secondary from being opened.

17.14 Transformers

- A. When transformers are being raised or suspended in the air, any person on the pole must take a position above or well in the clear of the transformers.
- B. A secondary voltage test must be made on all transformers before they are connected to the secondary mains.
- C. When work requires the disconnection of taps from a supply line to equipment, the disconnection shall be made at the point where the taps meet the supply line, and never so an unprotected energized wire remains within reaching distance.

17.15 Capacitors

Capacitors are devices that store a charge. In our applications, they are used for voltage support and power factor correction. They are provided with a discharge device for draining the residual charge to a low value, approximately five minutes after they have been completely disconnected from the line. Before working on capacitors, they shall be de-energized, discharged and grounded. In addition, the capacitor bank-support framework shall be grounded.

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These discharge devices must not be depended upon for safety. In light of this, employees shall adhere to the following rules when working with capacitors:

- A. Capacitors shall not be worked on and the connections or terminals shall not be handled until the fuses or disconnect switches have been opened and the terminals have been shorted or grounded.
- B. Where oil switches are installed, they will be opened before cutouts or disconnects are opened.
- C. After opening the fuses or disconnects, wait at least five minutes before applying the shorting jumpers and grounds. The shorting jumpers shall be applied with a "hot stick."
- D. Capacitor cases shall be considered energized as long as the capacitor is connected to the line and until after the capacitor has been shorted and grounded.

17.16 Operating Switches and Cutouts

- A. When operating or replacing cutouts, the line technician must always protect himself/herself against accidental contact with energized wires or grounded equipment by using Class 2 Gloves.
- B. Cutouts and disconnects equipped with Loadbuster® "ears" shall always be opened with a Loadbuster or other tool(s) that will provide arc-free interruption whenever possible. All other cutouts not adaptable to these tools shall be opened with an approved cutout or switch stick.
- C. All cutouts or switches shall be closed with an approved cutout or switch stick. Before opening or closing, the main porcelain housing should be inspected for structural cracking. If the housing integrity is questionable and could be damaged when closing, the unit should be replaced.
- D. When closing any cutout or switch, it is very important that it be done without hesitation, in order to prevent an arc.
- E. Whenever a worker is called upon to operate any switch carrying more than 300 volts, appropriate rated rubber gloves must be worn.
- F. Where line cutouts are used to permit dead-line work, the fuse holder shall be opened and removed and the de-energized conductor shall be tested and grounded before proceeding with work.

17.17 Mobile Substations

Reference Substation Department Work Procedures and any revisions thereto.

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17.18 Transmission Operations

Transmission

In addition to the hazards particular to electrical operations, other non-electrical hazards may be encountered. Employees in the electrical operations departments should therefore be familiar with all other sections of the Safety Manual that may apply to their work.

Definition of Transmission Circuit: Any circuit, apparatus or equipment normally energized at 34.5 kV (Delta connected) or above shall be classified as transmission.

17.18.1 Live-Line Tools and Equipment

- A. Only properly inspected and labeled tools with the proper voltage rating and sufficient length to secure proper clearance for safety shall be used. It is possible to depend too much on the voltage rating of the tools and not enough on clearance between the employee and the live wires.
- B. The employee in charge must at all times be sure that the sticks, straps, ropes and other equipment are in first class condition and have been electrically tested in accordance with company standards.

17.18.2 Live-Line Maintenance

- A. Maintenance, repair and construction work on electric circuits or apparatus shall not be done until the proper authorization has been obtained for performing the work.
- B. Before any work is undertaken on energized equipment, workers shall be qualified by training and experience to perform work by the prescribed method for the voltage involved and shall be familiar with minimum working clearance.
- C. Whenever it becomes necessary to replace a worker or supervisor during a job, such replacement should be made only after the replacement worker or supervisor has been fully informed of existing conditions.
- D. Lines should always be de-energized, if it can be done without jeopardizing continuity of service.
- E. Where it is necessary to maintain continuity of service on transmission lines, it is permissible to work on such lines when they are energized, provided that hot-line tools designed and tested for this type of work are used.
- F. Routine live-line work shall be done only during favorable weather conditions. Rain, snow, sleet and dampness, for example, create dangerous conditions that preclude routine live-line work.
- G. Obtain proper clearance from the system operator.

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- H. When it is necessary to work on transmission lines with more than one circuit, and there is insufficient working clearance between circuits for live-line work, the circuits not being worked on shall either be de-energized and grounded or shifted with hot-line tools, in order to provide proper working clearance.
- I. Live-line work shall not be performed on any conductors smaller than No. 4 B & S gauge.
- J. The principal factor in safe live-line work is adequate clearance between the employees and all wires on the pole or structure, including the wires being worked on.

17.19 Electric Meter Testing/Installation and/or Removal

General

The following rules apply specifically to conditions encountered in the checking and testing of electric meters in the field. However, all applicable rules set forth in other sections of this manual as well as departmental safety and procedural guidelines must also be observed by all persons doing service, meter or relay work. Please reference departmental safety and work procedures for additional information.

- A. Employees must at all times realize that there may be hazards while testing or changing meters. Safe working conditions are essential to the safety of customers and employees.
- B. Whenever any employee is called upon to operate a live switch, the employee shall wear an approved class of nibber gloves, approved apparel and safety glasses (flash) as defined in Apparel Wear section 5.0. Gloves shall be tested and inspected prior to use.
- C. Work gloves and safety glasses MUST be worn while setting or removing socket meters. When testing meters, an approved class of rubber gloves and safety glasses shall be worn.
- D. When applicable in testing, repairing, installing and changing meter equipment, personal protective safety equipment such as hardhats, eye protection, leather protective gloves or rubber gloves shall be used.
- E. Electric meter and control wiring shall be treated as energized at all times. The handling of circuits with a voltage of 120, 240 or higher requires reasonable precautions to prevent personal injuries.

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17.20 Underground Electric Operations (UGL)

17.20.1 General

- A. Class 2 rubber gloves shall be used on all energized cables and equipment. Hot-line tools shall also be used while working on primary circuits for switching, loadbreaking and grounding operations.
- B. Test points, when provided, shall be used.
- C. A primary or secondary system neutral shall never be operated for any reason while the system is energized.
- D. Before doing work on de-energized primary circuits or equipment:
 - 1. A visible open break shall be provided, if possible.
 - 2. A voltage test shall be made.
 - 3. The equipment shall be grounded.
 - The cable or equipment shall be tagged per the instructions of the Distribution Supervisor.
- E. When work is to be done on equipment or cable of an underground system, precaution to prevent backfeed shall be taken. This shall include grounding of the conductors or other approved methods where applicable.
- F. Before paralleling positions of an open loop, it shall be determined that the separate sections of the loop are of the same phase.
- G. Faulted cables shall be isolated, tested, grounded and tagged before repair work. Approved tester/equipment shall be used to ensure that the cable is de-energized before grounding.
- H. When unattended, hand holes, manholes, silo covers and pad-mounted equipment shall be secured or bolted at all locking points with approved company locks and special keyed bolts supplied by the manufacturer. Missing bolts shall be replaced.
- I. Ladders or other climbing devices shall be used to enter and exit manholes and subsurface vaults that exceed four (4) feet (122 cm) in depth. Ladders shall be inspected prior to use.
- J. Persons shall not step on cables or hangers to exit out of manholes or vaults.
- K. When work is performed on buried cable or on cable in manholes or vaults, metallic-sheath continuity shall be maintained.

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17.20.2 UGL Work Area Protection

- A. When loading or unloading cable reels, care should be taken so that reels are under control at all times. Cable ends shall be tacked or tied down to prevent unraveling.
- B. Ropes and cables laid temporarily across sidewalks during pulling operations shall be properly protected to avoid possible injury to pedestrians. Cables laid out temporarily to restore power shall be protected in the same manner.
- C. Do not use cables or cable racks to support chain falls, lifting tackle, weights or planks.
- D. Equipment and cable shall not be left on the jobsite after the completion of work. Good housekeeping shall be maintained at all times around the work area.
- E. Care shall be taken when pulling cables to protect employees and the public from possible injury. This requires a study of the vehicular and pedestrian traffic for the particular location, to enable the equipment to be set up in the safest possible manner that will cause the public the least inconvenience. All persons, including employees, should be warned to keep away from taut ropes or cables. If necessary, barricades shall be installed to divert pedestrians and vehicles away from the pull-site.
- F. Workers who are in a roadside work zone, exposed to vehicular traffic on a roadway or exposed to construction equipment within a work zone will be required to wear Class 2 safety garments at all times.

17.20.3 UGL Manhole Operations

- A. Load-breaking devices in the manhole must be operated from outside the manhole. No one is to be inside the manhole when such devices are operated.
- B. For O&R employees, work shall only proceed in a manhole if all circuits are deenergized, grounded and tagged. If necessary, the cable to be worked on shall be spiked to ensure that it is de-energized.
- C. Employees shall not remain in a hole while installing or removing cable if the pulling system is operating and/or under tension.
- D. Prior to opening a manhole, tests for oxygen deficiency and combustible atmosphere must be made. Manhole-lifting equipment shall be used to open the manhole. No entry into a manhole shall be made in an "Immediately Dangerous to Life and Health" or "IDLH" atmosphere unless in the pursuit of life or limb. The atmosphere shall be made safe prior to entry. All sources of combustible gas, smoking, vehicle exhaust and any source of ignition shall be kept at a distance while testing.
- E. A visual inspection for unusual and/or hazardous conditions shall be made prior to entering a manhole. Heavy mud and waste should be cleared away prior to entry.

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- F. Cable and cable racks shall not be used as ladders or to support tools and equipment.
- G. Equipment used to lower or raise materials into a manhole shall be inspected for defects prior to use. Workers shall be clear of the area directly beneath the opening of a manhole when equipment or materials are being lowered or raised.
- H. In case of manhole fires, the workers shall evacuate the manhole before using the fire extinguisher and shall not re-enter the manhole until the fire has been extinguished and the manhole has been properly ventilated and tested (see Permit-Required Confined Space Entry).

18.0 Emergency Response/Evacuation

18.1 Emergency Action Plan

Each location shall have a written Emergency Action Plan that covers the following:

- Applicability to all types of emergencies
- General site information
- Evacuation Plan and procedures
- Emergency notifications
- Fire alarm systems
- Training and drill requirements
- Records management

Employees are required to familiarize themselves and keep up to date with the Emergency Action Plan for each facility in which they work.

18.2 Mutual Assistance at Other Utilities

When O&R employees are assisting in the restoration of service at another utility, all employees will follow the safety practices outlined in this manual. Additional safety practices and procedures required by the host company will also be followed.

18.3 Mayday Procedures

The following shall be the procedures for a distress call signal:

A. When faced with an emergency situation (i.e. an aggressive customer, a serious accident or injury, electrical contact, an incident that causes harm to the public, or a situation that has the potential to cause one of these conditions), field personnel with a radio-equipped vehicle should, as soon as possible, issue a MAYDAY.

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- B. The field person, if able, shall initiate a MAYDAY over the radio. The distress call shall consist of the clearly-spoken word <u>MAYDAY</u> repeated <u>three (3)</u> <u>times</u>, followed by the vehicle number. The distress call shall be repeated until the call is acknowledged by either the Dispatcher or the Distribution Supervisor in the ECC/GAS DCC.
- C. If the field person is unable to initiate a verbal MAYDAY, the MAN DOWN button should be depressed. Depressing the MAN DOWN button will generate an audible and visual alert for the Dispatcher or Distribution Supervisor to notify him/her to the existence of an emergency event. The alert will also indicate the vehicle number to Control Center personnel. The MAN DOWN button WILL NOT provide the location of the vehicle (see Note below).
- D. The driver/occupants of any radio-equipped vehicle who become aware of another vehicle in distress that cannot make radio contact with the ECC/GAS DCC may directly transmit the message and/or relay the location information to the ECC/GAS DCC.
- E. Upon receiving and verifying a distress call from any vehicle, the Distribution Supervisor shall direct the Dispatchers to immediately clear all airways on all frequencies by issuing the MAYDAY tones and stating "To all vehicles: There is a MAYDAY in progress at this time....Clear this frequency until further notice."
- F. After clearing the airways, the dispatcher should contact the distressed vehicle and request his/her MAYDAY message. In the event that the vehicle cannot be reached or located, the ECC/GAS DCC shall initiate all efforts to locate the vehicle.
- G. The operating authority is responsible for ensuring that the MAN DOWN buttons function properly.

Note: Once the MAYDAY procedure has been initiated via the MAN DOWN button, the mobile radio will send out a series of alerts to the Control Center and will be muted for 10-15 seconds, after which time the radio will automatically un-mute. If the ECC/Gas DCC does not respond within 15 seconds, the individual initiating the MAYDAY will need to key the microphone one (1) time.

18.4 Pole-Top/Tower Rescue

Orange & Rockland

Safe and timely pole-top/tower rescue is essential in assisting employees who may have been involved in an accident or incident. Rescue shall be attempted as soon as safely permitted. It is paramount that the safety of the rescuers is considered in every circumstance.

Pole-top rescue training will be provided annually and performed in accordance with applicable departmental procedures. For additional information, refer to departmental procedures.

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18.4.1 General Precautions

- A. In cases of electric shock, there must be no delay in providing resuscitation, as every moment lost decreases the possibility of restoring breathing.
- B. Call or have someone call for help immediately. The Mayday procedure should be utilized in communications for assistance.
- C. There are many possible conditions that may make it a difficult matter to properly position a victim of electric shock on a pole or elevated structure.
- D. The flexibility of mouth-to-mouth resuscitation makes it particularly suitable for this type of rescue.
- E. After freeing the victim from contact with the electrical apparatus and/or wire and taking such measures as may be necessary to protect both the victim and rescuer from further contact, the victim should be secured in any manner that will place the victim face up. The chin lift is used since it is the most effective method of opening the airway. The tongue is attached to the lower jaw. When you lift the chin, you lift the tongue from the back of the throat, which opens the airway. In cases where neck injury is a possibility, the head tilt should be absent or minimal to avoid aggravating the neck injury.
- F. Month-to-mouth resuscitation with applicable protection may then be performed.
- G. Resuscitation should continue on the pole and/or elevated position until all arrangements are completed for lowering, which should be done as quickly as possible. Resuscitation efforts should be resumed immediately when the victim is on the ground.
- H. Care should be taken to avoid having a person who was suspended lie down, since he/she could be suffering from suspension trauma/orthostatic intolerance. He/she should instead stand with support of additional personnel to ensure circulation of the deoxygenated blood that mat have gathered in the legs. Lying this person down immediately could send the deoxygenated blood to the heart, causing the individual to go into shock.

18.4.2 Bucket-Truck Bucket Rescue Training (Single and Double)

Rescue Bucket Training shall be provided annually.

All employees shall be trained on the operation and rescue procedures for each bucket truck type they may use. If an employee is not trained in either operation or rescue procedure, he/she shall not utilize such equipment.

18.5 Tower Rescue

Reference the Department Tower Rescue Procedure.

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43.0 Safety Tagging – Lockout/Tagout

43.1 General Requirements

43.1.1 Gas Operations and Gas Customer Service Lockout/Tagout

Procedures covering gas operations and gas customer service that require any lockout/tagout can be found in the department procedures manual.

43.1.2 Substation Operations

For procedures covering tagging in substations, refer to the most recent version of Workplace Procedure SP-0105.

43.1.3 Distribution Switching and Tagging

For all distribution switching and tagging, please reference the most recent version of company/department Work Procedure C-3100 and revisions thereto.

43.2 Electric Distribution and Transmission Tags

The standard safety tags contain eyelets for attaching them with an electric tie to the operating and control handles of an apparatus. The tags used under the System Operator and Distribution Supervisor are in two colors (red and green), each of which has a distinct purpose. In no case will either tag be used for any purpose other than that for which it is intended.

- A. The red tag with black lettering shall be used only under the supervision of the System Operator and/or Distribution Supervisor. It is used for high-voltage equipment and associated control mechanisms together with any low-voltage equipment that the System Operator may designate. Facilities that have had red tags applied shall not be operated under any conditions until the qualified employee whose name is on the tags releases them.
- B. The green tag shall be placed on equipment solely to indicate an abnormal equipment condition or status and necessitates that such information be readily available to any employees involved in the operation or maintenance of the equipment. The green tag shall never be placed to provide clearance.
 - 1. Equipment with a green tag shall be operated only with the approval of the System Operator or the Distribution Supervisor, whoever has authority over that tag.
 - 2. The reason for placement of the green tag shall be clearly stated on the tag, including any specific operating limits.
 - Requests to remove a green tag shall be made to the appropriate authority governing the tag to assure that the restriction or abnormality has been corrected.

- 4. Requests to operate green-tagged equipment within the stated restriction shall be made to the authority governing the tag,
- 5. Multiple green tags may be applied to the same switching device.
- The green tag may indicate more than one abnormality or restriction, provided that the tagging was done during the initial arrangements with the authority governing the tag.

Green Tag Special Note: A green tag shall never be placed for clearance protection. A red tag may be applied to green-tagged equipment, devices or switches, provided that the abnormality or restriction does not prevent the equipment, device or switch from serving the purpose for which the red tag is being applied.

43.3 Scheduling Work on Equipment under the System Operator's Jurisdiction

The Department Manager, Superintendent, Supervisor or their designated representatives may ask the System Operator to release equipment under their jurisdiction for work as follows:

- A. The removal of equipment or lines from service required for all non-emergency work must be requested on a Transmission/Distribution Clearance Request Form at least 72 hours in advance of when such work is scheduled to begin. This request shall be filled out in its entirety and shall be made to the System Operations Scheduling Supervisor or, in his/her absence, to the System Operator directly, by the employee in whose name the circuit or equipment is to be tagged or by that person's supervisor. This procedure also applies to Third-party interconnects and their O&R coordinators.
- B. During the construction of new equipment, when the installation or construction work has progressed to the point of energization from any station or other external source of any piece of transmission equipment or distribution equipment within the substation fence, the System Operator shall be so informed by the Engineering Department as follows:
 - This information shall be in writing, shall indicate by sketch its location in relation to the then-existing System Diagram and shall specify the Qualified Engineering Department representative in whose name protective tagging should be issued.
 - 2. The System Operator will immediately order the qualified employee(s) to tag out of service with red tags all switches and control equipment that could energize the new equipment.
 - 3. The tags will be made out in the name of a qualified substation, relay or engineering employee, or other qualified personnel.

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- 4. All requests for the placement or removal of tags on equipment to energize it for test purposes will be made to the System Operator through the qualified substation or relay employee.
- Revisions or additions to the System Diagram and SCADA system located in the Energy Control Center must be made before any new equipment or line is placed in service.
- 6. For emergency work, the person in charge of the job shall consult with the system operator to determine which equipment should be cleared and tagged out in order to make the job safe.

43.4 Qualifications/Training

43.4.1 Definition of an Employee Qualified to Use Lockout/Tagout

A person who tags and/or locks out equipment in order to perform service or maintenance must be qualified. To be qualified, a person shall have received training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control.

The qualified person must understand the purpose and function of the Energy Control Program and have all the skills required for the safe application, usage and removal of energy controls. For further information on switching and tagging operations, reference Electric Systems Operations Operating Instructions 1-S-4.

43.5 Key Requirements

Lines, circuits, feeders and apparatus must be considered energized at all times unless they are properly tagged out.

43.5.1 Electric Distribution and Transmission Tagging Key Requirements

- A. Only qualified employees may have equipment tagged out. Third-party interconnects shall also supply a list of qualified employees to perform switching/tagout. Equipment shall be tagged only for the persons appearing on these lists. It shall be the responsibility of the Manager, Superintendent or Supervisor to determine which employees are qualified.
- B. All tags must be made out in the name of the person who is in charge of the job. This person shall be responsible for all others working under his tag on the jobsite. The person in charge must be available at the jobsite to clear people off of equipment and/or lines that may need to be restored in an emergency.
- C. In filling out tags, care should be taken to ensure that all required information is complete, correct and legible.

- D. Tags shall be tied securely to the control handle of equipment with electric ties. For equipment that does not have a control handle, including single-phase disconnect switches and cutouts, the tag shall be fastened in an approved manner (using the hot stick tag holder, for instance).
- E. When the person in charge of a job is scheduled to be absent and the job is expected to be continued, he/she should arrange with the authority governing the tag – the Department Manager, Superintendent and/or Supervisor – to have his/her tags released and/or replaced. In the event of an unforeseen absence, the Line or Substation Supervisor can assume the responsibility of the tag and appoint a new person in charge.
- F. Other qualified personnel may parallel tag apparatus with Electrical Distribution, Transmission and Substation personnel or System Operators. This tagging is subject to the approval of the authority governing the tag. The tags are to be placed and removed by the qualified employee(s).
- G. When more than one group of persons is working on the same line or apparatus, each group may request protection by its own set of tags.
- H. When work is performed at separate locations on one line or piece of equipment but under the jurisdiction of qualified employees, each qualified employee shall request his/her own tags using the above procedure.

43.5.2 Use of the Term "Clearance"

Upon completion of the steps within a Switch Order executed by the System Operator or Distribution Supervisor, the use of the term "clearance" will always be accompanied by a statement that defines the purpose for which the clearance is being issued. For example, upon completion of the required switching for a relay technician to perform his relay tests, the System Operator will issue "Clearance to (<u>name of field person</u>) on OCB (<u>name</u>) for testing." For example, the Distribution Supervisor would issue clearances as follows: "As of (<u>time</u>), (<u>name of field person</u>) has clearance to (<u>specify work</u>) between (<u>ID Location points</u>)." The employee who received the clearance shall repeat the clearance back to the SO or DS until both agree that the clearance is correct. For example: The field worker, after receiving clearance from the System Operator, will repeat the information: "I understand that as of (time), I have clearance to (<u>specify work</u>) between (<u>ID location points</u>)" and so on.

44.0 Safety Training

44.1 New Employee Orientation

Each new employee shall attend a New Employee Safety and Health Orientation prior to performing unescorted work activities at O&R. The orientation shall cover facility safety requirements and topics related to the job tasks the employee is to perform. Topics not covered in the orientation shall be communicated to the employee's supervisor or chief to ensure that the employee is not assigned tasks that he/she is not trained to perform.

ATTACHMENT C

Amended and Restated Continuing Site/Interconnection Agreement By and Between Orange and Rockland Utilities, Inc. and AER NY-Gen, LLC Pertaining To Hydroelectric Generating Stations

AMENDED AND RESTATED

CONTINUING SITE/INTERCONNECTION AGREEMENT

BY AND BETWEEN

ORANGE AND ROCKLAND UTILITIES, INC.

AND

AER NY-GEN, LLC

PERTAINING TO HYDROELECTRIC GENERATING STATIONS

August 12, 2010

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AMENDED AND RESTATED CONTINUING SITE/INTERCONNECTION AGREEMENT

AMENDED AND RESTATED CONTINUING SITE/INTERCONNECTION AGREEMENT ("<u>Agreement</u>"), dated as of August 12, 2010, by and between Orange and Rockland Utilities, Inc. ("<u>Seller</u>"), a New York corporation with a principal place of business located at One Blue Hill Plaza, Pearl River, New York 10965, and AER NY-GEN, LLC (f/k/a Mirant NY-GEN, LLC (f/k/a Southern Energy NY-GEN, LLC)) ("<u>Buyer</u>"), a Delaware limited liability company with a principal place of business located at 613 Plank Road, Forestburgh, NY 12777.

WITNESSETH:

WHEREAS, Seller and Southern Energy NY-GEN, L.L.C. ("<u>Southern</u> <u>Energy</u>") entered into the Gas Turbine and Hydroelectric Generating Stations Sales Agreement dated as of November 24, 1998 ("<u>ASA</u>") for the sale of certain of Seller's generating assets to Southern Energy; and

WHEREAS, Seller has continued to operate its transmission and distribution business in the same locations as it did in 1998; and

WHEREAS, in the ASA, Seller agreed to transfer to Southern Energy certain Purchased Assets (hereinafter defined), including certain designated real and personal properties, contracts, and licenses pertaining to Seller's generating assets and to retain certain Excluded Assets (hereinafter defined) including designated real and personal properties, contracts and licenses all as to be more specifically set forth in the Separation Document (hereinafter defined); and

WHEREAS, Southern Energy needed certain Interconnection Services (hereinafter defined) from Seller for the Purchased Assets; and

WHEREAS, Seller needed access to parts of the Purchased Assets, and Southern Energy needed access to parts of the Excluded Assets; and

WHEREAS, Southern Energy and Seller entered into that certain Continuing Site/Interconnection Agreement, dated as of November 24, 1998, as amended by the First Amendment, dated as of May 10, 1999 (the "<u>Original Agreement</u>"); and

WHEREAS, Southern Energy changed its name to Mirant NY-GEN, LLC ("Mirant NY-GEN") on January 19, 2001; and

WHEREAS, the membership interests in Mirant NY-GEN were sold to Alliance Energy Renewables, LLC on May 7, 2007; and

WHEREAS, Mirant NY-GEN changed its name to AER NY-GEN, LLC on May 11, 2007; and

WHEREAS, Buyer and Seller wish to bifurcate the Original Agreement into two identical agreements that differ only in that Buyer's gas turbine generating stations are covered by one agreement and its hydroelectric generating stations are covered by a second agreement, so as to contractually segregate Buyer's distinct business lines; and

WHEREAS, Buyer and Seller have agreed to execute this mutually acceptable Agreement in order to provide certain Interconnection Services to Buyer for its hydroelectric generating stations and to define the continuing responsibilities and obligations of the Parties with respect to the use of the other Party's property, assets and facilities,

NOW THEREFORE, in consideration of the mutual representations, covenants and agreements hereinafter set forth, and intending to be legally bound hereby, the Parties hereto agree as follows:

ARTICLE 1 DEFINITIONS

1.0 <u>Definitions</u>. As used in this Agreement, the following terms shall have the meanings specified or referred to in this <u>Article 1</u>. Any term not defined herein has the meaning set forth in the ASA.

1.1 "<u>Affiliate</u>" means with respect to a corporation, partnership, or other entity, each other corporation, partnership or other entity that directly or indirectly through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

1.2 "<u>Agreement</u>" means this Amended and Restated Continuing Site/Interconnection Agreement, dated as of August 12, 2010, between Buyer and Seller.

1.3 "<u>Ancillary Agreements</u>" means the Operating Easement, the Load Pocket Agreement and the Transition Agreement.

1.4 "<u>Asset Sales Agreement</u>" or "ASA" means the Gas Turbine and Hydroelectric Generating Stations Sales Agreement dated as of November 24, 1998 by and between Seller and Southern Energy.

1.5 "<u>Buyer</u>" means AER NY-GEN, LLC.

1.6 "<u>Closing Date</u>" means the date and time at which the closing of the transactions contemplated by the ASA actually occurs.

1.7 "<u>Excluded Assets</u>" means those transmission, distribution, substation, and communication facilities and related support equipment of Seller located on, or adjacent to, the Purchased Assets which will not be sold to Buyer, but will be retained by Seller under the ASA, and which are described or referred to in the Separation Document.

1.8 "<u>Good Utility Practices</u>" means any of the practices, methods or acts engaged in or approved by a significant portion of the electric utility industry with respect to similar facilities during the relevant time period which in each case, in the exercise of reasonable judgment in light of the facts known or that should have been 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, law, regulation, environmental protection, and expedition. Good Utility Practices are not intended to be limited to the optimum practices, methods or acts to the exclusion of all others, but rather to delineate the acceptable practices, methods or acts generally accepted in such industry.

1.9 "<u>Governmental Authority</u>" means any nation or government, any state or other political subdivision thereof, and any entity exercising executive, legislative, police, judicial, regulatory, taxation or administrative functions of or pertaining to a government.

1.10 "Interest Rate" means the publicly announced prime rate of The Chase Manhattan Bank on the date such amount was required to be paid.

1.11 "<u>Interconnection Facilities</u>" means facilities or portions of facilities that are identified as interconnection facilities and associated equipment in <u>Schedule A</u>, as amended from time to time.

1.12 "Interconnection Service" means the services provided by Seller to interconnect the Purchased Assets with the T&D System, such services being at least equivalent to that which the Seller currently provides to the Purchased Assets. Interconnection Service shall not mean the provision of capacity or energy, transmission service, ancillary services, or any other service which are available or required under any NYPP agreement, the ISO Tariff or Seller's Open Access Transmission Tariff, or any retail

wheeling tariff, including any distribution service tariff or contract, in each case as amended from time to time.

1.13 "<u>ISO</u>" means the New York Independent System Operator, or its successor or its equivalent, which has assumed responsibility and operational control over certain electric transmission facilities located in New York State and the administration of the ISO Tariff, subject to regulation by the FERC.

1.14 "<u>ISO Tariff</u>" means the ISO's Open Access Transmission Tariff as filed with FERC by the NYPP member systems on December 19, 1997 in Docket Nos. ER97-1523-000, ER97-1523-000, and ER97-4234-000, as it may be modified, amended, or superceded from time to time, and related agreements.

1.15 "Joint Tag List" means the personnel approved by Buyer and Seller in accordance with the Parties' Switching, Tagging and Grounding Rules.

1.16 "<u>Maintain</u>" means construct, reconstruct, install, inspect, test, repair, replace, operate, patrol, maintain, use, modernize, expand, upgrade, or other similar activities.

1.17 "<u>NERC</u>" means North American Electric Reliability Council or its successors.

1.18 "<u>NPCC</u>" means Northeast Power Coordinating Council, a regional reliability governing body or its successors.

1.19 "<u>NYPP</u>" means New York Power Pool or its successors.

1.20 "<u>NYPSC</u>" means the New York Public Service Commission.

1.21 "<u>Operating Easement</u>" means with respect to the Purchased Assets the easements to be granted or reserved by the Parties as contemplated by the ASA and the Separation Document.

1.22 "<u>Parties</u>" means Seller and Buyer and Party means either Seller or Buyer.

1.23 "<u>Point of Interconnection</u>" means each ownership point of demarcation, at each of the Purchased Assets, where capacity, energy and ancillary services each are transferred between the Purchased Assets and the T&D System, each point shall have a unique identifier, meter location, meter number, metered voltage and meter compensation terms, as shown in the Separation Document.

1.24 "<u>Primary Equipment</u>" means bulk power equipment such as transformers, circuit breakers, rigid or strain bus and other equipment operating at 2,400 volts or above, as set forth in Schedule A or the Separation Document.

1.25 "<u>Purchased Assets</u>" means the Mongaup Hydroelectric Station, Rio Hydroelectric Station, and Swinging Bridge Hydroelectric Station and related assets transferred by Seller to Buyer through the ASA and as more fully set forth in the ASA.

1.26 "<u>Qualified Personnel</u>" means individuals trained for their positions by Buyer and/or Seller in accordance with Good Utility Practices.

1.27 "<u>Release</u>" means release, spill, leak, discharge, dispose of, pump, pour, emit, empty, inject, leach, dump, or allow to escape into or through the environment.

1.28 "<u>Revenue Meters</u>" means all Kwh, Kvah, Kvah and demand meters, pulse isolation relays, pulse conversion relays, transducers used by the NYPP, ISO, the Seller or the Buyer for billing purposes, and associated totalizing and Remote Access Pulse Recorder (RAPR) equipment required to measure the transfer of capacity, energy or ancillary services between the Parties, the current locations of which are set forth in <u>Schedule F</u> (Part I) hereto, and the anticipated meter locations of which are set forth in <u>Schedule F</u> (Part II) hereto.

1.29 "Secondary Systems" means control or power circuits that operate below 600 volts, AC or DC including but not limited to any hardware, control or protective devices, cables, conductor, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers where signals or energy may be used by Buyer, Seller and/or its affiliates, as set forth in <u>Schedule A</u> or the Separation Document.

1.30 "Seller" means Orange and Rockland Utilities, Inc.

1.31 "<u>Seller's Open Access Transmission Tariff</u>" means the Open Access Transmission Tariff of Seller on file with the FERC, as the same may be modified, amended or superceded from time to time.

1.32 "Separation Document" means the Separation Document to be agreed upon by the Parties under Section 3.5.2 including any documents or exhibits referred to or incorporated by reference in the Separation Document and any documents or exhibits otherwise indicated in any such document which shall set forth, with specificity, the demarcation of the Purchased Assets and Excluded Assets. The Separation Document shall (A) consist of one-line drawings, elementary diagrams, three-line diagrams, relay and control panel front view and wiring diagrams, and other physical drawings showing equipment layout and site plans (in each case, where available), (B) be consistent with Schedule A hereto, and Schedules to the ASA, as amended or supplemented, and (C) be mutually agreed upon as provided in Section 3.5.2 hereof. The Separation Document will also identify the Operating Easement which will be granted or reserved by the Parties.

1.33 "<u>Switching, Tagging, and Grounding Rules</u>" shall have the meaning set forth in Section 3.14.2.

1.34 "<u>System Operator</u>" means the energy control center staff responsible for central dispatch as provided in any NYPP agreement or the ISO Tariff, as amended or superseded.

1.35 "<u>T&D System</u>" means the facilities controlled or operated by Seller, including the Interconnection Facilities, for purposes of providing point-to-point transmission service, network integration service interconnection service and distribution service, including services under NYPP Agreement and the ISO Tariff.

1.36 "<u>Transition Agreement</u>" means the Transition Power Sales Agreement dated as of November 24, 1998, by and between Seller, Southern Energy, Southern Energy Bowline, L.L.C. and Southern Energy Lovett, L.L.C.

1.37 Each of the following terms has the meaning specified in the Section set forth opposite such term:

<u>Term</u>	<u>Section</u>
ASA	Recitals
CEI	15.4
Direct Claim	10.5.2
Disclosing Party	7.1
EMS	3.8.10
Force Majeure Event	12.2
Indemnification Floor	10.4.3
Indemnifying Party	10.4.2
Indemnitee	10.4.1
Net Worth	15.1
Operating Metering and Equipment Protection Requirements	3.1.2
Parties' Switching, Tagging and Grounding Rules	3.14.2
RAPR	3.6.4
Recipient	7.1
RTU	3.6.4
SCADA	3.6.4
Seller's Incremental Cost	3.8.10
Seller Indemnifiable Losses	10.1

ARTICLE 2 <u>TERM</u>

2.1 Except as provided herein, this Agreement shall become effective as of the Closing Date, and shall continue in full force and effect with respect to each specific Purchased Asset until the date that all of the generating units located at each such Purchased Asset are retired and not replaced or such other mutually agreeable termination date.

2.2 The applicable provisions of this Agreement shall continue in effect after cancellation or termination hereof to the extent necessary to provide for final billings, billing adjustments and payments pertaining to liability and indemnification obligations arising from acts or events that occurred while this Agreement was in effect.

ARTICLE 3 CONTINUING OBLIGATIONS AND RESPONSIBILITIES

3.1 <u>Interconnection Service</u>.

3.1.1 Seller shall provide Buyer with such Interconnection Service as Buyer determines that it requires under the terms and conditions specified in this Agreement and Seller's Open Access Transmission Tariff. Interconnection Service shall be provided under this Agreement only with respect to the Purchased Assets and any costs associated with establishing or providing Interconnection Service for or in connection with an expansion of generating capacity, including any costs associated with any reinforcements to or other capital expenditures with respect to the T&D System (or any studies regarding the same), shall be borne by the Parties in accordance with the ISO Tariff or Seller's Open Access Transmission Tariff, whichever is applicable.

3.1.2 Seller agrees to permit Buyer to interconnect the Purchased Assets to the T&D System as long as (a) Buyer continues to operate such facilities pursuant to Good Utility Practices and (b) the Buyer has not committed an event of default which it has failed to cure as provided hereunder. In the event of (a) or (b) above, Seller may interrupt Interconnection Service in accordance with Section 3.12. In the event Buyer fails to maintain the Purchased Assets in accordance with Good Utility Practices or has not cured an event of default, such interconnection right shall only be affected to the extent set forth in this Agreement.

3.1.3 Buyer shall be responsible for making arrangements and payments under the applicable tariffs for transmission, distribution and ancillary services associated with the delivery of capacity and/or energy from the Purchased Assets. Buyer shall also be responsible for making arrangements and payments for capacity, energy, transmission, distribution and ancillary services associated with the acquisition and/or delivery of capacity and/or energy to the Buyer's facilities for the Buyer's station service requirements, and <u>Schedule G</u> hereto identifies the electric and gas meters which Seller will use to measure the services which Seller itself will provide to Buyer under this <u>Section 3.1.3</u>. Seller shall cooperate with Buyer with respect to such arrangements. Buyer may deduct the amount of electric energy delivered to the Buyer's facilities for the Buyer's station service requirements from the gross metered amount of electric energy delivered from the Purchased Assets. In the event Buyer installs additional metering equipment for the purpose of calculating such adjustment, Buyer shall be responsible for the cost thereof.

3.2 Access Easements, Conveyances, Licenses, and Restrictions.

3.2.1 <u>General</u>. The dispatch and ownership points of demarcation for the Interconnection Facilities, the Purchased Assets and the T&D System are set forth in <u>Schedule A</u> and will be set forth in the Separation Document. The Parties hereby agree to provide each other access to facilities, properties, equipment, and records and to grant or reserve the easements comprising the Operating Easement as may be necessary and convenient to enable each other to maintain their respective facilities, equipment, and property in a manner consistent with Good Utility Practices, or to defend themselves in any litigation relating to the T&D System, the Purchased Assets or the Excluded Assets. Such access shall be provided in a manner so as not to interfere unreasonably with the ongoing business operations, rights, and obligations of the other Party.

3.2.2 Without limiting the generality of <u>Section 3.2.1</u>, Seller shall have access to all of its substation, telecommunication, transmission, or distribution systems, equipment and Secondary Systems and facilities located on the Purchased Assets, and Buyer shall have access to all of its equipment and property located on the Excluded Assets, according to the terms and conditions of the Operating Easement.

3.2.3 The easements comprising the Operating Easement granted to Seller by Buyer and by Buyer to Seller are intended to be of a permanent nature and shall not be revoked by the grantor, nor shall the grantor take any action that would impede, restrict, diminish, or terminate the rights of access or use granted by the Operating Easement. Notwithstanding the foregoing, (a) should the grantee, or its successors or assigns, decide to permanently abandon the use of any Operating Easement or portion thereof, the grantee shall send the grantor written notice of such intent, and the grantee shall cause a release of said Operating Easement or appropriate portion thereof to be recorded in the appropriate county clerk's office, or other office for recording real estate documents; and (b) either Party may request the other to relocate any or all of the Operating Easement locations within a generating station or upon a generating station site if such relocation is necessary for such Party to operate its facilities, whereupon the Parties shall negotiate in good faith an appropriate relocation; provided, however, that the Party requesting the relocation shall pay all reasonable costs and expenses associated with the relocation and the grantor shall execute or obtain, in a form reasonably satisfactory to the grantee and suitable for recording, all instruments necessary to establish the new easement location. Both Parties agree to use commercially reasonable efforts to establish a mutually agreeable new easement location if requested.

3.2.4 Buyer shall grant Seller and Seller shall grant Buyer additional conveyances, easements, or licenses as are necessary for ownership, possession, maintenance, operation, or repair of the grantee's equipment and facilities as long as said conveyances, easements or licenses do not have a material adverse effect upon grantor's operations and are consistent with the purpose of this Agreement and the ASA. The grantee of such easement shall use all reasonable measures to exercise its rights thereunder in a manner which does not interfere with grantor's operations.

3.2.5 During the six months following the execution of this Agreement, Buyer and Seller shall cooperate in the development of documentation necessary to prepare and record the Operating Easement. Seller shall be responsible for developing the initial draft of such documentation, which Seller shall submit to Buyer for comment within three months following the execution of this Agreement. If such documentation has not been agreed upon by Seller and Buyer within said six month period, those aspects of the Operating Easement which remain in dispute shall be resolved as provided in <u>Article 13</u>. The Operating Easement must be prepared prior to the Closing Date.

3.2.6 Both Parties shall provide keys, access codes, or other access methods necessary to enter each other's facilities for purposes of exercising rights under the Operating Easement. Access shall only be granted to Qualified Personnel and access shall be exercised to minimize interference with the grantor's operations.

3.3 Facility and Equipment Maintenance.

3.3.1 Each Party shall maintain, at its own expense, the roadways, property, equipment, and facilities and access to said facilities that it owns that are subject to this Agreement and the Operating Easement pursuant to Good Utility Practices.

3.3.2 Unless otherwise specified herein, or unless the Parties mutually agree to a different arrangement, neither Party shall be responsible for the maintenance of the other Party's Primary Equipment or Secondary Systems, as set forth in Schedule A hereto or the Separation Document, regardless of the location of the Primary Equipment or Secondary Systems.

3.3.3 Equipment Maintenance and Testing Obligations.

3.3.3.1 Buyer and Seller shall each Maintain, at its own expense, its own property, equipment, facilities, and appurtenances and access thereto in a safe and efficient manner and in accordance with Good Utility Practices.

3.3.3.2 Buyer shall test, calibrate, verify or validate the telemetering, data acquisition, protective relay, control equipment or systems or other equipment or software related to the Purchased Assets pursuant to Good Utility Practice. Buyer shall perform such additional testing as Seller may reasonably request, provided however, Seller shall pay the costs thereof unless such testing, calibration, verification or validation required by Seller reveals an inaccuracy by a margin of greater than that allowed under applicable criteria, rules and standards under Good Utility Practices for the facilities being tested calibrated, verified or validated. Except as otherwise provided herein, Buyer shall be responsible for all costs to test, calibrate, verify or validate Buyer's equipment or software.

3.3.3.3 Pursuant to the foregoing <u>Section 3.3.3.2</u> and subject to <u>Section 3.6.1</u>, Buyer shall make available to Seller for copying, at Seller's reasonable request and expense, copies of inspection reports, installation and maintenance documents, test and calibration records, verifications and validations of the telemetering, data acquisition, protective relay, control equipment or systems or other equipment or software connected to the T&D System.

3.4 <u>New Construction or Modifications</u>.

3.4.1 Seller may construct or modify the T&D System interconnected to the Purchased Assets pursuant to Good Utility Practices and Buyer may install, construct or modify the Purchased Assets interconnected to the T&D System pursuant to Good Utility Practices. Unless otherwise required by law, regulation, or Good Utility Practices, Seller

shall not be required at any time to upgrade or otherwise modify the T&D System, provided however, Seller shall make such transmission upgrades as Buyer may request in connection with Buyer's addition of generating capacity at, or repowering of, any of the Purchased Assets. The Parties will bear the cost of such upgrades in accordance with the ISO Tariff or Seller's Open Access Transmission Tariff, whichever is applicable.

3.4.2 In the event the Seller plans to undertake additions, modifications, or replacements of the T&D System, including the Interconnection Facilities, Seller shall submit to Buyer all engineering plans and specifications that Buyer may reasonably request related to such modifications. If such additions, modifications, or replacements might affect the Buyer's operation of the Purchased Assets, Seller shall give Buyer not less than 120 days' prior written notice of the additions, modifications, or replacements prior to undertaking such additions, modifications, or replacements. Any such additions, modifications, or replacements shall comply with Good Utility Practices. Seller shall use all commercially reasonable efforts with respect to any such additions, modifications, or replacements to avoid any adverse impact on the Purchased Assets.

3.4.3 In the event the Buyer plans to increase or decrease the capacity of the Purchased Assets, the Buyer shall submit to Seller all engineering plans and specifications that Seller may reasonably request related to such increase. Such specifications and plans shall be submitted by the Buyer to Seller not later than 12 months prior to the respective commercial operation date for additions, modifications, or replacements to the Purchased Assets that will result in such increase, except as otherwise agreed to by Seller. All such additions, modifications, or replacements shall comply with Good Utility Practices. Buyer shall use commercially reasonable efforts with respect to any such additions, modifications, or replacements to avoid any adverse impact on the T&D System.

3.4.4 If the Buyer plans any additions, modifications, or replacements to the Purchased Assets that may not increase or decrease their capacity, but could reasonably be expected to affect the T&D System, the Buyer shall give Seller reasonable notice, but not less than 60 days' prior written notice thereof; provided, however, that the Buyer shall provide Seller with at least six months' prior written notice, and shall submit to Seller the plans and specifications for such additions, modifications, or replacements if they will involve an outage of the Purchased Assets for 30 days or more. All such additions, modifications, or replacements shall comply with Good Utility Practices.

3.4.5 Seller shall inform the Buyer in writing within 60 days of any additions, modifications, or replacements to the T&D System that are necessary as a result of the addition, modification, or replacement to the Purchased Assets made pursuant to this <u>Section 3.4</u>.

3.4.6 Unless otherwise provided by law, regulation or rule, the Buyer shall reimburse Seller for reasonable and documented costs incurred by Seller in accordance with governing laws, regulations or rules for such additions, modifications, or replacements made to the T&D System (a) that is not a transmission facility under ISO operational control, including the Interconnection Facilities; (b) are a direct result of such additions, modifications, or replacements of the Purchased Assets, regardless of whether the Purchased Assets enter (or have entered into) service, or are interconnected with the T&D System; and (c) are necessary to ensure the reliability of the T&D System. Seller shall provide Buyer with the estimated cost of such additions, modifications, or replacements of the T&D System no later than 30 days prior to the initiation of such addition, modification, or replacement. Nothing herein shall affect Buyer's right to dispute the necessity or amount of such costs.

3.4.7 A Party's acceptance of another Party's interconnection plans and specifications for any proposed addition, modification or replacement of the Purchased Assets, and either Party's participation in interconnected operations with the other Party, are not and shall not be construed as: (a) confirmation or endorsement of the design of the other Party's facilities; (b) a warranty of safety, durability or reliability of the other Party's facilities; or (c) responsibility for strength, details of design, adequacy, or capability of the other Party's facilities.

3.4.8 Upon completion of any addition, modification, or replacement to the Purchased Assets that may reasonably be expected to affect the T&D System, but no later than 90 days thereafter, the Buyer shall issue "as built" drawings to Seller. Upon completion of any addition, modification, or replacement to the T&D System that may reasonably be expected to affect the operation of the Purchased Assets, but no later than 90 days thereafter, Seller shall issue "as built" drawings to the Buyer.

3.5 <u>Inspections</u>.

3.5.1 <u>General</u>. Each Party shall, at its own expense, have the right, but not the obligation, to inspect or observe all maintenance activities, equipment tests, installation, construction, or other modifications to the other Party's equipment, systems, or facilities which might reasonably be expected to affect the observing Party's operations. The Party desiring to inspect or observe shall notify the other Party in accordance with the notification procedures set forth in <u>Section 3.13</u>.

3.5.1.1 If the Party inspecting the equipment, systems, or facilities observes any deficiencies or defects, which might reasonably be expected to adversely impact the operations of the observing Party, the observing Party shall notify the Party owning the equipment or systems and

said owner shall make any corrections necessitated by Good Utility Practices. Notwithstanding the foregoing, the inspecting Party shall have no liability whatsoever for any failure to fully or adequately observe any deficiency or to give such notice, it being agreed that such owning Party shall be fully responsible and liable for all such deficiencies, activities, equipment tests, installation, construction or modification.

3.5.2 Development of Separation Document; Initial Inspection. During the three months following the execution of this Agreement, Buyer and Seller shall cooperate in the development of documentation necessary to prepare the Separation Document. Seller shall be responsible for developing the initial draft of such documentation, which Seller shall submit to Buyer for comment within three months following the execution of this Agreement. The Separation Document must be completed prior to the Closing Date. Buyer shall, without derogation of and in addition to any rights it may have under the ASA, be entitled prior to the Closing Date to inspect, in accordance with this Section 3.5.2, all Purchased Assets, and Excluded Assets to verify and/or determine the accuracy of the data, drawings, and records contained in Schedule A or the Separation Document and to ascertain the points of demarcation between the Purchased Assets and the Excluded Assets. The Parties shall cooperate to schedule Buyer's inspections at each generating station included in the Purchased Assets so that any interference with the operation of each generating station is minimized, to the extent reasonably feasible, and so that Buyer may complete, to the extent reasonably practicable, the inspections of (i) all generating stations/equipment included in the Purchased Assets within 30 working days of commencing the inspections and within four months after the execution of this Agreement, and (ii) all real estate, including any surveys that Buyer may elect to conduct, within 30 working days of commencing the inspections and within four months after the execution of this Agreement. Seller shall provide Buyer with access to the generating stations at the times scheduled for the inspection. Buyer shall provide qualified engineering, operations, and maintenance personnel to conduct the inspections and Seller shall provide qualified engineering, operations, and maintenance personnel to escort Buyer's personnel and to assist Buyer's personnel in conducting the inspections.

3.5.2.1 At one or more mutually convenient times not more than three months after Buyer has completed its inspection, the Parties shall meet to discuss whether, as a result of the inspection, it is appropriate to modify the Separation Document to more adequately portray the Primary Equipment and ownership points of demarcation and the Secondary Systems ownership points of demarcation. Any modification to any portion of the Separation Document to which the Parties agree shall thereafter be deemed part of the Separation Document for all purposes under this Agreement and the ASA.

3.5.2.2 Each Party shall bear its own costs of participating in the inspections referred to in <u>Section 3.5.2</u> and in the development of the Separation Document.

3.6 <u>Information Reporting Obligations</u>.

3.6.1 Notwithstanding anything to the contrary in this Agreement, any obligation set forth in this Agreement for Buyer to provide information, reports, or data to Seller shall be subject to the following limitations: (a) such information, reports, or data shall be subject to <u>Section 7.1</u>; (b) Buyer shall be required to provide such information, reports or data only to the extent Seller reasonably requires such information to operate, Maintain, or plan the T&D System pursuant to Good Utility Practices or to fulfill its obligations pursuant to this Agreements; (c) Seller shall request information, reports, and data from Buyer on a non-discriminatory basis with respect to generators interconnected to the T&D System, as necessary, in Seller's judgment, for the purposes set forth in clause (d), below; and (d) Seller shall use any information provided by Buyer pursuant to this Agreement only for the purposes of Maintaining the T&D System pursuant to Good Utility Practices.

3.6.2 Subject to <u>Section 3.6.1</u>, in connection with Seller's maintenance of Interconnection Service, Buyer shall promptly provide Seller with such information as is reasonably requested by Seller, the ISO, NYPP, NYPSC, NPCC, NERC, or the System Operator.

3.6.3 Subject to <u>Section 3.6.1</u>, Buyer shall supply such information as the Seller reasonably requests in connection with the operations, maintenance, regulatory requirements and analysis of the T&D System. Such information may include metered values for MW, Mvar, voltage, current, amperage, frequency, breaker status indication, or any other information reasonably required by Seller for reliable operation of the T&D System pursuant to Good Utility Practices.

3.6.4 Subject to <u>Section 3.6.1</u>, reasonable information pertaining to generation, transmission and distribution operating parameters shall be gathered by Buyer for electronic transmittal to Seller, using one or more of the following: supervisory control and data acquisition ("<u>SCADA</u>"), remote terminal unit ("<u>RTU</u>") equipment, and remote access pulse recorders ("<u>RAPR</u>") or other analog or digital telemetering equipment.

3.7 <u>Local Services</u>.

Service Agreement No. 1621 3.7.1 <u>General</u>. The Parties agree that, due to the integration of certain control schemes, revenue metering applications, and communication networks, it is cost effective to provide each other with the services set forth in <u>Sections 3.8</u> and <u>3.9</u> below at the prices referenced therein.

3.7.1.1 The Parties shall use commercially reasonable efforts to ensure that services provided by one Party to the other Party pursuant to <u>Sections 3.8</u> and <u>3.9</u> shall be available at all times and in the manner and at the prices specified herein. Notwithstanding the foregoing, either Party may change the services, provided that (a) there is no cost to the receiving Party, and (b) the quality, reliability and integrity of the replacement services are equivalent to the existing services.

3.7.1.2 Neither party shall terminate any services set forth in <u>Sections 3.8</u> and <u>3.9</u> below that it agrees to provide to the other Party, without the other Party's written consent, which shall not be unreasonably withheld, or without, in the case of the services set forth in <u>Sections 3.9.4</u> and <u>3.9.5</u>, at least one month's prior written notification, and, with respect to all other services set forth in <u>Sections 3.8</u> and <u>3.9</u>, at least 12 months' prior written notification; provided, however, that if either Party no longer needs or desires a particular service provided under <u>Sections 3.8</u> and <u>3.9</u> said Party shall notify the other Party and the providing Party shall terminate said services as soon thereafter as practicable.

3.7.2 <u>Temporary Suspension of Services</u>. The Party providing the services set forth in <u>Sections 3.8</u> and <u>3.9</u> below shall notify and obtain approval, which approval shall not be unreasonably withheld, from the affected Party of any scheduled temporary suspension of services at least five working days in advance of such suspension. Such notification shall include an estimated time duration for a return to normal conditions.

3.7.2.1 In the event of any unscheduled or forced suspension of the services set forth in <u>Sections 3.8</u> and <u>3.9</u> below, the providing Party shall promptly notify the other Party first verbally and then in writing in accordance with <u>Article 20</u>. The providing Party shall use all reasonable efforts to minimize the duration of said suspension.

3.7.2.2 The Parties agree to use commercially reasonable efforts to complete any repairs, modifications or corrections that are necessary to restore suspended services pursuant to <u>Sections 3.8</u> and <u>3.9</u> below to the other Party as soon as reasonably practicable.

3.8 <u>Seller Provided Local Services</u>.

3.8.1 <u>Substation Service Power</u>. Seller shall provide Buyer at the Buyer's request and at no charge, with AC and DC substation service power in the quantities, at the levels, and in the substation locations where such power is provided from substation facilities immediately prior to Closing.

3.8.2 <u>Building Services</u>. At no cost to Buyer, Seller shall own, repair, Maintain, and provide Buyer with heating, ventilation, air conditioning, lighting, and other building services, at the levels in existence for winter and summer conditions immediately prior to Closing, to the Purchased Assets located within the Excluded Assets. If Buyer desires a higher level of service, Buyer and Seller shall mutually agree upon the upgrade and price for said upgrade. Buyer shall reimburse Seller for such upgrade.

3.8.3 <u>Revenue Metering</u>. Buyer shall own and Maintain all Revenue Meters, conduct meter accuracy and tolerance tests, and prepare all calibration reports required for equipment that measures energy transfers between Buyer and Seller. Said testing reports shall be in accordance with NYPP or ISO, as applicable, requirements, as amended from time to time, and any applicable State regulatory requirements, as amended from time. Seller shall have the opportunity to review and comment upon said reports prior to issuance. All Revenue Meters shall be sealed, and the seals shall be broken only by Buyer, upon occasions when the meters are to be inspected, tested or adjusted. The installations of any replacement metering required by Seller shall be at Seller's expense.

3.8.4 Seller shall, at its own expense, Maintain and have the right to use a back-up metering system.

3.8.5 The Parties agree that if the metering equipment and the Point of Interconnection are not at the same location electrically, the metering equipment shall be compensated to record the delivery of electricity in a manner that accounts for energy losses occurring between the metering point and the Point of Interconnection both when the generating unit is delivering energy to the Seller and when Seller is delivering energy to Buyer.

3.8.6 If at any time, any primary metering equipment is found to be inaccurate by a margin of greater than that allowed under the applicable criteria, rules and standards, such metering equipment shall be made accurate or replaced at Buyer's expense. Meter readings for the period of inaccuracy shall be adjusted so far as the same can be

reasonably ascertained based upon Seller's back-up metering system; provided, however, no adjustment shall be made prior to the point of time halfway between the time of the last successful test and the time the inaccuracy is corrected, except by agreement of the Parties. Each Party shall comply with any reasonable request of the other concerning the sealing of meters, the presence of a representative of the other Party when the seals are broken and tests are made, and other matters affecting the accuracy of the measurement of electricity delivered from each Purchased Asset. If either Party believes that there has been a meter inaccuracy, failure or stoppage, it shall immediately notify the other.

3.8.7 The Parties shall each keep and maintain accurate and detailed records relating to the delivery of energy for a period of not less than six years. Such records shall be made available for inspection by either Party or any governmental agency having jurisdiction with respect thereto during normal business hours upon reasonable notice.

3.8.8 Seller shall own and maintain equipment for real-time communications, real-time reactive power, hourly KWH information, and such other information as required by the NYPP, ISO, and/or the System Operator or as reasonably required by Seller. The Buyer shall Maintain operating telephone links to provide information deemed necessary by the NYPP, ISO, and/or the System Operator to integrate operation of the Purchased Assets with the T&D System.

3.8.9 <u>Line Operation Information</u>. Both Parties shall require remote access to site specific line operation information at Seller's facilities. Seller shall make such information available to Buyer at no cost in accordance with FERC Order 889 and 889-A and any successor orders thereto.

3.9 <u>Buyer Provided Local Services</u>.

3.9.1 <u>Substation Service AC and DC Power</u>. Buyer shall provide Seller, at no charge, with AC and DC substation service power in the quantities, at the levels, and in the substation locations where such power is provided from generation facilities sold to Buyer immediately prior to Closing. If Seller desires a higher level of service, Seller and Buyer shall mutually agree upon the upgrade and price for said upgrade. Seller shall pay Buyer for the upgrade.

3.9.2 <u>Building Services</u>. At no cost to Seller, Buyer shall own, repair, maintain and provide Seller with heating, ventilation, air conditioning, lighting, and other building services at the levels in existence for winter and summer conditions immediately prior to Closing to the Excluded Assets located within the Purchased Assets. If Seller desires

a higher level of service, Seller and Buyer shall mutually agree upon the upgrade and price of said upgrade. Seller shall pay Buyer for the upgrade.

3.9.3 <u>Line Operation Information</u>. Both Parties shall require remote access to site specific line operations information at Buyer's facilities. Buyer shall make such information available to Seller at no cost, as permitted in accordance with FERC Order 889 and 889-A and any successor orders thereto.

3.9.4 <u>Meter Reader Services</u>. Buyer may provide Seller, at a cost to be mutually agreed upon by the Parties, with meter reading services at locations which require a manual read.

3.10 Spare Parts.

3.10.1 Where practicable and available, and subject to applicable regulatory and other approvals, each Party shall provide the other Party with spare parts in the event of emergencies or equipment failures. The Parties shall mutually agree upon payment for or replacement of said spare parts. Seller presently occupies a minimal amount of space at the Purchased Assets for the purpose of storage of spare substation parts.

3.10.2 Seller has the right to Maintain the storage of spare parts at the levels as of the time of the Closing. Such storage shall not interfere unreasonably with the Buyer's ongoing business operations, rights and obligations. The specific arrangements for the storage of spare parts by Seller shall be set forth in the Separation Document. If Buyer desires Seller to maintain spare parts that are not in Seller's possession, if Seller has the physical space to do so, Seller shall maintain said parts.

3.11 <u>Emergency Procedures</u>.

3.11.1 Seller shall provide Buyer with prompt verbal notification of T&D System emergencies which may reasonably be expected to affect Buyer's operation of its facilities, and Buyer shall provide Seller with prompt verbal notification of generation equipment emergencies which may reasonably be expected to affect Seller's operations. Said verbal notification shall be followed within 24 hours with written notification. The written notification shall describe the extent of damage or deficiency, anticipated length of outage and the corrective action.

3.11.2 If a Party determines in its good faith judgment that an emergency endangers or could endanger life or property, the Party recognizing the problem shall take such action as may be reasonable and necessary to prevent, avoid, or mitigate injury, damage, or loss. If, however, the emergency involves transmission or distribution electrical equipment, Buyer shall notify the System Operator, and shall obtain the consent of such personnel, prior to performing any switching operations.

3.11.3 Buyer and Seller each may, consistent with Good Utility Practices, have the System Operator take whatever actions or inactions it deems necessary during emergency operating conditions, without liability to the other Party for such actions or inactions, in order to: (i) preserve public safety; (ii) preserve the integrity of the T&D System or Buyer's equipment or property, (iii) limit or prevent damage, or (iv) expedite restoration of service.

3.12 <u>Service Interruptions</u>.

3.12.1 If at any time, in the reasonable exercise of (i) the System Operator's judgment, or (ii) with respect to portions of the T&D System subject to Seller's dispatch, the Seller's judgment, operation of Buyer's equipment might reasonably be expected to have an adverse impact on the quality of service or interfere with the safe and reliable operation of the T&D System, Seller may discontinue Interconnection Service until the condition has been corrected. Unless the System Operator, or Seller perceives that an emergency exists or the risk of one is imminent, Seller shall give Buyer reasonable notice of its intention to discontinue Interconnection Service and, where practical, allow suitable time for Buyer to remove the interfering condition. Seller's judgment with regard to the interruption of service under this paragraph shall be made pursuant to Good Utility Practices. In the case of such interruption, Seller shall promptly confer with Buyer regarding the conditions causing such interruption and its recommendation concerning timely correction thereof. In the event Interconnection Service is interrupted under this Section due to Buyer's events of default, Buyer shall compensate Seller for all costs reasonably incurred by Seller attributable to the interruption and restoration of Interconnection Service.

3.13 Scheduled Maintenance Notification and Coordination.

3.13.1 <u>T&D System Maintenance</u>. Subject to applicable FERC regulations and policy, and the requirements of the NYPP or the ISO Tariff, Seller shall consult with Buyer regarding timing of scheduled maintenance of the transmission facilities which might reasonably be expected to affect the normal operations of the Purchased Assets. Seller shall, to the extent reasonably practicable, schedule any testing, shutdown, or withdrawal of said facilities to coincide with Buyer's scheduled outages. To facilitate such consultation, within

60 days after the Closing Date, each Party shall provide the other Party, a non-binding schedule of planned outages and planned overhauls (including expected commencement date and duration) for the following calendar year. In addition, each Party shall provide a non-binding two-year forecast of planned overhauls in accordance with ISO procedures. Buyer shall furnish Seller with non-binding updates to such schedules to reflect significant changes thereto.

3.13.1.1 If Buyer desires Seller to perform maintenance during a time period other than a scheduled outage, Seller shall use commercially reasonable efforts to meet Buyer's request as long as it might not reasonably be expected to have an adverse economic impact upon Seller or Seller's other transmission customers. If Buyer's request has, or is estimated in Seller's reasonable opinion to have, an adverse economic impact upon Seller, and Buyer is willing to reimburse Seller for the costs incurred by Seller, Seller shall make best efforts to comply with Buyer's request.

3.13.1.2 In the event Seller is unable to schedule the outage of its facilities to coincide with Buyer's schedule, Seller shall promptly notify Buyer, in advance, of reasons for the outage, the time scheduled for it to take place, and its expected duration. Seller shall restore the facilities to service as quickly as possible.

3.13.2 <u>Routine Inspection and Maintenance</u>. Seller and the Buyer agree that, due to the integration of certain control and protective relaying schemes between the Purchased Assets and Interconnection Facilities, it will be necessary for the Parties to cooperate in the inspection, maintenance and testing of these areas of integration. Each Party shall provide advance notice to the other Party before undertaking any work in these areas, especially in electrical circuits involving circuit breaker trip and close control, and current transformers or potential transformers. Seller shall provide advance notice by telephone to the Buyer's security personnel before Seller's employees, including contractors or agents, enter the Buyer's facilities. The Buyer shall provide advance notice by telephone to Seller's dispatch personnel (or equivalent) before the Buyer's employees, including authorized contractors or agents, enter Seller's facilities.

3.14 <u>Safety</u>.

3.14.1 <u>General</u>. Subject to <u>Article 9</u>, the Parties agree to be solely responsible for and assume all liability for the safety and supervision of their own employees, agents, representatives, and subcontractors.

3.14.1.1 The Parties agree that all work performed by either Party which could reasonably be expected to affect the operations of the other Party shall be performed in accordance with all applicable laws, rules, and regulations pertaining to the safety of persons or property, including without limitation, compliance with the safety regulations and standards adopted under the Occupational Safety and Health Act of 1970 as amended from time to time, the National Electric Safety Code as amended from time to time and Good Utility Practices.

3.14.2 <u>Switching, Tagging and Grounding</u>. Each Party shall comply with the Switching, Tagging and Grounding Rules set forth in Schedule H hereto (the "<u>Parties'</u> <u>Switching, Tagging and Grounding Rules</u>") at all utility Primary Equipment and Secondary System equipment interconnections or demarcation points.

3.14.2.1 Each Party, in accordance with the Parties' Switching, Tagging and Grounding Rules, shall be responsible for training, testing, and certifying operations for inclusion on a Joint Tag List. Every three months, each Party shall provide the other Party with an updated list of employees qualified for inclusion on the Joint Tag List. Buyer shall be responsible for all switching, tagging and grounding on Buyer's side of the demarcation point, as set forth in the Separation Document; and Seller shall be responsible for all switching, tagging and grounding at the demarcation point and on Seller's side of the demarcation point.

3.14.2.2 Each Party, in accordance with the Parties' Switching, Tagging and Grounding Rules, shall be responsible for training, testing, and certifying operators for inclusion on a Joint Tag List. Every three months, each Party shall provide the other Party with an updated list of employees qualified for inclusion on the Joint Tag List. Either Party may request the other Party to remove an employee from the Joint Tag List in its reasonable discretion, and such other Party shall comply with such request.

3.15 Environmental Compliance and Procedures.

3.15.1 Except as otherwise provided in the ASA, the Buyer and Seller shall each be responsible for (a) complying with all Environmental Laws applicable to the Purchased Assets and the Excluded Assets, respectively, (b) obtaining and maintaining in force all applicable and required permits and approvals under such Environmental Laws and regulations applicable to the Purchased Assets and the Excluded Assets, respectively, and (c)

making all required reports and notifications applicable to the Purchased Assets and the Excluded Assets, respectively, required by those laws and regulations.

3.15.2 Each Party shall notify the other first verbally and then in writing, of any Release of Hazardous Substances (as defined in the ASA) or any type of remediation activities, relating to the Purchased Assets and/or the Excluded Assets, within 24 hours of occurrence, and shall promptly furnish to the other Party copies of any reports filed with any governmental agencies relating to such releases or remediation.

3.15.3 Buyer shall not knowingly take any actions which might reasonably be expected to have a material adverse environmental impact upon the operations of the T&D System without prior written notification and agreement from Seller. Seller shall not knowingly take any actions which might reasonably be expected to have a material adverse environmental impact upon the operations of the Purchased Assets without prior written notification and agreement from Buyer.

3.16 <u>Compliance with Laws</u>. Seller will comply with all applicable laws, rules, regulations, codes, and standards of all Federal, state, and local governmental agencies having jurisdiction over Seller or the transactions under this Agreement, including the ISO, and with which failure to comply could reasonably be expected to have a material adverse effect on the Purchased Assets. Buyer will comply with all applicable laws, rules, regulations, codes, and standards of all Federal, state, and local governmental agencies having jurisdiction over Buyer or the transactions under this Agreement, including the ISO, and with which failure to comply could reasonably be expected to have a material adverse having jurisdiction over Buyer or the transactions under this Agreement, including the ISO, and with which failure to comply could reasonably be expected to have a material adverse effect on the T&D System.

ARTICLE 4 OPERATIONS

4.1 <u>General</u>. Buyer agrees to conduct all its operations that could reasonably be expected to have a material impact on the operations of the T&D System in a safe and efficient manner and in accordance with all applicable Federal, state, and local laws, and the rules, regulations, and codes of governmental agencies, and Good Utility Practices. Seller agrees to conduct all its operations that could reasonably be expected to have a material impact on the operations of the Purchased Assets in a safe and efficient manner and in accordance with all applicable Federal, state, and local laws, and the rules, regulations, and codes of governmental agencies, and Good Utility Practices.

4.2 <u>Buyer's Operating Obligations</u>.

4.2.1 <u>General</u>. Buyer shall request permission from Seller's dispatch personnel or the System Operator, to the extent required by applicable rules or regulations, prior to opening and/or closing circuit breakers in accordance with applicable switching and operations procedures. The Buyer agrees to operate the Purchased Assets in accordance with the directives of the System Operator, and in accordance with Good Utility Practices.

4.2.1.1 Buyer shall carry out all switching orders from Seller's dispatch personnel, or the System Operator in a timely manner, to the extent required by applicable rules or regulations.

4.2.1.2 Buyer shall keep the System Operator, to the extent required by applicable rules or regulations, advised of its generating units' capabilities of participation in system restoration and/or if it has black start capability. Upon Seller's request, Buyer will participate in system restoration and/or provide black start capability to Seller if reasonably available and Seller will compensate Buyer according to the applicable provisions of the ISO Tariff.

4.2.1.3 The electrical supply to the Point of Interconnection shall be in the form of three-phase 60 HERTZ alternating current at a voltage class determined by mutual agreement of the Parties.

4.2.1.4 Buyer's equipment shall conform with industry standards for harmonic distortion and voltage fluctuation.

4.2.2 <u>Voltage or Reactive Control Requirements</u>. Unless otherwise agreed to by the Parties, Buyer shall operate its existing interconnected generation facilities with automatic voltage regulators. The voltage regulators will control voltage at the Points of Interconnection consistent with the range of voltage set forth in Schedule C as may be amended by the Parties, or the System Operator. Compensation to Buyer, if any, for providing such reactive power and voltage support shall be in accordance with the applicable provisions the ISO Tariff, or as otherwise agreed by the Parties.

4.2.2.1 Buyer acknowledges that the System Operator may direct Buyer to deactivate the automatic voltage regulator and to supply reactive power pursuant to a schedule provided by the System Operator and Seller will compensate Buyer according to the applicable provisions of the ISO Tariff.

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4.2.2.2 If Buyer fails to operate a generating facility included in the Purchased Assets in accordance with Schedule C and to the extent the generating facility is operating, Seller will provide written notice to Buyer of Seller's intent to remedy that situation. If Buyer does not promptly commence appropriate action after receiving such notice, Seller may then take necessary action, to remedy such failure, including the installation of capacitor banks or other reactive compensation equipment necessary to ensure the proper voltage or reactive supply at the generating facility. The cost of such Seller shall, to the extent feasible, minimize the impact of such action on Buyer's generation operations, including, at a minimum, by installing such equipment outside any building housing a generating unit. Nothing in this Section 4.2.2.2 shall obligate Buyer to operate any Purchased Asset.

4.2.2.3 Buyer shall notify the System Operator, to the extent required by the System Operator, if a generating unit(s) reaches a VAR limit, if there is any deviation from the assigned voltage schedule, or if any automatic voltage regulator is removed from or restored to service.

4.2.2.4 In addition to voltage regulation, Buyer shall adhere to the System Operator's Service Restoration Plan, as amended from time to time. A copy of the Service Restoration Plan in existence immediately prior to Closing is attached hereto as Schedule D and incorporated by reference as if fully set forth herein.

4.2.3 Seller or the System Operator in accordance with Good Utility Practices may from time to time reasonably request, order, or direct the Buyer to adjust generator controls that impact the T&D System, such as excitation, droop, and automatic generation control settings. The Buyer agrees to comply with such requests, orders, or directions.

4.2.4 Buyer acknowledges that the System Operator may have the right to require reduced or increased generation from the Purchased Assets in accord with the NYPP requirements or the ISO Tariff, as applicable, or in accordance with the applicable rules of the System Operator.

4.3 <u>Seller's Operating Obligations</u>.

Service Agreement No. 1621 4.3.1 <u>General</u>. All operations, including start-up, shutdown and determination of hourly generation, will be coordinated by the System Operator.

4.3.2 Seller's system operator may, pursuant to the ISO reliability criteria, Seller's Open Access Transmission Tariff, any applicable rule or practice of Seller's system operator, require reduced or increased generation in accordance with Good Utility Practices, at times when T&D System conditions threaten transmission system reliability. The Seller shall not request a reduction or increase in generation except to solve a transmission line energy limit violation so that voltage reduction or load shedding is not required. Seller will use best efforts to resolve any such conditions in order to allow Buyer to return to the operating level prior to the notice to reduce or increase generation.

4.4 <u>Auditing of Accounts and Records</u>. Within two years following the end of a calendar year, during normal business hours, either Party, or a public accounting firm designated to represent said Party, shall have the right to audit the other Party's accounts and records pertaining to transactions under this Agreement at the offices where such accounts and records are maintained; provided that appropriate notice shall have been given prior to any audit and provided that the audit shall be limited to those portions of such accounts and records that relate to services provided to the other under this Agreement for said calendar year. The Party being audited will be entitled to review the audit report and any supporting materials, which shall be subject to the provisions of <u>Article 7</u>.

4.5 Seller shall use commercially reasonable efforts to operate and maintain the T&D System, or cause the T&D System to be operated and maintained, in accordance with all material laws and Good Utility Practices. Seller shall notify Buyer promptly of any event affecting the T&D System that would cause Buyer to be unable to deliver power to any of Buyer's customers or would adversely affect the Facility, and, as soon as possible thereafter, of the expected duration of such event. Seller shall use best efforts to alleviate any such event.

ARTICLE 5 COST RESPONSIBILITIES AND BILLING PROCEDURES

5.1 Cost Responsibilities for Local Services.

5.1.1 Each Party shall be responsible for the costs for services provided to the other Party in Sections 3.8 and 3.9 as set forth in said Sections.

5.1.2 For services which have identified price/rate Schedules set forth herein, said payment shall be in accord with said Schedules as in effect from time to time. For

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services which require reimbursement but do not have identified price/rate schedules, the Parties shall agree upon the price/rate to be paid prior to performing or providing said services.

5.2 <u>Billing Procedures</u>.

5.2.1 <u>General</u>. Within ten days after the first day of each month, each Party shall prepare an invoice for those reimbursable services provided to the other Party under this Agreement during the preceding month.

5.2.2 Each invoice shall delineate the month in which the services were provided, shall fully describe the services rendered and shall be itemized to reflect the services performed or provided.

5.2.3 The invoice shall be paid within 30 days of receipt. All payments shall be made in immediately available funds payable to the other Party, or by wire transfer to a bank named by the invoicing Party.

5.2.4 Disputed amounts shall be placed in an interest bearing escrow account, subject to resolution.

5.3 <u>Payment Not a Waiver</u>. Payment of invoices by either Party shall not relieve the paying Party from any responsibilities or obligations it has under this Agreement; nor shall it constitute a waiver of any claims arising hereunder.

5.4 <u>Interest on Unpaid Balances</u>. The rate of interest on any unpaid amounts (including amounts placed in escrow) shall be equal to the Interest Rate in effect from time to time plus two percent per annum. Interest on delinquent amounts shall be calculated from the due date of the bill to the date of payment. When payments are made by mail, bills shall be considered as having been paid on the date of receipt by the other Party.

5.5 <u>Default</u>. In the event either Party fails to make payment to the other Party on or before the due date as described above, and such failure of payment is not corrected within ten calendar days after the Party notifies the Party in default to cure such failure, a default by said Party shall be deemed to exist and the provisions of <u>Article 8</u> shall apply. If Buyer defaults upon an Interconnection Facilities charge payment, Seller may initiate a proceeding with the FERC, as set forth below, to terminate such service but shall not terminate service

Service Agreement No. 1621 until the FERC authorizes any such request. If the Parties default on any other payment, the provisions of <u>Article 13</u> shall apply.

5.5.1 In the event of a billing dispute between Seller and Buyer, Seller and Buyer will continue to provide services as long as the other Party (i) continues to make all payments not in dispute, and (ii) pays into an escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Buyer fails to meet these two requirements for continuation of Interconnection Service, then Seller may provide notice to Buyer of its intention to suspend such service in 60 days, in accordance with the FERC's policy. If neither party disputes a bill within six months after the due date of such bill, such bill shall be deemed correct.

ARTICLE 6 DOCUMENTATION

6.1 <u>Drawings</u>.

6.1.1 Drawings that exclusively describe the Purchased Assets will be transferred by Seller to the Buyer prior to the Closing Date. Copies of drawings that exclusively describe the Excluded Assets, including the Interconnection Facilities and the T&D System shall be made available to Buyer upon reasonable request. Drawings describing the Purchased Assets and the Excluded Assets on the same drawing will be identified and marked as "common drawings." Seller shall retain a copy of the common drawings and shall provide a copy of same to the Buyer prior to the Closing Date. A list of drawings common to both Parties will be developed prior to the Closing Date.

6.1.2 Each Party shall be responsible for drawing updates and corrections to their respective drawings and all shall provide copies to the other Party as soon as practicable thereafter to the extent such update or connection impacts the operation of the other Party's assets.

6.2 <u>Maintenance or Operations Documentation</u>. Seller shall provide Buyer with technical maintenance or operations documentation, if available, for protection, communications and primary electrical equipment.

ARTICLE 7 CONFIDENTIALITY

7.1 General. Each Party (the "Recipient") and its representatives shall hold in confidence, unless compelled or required to disclose by judicial or administrative process or other provisions of law, all documents and information furnished by the other Party (the "Disclosing Party") or its representatives in connection with this Agreement. Except to the extent that such information or documents are (i) generally available to the public other than as a result of a disclosure by the Recipient in violation of this Agreement, (ii) available to the Recipient on a non-confidential basis prior to disclosure to the Recipient by the Disclosing Party, or (iii) available to the Recipient on a non-confidential basis from a source other than the Disclosing Party provided that such source is not known, and by reasonable effort could not be known, by the Recipient to be bound by a confidentiality agreement with the Disclosing Party or otherwise prohibited from transmitting the information to the Recipient by a contractual, legal or fiduciary obligation, Recipient shall not release or disclose such information to any other person, except to its Affiliates and their respective directors, officers, employees, contractors and agents on a need-to-know basis for the purpose of assisting the Recipient with respect to its obligations under this Agreement who has not first been advised of the confidentiality provisions of this Section 7.1 and has agreed in writing to comply with such provisions. In no event shall such information be disclosed in violation of the requirements of FERC Orders 889 and 889-A, and any successor thereto. The Recipient shall promptly notify the Disclosing Party if it receives notice or otherwise concludes that the production of any information subject to this Section 7.1 is being sought under any provision of law (by regulation, rules, deposition, interrogatories, requests for information or documents in legal proceedings, subpoenas, civil investigative demand or similar process) so that the Disclosing Party may seek an appropriate protective order or other remedy and/or waive compliance with the provisions of this Article, and the Parties shall cooperate, at the Disclosing Party's expense, to obtain such protective order. In the event that such protective order or other remedy is not obtained or the Disclosing Party waives compliance with the relevant provisions of this Article, the Recipient will furnish only that portion of material which is legally required to be disclosed and, upon the Disclosing Party's request, cooperate, at the Disclosing Party's expense, to obtain assurances that confidential treatment will be accorded to such information. A Party may utilize information subject to this Section 7.1 in any arbitration proceeding or litigation relating to this Agreement and pursuant to Article 13, provided that with respect to arbitration, the arbitrator(s) and other participants enter into a confidentiality agreement regarding the materials that will be disclosed.

7.2 <u>Confidentiality of Audits</u>. The independent auditor performing any audit, as referred to in <u>Section 4.4</u>, shall be subject to a confidentiality agreement between the auditor and the Party being audited. Such information shall be treated as confidential except to the extent that its disclosure is required by regulatory or judicial order, for reliability purposes pursuant to Good Utility Practices, pursuant to the FERC's rules and regulations, as amended

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from time to time, or as required by the System Operator pursuant to ISO information sharing policies. Except as provided herein, neither Party will disclose the audit information to any third party, without the other Party's prior written consent. Audit information in the hands of the Party not being audited shall be subject to all provisions of <u>Section 7.1</u> or <u>7.2</u>, as applicable.

7.3 <u>Remedies</u>. The Parties agree that monetary damages by themselves would be inadequate to compensate a Party for the other Party's breach of its obligations under this <u>Article 7</u>. Each Party accordingly agrees, subject to <u>Section 19.1</u>, that the Disclosing Party shall be entitled to specific performance and other equitable relief, by way of injunction or otherwise if the Recipient breaches or threatens to breach its obligations under this Article, which specific performance or other equitable relief shall be granted without bond or proof of damages and in addition to any other remedies that the Disclosing Party may have under applicable law, and the Recipient shall not plead in defense that there would be an adequate remedy at law.

ARTICLE 8 DEFAULT

8.1 <u>Events of Default</u>. Any one of the following shall constitute an event of default under this Agreement, unless such event is otherwise excused hereunder or is due to the action or inaction of the non-defaulting Party:

8.1.1 (a) The failure to pay any amount when due;

(b) A breach of any material term or condition of this Agreement, including but not limited to any material breach of a representation, warranty or covenant made in this Agreement, including the Schedules. Failure by a Party to provide any required schedule, report or notice hereunder may constitute a material breach hereof if such failure is not cured within 30 days after notice to the defaulting Party;

(c) The appointment of a receiver or liquidator or trustee for either Party or of any property of a Party, and such receiver, liquidator or trustee is not discharged within 60 days;

(d) The entry of a decree adjudicating a Party or any substantial part of the property of a Party bankrupt or insolvent, and such decree is continued undischarged and unstayed for a period of 60 days; (f) The failure or refusal of the Buyer to permit Seller's representatives access to information, or the Purchased Assets, to the extent required hereunder for Seller to operate the T&D System in order to examine, inspect and test such information and the Purchased Assets.

(g) The failure or refusal of the Seller to permit the Buyer's representatives access to information, or the Excluded Assets, to the extent required hereunder for Buyer to examine, inspect and test such information and the Excluded Assets.

8.1.2 (a) Upon the occurrence of an event of default, the Party not in default may give written notice of the default to the defaulting Party. Such notice shall set forth, in reasonable detail, the nature of the default and, where known and applicable, the steps necessary to cure such default. Except with respect to a payment default as described in <u>Section 8.1.1(a)</u>, the defaulting Party shall have 30 days following receipt of such notice either to (i) cure such default, or (ii) commence in good faith all such steps as are reasonable and appropriate to cure such default in the event such default cannot, in the reasonable judgment of such non-defaulting Party, be completely cured within such 30 day period. With respect to the payment default described in <u>Section 8.1.1(a)</u>, the defaulting party, shall have ten days from receipt of such default notice to cure such default.

(b) If the defaulting Party fails to cure such default or take such steps as provided under subparagraph (a) above, this Agreement may be terminated by written notice to the Party in default hereof. This Agreement shall thereupon terminate and the non-defaulting Party may exercise all such rights and remedies as may be available to it to recover damages, subject to <u>Article 19</u> of this Agreement, caused by such default.

(c) Notwithstanding the foregoing, upon the occurrence of any such event of default, the non-defaulting Party shall be entitled (i) to commence an action to require the defaulting Party to remedy such default and specifically perform its duties and obligations hereunder in Service Agreement No. 1621 accordance with the terms and conditions hereof, and (ii) to exercise such other rights and remedies as it may have at equity or at law.

8.2 <u>Rights Cumulative</u>. The rights and remedies of both Parties in this <u>Article 8</u> and elsewhere set forth in this Agreement are cumulative and non-exclusive.

8.2.1 Seller shall be entitled to operate such DC power systems, protection and metering circuit components, SCADA equipment, transformers, Secondary Systems, communications equipment, building facilities, software, documentation, structural components; and other facilities and appurtenances that are necessary for Seller to Maintain the T&D System if: (a) the Buyer shall commence any case under Federal bankruptcy laws or other proceeding under any similar law of any jurisdiction for the relief of debtors, or a decree or order shall be entered appointing a trustee or other custodian, liquidator, or receiver for the Buyer or for any substantial part of the Purchased Assets, and such decree or order shall not be dismissed within 60 days after it is entered; or (b) the Buyer shall cease its operations without having as assignee, successor, or transferee in place, which cessation shall remain in place for a period of 30 days; or (c) the Buyer, or the Buyer's assignee, successor, or transferee, shall fail to comply with the material obligations or duties set forth in this Agreement, which failure adversely affects the T&D System and remains uncorrected for a period of 30 days.

8.2.2 Seller shall give the Buyer or the Buyer's assignee, successor or transferee written notice, pursuant to <u>Article 20</u>, of its intent to implement its rights under this <u>Section 8.2</u>, which notice shall specify the event giving rise to such implementation. If the event endangers life or property, or impairs or creates a significant risk to the safety, reliability, stability, or integrity of the T&D System, Seller may implement this <u>Section 8.2</u> without such prior notice as necessary in its reasonable judgment to avert such condition. Seller shall return operational control of such facilities to the Buyer as soon as practicable after the event permitting Seller to exercise such operational control has ceased. Seller shall operate such facilities in accordance with law, Good Utility Practices and agreements to which the Buyer is a party.

ARTICLE 9 DAMAGE TO EQUIPMENT, FACILITIES AND PROPERTY

9.1 <u>Buyer's Responsibility</u>. Except to the extent of Seller's or its Affiliates', or their respective officers', directors', employees', agents' or subcontractors', gross negligence or willful misconduct, and subject to <u>Sections 10.2</u> and <u>10.3</u>, Buyer shall be responsible for all physical damage to or destruction of property, equipment and/or facilities owned by Buyer and/or its Affiliates, employees, agents, or subcontractors, regardless of who brings

the claim and regardless of who caused the damage and Buyer shall not seek recovery or reimbursement from Seller for such damage.

9.2 <u>Seller's Responsibility</u>. Except to the extent of Buyer's or its Affiliates', or their respective officers', directors', employees', agents' or subcontractors', gross negligence or willful misconduct and subject to <u>Section 10.1</u>, Seller shall be responsible for all physical damage to or destruction of property, equipment and/or facilities owned by Seller and/or its affiliates, regardless of who brings the claim and regardless of who caused the damage and Seller shall not seek recovery or reimbursement from Buyer for such damage.

ARTICLE 10 INDEMNIFICATION

10.1 <u>Buyer's Indemnification</u>. The Buyer shall indemnify, hold harmless, and defend Seller, its parent, Affiliates, and successors, and their respective officers, directors, employees, agents, subcontractors, and successors, from and against any and all claims, demands, liabilities, costs, losses, judgments, damages, and expenses (including, without limitation, reasonable attorneys' and experts' fees, and disbursements incurred by Seller in any action or proceeding between Seller and a third party, the Buyer, or any other party) for damage to property, injury to or death of any person, including Seller's employees, the Buyer's employees and their Affiliates' employees, or any third parties, to the extent not covered by insurance and to the extent caused by the gross negligence or willful misconduct of the Buyer and/or its officers, directors, employees, agents, contractors and subcontractors arising out of this Agreement and not caused by the negligence or willful misconduct of any such Indemnitee (collectively, "Seller Indemnifiable Losses").

10.2 <u>Seller's Indemnification</u>. Seller shall indemnify, hold harmless, and defend the Buyer, its parent, Affiliates, and successors, and their respective officers, directors, employees, agents, subcontractors, and successors from and against any and all claims, liabilities, costs, damages, and expenses (including, without limitation, reasonable attorneys' and experts' fees and disbursements incurred by the Buyer in any action or proceeding between the Buyer and a third party, Seller, or any other party), arising out of (i) Seller's operation of any of the Buyer's Facilities pursuant to <u>Section 8.2</u> or (ii) damage to property, injury to or death of any person, including Seller's employees, the Buyer's employees and their Affiliates' employees, to the extent not covered by insurance and to the extent caused by the gross negligence or willful misconduct of Seller and/or its Affiliates, or their respective officers, directors, employees, agents, and subcontractors arising out of this Agreement and not caused by the negligence or willful misconduct of any such Indemnitee.

10.3 <u>Limitation on Seller's Responsibility</u>. Buyer acknowledges that Seller's sale of the Purchased Assets was on an "as is" basis (except as expressly provided in the ASA), and the parties agree and acknowledge that any claims arising out of or caused by Seller's ownership, use or maintenance of the Purchased Assets during the period of Seller's ownership, regardless of who brings the claims shall be governed solely by the ASA.

10.4 Indemnification Procedures.

10.4.1 Any person entitled to receive indemnification under this Agreement (the "Indemnitee") having a claim under these indemnification provisions shall make a good faith effort to recover all losses, damages, costs and expenses from insurers of such Indemnitee under applicable insurance policies so as to reduce the amount of any Indemnifiable Loss hereunder. The amount of any Indemnifiable Loss shall be reduced (i) to the extent that Indemnitee receives any insurance proceeds with respect to an Indemnifiable Loss and (ii) to take into account any Tax or Income Tax benefit recognized by the Indemnitee arising from the recognition of the Indemnifiable Loss, net of any Tax or Income Tax detriment, and any payment actually received with respect to an Indemnifiable Loss.

10.4.2 The expiration, termination or extinguishment of any covenant, agreement, representation or warranty shall not affect the parties' obligations under this <u>Section 10</u> if the Indemnitee provided the person required to provide indemnification under this Agreement (the "<u>Indemnifying Party</u>") with proper notice of the claim or event for which indemnification is sought prior to such expiration, termination or extinguishment.

10.4.3 The Seller and the Buyer shall have indemnification obligations with respect to Indemnifiable Losses asserted against or suffered by the Seller or the Buyer, as the case may be, to the extent that the aggregate of all such Indemnifiable Losses exceed the Indemnification Floor. It is agreed and understood that neither the Seller nor the Buyer, as the case may be, shall have any liability at any time for Indemnifiable Losses asserted against or suffered by the other party until the aggregate amount of Indemnifiable Losses asserted or suffered by such other party under this Section 10.4 shall exceed the Indemnification Floor, and then only to the extent that the aggregate amount of Indemnifiable Losses exceeds the Indemnification Floor. The term "Indemnification Floor" means an amount equal to \$200,000.

10.5 <u>Defense of Claims</u>. If any Indemnitee receives notice of the assertion of any claim or of the commencement of any claim, action, or proceeding made or brought by any Person who is not a party to this Agreement or any affiliate of a party to this Agreement (a "<u>Third Party Claim</u>") with respect to which indemnification is to be sought from an Indemnifying Party, the Indemnitee will give such Indemnifying Party reasonably prompt

written notice thereof, but in any event not later than ten calendar days after the Indemnitee's receipt of notice of such Third Party Claim. Such notice shall describe the nature of the Third Party Claim in reasonable detail and will indicate the estimated amount, if practicable, of the Indemnifiable Loss that has been or may be sustained by the Indemnitee. The Indemnifying Party will have the right to participate in or, by giving written notice to the Indemnitee, to elect to assume the defense of any Third Party Claim at such Indemnifying Party's own expense and by such Indemnifying Party's own counsel, and the Indemnitee will cooperate in good faith in such defense at such Indemnitee's own expense.

10.5.1 If within ten calendar days after an Indemnitee provides written notice to the Indemnifying Party of any Third Party Claim the Indemnitee receives written notice from the Indemnifying Party that such Indemnifying Party has elected to assume the defense of such Third Party Claim as provided in the last sentence of Section 10.5, the Indemnifying Party will not be liable for any legal expenses subsequently incurred by the Indemnitee in connection with the defense thereof; provided, however, that if the Indemnifying Party fails to take reasonable steps necessary to defend diligently such Third Party Claim within 20 calendar days (unless waiting 20 calendar days would prejudice the Indemnitee's rights) after receiving notice from the Indemnitee that the Indemnitee believes the Indemnifying Party has failed to take such steps, the Indemnitee may assume its own defense, and the Indemnifying Party will be liable for all reasonable expenses thereof. Without the prior written consent of the Indemnitee, the Indemnifying Party will not enter into any settlement of any Third Party Claim which would lead to liability or create any financial or other obligation on the part of the Indemnitee for which the Indemnitee is not entitled to indemnification hereunder. If a firm offer is made to settle a Third Party claim without leading to liability or the creation of a financial or other obligation on the part of the Indemnitee for which the Indemnitee is not entitled to indemnification hereunder and the Indemnifying Party desires to accept and agree to such offer, the Indemnifying Party will give written notice to the Indemnitee to that effect. If the Indemnitee fails to consent to such firm offer within ten calendar days after its receipt of such notice, the Indemnitee may continue to contest or defend such Third Party Claim and, in such event, the maximum liability of the Indemnifying Party as to such Third Party Claim will be the amount of such settlement offer, plus reasonable costs and expenses paid or incurred by the Indemnitee up to the date of such notice. Notwithstanding the foregoing, the Indemnitee shall have the right to pay, compromise or settle any Third Party Claim at any time, provided that in such event the Indemnitee shall waive any right to indemnity hereunder, unless the Indemnitee shall have first sought the consent of the Indemnifying Party in writing to such payment, settlement, or compromise and such consent was unreasonably withheld or delayed, in which event no claim for indemnity hereunder shall be waived.

10.5.2 Any claim by an Indemnitee on account of an Indemnifiable Loss which does not result from a Third Party Claim (a "<u>Direct Claim</u>") will be asserted by giving the Indemnifying Party reasonably prompt written notice thereof, stating the nature of such

claim in reasonable detail and indicating the estimated amount, if practicable, but in any event not later than ten calendar days after the Indemnitee becomes aware of such Direct Claim, and the Indemnifying Party will have a period of 30 calendar days within which to respond to such Direct Claim. If the Indemnifying Party does not respond within such 30 calendar day period, the Indemnifying Party will be deemed to have accepted such Direct Claim. If the Indemnifying Party rejects such Direct Claim, the Indemnitee will be free to seek enforcement of its rights to indemnification under this Agreement.

10.5.3 If the amount of any Indemnifiable Loss, at any time subsequent to the making of an indemnity payment in respect thereof, is reduced by recovery, settlement or otherwise under or pursuant to any insurance coverage, or pursuant to any claim, recovery, settlement or payment by or against any other entity, the amount of such reduction, less any costs, expenses or premiums incurred in connection therewith (together with interest thereon from the date of payment thereof at the prime rate then in effect of the Chase Manhattan Bank), will promptly be repaid by the Indemnitee to the Indemnifying Party. Upon making any indemnity payment, the Indemnifying Party will, to the extent of such indemnity payment, be subrogated to all rights of the Indemnitee against any third party in respect of the Indemnifiable Loss to which the indemnity payment relates; provided, however, that (i) the Indemnifying Party will then be in compliance with its obligations under this Agreement in respect of such Indemnifiable Loss and (ii) until the Indemnitee recovers full payment of its Indemnifiable Loss, any and all claims of the Indemnifying Party against any such third party on account of said indemnity payment is hereby made expressly subordinated and subjected in right of payment to the Indemnitee's rights against such third party. Without limiting the generality or effect of any other provision hereof, each such Indemnitee and Indemnifying Party will duly execute upon request all instruments reasonably necessary to evidence and perfect the above-described subrogation and subordination rights. Nothing in this Section 10.5 shall be construed to require any Party to obtain or maintain any insurance coverage.

10.5.4 A failure to give timely notice as provided in this <u>Section 10.5</u> will not affect the rights or obligations of any Party except if, and only to the extent that, as a result of such failure, the Party which was entitled to receive such notice was actually prejudiced as a result of such failure.

10.6 <u>Survival; No Limitation</u>. The indemnification obligations of each Party under this <u>Article 10</u> shall continue in full force and effect regardless of whether this Agreement has expired or been terminated or canceled and shall not be limited in any way by any limitation on insurance, on the amount or types of damages, or by any compensation or benefits payable by the Parties under any applicable workers' compensation acts, disability benefit acts or other employee acts.

ARTICLE 11 INSURANCE

11.1 <u>General</u>. The Parties agree to maintain at their own cost and expense, fire, liability, workers' compensation, and other forms of insurance relating to their property and facilities in the manner and amounts set forth in Schedule E, as both Parties may from time to time agree to amend. A Party may utilize self insurance to the extent such self insurance is consistent with then current industry practice, and all deductibles, self-insured amounts under any insurance set forth in Schedule E shall be for the account of the Party placing the insurance.

11.2 <u>Certificates of Insurance</u>. The Parties agree to furnish each other at the Closing with certificates of insurance evidencing the insurance coverage set forth in Schedule E and additional insured status.

11.3 <u>Notice of Cancellation</u>. Every contract of insurance providing the coverages required in Schedule E shall contain the following or equivalent clause: "No reduction, cancellation or expiration of the policy shall be effective until 90 days from the date written notice thereof is actually received by said Party." Upon receipt of any notice of reduction, cancellation or expiration, the Party shall immediately notify the other Party in accordance with <u>Article 20</u>.

11.4 <u>Additional Insureds</u>. Each Party and its Affiliates shall be named as additional insureds on the general liability insurance policies set forth in Schedule E under this Agreement; and each Party shall waive its rights of recovery against the other for any loss or damage covered by such policy.

11.5 <u>Waiver of Subrogation</u>. The Parties on behalf of themselves, their parents, and Affiliates, each waive any right of subrogation under their respective insurance policies for any liability each has agreed to assume under this Agreement. Evidence of this requirement shall be noted on all certificates of insurance.

11.6 Each Party shall have the right to inspect the original policies of insurance applicable to this Agreement at the other Party's place of business during regular business hours.

ARTICLE 12 FORCE MAJEURE

12.1 <u>General</u>. Notwithstanding anything in this Agreement to the contrary, Buyer and Seller shall not be liable in damages or be otherwise responsible to the other for a failure to carry out any of its obligations under this Agreement, other then any obligation to pay an amount when due, if and only to the extent that they are unable to so perform or are prevented from performing by a Force Majeure Event. Such exclusion from liability shall extend for the period of time necessitated by such Force Majeure Event.

12.2 <u>Content of Term</u>. The term "Force Majeure Event" means any occurrence beyond the reasonable control of a Party which causes such Party to be delayed in or prevented from performing or carrying out any of its obligations under this Agreement and which by the exercise of due diligence in accordance with Good Utility Practices, that Party is unable to prevent, avoid, mitigate, or overcome, including any of the following: any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, ice, explosion, breakage or accident to machinery or equipment, order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities provided that a Force Majeure Event shall not include lack of finances or change in market conditions, and provided further that any failure of Buyer to obtain fuel or services for the Facility due to the failure of any supplier or subcontractor of Buyer to perform any obligation to Buyer will not constitute a Force Majeure Event hereunder unless such subcontractor or supplier is unable to perform for reasons that would constitute a "Force Majeure Event" hereunder.

12.3 <u>Procedures</u>. If a Party shall rely on the occurrence of an event or condition described above as a basis for being excused from performance of its obligations under this Agreement, then the Party relying on the event or condition shall: (i) provide prompt written notice of a Force Majeure Event to the other Party giving a detailed written explanation of the event, an estimation of its expected duration and the probable impact on the performance of its obligations hereunder; (ii) exercise all reasonable efforts in accordance with Good Utility Practices to continue to perform its obligations under this Agreement; (iii) expeditiously take commercially reasonable action to correct or cure the event or condition excusing performance; provided that settlement of strikes or other labor disputes will be completely within the sole discretion of the Party affected by such strike or labor dispute; (iv) exercise all reasonable efforts to mitigate or limit damages to the other Party; and (v) provide prompt notice to the other Party of the cessation of the event or condition giving rise to its excuse from performance.

ARTICLE 13 DISPUTES

13.1 Any disagreement between Seller and the Buyer as to their rights and obligations under this Agreement shall first be addressed by the Parties. If within 30 days the representatives of the Buyer and Seller are unable in good faith to resolve their disagreement satisfactorily, they shall refer the matter to their respective senior management. If after using their good faith efforts to try to resolve the dispute, senior management cannot resolve the dispute in 30 days, either Party may exercise any right or remedy available under this Agreement, at law or in equity. The Parties agree to cooperate in good faith to expedite the resolution of any disputes arising under this Agreement.

13.2 Nothing in this Agreement shall preclude, or be construed to preclude, any Party from filing a petition or complaint with the FERC with respect to any claim over which the FERC has jurisdiction, provided however, that any Party filing a petition or complaint with the FERC provide written notice to the other Party no less than ten days prior to such filing.

ARTICLE 14 REPRESENTATIONS AND WARRANTIES

14.1 <u>Representations of Seller</u>. Seller represents and warrants to Buyer as follows:

14.1.1 <u>Organization</u>. Seller is a corporation duly organized, validly existing and in good standing under the laws of the State of New York and Seller has the requisite corporate power and authority to carry on its business as now being conducted;

14.1.2 <u>Authority Relative to this Agreement</u>. Seller has the requisite corporate power and authority to execute and deliver this Agreement, subject to the procurement of applicable regulatory approvals, and to carry out the actions required of it by this Agreement. The execution and delivery of this Agreement and the actions it contemplates have been duly and validly authorized by all required corporate action. The Agreement has been duly and validly executed and delivered by Seller and, assuming it is duly and validly executed and delivered by the Buyer, constitutes a legal, valid and binding Agreement of Seller; and

14.1.3 <u>Compliance With Law and Agreements</u>. (A) Seller is not in violation of any applicable law, statute, order, rule, or regulation promulgated or judgment entered by any Federal, state, or local governmental authority, which violation individually or in the aggregate would adversely affect Seller's entering into or performance of its obligations

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under this Agreement; and (B) Seller's entering into and performance of its obligations under this Agreement will not give rise to any default under any agreement to which it is a party.

14.2 <u>Representations of Buyer</u>. Buyer represents and warrants to Seller as follows:

14.2.1 <u>Organization</u>. Buyer is a limited liability company duly organized, validly existing and in good standing under the laws of Delaware, and Buyer has the requisite power and authority to carry on its business as now being conducted;

14.2.2 <u>Authority Relative to this Agreement</u>. Buyer has the requisite power and authority to execute and deliver this Agreement and, subject to the procurement of applicable regulatory approvals, to carry out the actions required of it by this Agreement. The execution and delivery of this Agreement and the actions it contemplates have been duly and validly authorized by the Managers or Members of the Buyer and no other Company proceedings on the part of the Buyer are necessary to authorize this Agreement or to consummate the transactions contemplated hereby. This Agreement has been duly and validly executed and delivered by Buyer and, assuming it is duly and validly executed and delivered by the Seller, constitutes a legal, valid and binding Agreement of Buyer; and

14.2.3 <u>Compliance With Law and Agreements</u>. (A) Buyer is not in violation of any applicable law, statute, order, rule, or regulation promulgated or judgment entered by any Federal, state, or local governmental authority, which, individually or in the aggregate, would adversely affect Buyer's entering into or performance of its obligations under this Agreement; and (B) Seller's entering into and performance of its obligations under this Agreement will not give rise to any default under any agreement to which it is a party.

ARTICLE 15 ASSIGNMENT/CHANGE IN CORPORATE IDENTITY

15.1 <u>General</u>. This Agreement and all of the provisions hereof shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and permitted assigns, but neither this Agreement nor any of the rights, interests, or obligations hereunder shall be assigned, except to an Affiliate of Seller that owns the T&D System or to the Purchased Assets, by either Party hereto, whether by operation of law, without the prior written consent of the other Party, said consent not to be unreasonably withheld. Any assignment of this Agreement in violation of the foregoing shall be, at the option of the nonassigning Party, void. Notwithstanding the foregoing, Buyer or its permitted assignee may assign, transfer, pledge or otherwise dispose of its rights and interests hereunder to (i) a trustee or lending institution(s) for the purposes of financing or refinancing the Purchased

Assets, including upon or pursuant to the exercise of remedies under such financing or refinancing, or by way of assignments, transfers, conveyances of dispositions in lieu thereof; provided, however, that no such assignment or disposition shall relieve or in any way discharge Buyer or such assignee from the performance of its duties and obligations under this Agreement, (ii) an affiliate of the Buyer or (iii) a purchaser, transferee or lessor of all or substantially all of Buyer's right, title and interest in and to the Purchased Assets, provided such purchaser, transferee or lessor (A)(1) has a "net worth", or "consolidated net worth", if applicable, as determined in accordance with U.S. generally accepted accounting principles and reflected in an audited balance sheet (or consolidated balance sheet, if applicable) ("Net Worth") at least equal to an amount equal to one-third of the Purchase Price (as described in Section 3.1 of the ASA), or (2) provides a guaranty from an affiliate which has a net worth at least equal to the amount specified in (A)(1) above and (B) demonstrates its ability to operate the Purchased Assets to O&R's reasonable satisfaction in accordance with Good Utility Practices. Seller agrees to execute and deliver such documents as may be reasonably necessary to accomplish any such assignment, transfer, conveyance, pledge or disposition of rights hereunder for purposes of the financing or refinancing of the Purchased Assets, so long as Seller's rights under this Agreement are not thereby altered, amended, diminished or otherwise impaired.

15.2 Party to Remain Responsible. No assignment, transfer, pledge, conveyance, or disposition of rights or obligations under this Agreement by a Party shall relieve that Party from liability and financial responsibility for the performance thereof after any such assignment, transfer, conveyance, pledge, or disposition unless and until the transferee or assignee shall agree in writing to assume the obligations and duties of that Party under this Agreement and the non-assigning Party under this Agreement has consented in writing to such assumption and to a release of the assigning Party from such liability, such consent shall not be unreasonably withheld.

15.3 <u>Termination of Corporate Existence</u>. If either Party terminates its existence as a corporate entity, by merger, acquisition, sale, consolidation, or otherwise, or if all or substantially all of such Party's assets are transferred to another person or business entity, without complying with <u>Section 15.1</u> above, the other Party shall have the right enforceable in a court of competent jurisdiction, to enjoin the first Party's successor from using the property in any manner that interferes with, impedes, or restricts such other Party's ability to carry out its ongoing business operations, rights and obligations.

15.4 <u>Merger with Con Edison</u>. The Buyer acknowledges that Seller has entered into an Agreement and Plan of Merger whereby Seller will become a wholly-owned subsidiary of Consolidated Edison, Inc. ("<u>CEI</u>"). Notwithstanding any other provision of this <u>Article 15</u>, the Buyer agrees that this Agreement may be assigned to CEI, or a wholly-owned affiliate of CEI without the Buyer's consent.

Service Agreement No. 1621 15.5 <u>Regulatory Approval; Effective Date</u>. This Agreement shall not become effective and binding upon the Parties until is has been: (i) signed by each of the Parties hereto,(ii) the FERC and NYPSC have entered a final order in form and substance satisfactory to the Parties approving this Agreement, and (iii) the Closing Date shall have occurred. The Parties agree to use their best efforts to obtain such regulatory approval as promptly as practicable following execution of this Agreement.

ARTICLE 16 SUBCONTRACTORS

16.1 <u>Use of Subcontractors Permitted</u>. Nothing in this Agreement shall prevent the Parties from utilizing the services of subcontractors as they deem appropriate, provided, however, that all said subcontractors shall comply with the applicable terms and conditions of this Agreement including but not limited to compliance with Good Utility Practices.

16.2 <u>Party to Remain Responsible</u>. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. Each Party shall be fully responsible to the other Party for the acts and/or omissions of any subcontractor it hires as if no subcontract had been made. Any obligation imposed by this Agreement upon the Parties, where applicable, shall be equally binding upon and shall be construed as having application to any subcontractor.

16.3 <u>Liability for Conduct of Subcontractors</u>. The Parties shall each be liable for, indemnify, and hold harmless the other Party, their affiliates and their officers, directors, employees, agents, servants, and assigns from and against any and all claims, demands, or actions, from the other Party's subcontractors to the extent not caused by the negligence or willful misconduct of the other Party or its Affiliates, or their respective officers, directors, employees, agents or subcontractors; and shall pay all costs, expenses and legal fees associated therewith and all judgments decrees and awards rendered therein.

16.4 <u>No Limitation by Insurance</u>. The obligations under this <u>Article 16</u> shall not be limited in any way by any limitation on subcontractor's insurance.

ARTICLE 17 LABOR RELATIONS

17.1 Each Party agrees promptly to notify the other Party, verbally and then in writing, of any labor dispute (including a strike) or anticipated labor dispute which may reasonably be expected to affect the operations of the other Party.

ARTICLE 18 INDEPENDENT CONTRACTOR STATUS

18.1 Nothing in this Agreement shall be construed as creating any relationship between Seller and Buyer other than that of independent contractors. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

ARTICLE 19 <u>LIMITATION OF LIABILITY</u>

19.1 <u>Consequential Damages</u>. Neither Seller nor Buyer, nor their respective officers, directors, agents, employees, parent or affiliates, successors or assigns or their respective officers, directors, agents or employees, successors or assigns, shall be liable to the other Party or its parent, subsidiaries, affiliates, officers, directors, agents, employees, successors or assigns, for claims, suits, actions or causes of action for incidental, punitive, special, indirect, multiple or consequential damages (including without limitation, attorneys' fees and other litigation costs, or claims for lost profits) connected with or resulting from performance or non-performance of this Agreement, or any actions undertaken in connection with or related to this Agreement, including without limitation any such damages which are based upon causes of action for breach of contract, tort (including negligence and misrepresentation), breach of warranty, strict liability, statute, operation of law, or any other theory of recovery. The provisions of this <u>Section 19.1</u> shall apply regardless of fault and shall survive termination, cancellation, suspension, completion or expiration of this Agreement.

ARTICLE 20 NOTICES

20.1 At or prior to the Closing Date, each Party shall indicate to the other Party, by notice, the appropriate person during each eight-hour work shift to contact in the event of an emergency, a scheduled or forced interruption or reduction in services. The notice last received by a Party shall be effective until modified in writing by the other Party.

20.2 All notices, requests, claims, demands and other communications hereunder shall be in writing and shall be deemed effective upon receipt when delivered either by hand delivery, cable, telecopy (confirmed in writing) or telex, or by mail (registered or certified, postage prepaid) to the respective Parties as follows:

If to the Seller, to: Orange and Rockland Utilities, Inc. c/o Consolidated Edison Company of New York, Inc. Service Agreement No. 1621 4 Irving Place, Room 1810-S New York, New York 10003 Attention: General Counsel Fax: (212) 674-7329

With a copy to:

Orange and Rockland Utilities, Inc. 390 West Route 59 – Dept SVOC Spring Valley, New York 10977 Attention: Vice President - Operations Fax: (845) 577-3074

If to the Buyer to:

AER NY-GEN, LLC 613 Plank Road Forestburgh, NY 12777

or such other address as is furnished in writing by such Party.

ARTICLE 21 HEADINGS

21.1 The descriptive headings of the Articles and Sections of this Agreement are inserted for convenience only and do not affect the meaning or interpretation of this Agreement.

ARTICLE 22 WAIVER

22.1 Except as otherwise provided in this Agreement, any failure of any of the Parties to comply with any obligation, covenant, agreement, or condition herein may be waived by the Party entitled to the benefits thereof only by a written instrument signed by the Party granting such waiver, but such waiver or failure to insist upon strict compliance with such obligation, covenant, agreement, or condition shall not operate as a waiver of, or estoppel with respect to, any subsequent or other failure.

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ARTICLE 23 COUNTERPARTS

23.1 This Agreement may be executed in two or more counterparts, all of which will be considered one and the same Agreement and each of which will be deemed an original.

ARTICLE 24 GOVERNING LAW

24.1 This Agreement and all rights, obligations, and performances of the Parties hereunder, are subject to all applicable Federal and state laws, and to all duly promulgated orders and other duly authorized action of governmental authority having jurisdiction.

24.2 When not in conflict with or pre-empted by Federal law, this Agreement will be governed by and construed in accordance with the laws of the State of New York, without giving effect to the conflict of law principles thereof. Except for those matters covered in this Agreement and jurisdictional to FERC or the appellate courts having jurisdiction over FERC matters, any action arising out of or concerning this Agreement must be brought in the Federal or State courts of the State of New York. Both Parties hereby consent to the jurisdiction of the State of New York for the purpose of hearing and determining any action not pre-empted by Federal law; and to the jurisdiction of FERC for those matters governed by FERC rules and regulations or by the Federal Power Act.

ARTICLE 25 CONFLICT WITH ASA

25.1 In the event there is a conflict between the provisions of this Agreement and the ASA, the provisions of the ASA shall prevail.

ARTICLE 26 SEVERABILITY

26.1 In the event that any of the provisions of this Agreement are held to be unenforceable or invalid by any court of competent jurisdiction, the Parties shall, to the extent possible, negotiate an equitable adjustment to the provisions of this Agreement, with a view toward effecting the purpose of this Agreement, and the validity and enforceability of the remaining provisions hereof shall not be affected thereby.

ARTICLE 27 AMENDMENTS

27.1 Seller may unilaterally make application to FERC under Section 205 of the Federal Power Act and pursuant to the FERC's rules and regulations promulgated thereunder for a change in any rates, terms and conditions, charges, classification of service, rule or regulation for any services Seller provides under this Agreement over which FERC has jurisdiction.

27.2 Buyer may exercise its rights under Section 206 of the Federal Power Act and pursuant to FERC's rules and regulations promulgated thereunder with respect to any rate, term, condition, charge, classification of service, rule or regulation for any services provided under this Agreement over which FERC has jurisdiction.

27.3 In addition to the terms set forth in <u>Sections 27.1</u> and <u>27.2</u>, this Agreement may be amended, modified, or supplemented by written agreement of both Seller and Buyer.

ARTICLE 28 ENTIRE AGREEMENT

28.1 This Agreement, the ASA, the Ancillary Agreements and the Separation Document constitute the entire understanding between the Parties, and supersede any and all previous understandings, oral or written, which pertain to the subject matter contained herein or therein. If there is any conflict in said documents, the ASA shall control over this Agreement.

ARTICLE 29 NO THIRD PARTY BENEFICIARIES

29.1 Nothing in this Agreement, express or implied, is intended to confer on any person, other than the Parties, any rights or remedies under or by reason of this Agreement.

ARTICLE 30 FURTHER ASSURANCES

30.1 The Parties hereto agree to execute and deliver promptly, at the expense of the Party requesting such action, any and all other and further information, instruments and documents that may be reasonably requested in order to effectuate the transactions contemplated hereby, including but not limited to, such instruments or documents to establish, if necessary, an alternative arrangement, for access to services under this Agreement.

Service Agreement No. 1621 IN WITNESS WHEREOF, the Parties have executed and delivered this Agreement as of the date and year first above written.

ORANGE AND ROCKLAND UTILITIES, INC.

<u>/s/James W. Tarpey</u> By: James W. Tarpey Title: Vice President, Operations

AER NY-GEN, LLC

<u>/s/Joseph Klimaszewski, Jr.</u> By: Joseph Klimaszewski, Jr. Title: Vice President, OPs and New Development

SCHEDULES TO THE

CONTINUING SITE/INTERCONNECTION AGREEMENT BY AND BETWEEN O&R AND NY-GEN LLC

Schedule A to Continuing Site/Interconnection Agreement

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Confidential Energy Infrastructure Information ("CEII")

Schedule A (Part II) to Continuing Site/Interconnection Agreement

PLANT: RIO OWNER					
TRIPS BREAKER	RELAY TYPE	DEVICE #	ORU	<u>SC</u>	
15-3-2	HZ	21-1	X		
15-3-2	HZ	21-2	X		
15-3-2	HZ	21-3	X		
15-3-2	JBCG	67N	X		
53-2	CA	87T-1	Х		
53-2	CA	87T-2	X		
53-2	CA	87T-3	X		
53-2	C0-9	51N	X		
69KV	IJS	25A	X		
BKR 13A-2B & 13B-2B	CO	51-1		Х	
BKR 13A-2B & 13B-2B	CO	51-2		Х	
BKR 13A-2B & 13B-2B	CO	51-3		X	
BKR 13A-2B & 138-2B	CO	87T-1		X	
BKR 13A-2B & 13B-2B	CO	87T-2		X	
BKR 13A-2B & 13B-2B	CO	87T-3		X	
STATION SERVICE	CO	51-1		Х	
STATION SERVICE	CO	51-2		Х	
STATION SERVICE	CO	51-3		Х	
GEN. #1 LOCKOUT	IAC	50/51/1		Х	
GEN. #1 LOCKOUT	IAC	50/51/2		Х	
GEN. #1 LOCKOUT	IAC	50/51/3		Х	
GEN. #1 LOCKOUT		46		Х	
GEN. #1 LOCKOUT	IAV	46X		X	
GEN, #1 LOCKOUT	CA	87G-1		X	
GEN. #1 LOCKOUT	CA	87G-2		X	
GEN. #1 LOCKOUT		87G-3		X	
	CFT	49		X	
GEN. #1 LOCKOUT		50/51/1		X	
GEN. #2 LOCKOUT	IAC	50/51/2		x	
	1	50/51/3		X	
	IAC	46		x	
	IJC	46 46X		X	
		87G-1		x	
	CA	87G-2		x	
SEN. #2 LOCKOUT	CA	1 1		x	
GEN. #2 LOCKOUT	CA	87G-3	40	x	
GEN. #2 LOCKOUT	CFT	49			
GEN. SYNC.	BECKWITH M-0193	25		X	
GEN. CONTROL	BECKWITH M-0194	15	v	Х	
8-3-2	MG-6	TRIP	X		
8-3-2	MG-6	CLOSE	X		

PLANT: RIO (CO	NTINUÉD)			
	·		OWN	IER
TRIPS BREAKER	RELAY TYPE	DEVICE #	ORU	<u>SC</u>
18-3-2	CR-11	67-1	X	
18-3-2	CR-11	67-2	X	
18-3-2	CR-11	67-3	X	
18-3-2	C0-11	50/51/N	X	
3-1D-2	C0-11	50/51/1	X	
3-1D-2	C0-11	50/51/2	X , ,	
3-1D-2	C0-11	50/51/3	X	
-1D-2	C0-11	50/51/N	X	

.

			OWNER	
TRIPS BREAKER	RELAY TYPE	DEVICE #	ORU	<u>SC</u>
18-3-2	CR-11	67-1	x	
18-3-2	CR-11	67-2	X	
18-3-2	CR-11	67-3	X	
18-3-2	C0-11	50/51/N	X	
3-1D-2	C0-11	50/51/1	X	
3-1D-2	C0-11	50/51/2	X	
3-1D-2	C0-11	50/51/3	X	
3-1D-2	C0-11	50/51/N	X X	

·			OWNER	
TRIPS BREAKER	RELAY TYPE	DEVICE #	ORU	<u>SC</u>
GEN. #1	CA	87T-1		Х
GEN. #1	ÇA	87T-2		X
GEN. #1	CA	87T-3		X X X X X X X X
GEN. #1	CA	87G-1		X
GEN. #1	CA	87G-2		Х
GEN. #1	CA	87G-3		Х
11-2	IAC	51-1		Х
11-2	IAC	51-2		Х
11-2	IAC	51-3		Х
11-2	C0-9	51-N		X
GEN. #1	CP	47		X
GEN. #1	BL-1	49-1		Х
GEN. #1	BL-2	49-2		X
GEN. #1	BL-3	49-3		Х
STATION SERVICE	CO	151-1		Х
31 - 28	CO	151-3		X
GATE HOUSE	IAC	51-OPEN		X X X X
GATE HOUSE	IAC	51-CLOSE		X
ALARM ONLY FIELD	PJG	64F		Х
GRD. DET.				,
PICKS 52Z	CV	28		Х
SYN GEN. #1	BECKWITH	25		Х
	M-0993B			

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			OWNER	
TRIPS BREAKER	RELAY TYPE	DEVICE #	<u>ORU</u>	<u>SC</u>
21-2	IAC	51-1		X
21-2	IAC	51-2		Х
21-2	IAC	51-3		Х
21-2	C0-9	50/51N		Х
21-1 & LOCKOUT	IAV	46X	1	Х
21-1 & LOCKOUT	IJC	46		Х
21-1 & LOCKOUT	IJD	87G-1		Х
21-1 & LOCKOUT	IJD	87G-2		Х
21-1 & LOCKOUT	IJD	87G-3		Х
21-1 & LOCKOUT	IJD	87T-1		Х
21-1 & LOCKOUT	JJD	87T-2		Х
21-1 & LOCKOUT	IJD	87T-3		Х
21-1 & LOCKOUT	ICT	49		Х
SYN	M-0193	25		Х
ALARM ONLY	PJG	64F'	1	Х

	1		OWNER	
TRIPS BREAKER	RELAY TYPE	DEVICE #	ORU	<u>SC</u>
52-2	IA-201	51-1		Х
52-2	IA-201	51-2		X
52-2	IA-201	51-3		Х
9-2-2	IA-201	51-1	X	
9-2-2	IA-201	51-2	X	
9-2-2	IA-201	51-3	××	
9-2-2	CWP	67N	X	
12-2-2	HZ	21-1	X X	
12-2-2	HZ	21-2	X	
12-2-2	HZ	21-3	X	
12-2-2	JBCC	67NB	X	
12-2-2, 131-2-2	RPM	21X	X	
131-2-2	HZ	21-1	X	
131-2-2	HZ	21-2	X	
131-2-2	HZ	21-3	X	
131-2-2	JBCC	67NB	X	
15-2-2	HZ	21-1	X	
15-2-2	HZ	21-2	× ×	
15-2-2	HZ	21-3	X	
15-2-2	JBCG	67N	x	
39KV BREAKER	GES	25	. X	
39KV BREAKER	ijs	25A	X	
GEN. 1-2-3-4	GES	25G		Х
GEN. #1	IAC	50/51-1		í X
GEN. #1	IAC	50/51-2		Х
GEN. #1	IAC	50/51-3		Х
GEN. #1	IJC	46		Х
GEN. #1	IAV	46X		Х
GEN. #1	DDG	87G-1		Х
GEN. #1	DDG	87G-2		Х
GEN. #1	DDG	87G-3		Х
GEN. #1	IAC	50/51-1		х
GEN, #2	IAC	50/51-2		Х
GEN. #2	IAC	50/51-3		X
GEN. #2	INC .	46		Х
SEN. #2	IAV	46X		X
	IAC	50/51-1		x
GEN, #3		50/51-2		X
SEN. #3	IAC	50/51-3		X
SEN. #3	IAC	46	-	x
GEN. #3 GEN. #3	IJC IAV	40 46X		x

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PLANT: MONGAU	JP (CONTINUED)	-			
			OWNER		
TRIPS BREAKER	RELAY TYPE	DEVICE #	ORU	<u>SC</u>	
GEN. #4	IAC	50/51-1		Х	
GEN. #4	IAC	50/51-2		Х	
GEN. #4	IAC	50/51-3		Х	
GEN. #4	IJC	46		Х	
GEN, #4	IAC	46X		Х	
GEN. #4	DDG	87G-1		Х	
GEN. #4	DDG	87G-2		Х	
GEN. #4	DDG	87G-3		Х	
2-1-2K	C0-11	50/51-1	X		
2-1-2K	C0-11	50/51-2	X		
2-1-2K	C0-11	50/51-3	X		

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	1			
PLANT: MONGAU	JP (CONTINUED)			
			OWNER	
TRIPS BREAKER	RELAY TYPE	DEVICE #	ORU	<u>SC</u>
GEN. #4	IAC	50/51-1	-	Х
GEN. #4	IAC	50/51-2		Х
GEN. #4	IAC	50/51-3		Х
GEN. #4	IJĊ	46		X
GEN. #4	IAC	46X		Х
GEN. #4	DDG	87G-1		X
GEN. #4	DDG	87G-2		X
GEN. #4	DDG	87G-3		X
2-1-2K	C0-11	50/51-1	X	
2-1-2K	C0-11	50/51-2	X	
2-1-2K	C0-11	50/51-3	X	

PLANT - MONGAUP	59KV YARD		
DIVESTED ASSET - (DCB 52-2	OW	VER
CABLE #	FUNCTION	ORU	SEI
75 195 26	CONTROL DC CONTROL POWER BANK 52 RELAYS		X X X

PLANT - MONGAU	P 69KV YARD			
DIVESTED ASSET	- BANK 52	0141	MED	
OWNER				
CABLE #	FUNCTION	ORU	<u>SEI</u>	
44 87	LINE POLARIZING CURRENT TEMPERATURE INDICATION	x	X	

MONGAUP BANK 52

PLANT - RIO 69KV Y	ARD			
DIVESTED ASSET - (DCB 13-2			
OWNER				
CABLE #	FUNCTION	ORU	SEI	
ALL CABLES	RELAY AND CONTROL		X	

PLANT - SWINGING	BRIDGE 69KV YARD		
DIVESTED ASSET -	OCB 11-2	- 1	
		OW	NER
CABLE #	FUNCTION	ORU	SEI
ALL CABLES	RELAY AND CONTROL		х

PLANT - SWINGING E	RIDGE 69KV YARD		
DIVESTED ASSET - O	CB 21-2	OWI	NER
CABLE #	FUNCTION	ORU	SEI
ALL CABLES	RELAY AND CONTROL		Х

Schedule B

SELLER PROVIDED SYSTEM INFORMATION

- 1.
- 2.
- Hourly billing (MWH) Actual output in MW AGC signals sent by the ISO 3.
- 4. VAR contributions
- 5. Voltages of busses at plants MW at busses at plants
- 6.
- MVAR at busses at plants 7.
- 8.
- Breaker positions on busses Station service MWH at busses at plants 9.

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B - 1

Schedule C to Continuing Site/ Interconnection Agreement

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VOLTAGE LEVEL FOR SYSTEM LOADS

SYSTEM LOAD		300	400	500	600	002	<u>800</u>	006	1000	1100	1160
LOVETT	138	140.0	141.0	141.5	142.3	142.6	142.9	143.8	144.4	144.8	144.0
RAMAPO	138	140.5	141.0	141.5	142.0	142.0	143.0	143.7	144.5	144.7	144.8
SOUTH MAHWAH	138	140.5	140.5	142.0	142.5	142.8	143.5	144.0	144.5	144.0	144.8
WEST HAVERSTRAW 138	138	140.0	141.0	141.5	142.7	143.0	143.5	143.7	144.0	144.5	144.8
BURNS	69	70.0	70.0	70.5	71.0	71.4	71.8	72.0	72.0	72.2	72.2
HARINGS CORNER	69	69.5	70.0	70.5	71.2	71.5	71.8	72.2	72.5	72.5	72.5
HILLBURN	69	69.5	70.0	70.5	71.2	71.5	7.17	72.0	72.2	72.6	72.8
LOVETT	60	70.0	71.0	71.0	71.4	71.5	71.8	72.2	72.2	72.2	72.4
SOUTH MAHWAH	69	70.0	70.5	71.0	71.3	71.5	7.1.7	72.0	72.1	72.4	72.5
SUGARLOAF	69	. 70.0	70.5	70.5	71.0	71.6	71.8	72.0	72.2	72.2	72.2
WEST NYACK	69	69.5	70.0	70.5	71.2	71.5	71.9	72.2	72.5	72.5	72,5
PORT JERVIS	34	35.0	35.5	35.5	35.5	35.6	35,6	36.0	36.0	36.0	38.0
SHOEMAKER	34	35.0	35,5	35.5	35.5	35.0	35.6	36.0	36.0	36.3	36.3
CUDDEBACKVILLE	34	35.0	35.4	35.4	35.5	35.8	35.8	35.8	36.0	36.1	30,2
LOAD		BMW	10MW	16MW	-					·	
CRESSKILL	34	33.4	33.8	34.3							

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NOTE: THE 346KV TIE (RAMAPO, SOUTH MAHWAH, WEST HAVERSTRAW) STATION VOLTAGES ARE ASSUMED TO RANGE FROM 362KV TO 360KV THESE STATION VOLTAGES ARE CONTROLLED BY NYPP.

Voltana Levela for System Loadé

Schedule D to Continuing Site/Interconnection Agreement

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SUBJECT	OI	6-E-11		
BLACK START AND SYSTEM RESTORATION PLAN	SHEET	1	of	32

<u>Ge</u>neral

This plan is to be implemented following a total blackout of the Orange and Rockland system. It defines the general strategies to be employed for restarting the system from any available tie or available black start generation source. In addition, this plan will serve as a guide for the complete restoration of service to all customers of the franchise area.

Organization

Critical to the success of this operation is the strict adherence to an organizational plan which will oversee and direct the startup and complete restoration of the system. It will be the responsibility and authority of this organization to accomplish the following:

- Provide timely and thorough communication with appropriate inter-company and intra-company personnel. 1.
- To effectively deploy company field crews and generating personnel in such manner as to re-energize the O&R bulk power system as expeditiously as possible and to direct as frequency and stability 2. considerations permit, the restoration of the distribution system.
 - To implement this operating procedure with discretion such that the risk of damage to company
- 3. transmission, generation and distribution facilities is at all time minimized.

This organization will be divided into two groups: The Directing Group and the Control Group. The former will be comprised of the Director of System Operations, and the managers of Substation Operations, and Delivery Systems Design. Under the leadership of the Director of System Operations, the Directing Group will be located in the Observation Room of the Energy Control Center (ECC) and will be responsible for the following:

- The direction and overall implementation of this procedure. 1.
- Communicating system status with the Executive Staff and O&R Corporate Communications Department.
- Directing the deployment of line crews by communication with the Director of Operations. 2.
- 3. Providing advice and consultation for the Control Group.
- Deploying substation, relay and hydro crews as requested by the Senior System Operator. 4
- Directing the ECC computer group to cover remote terminal unit, uninterruptible power supply and 5. 6.
- computer problems.

The Control Group will be comprised of the Manager of System Operations, three Senior System Operators and three System Operators. This group will be positioned on the Operating Floor of the PCC. The Control Group will be responsible for the following:

- Effecting the specific steps for starting up and restoring the system. 1.
- Communicating system status with the New York Power Pool and coordinating with that body, the restoration of the 345 KV system in the O&R franchise territory under O&R responsibility as detailed in the 2.
- NYPP Operating Policy 13.

Revised by: System Operations Dept. - January 1999

Distributed to: G. V. Bubolo, Jr. Distribution List

Approved by:

Supersedes: 5-E-10

SUBJECT	01	6-E	-11		
BLACK START AND SYSTEM RESTORATION PLAN	SHEET	Ţ	2	of	32

- Coordinating with Consolidated Edison, Central Hudson and Public Service the synchronization of the systems. (Appendix I - list of substation with synchronizing scopes and breakers with sync-check relays.) 3. Advising the Distribution Supervisor of circuits to be restored on the Distribution system.
- 4. Maintaining the generation-load balance such that frequency is held at 60 Hz.
- Maintaining reactive balance and system voltages such that the 5% plus or minus criteria is not violated. 5.
- 6. Maintaining Transmission line ratings within the limits defined under OI 2-E.
- Coordinating, whenever possible, with the DS, the restoration of critical loads such as hospitals, police 7. and fire departments, military installations, gas, water, sewer plants and medical emergencies. 8.

Communications with the various system operator functions is extremely important to the restoration and should be handled via the specific phone numbers as follows:

1. 2. 3. 4. 5. 6.	Senior System Operator Eastern Switching (SO) Western/Central Switching (SO) Relay Department Generation Emergency	a) 577-3354 a) 577-3350 a) 577-3353 a) 577-3351 577-3352 352-0096	b) 352-0096 b) 352-2114 b) 352-2114 b) 352-2114 b) 352-2114
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,	ORANGE AND ROCKLAND UTILIT ELECTRIC SYSTEM OPERATI	ries, INC. Ions	
SUBJECT		OI 6-E-11	
BLACK START AN	ID SYSTEM RESTORATION PLAN	SHEET 3 of	32
<u>Executive Staff </u> ← → O System Status	&R Public Information		
Directing Group	Initial Deployment of Line Crews	Dir Operations	
Dir System Operations Mgrs: System Oper., Substation, Delivery	Initial Deployment	Relay/Substation Crews	
System Design 	→ Standby Support Services Strategist	Hydro Crew for GT and Hydro	·
D C R i o e r n q M e s u a c u e n t i s p i t t o v a s w e t e i f r o o n r V V V <u>Control Group</u> <u>Manager-System Operation</u>	Status and Coordinatio Coordinatio	n NYPP → CE CH PS	
<u>S.O.</u> <u>SPD</u> <u>SPD</u>	<u>S.S.O.</u> Fuel ←→ Gas Supply Disp	. : [*]	
<u>SO SO</u> Generation Western/Cen Dispatch Switching	SO Restoration of trat Eastern Distribution Switching Circuits	→ DS	

SUBJECT	# -	-E-11	
BLACK START AND SYSTEM RESTORATION PLAN	SHEET	4 o	f 32
Procedural Outline			

The restoration of the system will proceed in general as outlined below:

- System Assessment and Initial Operations I.
- Tie Line, Gas Turbine, Co-generation, and Hydro Black Start Procedure
- II. Startup Power for Lovett
- Startup Power for Bowline and Restoration of the 345 KV System under O&R authority Ш.
- ťΥ. Restoration of the 138 KV System and Islanded Systems
- V. Selective Simultaneous Restoration of 69KV Loops
- VI. South Mahwah - Hillburn - Montvale
 - Α. Hillburn - Harriman - Sugarloaf - West Point
 - В. Sterling Forest
 - C. Harings Corner
 - D. Western Division E.
- Restoration of the 34.5 KV Systems VII.
 - Eastern Α.
 - Western 8.
 - Central C.

System Assessment and Initial Operations 1.

The Senior System Operator will determine and use the most advantageous point of restart whether it be islanded generation, interconnection point or black start generation.

- Generation Following a major disruption on the bulk power interconnection which has caused a A. total shutdown or separation of systems, the Senior System Operator will communicate with all generating plants to make a determination whether any islanding of units has occurred. If units at Lovett have been islanded the following principles must be strictly observed,
 - A sustained high or low frequency can result in catastrophic failure of turbine generators. 1. According to the EPRI report on Operation Below Normal Frequency, turbines can run at 58.5 Hz for one hour before sustaining damage and as low as 56 Hz for only 10 minutes. It is, therefore, absolutely critical to return frequency to 60 Hz as rapidly as possible. Otherwise, a controlled shutdown of the islanded units is mandatory. Adjustment of turbine throttle control and the connection or disconnection of load will return frequency within limits.
 - High voltage in excess of 110% of rated voltage can cause severe damage if sustained 2. for longer than 10 minutes. Generator terminal voltage below 90% of rated voltage can cause instability - units going out of step or losing auxiliaries. Again, it is absolutely crucial to return voltages to within the plus or minus 5% criteria. This will be done by adjustment of generator excitation controls, connection or disconnection of load, and adjustment of load tap changers.
 - As quickly as possible supply islanded generators with sufficient load to meet their 3. minimum load requirements.

ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS	-			
SUBJECT	OI	6-E-11	l	
BLACK START AND SYSTEM RESTORATION PLAN	SHEET	5	of	3

B. Transmission - The Senior System Operator will check all the points and communicate with neighboring systems as to whether startup power is available from the interconnection. Should a tie be available proceed with the express route as outlined on the accompanying one-line diagram and described in this instruction.

If no startup is available from the tie points proceed with the express route to the black start generation (i.e., Hillburn GT, Shoemaker GT, Lederle Co. Gen. And/or Mongaup Hydro).

The following tie points must be opened by the SO prior to any attempted black start:

6108-2 194E-27-2Y T194W-541 671-94-4 T258-J3410 1300-4	Sugarloaf West Haverstraw West Haverstraw West Haverstraw South Mahwah Ramapo	1300-A 2300-4 2300-A	Ramapo Ramapo Ramapo
---	--	----------------------------	----------------------------

C. The Senior System Operator and System Operator will initiate the callout of company manpower by calling additional operating personnel required to staff the ECC Control Group, the Directing Group and the Distribution Supervisor who, in turn, will notify those people on the Required Notification list (see page 6).

Directing Group

G. V. Bubolo, Jr. - Vice President, Energy Delivery Services Ext. 2557 Home (914) 744-3178

V. J. Budd - Manager, System Operations Ext. 3211 Home (914) 343-3629

D. A. Hunt - Manager, Substation Operations Ext. 3104 Home (914) 361-4052

P. T. McGoldrick - Manager, Delivery System Design Ext. 2644 Home (914) 928-2688 Alternate - J. M. Koza

Ext. 2672 Home (914) 429-0946

<i>C</i>		
SUBJECT BLACK START AND SYSTEM RESTORATION PL	AN	OI 6-E-11 SHEET 6 of 32
REQUIRED NOTIFICATIONS		Home (914) 353-2343
R. J. Blederman, Jr Vice President, Operations	Ext. 2722 or 3430	
A. M. Freedman - Director, Public Policy & Commun Alternate - J. Lois	ications Ext. 2922 Ext. 2941	Home (914) 359-3309 Home (914) 634-6983
W. A. Palmatier, Jr Director, Electric Operations	Ext. 3358	Home (914) 268-9768
M. M. D'Auria - Manager, System Distribution	Ext. 3501	Home (914) 354-9550

The Director of Engineering & System Operations will inform the members of the Executive Staff of system status. The Manager of Substation Operations will notify the Substation and Relay Supervisors who will, in turn, be responsible for Initially calling all available personnel.

Relay and Substation men will be assigned to the following locations:

Hillburn1 Substation Crew1 Relay CrewWest Haverstraw1 Substation Crew1 Relay CrewHarings Corner) West Nyack) Sparkill)1 Substation Crew1 Relay CrewBurns1 Substation Crew1 Relay CrewShoemaker1 Substation Crew1 Relay CrewSugarloaf1 Substation Crew1 Relay CrewLadentown1 Substation Crew1 Relay CrewFranklin Lakes) South Mahwah)1 Substation Crew1 Relay CrewBowline1 Substation Crew1 Relay CrewMongaup1 Substation Crew1 Relay CrewMonroe) Harriman)1 Substation Crew1 Relay CrewMontvale) Pearl River)1 Substation Crew1 Relay Crew	Ramapo		1 Substation Crew	1 Relay Crew
West HaverstrawFounsation Grew1 Relay CrewHarings Corner1 Substation Crew1 Relay CrewSparkill11 Substation Crew1 Relay CrewBurns1 Substation Crew1 Relay CrewShoemaker1 Substation Crew1 Relay CrewSugarloar1 Substation Crew1 Relay CrewLadentown1 Substation Crew1 Relay CrewFranklin Lakes1 Substation Crew1 Relay CrewLovett1 Substation Crew1 Relay CrewBowline1 Substation Crew1 Relay CrewMongaup1 Substation Crew1 Relay CrewMonroe1 Substation Crew1 Relay CrewMonroe1 Substation Crew1 Relay CrewMontvale1 Substation Crew1 Relay Crew	-		1 Substation Crew	1 Relay Crew
West Nyack Sparkill1 Substation Crew1 Relay CrewBurns1 Substation Crew1 Relay CrewShoemaker1 Substation Crew1 Relay CrewSugarloaf1 Substation Crew1 Relay CrewLadentown1 Substation Crew1 Relay CrewFranklin Lakes1 Substation Crew1 Relay CrewLovett1 Substation Crew1 Relay CrewBowline1 Substation Crew1 Relay CrewMongaup1 Substation Crew1 Relay CrewMonroe1 Substation Crew1 Relay CrewMonroe1 Substation Crew1 Relay CrewMontvale1 Substation Crew1 Relay CrewMontvale1 Substation Crew1 Relay Crew	West Haverstrav	N	1 Substation Crew	1 Relay Crew
Burns1 Substation Crew1 Relay CrewShoemaker1 Substation Crew1 Relay CrewSugarioar1 Substation Crew1 Relay CrewLadentown1 Substation Crew1 Relay CrewFranklin Lakes1 Substation Crew1 Relay CrewSouth Matiwah1 Substation Crew1 Relay CrewLovett1 Substation Crew1 Relay CrewBowline1 Substation Crew1 Relay CrewMongaup1 Substation Crew1 Relay CrewMonroe1 Substation Crew1 Relay CrewMonroe1 Substation Crew1 Relay CrewMonroe1 Substation Crew1 Relay CrewMonroe1 Substation Crew1 Relay CrewMontvale1 Substation Crew1 Relay Crew	West Nyack))	1 Substation Crew	1 Relay Crew
ShoemakerFoundation GrewI Relay CrewSugarioaf1 Substation Crew1 Relay CrewLadentown1 Substation Crew1 Relay CrewFranklin Lakes1 Substation Crew1 Relay CrewSouth Mahwah1 Substation Crew1 Relay CrewLovett1 Substation Crew1 Relay CrewBowline1 Substation Crew1 Relay CrewMongaup1 Substation Crew1 Relay CrewMonroe1 Substation Crew1 Relay CrewMonroe1 Substation Crew1 Relay CrewMontvale1 Substation Crew1 Relay Crew	Bums		1 Substation Crew	1 Relay Crew
Sugarioar1 Substation Grew1 Relay CrewLadentown1 Substation Crew1 Relay CrewFranklin Lakes)1 Substation Crew1 Relay CrewSouth Mahwah1 Substation Crew1 Relay CrewLovett1 Substation Crew1 Relay CrewBowline1 Substation Crew1 Relay CrewMongaup1 Substation Crew1 Relay CrewMonroe)1 Substation Crew1 Relay CrewMonroe)1 Substation Crew1 Relay CrewMontvale)1 Substation Crew1 Relay Crew	Shoemaker		1 Substation Crew	1 Relay Crew
LadentownFranklin Lakes1Substation Crew1Relay CrewSouth Mahwah1Substation Crew1Relay CrewLovett1Substation Crew1Relay CrewBowline1Substation Crew1Relay CrewMongaup1Substation Crew1Relay CrewMonroe)1Substation Crew1Relay CrewMonroe)1Substation Crew1Relay CrewMontvale)1Substation Crew1Relay Crew	Sugarioaf		1 Substation Crew	1 Relay Crew
South Mahwah)1 Substation Crew1 Relay CrewLovett1 Substation Crew1 Relay CrewBowline1 Substation Crew1 Relay CrewMongaup1 Substation Crew1 Relay CrewMonroe)1 Substation Crew1 Relay CrewMonroe)1 Substation Crew1 Relay CrewMonroe)1 Substation Crew1 Relay CrewMontvale)1 Substation Crew1 Relay Crew	Ladentown		1 Substation Crew	1 Relay Crew
Lovett1 Substation Crew1 Refay CrewBowline1 Substation Crew1 Refay CrewMongaup1 Substation Crew1 Relay CrewMonroe)1 Substation Crew1 Relay CrewMonroe)1 Substation Crew1 Relay CrewMontvale)1 Substation Crew1 Relay Crew		,	1 Substation Crew	1 Relay Crew
Bowline1 Substation Crew1 Relay CrewMonroe)1 Substation Crew1 Relay CrewMonroe)1 Substation Crew1 Relay CrewMontvale)1 Substation Crew1 Relay Crew	Lovett		1 Substation Crew	1 Relay Crew
Mongaup1 Substation Crew1 Relay CrewMonroe)1 Substation Crew1 Relay CrewMontvale)1 Substation Crew1 Relay Crew	Bowline		1 Substation Crew	1 Relay Crew
Montroe) Foundation Crew 1 Relay Crew	Mongaup		1 Substation Crew	1 Relay Crew
Montvale) 1 Bibliation etch	Monroe Harriman)	1 Substation Crew	1 Relay Crew
)	1 Substation Crew	1 Relay Crew

	7	ELECTRIC SYSTEM OPERATIONS					
BJECT				01 6	-E-11		
BLA	CK START AND SYSTE	M RESTORATION PLAN	· .	SHEET	7	of	32
	The SO on generation addition, the Manager	will also notify the Bowline and Lovett P of Hydro and Gas Turbines of system co sites are immediately manned in prepar	Iant Superin onditions. T ation for the	ntendents The later v black st	and, will se art op	in e tha eratic	t all
	at Hillburn and the We	istem Division.					
		m Operations will call out an appropriate				t	
	354-9550) at least eve Operations and the Di	vill advise the Manager - System Distributery half hour of system status. He, in turn rector of Corporate Communications.					
	generation is available in his system.	n will notify the Gas SO of the status of t a, he will be requested to man his pumping the state of the state	ng stations				
D ,	t t the needbillit	rs on supervisory control will be opened by of inadvertently energizing blocks of co disturbance to generating machines.	by the SO. old load dur	This will ing the re	be do stora	one to tion)
West	<u>em Division</u> Rio	3-1D-2		·			
	Port Jervis	6-7-2K 11 6-8-2K 6-9-2K	-6-2				
		Line 7 distribution 7-	6-2K				

		10-6-2	
Shoemaker	11-1-2K 11-2-2K 11-3-2K 11-4-2K 11-5-2K 4-11-2		6-11-2 20-11-2 19-11-2 11-11-2 120-11-2
Silver Lake		122-113-2 113-1-2K 113-2-2K 113-3-2K	
Cuddebackville		10-5-2 4-5-2 3-5-2	
Mongaup		2-1-2K	
East Wallkill	15-1-28 15-2-28 15-3-28		15-4-2K 15-5-2K 15-6-2K

ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS 1 SUBJECT 6-E-11 0 BLACK START AND SYSTEM RESTORATION PLAN of 32 SHEET 8 Central Division 67-1-2K Sterling Forest 67-2-2K 71-1-2B 71-3-2B Harriman 71-2-28 71-4-28 71-7-28 71-5-2B 71-8-28 71-6-28 89-1-2K South Gashen 89-2-2K 89-3-2K 89-10-2K 89-11-2K 78-1-2K Ringwood 78-2-2K 79-**7-2**B 79-1-2B 79-4-2K West Milford 79-8-28 79-2-2B 79-5-2K 79-3-28 79-6-2K 80-1-2K Wisner 80-2-2K 80-3-2K 80-4-2K 80-5-2K 82-61-2 Monroe 83-61-2 61-1-2K 61-2-2K 61-3-2K 61-4-2K 84-1-2K Hunt 84-2-2K 82-1-28 Lake Road 82-2-2B

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SUBJECT		01	6-E-11	l	
BLACK START AND SYSTEM RES	TORATION PLAN	SHEET	r 9	of	32
	76-1-2K				
Blooming Grove	76-3-2K				
	76-4-2K				
and the second final to	73-1-2K				
Hightand Falls	73-5-2K				
	7 3- 6-2K			,	
Eastern Division					
Hillburn	17-1-2K				
THEOREM .	17-2-2K				
Montvale	29-1-28				
MDHMale	29-2-28				
	29-3-2B				
	29-4-2B				
	43-29-4 44-29-4				
	39-1-28				
Ailendale	39-2-2B				
	39-3-28				
	39-4-2B				
	39-5-2B				
	39-6-2B				
	39-7-28 39-8-28				
	53-1-2B				
Nanuet	53 -2 -2B				
	53- 3 -2B				
	53-4-2B	·			
	63-5-2B				
	53-6-2B 53-7-2B				
· · · · ·	53-8-2B				
Arnachum	54-1-2B				
Orangeburg	54-2-2B				
	54-3-28				
	54-5-2B 54-6-2B				

SUBJECT		10	6-E-11		
BLACK START AND SYSTEM RES	TORATION PLAN	SHEET	[.] 10	of	3:
Grand Avenue	60-1-2B		_	·	
Giallo Atendo	60-2-2B				
	60-3-2B 60-4-2K				
	60-5-2K				
Upper Saddle River	49-1-28 49-2-28				
• •	49-2-2D 49-3-2B				
	49-3-20 49-4-2B				
	50-1-2B				
Sparkill	50-1-25 50-2-28				
	50-2-20 50-3-2B				
	50-4-28				
	52-1-2B				
South Mahwah	52-2-2B				
	62-3-28				
	52-4-2B				
	58-1-2K		-		
	58-2-2K 58-3-2K				
Franklin Lakes	35-5-2B				
	35-6-2B 35-7-2B				
	35-7-20 35-8-2B				
	35-9-2B				
	35-10-2B				
-	36-1-2K				
Oakland	36-2-2K				
	36-3-2K				
	36 - 4-2K				
Cresskill	37-1-2B				
CA CASIMI	37-2-2B				
	37-3-2B	1			
Harings Corner	30-1-2B				
storbiga deriver	30-2-2B				
	30-3-2B				
	30-4-2K 30-5-2K				

O&R EDCC

	Congers West Haverstraw Closter	22-1-28 22-3-28 22-5-28 22-5-28 27-2-28 27-2-28 27-3-28 27-3-28 27-5-28 27-5-28 27-5-28 27-6-28 27-8-28 28-2-28 28-2-28 28-3-28 28-3-28 28-5-28 28-5-28 28-6-28 28-5-28	Ladentown st			11	of 32
Congers 22-1-28 22-3-28 22-5-28 22-5-28 22-6-28 West Haverstraw 27-3-28 27-3-28 27-5-28 27-5-28 27-5-28 27-5-28 27-5-28 27-5-28 27-5-28 27-5-28 27-5-28 27-5-28 27-5-28 27-5-28 27-5-28 27-5-29 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 45-228 45-5-28 45-5-28 45-5-28 45-5-28 45-5-28 45-728	Congers West Haverstraw Closter	22-1-28 22-3-28 22-5-28 22-5-28 27-2-28 27-2-28 27-3-28 27-3-28 27-5-28 27-5-28 27-5-28 27-6-28 27-8-28 28-2-28 28-2-28 28-3-28 28-3-28 28-5-28 28-5-28 28-6-28 28-5-28	Ladentown st				
Congers 22.3-28 22.5-28 22-6-28 West Haverstraw 27.1-28 27-3-28 27-3-28 27-4-28 27-3-28 27-4-28 27-5-28 27-5-28 (Ladentown station service) 27-7-7-8 28-2-28 28-2-28 28-3-28 28-3-28 28-3-28 28-4-28 28-5-28 28-5-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-5-28 28-6-28 28-5-28 28-6-28 28-5-28 28-6-28 28-5-28 28-6-28 28-5-28 28-6-28 28-5-28 45-5-28 45-5-28 45-6-28 45-6-28 45-6-28 45-7-28 45-6-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 51-3-28	West Haverstraw Closter	22-3-28 22-5-28 22-6-28 27-2-28 27-2-28 27-3-28 27-4-28 27-5-28 27-5-28 27-6-28 27-7-28 27-8-28 28-2-28 28-3-28 28-3-28 28-4-28 28-5-28 28-6-28 28-6-28 28-7-28	Ladentown st	ation servic	:e)		
Congers 22.3-28 22.5-28 22-6-28 West Haverstraw 27.1-28 27-3-28 27-3-28 27-4-28 27-3-28 27-4-28 27-5-28 27-5-28 (Ladentown station service) 27-7-7-8 28-2-28 28-2-28 28-3-28 28-3-28 28-3-28 28-4-28 28-5-28 28-5-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-5-28 28-6-28 28-5-28 28-6-28 28-5-28 28-6-28 28-5-28 28-6-28 28-5-28 28-6-28 28-5-28 45-5-28 45-5-28 45-6-28 45-6-28 45-6-28 45-7-28 45-6-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 45-8-28 51-3-28	West Haverstraw Closter	22-3-28 22-5-28 22-6-28 27-2-28 27-2-28 27-3-28 27-4-28 27-5-28 27-5-28 27-6-28 27-7-28 27-8-28 28-2-28 28-3-28 28-3-28 28-4-28 28-5-28 28-6-28 28-6-28 28-7-28	Ladentown st	ation servic	ce)		
22-5-28 22-6-28 West Haverstraw 27-1-28 27-3-28 27-3-28 27-4-28 27-6-28 27-5-28 27-6-28 27-7-28 27-6-28 27-7-28 27-6-28 28-3-28 28-3-28 28-3-28 28-6-28 28-5-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-7-28 45-3-28 45-7-28 45-5-28 45-6-28 45-7-28 45-8-28 45-7-28 45-8-28 51-1-28 51-1-28 51-3-28 51-3-28 51-3-28	West Haverstraw Closter	22-5-28 22-6-28 27-2-28 27-3-28 27-3-28 27-5-28 27-5-28 27-6-28 27-7-28 27-8-28 28-2-28 28-3-28 28-3-28 28-5-28 28-5-28 28-6-28 28-6-28	Ladentown st	ation servio	ce)		
22-6-28 West Haverstraw 27-1-28 27-3-28 27-3-28 27-3-28 27-3-28 27-3-28 27-3-28 27-5-28 (Ladentown station service) 27-7-28 28-3-28 28-3-28 28-3-28 28-3-28 28-3-28 28-5-28 28-3-28 28-5-28 28-3-28 28-5-28 28-3-28 28-5-28 28-3-28 28-5-28 28-3-28 28-5-28 28-3-28 28-5-28 28-3-28 28-5-28 28-3-28 28-5-28 28-3-28 28-5-28 28-3-28 28-5-28 28-3-28 28-5-28 28-3-28 28-5-28 28-3-28 28-5-28 45-5-28 45-5-28 45-5-28 45-5-28 45-5-28 45-7-28 45-8-28 45-7-28 45-8-28 45-8-28 51-1-28 51-1-28 51-3-28 51-3-28 51-3-28	Closter	22-6-28 27-1-28 27-2-28 27-3-28 27-3-28 27-5-28 27-5-28 27-6-28 27-7-28 27-8-28 28-2-28 28-3-28 28-3-28 28-5-28 28-6-28 28-6-28 28-7-28	Ladentown st	ation servic	ce)		
West Haverstraw 27.1-28 27.3-28 27.3-28 27.3-28 27.4-28 27.5-28 (Ladentown station service) 27.7-28 28-2-28 28-2-28 28-3-28 28-3-28 28-3-28 28-4-28 28-5-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-7-28 28-5-28 28-6-28 28-5-28 28-6-28 28-5-28 28-6-28 28-5-28 28-6-28 28-5-28 28-6-28 28-5-28 28-6-28 28-5-28 28-3-28 45-1-28 45-3-28 45-2-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 51-1-28 51-1-28 51-3-28	Closter	27-1-28 27-2-28 27-3-28 27-5-28 27-5-28 27-6-28 27-7-28 27-8-28 28-2-28 28-3-28 28-3-28 28-5-28 28-5-28 28-6-28 28-6-28	Ladentown st	ation servic	ce)		
West Havers Liew 27-2-28 27-3-28 27-3-28 27-5-28 27-5-28 27-6-28 (Ladentown station service) 27-7-28 28-2-28 28-3-28 28-3-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 45-3-28 45-3-28 45-3-28 45-3-28 45-5-28 45-6-28 45-7-28 45-6-28 45-7-28 45-6-28 45-7-28 45-6-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 51-1-28 51-1-28 51-3-28 51-3-28 51-3-28	Closter	27-2-28 27-3-28 27-4-28 27-5-28 27-6-28 27-6-28 27-8-28 28-2-28 28-3-28 28-3-28 28-5-28 28-5-28 28-6-28 28-6-28 28-7-28	Ladentown st	ation servic	ce)		
West Havers Liew 27-2-28 27-3-28 27-3-28 27-5-28 27-5-28 27-6-28 (Ladentown station service) 27-7-28 28-2-28 28-3-28 28-3-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 28-5-28 45-3-28 45-3-28 45-3-28 45-3-28 45-5-28 45-6-28 45-7-28 45-6-28 45-7-28 45-6-28 45-7-28 45-6-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 45-7-28 51-1-28 51-1-28 51-3-28 51-3-28 51-3-28	Closter	27-2-28 27-3-28 27-4-28 27-5-28 27-6-28 27-6-28 27-8-28 28-2-28 28-3-28 28-3-28 28-5-28 28-5-28 28-6-28 28-6-28 28-7-28	Ladentown st	ation servio	ce)		
27-4-28 27-5-28 27-6-28 (Ladentown station service) 27-7-28 28-28 28-3-28 28-3-28 28-4-28 28-5-28 28-5-28 28-5-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-9-28 28-7-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-7-28 28-6-28 28-7-28 45-6-28 45-7-28 45-6-28 45-7-28 45-6-28 45-7-28 45-8-28 45-7-28 45-8-28 45-8-28 45-7-28 45-8-28 45-7-28 45-8-28 51-1-28 51-1-28 51-3-28		27-4-28 27-5-28 27-6-28 27-7-28 27-8-28 28-2-28 28-3-28 28-3-28 28-4-28 28-5-28 28-6-28 28-6-28 28-7-28	Ladentown st	ation servio	ce)		
27-5-28 27-6-28 (Ladentown station service) 27-7-28 27-7-28 27-8-28 28-2-28 28-3-28 28-3-28 28-4-28 28-5-28 28-6-28 28-6-28 28-7-28 28-7-28 28-6-28 28-9-28 New Hempstead 45-1-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 51-3-28 51-3-28 51-3-28		27-5-28 27-6-28 27-7-28 27-8-28 28-2-28 28-3-28 28-3-28 28-4-28 28-5-28 28-6-28 28-6-28 28-7-28	Ladentown st	ation servio	ce)		
27-6-2B (Ladentown station service) 27-7-28 27-7-28 27-7-28 27-7-28 28-2-28 28-3-28 28-3-28 28-5-28 28-5-28 28-5-28 28-5-28 28-7-28 28-5-28 28-7-28 28-5-28 28-9-28 New Hempstead 45-1-28 45-3-28 45-3-28 45-3-28 45-3-28 45-5-28 45-7-28 45-7-28 45-8-28 45-7-28 45-8-28 45-7-28 45-8-28 45-7-28 45-8-28 45-7-28 45-8-28 45-7-28 45-8-28 45-7-28 45-8-28 45-7-28 45-8-28 45-8-28 45-7-28 45-8-28 45-7-28 45-8-28 51-128 51-128 51-3-28		27-6-28 27-7-28 27-8-28 28-2-28 28-3-28 28-3-28 28-4-28 28-5-28 28-6-28 28-6-28 28-7-28	Ladentown st	ation servic	ce)		
27-7-28 27-8-28 28-2-28 28-3-28 28-4-28 28-5-28 28-6-28 28-6-28 28-7-28 28-6-28 28-7-28 28-8-28 28-9-28 New Hempstead 45-1-28 45-2-28 45-3-28 45-3-28 45-4-28 45-5-28 45-6-28 45-7-28 45-8-28 Taliman 51-1-28 51-2-28 51-3-28		27-7-28 27-8-28 28-2-28 28-3-28 28-4-28 28-5-28 28-5-28 28-5-28 28-7-28	Ladentown st	ation servic	20)		
27-8-28 Closter 28-2-28 28-3-28 28-4-28 28-5-28 28-5-28 28-6-28 28-7-28 28-9-28 New Hempstead 45-1-28 45-3-28 51-3-28 51-3-28		27-8-28 28-2-28 28-3-28 28-4-28 28-5-28 28-5-28 28-5-28 28-7-28					
Closter 28-2-28 28-3-28 28-4-28 28-6-28 28-6-28 28-7-28 28-7-28 28-9-28 28-9-28 28-9-28 45-1-28 45-3-28 51-3-28 51-3-28		28-2-28 28-3-28 28-4-28 28-5-28 28-5-28 28-5-28 28-7-28					
Closter 28-3-28 28-4-28 28-5-28 28-6-28 28-7-28 28-8-28 28-9-28 New Hempstead 45-1-28 45-2-28 45-3-28 45-3-28 45-3-28 45-5-28 45-6-28 45-7-28 45-8-28 Tallman 51-1-28 51-3-28 51-3-28		28-3-28 28-4-28 28-5-28 28-6-28 28-7-28					
Closter 28-3-28 28-4-28 28-5-28 28-6-28 28-7-28 28-8-28 28-9-28 New Hempstead 45-1-28 45-2-28 45-3-28 45-3-28 45-3-28 45-5-28 45-6-28 45-7-28 45-8-28 Tallman 51-1-28 51-3-28 51-3-28		28-3-28 28-4-28 28-5-28 28-6-28 28-7-28					
28-4-28 28-5-28 28-6-28 28-7-28 28-8-28 28-9-28 New Hempstead 45-1-28 45-2-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 45-3-28 51-1-28 51-2-28 51-3-28	Neur Homosfood	28-4-28 28-5-28 28-6-28 28-7-28					
28-5-2B 28-6-2B 28-7-2B 28-8-2B 28-8-2B 28-8-2B 28-8-2B 28-8-2B 28-8-2B 28-8-2B 28-8-2B 28-8-2B 45-1-2B 45-2-2B 45-3-2B 45-4-2B 45-4-2B 45-6-2B 45-7-2B 45-8-2B Taliman 51-1-2B 51-3-2B 51-3-2B 51-3-2B	Neur Homosfood	28-5-2B 28-6-2B 28-7-2B					
28-6-28 28-7-28 28-8-28 28-9-28	Neur Homostood	28-6-2B 28-7-2B					
28-7-28 26-8-28 28-9-28 New Hempstead 45-1-28 45-2-28 45-3-28 45-4-28 45-4-28 45-5-28 45-6-28 45-7-28 45-8-28 45-8-28 45-8-28 Taliman 51-1-28 51-2-28 51-3-28 51-3-28 51-3-28	Neur Llamaciaari	28-7-2B					
26-8-28 28-9-28 New Hempstead 45-1-28 45-2-28 45-3-28 45-4-28 45-5-28 45-6-28 45-7-28 45-8-28 45-8-28 Taliman 51-1-28 51-3-28 51-3-28	Neur Hampelood	26-8-28					
28-9-28 New Hempstead 45-1-28 45-2-28 45-3-28 45-4-28 45-5-28 45-6-28 45-6-28 45-7-28 45-8-28 Taliman 51-1-28 51-2-28 51-3-28	New Hometood						
New Hempslead 45-2-28 45-3-28 45-4-28 45-4-28 45-6-28 45-6-28 45-8-28 Taliman 51-1-28 51-2-28 51-3-28	New Homodood	28-9-2B					
45-2-25 45-3-28 45-4-28 45-5-28 45-6-28 45-7-28 45-8-28 Taliman 51-1-28 51-2-28 51-3-28							
45-4-28 45-5-28 45-6-28 45-7-28 45-8-28 Taliman 51-1-28 51-2-28 51-3-28	12016 + LAssiburgeran						
45-5-2B 45-6-28 45-7-2B 46-8-28 Taliman 51-1-28 51-2-28 51-3-28			•				
45-6-28 45-7-28 45-8-28 Taliman 51-1-28 51-2-28 51-3-28							
45-7-28 46-8-28 Taliman 51-1-28 51-2-28 51-3-28							
45-8-28 Taliman 51-1-28 51-2-28 51-3-28							
Taliman 51-1-2B 51-2-2B 51-3-2B							
51-2-2B 51-3-2B	· ·	45-8-28					
51-2-2B 51-3-2B	Talman						
) (3)() (102.1	51-2-2B					
51-4-2B (ECC Feed)		51-3-2 B					
51-5-2B			(ECC Feed)				

,	ORANGE A	AND ROCKLAND UTILITIES, INC. IRIC SYSTEM OPERATIONS		. <u></u>		
SUBJECT	1	ىلۇر يېرىيە بىلىرىيىنىڭ بىلىكە ئىلەر يېرىيى يېرىيىكە ئىلى يېرىيىكە ئىلىرىيى يېرىكە ئىلىرىيى يېرىيە ئىلىرىيى يە يېرىيى يېرىيى يېرىي	O] 6-	E-11		
BLACK START AN	D SYSTEM RES	TORATION PLAN	SHEET	12 (of	32
Bums		19-8-28 19-9-28 19-12-28 19-13-28 19-10-28 19-11-28 19-14-28 (ECC Feed) 19-15-28				
West Nyack		21-9-28 21-10-28 21-11-28 21-12-28 21-13-28 21-14-28 21-15-28 21-15-28 21-16-28 21-17-28				
Ford		38-1-28 38-2-28 38-3-2K 38-4-2K				
Sloatsburg		42-1-2B 42-2-2B 42-3-2B				
If in service	and on supervise	ory control, open Mobile low side: Mobile #1 Mobile #2 Mobile #3 Mobile #4				
E. In preparati	on for receiving s	startup power				
At Lovett:	Direct the L the station s	ovett Senior Shift Supervisor to open service and startup busses off Banks.	all low side brea 533, 647, 733.	kers on		
At Bowline:	Direct the B on the static	Bowline Senior Shift Supervisor to ope on service and startup busses off Ban	n all low side bre iks 555 and 655.	akers		
F. Direct avail at the follow	able Relay Techi ving stations:	nicians and Substation Electricians to	reset the under	frequen	су г	elays
Bu Sp	rns arkill	Banks 819 and 719 Bank 150				

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BLACK START AND SYSTEM RESTORATION PLAN

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G. Reset via supervisory the under frequency relays at the following stations:

II. Tie Line, Gas Turbine and Hydro Black Start Procedure

Critical to the recovery of the O&R system is the availability of an energized tie or the success achieved in the black start of the Hillburn Gas Turbine or Lederle Cogen units.

The path for restart will be set up to follow an isolated express route which would allow startup power from any of the following points to Lovett Bank 533, 647 and 733:

West Haverstraw	Hillburn GT
	Sugarloaf
Ramapo	Lederle Co-generators
South Mahwah	Federic co.8eueranio

Concurrent with the procedure to provide start up power to Lovett, we will attempt to black start the Mongaup River Hydro and the Shoemaker Gas Turbine to form an island in the Western Division. (See Section IIG).

A. Black Start Procedure from West Haverstraw to Lovett

At Lovett

- 1. Close or check closed switch L-33-2X
- 2. Close or check closed switch L-33-2Y
- 3. Close or check closed switch 733-2X
- 4. Close or check closed switch 733-2Y

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Close or check closed switch 147-33-2X 5.

- Close or check closed switch 147-33-2Y 6.
- Open or check open switch 333-2X 7.
- Open or check open switch 333-2Y 8.
- Open or check open switch 55-33-2X 9.
- Open or check open switch 55-33-2Y 10.
- Open or check open switch 633-A 11.
- Close or check closed switch 147-2 12.
- Open or check open switch 56-47-2 13.
- Open or check open switch 447-2 14.
- Close or check closed switch T1-47-2 15.
- Open or check open switch 53-47-2 16.
- Close or check closed switch 647-2 17.
- Close or check closed switch T2-47-2
- 18. Open or check open switch 547-2 19.
- Close or check closed switch 54-47-2 20

At West Haverstraw

(West Haverstraw 345 to Lovett - Line 54)

If station is energized (345KV)

- Open or check open switch 53-27-2Y 1.
- Open or check open switch 530-27-2X 2.
- Open or check open switch T53-530 З.
- Open or check open switch 541-27-2X 4.
- Close or check closed switch T54-227 5.
- Close or check closed switch 54-27-2Y 6.
- Open or check open switch 194E-27-2Y 7.
- Open or check open switch T194W-541 8.
- Close or check closed switch 671-94-4 9.
- Close or check closed switch 194E-27-2Y
- 10. (This supplies startup power to Lovett Banks 533, 647 and 733 -Note Dist. Banks 127 & 227 available for voltage control.)

If station is dead

- Open or check open switch 194E-27-2Y 1.
- Open or check open switch 53-27-2Y 2.
- Open or check open switch 530-27-2X З.
- Open or check open switch T53-530 4.
- Close or check closed switch 541-27-2X 5.
- Close or check closed switch T64-227
- 6.

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ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS

BLA	CK START AND SYSTEM RESTORATION PLAN		6-E-11		
BLA	CK START AND SYSTEM RESTORATION PLAN				
		SHEET	15	of	3
B .	If no power is available at West Haverstraw, proceed on to Ramapo for available. (Ram 345 to Burns to West Haverstraw to Lovett, Lines 60	or black stari ,541, 54)	power	if	
	At Burns 1. Open or check open switch 531-19-2X				
	a stand and multab 519-7				
	 Open or check open switch 1702-531 Open or check open switch 1702-531 				
	6. Close of check closed switch T541-60				
	Z Open or check open switch 702-19-21				
	8. Open or check open switch 541-19-2Y				
	At Ramapo				
	If 345 KV station is energized				
	1 Open or check open switch 51-2X				
	2 Open or check open switch 25-2X				
	3 Open or check open switch T-50-5102				
	 Open or check open switch T-52-26-2 				
	5. Open or check open switch 60-2Y				
	6. Open or check open switch 52-2Y				
	7. Close or check closed switch 2300-A				
	 Close or check closed switch 2300-4 Close or check closed switch 60-2Y which will give Banks 5. 	33, 647 and	733 sta	irtup	
	 Close or check closed switch 60-21 which whight back a power. 				
•	With no power available at Ramapo, we will proceed on to South Ma	hwah or Hill	ourn ga	as tur	bi
C.	and the Lederle's co-generators.				
	If South Mahwah 345 KV station is energized: (South Mahwah 345 to Lovett, lines 51, 60, 541, 54)				
	At Ramapo				
	1 Open or check open 2400-4				
	7 Open of check open 2300-A				
	3 Close or check closed 60-2Y				
	4. Close or check closed T60-51-2				
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	CK START AND SYSTEM RESTORATION PLAN	SHEE	T 15	of	3:
	At South Mahwah				
	A Case of check open Switch (200-00)				
	A A A A A A A A A A A A A A A A A A A				
	c Ciose of check closed switch a r-00-2X				
	When power becomes available to South Mahwah 345 KV station we w	vill close	switch T	258-	
	When power becomes available to South Mahwan 345 KV statut we to J3410 supplying startup power to Lovett. Allendale distribution availab	le if need		age	,
	J3410 supplying startup power to Lovett. Allendale distribution available control, also. Bank 658 & 452 for station service at South Mahwah 345	i yard and	1 138-03	yaiv	÷
	If power is not available at South Mahwah we will attempt a black start	from the	Hilburt	GT.	
Ð.	If power is not available at South Mahwah we will attempt a black start				
	(Hillburn to Lovett, lines 52, 60, 541, 54)				
	At Ramapo				
	A Comp of check open switch (00-31-2				
	2 Close or check closed switch bu-41				
	3. Close or check closed switch 52-2Y				
	At Hilburn				
	1 Open or check open switch 8/-1/-2				
	a Open of check open SWICD 31-1/***				
	2 Open of check open switch 23-17-41	•			
	Open or check open switch 1917-23				
	5 Open of check open switch 31-1/-2A				
	C Open of check open switch 1317-05				
	7 Open of check open switch 1-69-58				
	 Open or check open switch G1-1/-2A 				
	a Open of check open SWICD 39-11-44				
	10. Open or check open switch 65-17-2X				
	11 Open of check open switch 9 11-20				
	12. Close or check closed switch 617-2Y				
	13. Close or check closed switch 317-2Y				
	Initiate black start of the Hilburn GT via CRT control. Machine shoul	d start, co	ome up	to spe	360
	Initiate black start of the Hilburn GT via City of burger to Lovett 3, 4 a and close generator breaker supplying start up power to Lovett 3, 4 a	ina o.			
	The any topcon we will proceed	with the i	express	route	∋ fr
E.	Should the Hillburn GT black start fail for any reason we was process Hillburn to the Sugarloaf tie for startup power. (Sugarloaf to Lovett, li	nes 26, 6	0, 541,	<u>54.)</u>	
	Hillburn to the Sugarloat be for startup power: (ougarloans and				
	At Hiliburn				
	1. Open or check open 617-2Y				
	2. Open or check open 317-2Y				

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At Ramapo

- Open or check open 1300-A 1.
- Open or check open 1300-4 2.
- Open or check open 52-2Y 3.
- Open or check open 60-2Y 4.
- Close or check closed 26-2X 5.
- Close or check closed 51-2X 6.
- Close or check closed T60-51-2 7.

At South Mahwah

- Open or check open 51-58-2X 1.
- Open or check open T51-585 2.

At Sugarloaf

- Open or check open switch 993-108-2 1.
- Open or check open switch 313-108-2 2.
- Open or check open switch 25-108-2 3.
- Open or check open switch 27-108-2 4.
- Open or check open switch 24-108-2 5.
- Close or check closed switch T1-108-2 6.
- Close or check closed switch 7108-2 7.

When power becomes available from Central Hudson to Bank 6108 we will close switch 6108-2 providing startup power to Lovett.

Should the Lederle co-generators be available for service, advise them we will utilize their black start capability to provide start up for the Lovett units. (Pearl River to Lovett, lines 491, 49, 541, F. 54.)

At Pearl River

- Open or check open 50-31-2 1.
- Open or check open 45-31-2 2.
- Open of check open 491-31-2 3.

At Montvale

Open or check open 491-29-2 1.

At Nanuet

Close or check closed T1-53-: 1.

1 01 6-E-11 SUBJECT BLACK START AND SYSTEM RESTORATION PLAN 18 of 32 SHEET At Burns Open or check open 319-2 1. Open or check open 419-2 2. Open or check open 591-19-2 3. Close or check closed 519-2 4. Close or check closed T2-19-2 5. Close or check closed 49-19-2 6. Open or check open 819-2 7. Open or check open 531-19-2X 8. Close or check closed 60-19-2X 9. Close or check closed T541-60 10. Open of check open 541-19-2Y 11. At Ramapo Open or check open 60-2Y 1. Open or check open T60-51-2 2. Request Lederle to black start their co-generators. Coordinate generation load balance and system voltages to minimize equipment damage with the Lederle operator. When units are stabilized, request them to energize the 34.5KV yard at Pearl River. When power becomes available close 491-31-2 which provides start up power to Lovett.

Mongaup and Shoemaker Black Start - Western Division Island

At Shoemaker

G.

- Open or check open switch 4-11-2 1,
- Open or check open switch 6-11-2 2.
- Open or check open switch 11-11-2 3.
- Open or check open switch 19-11-2
- 4. Open or check open switch 20-11-2
- 5. Open or check open switch 120-11-2
- 6.
- Open or check open switch 12-11-2 7.
- Open or check open switch 13-11-2 8,
- Open or check open switch 119-11-2 9.
- Open or check open switch 24-11-2 10.
- Open or check open switch C1-11-2 11.
- Open or check open switch 25-11-2 12.
- Open or check open switch T211-5 13.
- Open or check open switch 27-11-2X 14.
- Open or check open switch T111-27
- 15.

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ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS Ż 6-E-11 01 SUBJECT BLACK START AND SYSTEM RESTORATION PLAN of 32 SHEET 19 Close or check closed switch 811-2 16. Close or check closed switch 211-11-2Y 17. Close or check closed switch 111-11-2Y 18. Close or check closed switch 211-2 19. Glose or check closed switch 111-2 20. Close or check closed switch 511-2 21 At Swinging Bridge Open or check open switch 11-2 1. Open or check open switch 21-2 2. At Mongaup Close or check closed switch 12-2-2 1. Close or check closed switch 131-2-2 2. Close or check closed switch 15-2-2 3. Close or check closed switch 9-2-2 4. Close or check closed switch 52-2 5. At Rio Open or check open switch 18-3-2 1. Close or check closed switch 53-2 2. Close or check closed switch 15-3-2 3. Close or check closed switch 3-1D-2K 4. Close or check closed switch 13-2 5. At Shoemaker Initiate black start of the Shoemaker GT. Machine should start, come up to speed and close generator breaker. Pick up Bank 311 distribution circuits by:

- Close or check closed switch 11-1-2K 1.
- Close or check closed switch 11-2-2K 2.
- Close or check closed switch 11-3-2K 3.
- Close or check closed switch 11-4-2K 4.
- Close or check closed switch 12-11-2 (This provides startup power for Mongaup, Swinging Bridge and Rio energizes the St. Joseph and Glen Spey distribution circuit.) 5.
- Synchronize Mongaup, Swinging Bridge and Rio machines 6.
- Close or check closed switch 13-11-2 (This energizes the Shoemaker 69KV Y Bus, the 34.5KV cables and Bank 911 station service.) This also energizes Cuddebackville 7. substation.
- Close or check closed switch T211-5 8.

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BLACK START AND SYSTEM RESTORATION PLAN	SHEET	20	of	32

Should excess generation be available at this point in the restoration, switch 119-11-2 should be closed and the East Wallkill and Silver Lake distribution circuits re-energized. This will conclude Islanding of the Western Division in which all 59KV facilities have been restored. Lines 24, 25 and 27 will be restored when synchronization of this Island is ready.

Should the black start of the Shoemaker GT fail for any reason, we will proceed with Mongaup H. Hydro black start.

At Shoemaker

- Close or check closed switch 12-11-2 1.
- Close or check closed switch 13-11-2 2.

At Rio

- Open or check open switch 18-3-2 1.
- Close or check closed switch 53-2 2.
- Close or check closed switch 15-3-2 3.
- Close or check closed switch 3-1D-2K 4
- Close or check closed switch 13-2 5.

At Mongaup

- Open or check open switch 12-2-2 1.
- Open or check open switch 131-2-2 2.
- Open or check open switch 15-2-2 3.
- Open or check open switch 52-2 4.
- Open St. Joseph distribution circuit bkr. 2-1-2K 5.
- Close or check closed switch 9-2-2 θ.
- Place Mongaup #1 governor on manual control 7.
- Open governor to bring machine up to 60 cycles 8.
- Close on Mongaup #1 generator breaker on 2300 KV bus (This will give plant auxiliary 9.
- power of -1MW-) Place governor for Mongaup #1 on automatic control
- 10. Synchronize Mongaup #2, #3, and #4 to bus
- 11. Close St. Joseph distribution circuit bkr. 2-1-2K
- Close or check closed switch 52-2 (This energizes and picks up auxiliary for Swinging 12. 13.
- Bridge #1 and #2) Startup and synchronize Swinging Bridge #1 and #2
- Close or check closed switch 15-2-2 (This picks up Glen Spey distribution circuit and 14. 15. provides startup for Rio #1 and #2)
- Synchronize Rio #1 and #2 on line
- Close or check closed switch 12-2-2 (This energizes Bk 311 and the Shoemaker 69KV X 16. Bus) As loading permits restore the distribution circuits off Bank 311. 17.

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ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS

BLACK START AND SYSTEM RESTORATION PLAN SHEET 21 of 3 18. Close or check closed switch 11-1-2K 19. Close or check closed switch 11-2-2K 20. Close or check closed switch 11-3-2K 21. Close or check closed switch 11-4-2K 22. Close or check closed switch 11-4-2K 23. Close or check closed switch 13-2-2 (This energizes the Shoemaker 69KV Y Bus, the 34.5KV upper and lower buses and Bank 911 station service) This will conclude islanding of the Western Division. Further attempts to start the Shoemaker G Turbine should be attempted when the unit is once again made available.	SUB	JECT			• .															01	e	i-E-11			
 Close or check closed switch 11-2-2X Close or check closed switch 11-2-2X Close or check closed switch 11-4-2X Close or check closed switch 131-2-2 (This energizes the Shoemaker 69KV Y Bus, the 34.5KV upper and lower buses and Bank 911 station service) This will conclude islanding of the Western Division. Further attempts to start the Shoemaker G Turbine should be attempted when the unit is once again made available. Startup Power for Lovett Coordination for Startup Power When Banks 533, 647 or 733 become energized providing startup power for Lovett 3, 4, or 5, it will be necessary to closely coordinate the startup of plant auxiliaries with the speed of the milli be necessary to closely coordinate the startup of plant auxiliaries with the speed of the will be necessary to closely coordinate the startup of plant auxiliaries at the O&R system or externa the the points. Neighboring System Operators who offer startup power must be informed of requirement at Lovett, approximately 5MW to start one unit. Operators at gas turbine and hydro stations must be notified immediately prior to load being put on their units. Determination of the Preferred Unit After consultation with the Lovett Senior Shift Supervisor, a determination will be made regardi which unit can be more readily brought up to speed and synchronized. Interim Operations While the startup of the preferred Lovett unit is being accomplished, a restoration of power to t ECC will be accomplished: Close or check closed switch 541-19-2Y (This energizes Burs Bank 719.) Close or check closed switch 541-19-2Y (This energizes the 13.2 primate to the ECC.) If more load is required to stabilize the Hilburn GT, close the distribution breakers as 		BLAC	K STAF	RT /	/ND \$	SYST	TEM	(RE	STO	RAT	ri Ol	N PL	.AN							SHE	ET	21	01		3:
 A. Coordination for Startup Power When Banks 533, 647 or 733 become energized providing startup power for Lovett 3, 4, or 5, it will be necessary to closely coordinate the startup of plant auxiliaries with the speed of the machines following this load, whether those machines be internal to the O&R system or externativia the tie points. Neighboring System Operators who offer startup power must be Informed of requirement at Lovett, approximately 6MW to start one unit. Operators at gas turbine and hydrostations must be notified immediately prior to load being put on their units. B. Determination of the Preferred Unit After consultation with the Lovett Senior Shift Supervisor, a determination will be made regardli which unit can be more readily brought up to speed and synchronized. C. Interim Operations While the startup of the preferred Lovett unit is being accomplished, a restoration of power to the ECC will be accomplished: At Burns 1. Close or check closed switch 541-19-2Y (This energizes Burns Bank 719.) 2. Close or check closed switch 19-14-2B (Normal feed) (This energizes the 13.2 primated to the ECC.) 3. If more load Is required to stabilize the Hillburn GT, close the distribution breakers as 			19. 20. 21. 22.		lose lose lose lose 4.5K	or ch or ch or ch or ch / upp	ieck ieck ieck ieck ieck per t	clos clos clos clos clos and	sed : sed : sed : sed : lowe	switci switc switc switc er bu	n 1 h 1 h 1 ses	1-2 1-3 1-4 31-2 and	2K 2K 2K 2-2 (Bar	sion	Fu	ther	attei	mpts	to	start					
 When Banks 533, 647 or 733 become energized providing startup power for Lovett 3, 4, or 5, it will be necessary to closely coordinate the startup of plant auxiliaries with the speed of the machines following this load, whether those machines be internal to the O&R system or external via the tip points. Neighboring System Operators who offer startup power must be informed of requirement at Lovett, approximately 5MW to start one unit. Operators at gas turbine and hydro stations must be notified immediately prior to load being put on their units. B. Determination of the Preferred Unit After consultation with the Lovett Senior Shift Supervisor, a determination will be made regardli which unit can be more readily brought up to speed and synchronized. C. Interim Operations While the startup of the preferred Lovett unit is being accomplished, a restoration of power to t ECC will be accomplished: <u>At Burns</u> Close or check closed switch 541-19-2Y (This energizes Burns Bank 719.) Close or check closed switch 19-14-2B (Normal feed) (This energizes the 13.2 primated to the ECC.) If more load Is required to stabilize the Hillburn GT, close the distribution breakers as 	41.	Startu	ip Powe	er fo	r Love	ett																			
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 After consultation with the Lovett Senior Shift Supervisor, a determination will be made regarding which unit can be more readily brought up to speed and synchronized. C. Interim Operations While the startup of the preferred Lovett unit is being accomplished, a restoration of power to the ECC will be accomplished: At Burns Close or check closed switch 541-19-2Y (This energizes Burns Bank 719.) Close or check closed switch 19-14-2B (Normal feed) (This energizes the 13.2 primative feed to the ECC.) If more load is required to stabilize the Hillburn GT, close the distribution breakers as 			Will b mach via th requi statio	ie ni hine hire iren ons	ecess s folic e poir nent a must	ary p wing its. 1 t Lov be n	o cic o thi Neig vett, iotific	s loa ghbo app ed ir	y co ad, v oring oroxi mme	vheth Syst mate diate	ier (iem iy 5 ely (hos Op	e mi erati	achli ors V	nes b vho c	e ini offer unit	terna start Ope	ii to t up p erato	he owi	O&R er mu st ga	isys ust h	tem 0 e Info	r ext met	en io	na f
 After consultation with the Lovett Senior Shift Supervisor, a determination will be made regarding which unit can be more readily brought up to speed and synchronized. C. Interim Operations While the startup of the preferred Lovett unit is being accomplished, a restoration of power to the ECC will be accomplished: At Burns Close or check closed switch 541-19-2Y (This energizes Burns Bank 719.) Close or check closed switch 19-14-2B (Normal feed) (This energizes the 13.2 primative feed to the ECC.) If more load is required to stabilize the Hillburn GT, close the distribution breakers as 		в	Dete	ermi	natior	n of ti	he P	refe	erred	l Unil	t														
 While the startup of the preferred Lovett unit is being accomplished, a restoration of power to t ECC will be accomplished: <u>At Burns</u> Close or check closed switch 541-19-2Y (This energizes Burns Bank 719.) Close or check closed switch 19-14-2B (Normal feed) (This energizes the 13.2 prima feed to the ECC.) If more load is required to stabilize the Hillburn GT, close the distribution breakers as 											i	or S it up	hift s to s	Supec	ervis(d and	or, a d syr	dete nchro	rmia onize	atik d.	n wi	ii be	made	reg	arc	1)
 While the startup of the preferred Lovett unit is being accomplished, a restoration of power to t ECC will be accomplished: <u>At Burns</u> Close or check closed switch 541-19-2Y (This energizes Burns Bank 719.) Close or check closed switch 19-14-2B (Normal feed) (This energizes the 13.2 prima feed to the ECC.) If more load is required to stabilize the Hillburn GT, close the distribution breakers as 		С	Inter	rim (Opera	ations	5																		
 Close or check closed switch 19-14-20 (Notifier roce) (Athen to be feed to the ECC.) If more load is required to stabilize the Hillburn GT, close the distribution breakers as 		0.	whil	le th	ie sta	rtup i	of th	ne pi shea	refer d:	red l	Lovi	ett u	nit is	s bei	ng a	CC06	npilsi	hed,	ar	estoi	ation	n of po	newer	to	t
			1, 2.		Closi feed If mo	e or (to th are lo	cheo ne Ei pad I	¢K ¢	105e	d swi	IICN	38-	14-2		NAUN	101110	,	,).2 p kers	rin as	72 5
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Stabilizing Lovett D.

Once synchronized to the 138KV bus, the unit must be stabilized with sufficient load to at least meet its minimum load requirement. Closely coordinate all load pickups with Lovett operating personnel and direct them to maintain 60 Hz on their machine. To that end the following switching will be performed.

At West Haverstraw

- Close or check closed switch 54-27-2Y
- Close all distribution circuits via supervisory. (This will pickup approximately 45 MVA of 1. 2 load.)

At Lovett

- Close or check closed switch L-33-2X (This energizes Lovett Bank 533 startup for the 69KV units - Bank 633 which feeds New York Trap Rock and local Tomkins Cove 1. distribution.)
- Close or check closed switch L-33-2Y 2.
- Close or check closed switch 53-47-2 3.

At West Haverstraw

- Close or check closed switches 530-45-2, 531-45-2 and T1-45-2
- Close all distribution circuits via supervisory. (This will pick up approximately 55MVA of 1.
- 2. load).

Having stabilized Lovett with load, startup of the second Lovett generator may commence. Power dispatch under Automatic Generation control may also begin. Operations will be in the constant or flat frequency control mode with scheduled frequency at 60 Hz. Beware that the bias setting is based on peak connected load. If the load prior to the black out was considerably under peak, the bias will result in an indication of greater deficiency than actually exists. It should therefore, be adjusted accordingly.

Startup for Bowline and Restoration of the 345/500KV System IV.

Bowline Startup A.

With one Lovett unit stabilized, startup power will be supplied to Bowline.

At Bowline

- Open or check open switch 561-55-2X 1.
- Open or check open switch 561-55-2Y 2.
- Close or check closed switch 56-55-2X 3.
- Close or check closed switch 56-55-2Y 4.
- At Lovett
- Close or check closed switch 56-47-2 (This energizes Bowline startup transformers 555 1 and 655)

Once again closely coordinate the startup of Bowline auxiliarles with Lovett operators.

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•	BLAC	CK START AND SYSTEM RESTORATION PLAN	SHEET	23	of	32
	В.	Restoration of the 345/500KV system will be accomplished under the Power Pool as defined on OP 13. All switching performed at Ladent West Haverstraw will be done with the assent and permission of all i share or own completely facilities in these substations.	nterconnecto	ed bera	73 YVI	i v
	C.	Requests to supply startup power to neighboring companies genera granted.	ting facilities	inay in		
V.	Resto	pration of the 138KV System and Islanded Systems				
	A.	Synchronization of Western Division and Lovett Islands Assuming that Lovett has been successfully provided with startup c any of the 345KV ties and has been synchronized, and that a succe established in the Western Division, it will be advantageous to sync order to improve stability. Synchronization will be accomplished by Line 26 Ramapo to Sugarloaf and Line 27 Sugarloaf to Shoemaker	hronize the means of th	wn svsi	ems	सार 👘
		At Remapo 1. Open or check open switch 26-2X 2. Open or check open switch T52-26-2				
		At Sugarloaf1.Open or check open switch 6108-22.Open or check open switch 313-108-23.Close or check closed switch 7108-24.Open or check open switch 993-108-25.Close or check closed switch 27-108-26.Open or check open switch 25-108-27.Open or check open switch 24-108-28.Close or check closed switch T1-108-2				-
		At Shoemaker 1. Close or check closed switch 27-11-2X 2. Close or check closed switch T111-27				
		At Ramapo NOTE: Synchronizing scopes and sync. Check relays available. 1. Close or check closed switch 26-2X (This synchronizes the closed switch T52-26-2) 2. Close of check closed switch T52-26-2	he two islan	đs)		

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ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS

/ 6-E-11 01 SUBJECT BLACK START AND SYSTEM RESTORATION PLAN 24 of 32 SHEET

At Sugarloaf

Close or check closed switch 25-108-2 (This energizes South Goshen Banks 189 and 1. 289)

Close or check closed switch 24-108-2 2.

At Shoemaker

Close or check closed switch 24-11-2 1.

Close or check closed switch 25-11-2 2.

Restoration of the 138KV Loop 8.

If excess generation is available from the synchronized Lovett unit or the second Lovett unit has come on, the 138KV loop will be completed.

At West Nyack

- Open or check open switch 75-21-2 1
- Clase or check closed switch 701-21-2 2.
- Close or check closed switch 221-2Y З.
- Close or check closed switch 221-2X 4.
- Open or check open switch 551-21-2 5.
- Open or check open switch 562-21-2 б.

At Harings Comer

- Open or check open switch 46-30-2 . 1.
- Open or check open switch 130-2 2.
- Open or check open switch 658-30-2 3.
- Close or check closed switch 701-30-2 4.
- Close or check closed switch 702-30-2 5.
- Close or check closed switch T1-30-2 6.

At Congers

- Close or check closed switch 562-22-2 1.
- Close or check closed switch 561-22-2 2.

At New Hempstead

- Close or check closed 530-45-2 1.
- Close or check closed 531-45-2 2.

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ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS

	/	ELECTRICS	SYSTEM OPER	411045				
SUBJE					OI	6-E-11		
	BLACK START AND	SYSTEM RESTOR	ATION PLAN		SHEE	r 25	of	32
	2. Close 3. Close 130; V 4. Close 5. Close <u>At Harings Co</u> 1. Close	lest Nyack Banks b or check closed swi or check closed swi	ich 531-19-2X ilch T702-531 ([*] 21, 521, 421, an ilch 702-19-2Y ilch 819-2X (Th	This energizes Haring d 321) Is energizes Bums B kers (This picks up a	ank 819)			
	49.0N 2. Close <u>At Bowline Po</u>	VA of load) or check closed sw	vitch 562-21-2 (vitch 561-55-2X	ibution breakers (Th This energizes Bank (This completes the	222 at C	ongers)	ximat	ely
	<u>At Lovett</u> 1. Close 2. Close	e or check closed sv e or check closed sv	witch 55-33-2X (witch 55-33-2Y	This picks up Grass	y Point la	ad of 3.5	imva	}
	At West Nyac 1. Close	k or check closed su	witch 551-21-2					
VI.	Selective Simultaneo	is Restoration of th	e 69KV System					
Ψ1.	When sufficient interr system, selective sim generating capability, order,	al generation permi	its, or external s	ources have been sy	nchroniz , due to c e restora	ed to the constrain tion as li	: O&F ts on sted i	n
	A. Restoration	of the 69KV loop Hil	libum - Bums - N	Nontvale - South Mat	wah			
	This restoral system. In a Division and	ion provides suppor ddition, it allows the New Jersey.	rt for the 138KV a continued rest	loop and thus reinfor pration of heavily pop	ces the solutated a			
	Dointe of Phi	ergization for this loo her via the 138KV s	op may be Sout system.	h Mahwah via the 69	KV syste	m, Hilbu	ım, B	ums c

At Ramapo

1. Close or check closed switch T-60-51-2

ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS 1 6-E-11 SUBJECT OI. BLACK START AND SYSTEM RESTORATION PLAN of 32 26 SHEET At Burns Open or check open switch 319-2 1. Open or check open switch 419-2 2. Close or check closed switch 591-19-2 3. Close or check closed switch 49-19-2 4. Close or check closed switch T2-19-2 5. At Nanuet Close or check closed T1-53-2 ٩. At Pearl River Open or chack open switch 491-31-2 1. Close or check closed switch 50-31-2 2. Close or check closed switch 45-31-2 3. At Montvale Close or check closed switch 491-29-2 1. Close or check closed switch 656-29-2 2. Close or check closed switch T-29-2 3. Close or check closed switch 658-29-2 4. At Hillbum Close or check closed switch 59-17-2X 1. Close or check closed switch 65-17-2X 2. Close or check closed switch 917-2X 3. At South Mahwah Open or check open switch 585-58-2Y 1. Open or check open switch 587-58-2Y 2. Close or check closed switch T51-585 3. Close or check closed switch T258-587 4. a) If the South Mahwah interconnection is unavailable Open or check open switch T258-J3410 Close or check closed switch 57-52-2 5. Close or check closed switch 652-52-2 6. Close or check closed switch 58-52-2 7. Close or check closed switch 65-52-2 8. Close or check closed switch 852-2 9, Close or check closed switch T1-52-2 10. Open or check open switch 36-52-2 11.

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ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS

SUBJECT

BLACK START AND SYSTEM RESTORATION PLAN

6-E-11 01

of 32 27 SHEET

At Franklin Lakes

1

Close or check closed switch 58-35-2 1.

Close or check closed switch 57-35-2 2.

Close or check closed switch T1-35-2 З.

Close or check closed 570-35-2 4.

Close or check closed 580-35-2 5.

This loop may now be energized from Burns by closing 519-2, from Harings Corner by closing 558-30-2, from Hillburn by closing T317-65 or from South Mahwah (if available) by closing T258-J3410, 587-58-2Y and 585-58-2Y. Close as many feeds as are available. This operation energizes the following banks:

	151 and 251
Taliman	
Burns	319 and 419
	153 and 253
Nanuet	t .
Pearl River	431
Hillburn	917
	146 and 246
Blue Hill	160 and 260
Grand Avenue	100 910 200
Upper Saddle River	149
South Mahwah	452
	335 and 435
Franklin Lakes	
Montvale	429
	136
Oakland	100

Following this restoration Allendale may be energized.

At Allendale

Β.

- Close or check closed switch T587-139 1.
- Close or check closed switch T588-239 2.
- Close or check closed switch T139-2Y 3.
- Close or check closed switch T239-2Y 4

Close Allendale distribution breakers.

Restoration of the Hillburn to Sugarloat 69KV path and the West Point Loop

This restoration continues to reinforce the lie between Western and Eastern Division and begins the re-energization of Central Division loads. Prior to energizing West Point, coordinate restoration activities with the West Point Power House.

1 6-E-11 OL SUBJECT BLACK START AND SYSTEM RESTORATION PLAN 28 of 32 SHEET At Harriman Open or check open switch 851-71-2 1. Open or check open switch 841-71-2 2. Close or check closed switch 311-71-2 3. Close or check closed switch 312-71-2 4. At Monroe Close or check closed switch 312-61-2 1. Close or check closed switch 313-61-2 2. Close or check closed switch 31-17-2Y (This energizes Sloatsburg Bank 242 and picks At Hillburn up 2.6 MVA of load, Harriman Bank 471, Monroe Banks 161, 561) 1. Close or check closed switch 31-17-2X 2. At Sugarloaf Close or check closed switch 313-108-2 (This completes the loop) 4 At West Point #2 Close or check closed switch 851-90-2 1. Close or check closed switch T1-90-2 2. Open or check open switch 853-90-2 3. Close or check closed switch 851-71-2 (This energizes Bank 671 and West Point 2 <u>At Harriman</u> 1. Close or check closed switch 841-71-2 (This energizes Bank 571 and West Point 1, Highland Falls, Stoney Lonesome, Long Pond, Dean and Queensboro substations) 2. Close Bank 471 distribution breakers 3. Restoration of the 69KV Harings Corner Loop C. At Harings Comer Open or check open switch 45-30-2 1. Close or check closed switch 42-30-2 2. At Closter Close or check closed switch 46-28-2 1. Close or check closed switch T1-28-2 2. Close or check closed switch 751-28-2 3. Close or check closed switch 328-2 4.

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ORANGE AND ROCKLAND UTILITIES, INC. OVETEM OPERATIONS

		<u>.</u>		
SUBJECT	01	6-E-11		
BLACK START AND SYSTEM RESTORATION PLAN	SHEET	29	of	32
·				

At Sparkill

Close or check closed switch 751-50-2 1.

Close or check closed switch 750-50-2 2.

This loop may now be energized from West Nyack by closing 75-21-2, or from Harings Comer by closing 45-30-2. Close as many feeds as are available. This operation energizes the following Banks:

Orangeburg	Bank 254
Sparkill	Bank 150
Closter Cresskill	Banks 128 and 228 Banks 137 and 237
RC Sewer District	Bank 196

Restoration of the 69KV Sterling Forest Loop

At Sterling Forest

D.

Close or check closed switch 99-67-2 1.

Close or check closed switch 98-67-2 2.

At Lakes Road

Close or check closed switch 981-82-2 1.

Open or check open switch 98-82-2 2

At Ringwood

- Close or check closed switch 982-78-2 1.
- Close or check closed switch 89-78-2 2.
- Close or check closed switch 984-78-2 3.

Close or check closed switch 983-78-2 4

At West Milford

- Close or check closed switch 983-79-2 1.
- Open or check open switch 984-79-2 2.

At Hillburn

Close or check closed switch 89-17-2Y 1.

Close or check closed switch T-89-59 2.

This energizes the following Banks:

Ringwood	Bank 278
Blue Lake	Bank 177
West Milford	Bank 279
Lakes Road	Banks 162 and 282

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ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS 1 SUBJECT 01 6-E-11 BLACK START AND SYSTEM RESTORATION PLAN SHEET 30 of 3Z Load will be picked up off all banks except 278 and the Lakes Road circuit 82-4. Closing the distribution breakers the following loads will be restored: At Sugarloaf Close or check closed switch 993-108-2 1. This energizes the following Banks: Sterling Forest 367 Hunt 184 Wisner 280 Hunt 284 Wisner 380 At Lakes Road Close or check closed switch 98-62-2 (This completes the loop) 1 Restoration of the Western Division Ê. At Port Jervis Close or check closed switch 11-6-2 1. Close or check closed switch 18-6-2 2. Open or check open switch 7-6-2 3. At Shoemaker Close or check closed switch 11-11-2 (This energizes Port Jervis and Lines 11 and 18 1. distribution taps) <u>At Rio</u> Close or check closed switch 18-3-2 1. Restoration of the 34.5KV System VII. Eastern Division Α. At Hillburn Close or check closed switch 917-2X 1. Close or check closed switch T917-23 2. Close or check closed switch 17-1-2K 3. Close or check closed switch 17-2-2K 4. At Bums Close or check closed switch 731-19-2 1 Close or check closed switch 741-19-2 2. Close or check closed switch 50-19-2 3. Close or check closed switch T1-19-2 4.

ORANGE AND ROCKLAND UTILITIES, INC. ELECTRIC SYSTEM OPERATIONS . . 7 6-E-11 SUBJECT OL BLACK START AND SYSTEM RESTORATION PLAN of 32 SHEET 31 At Ford Close or check closed switch T-38-2 1. Close or check closed switch 73-38-2 2, Close or check closed switch 74-38-2 3. At Pearl River Close or check closed switch 50-31-2 1. Close or check closed switch 45-31-2 2. Close as available the following feeds to this system: 419-2 319-2 At Burns 491-31-2 At Pearl River 130-2 45-30-2 At Harings Corner Western Division В. Close or check closed 120-11-2 1. Close or check closed 19-11-2 2. Close or check closed 20-11-2 З. Restoration of 34.5/19/9KV circuits 4 and 6 emanating from Shoemaker and 7 from Port Jervis Lines 3, 4, 10 from Cuddebackville will be accomplished under the direction of the Distribution Supervisor.

C Central Division

Monroe and Blooming Grove and the associated 34.5/13.2KV loads may be energized.

At Monroe

1. Close or check closed 96-61-2

Under direction from the Distribution Supervisor

- 1. Close or check closed switch 82-61-2
- 2. Close or check closed switch 83-61-2

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A	ORANGE AND ELECTRIC	ROCKLAND U SYSTEM OPE	ITILITIES, INC. RATIONS				_ _
SUBJECT				01	6-E-11		
BLACK START AND S	YSTEM RESTO	RATION PLAN		SHEET	32	of	32
		APPENDIX 1			; <u></u>		
		February 1991	1				
Synchronizing Scopes Grahamsville Power House Swinging Bridge Power House Mongaup Power House Ric Power House Shoemaker Substation Shoemaker Gas Turbine Lovett Plant		Ramaj West Hillbur Hillbur	too 138 Substation to 345 Substation Haverstraw Subsi n Gas Turbine n Substation te 345 Plant	n			
Sync-Check Relays							
Swinging Bridge	11-2	21-2		1500			
Mongaup	9-2-2	12-2-2	13-2-2	15-2-2	27-11	Ye	
Shoemaker	12-1 1-2 T111-27 6-11-2	13-11-2 111-11-2Y 11-11-2	24-11-2 211-11-2Y 211-2	25-11-2 T211-5 111-2	4-11-		
Sugarloaf	6108-2				53-42	7_0	
Lovett	547-2	447-2	56-47-2	54-47-2	JJ-41		
Ladentown	6-56-2	3-56-2	4-56-2	1-56-2			
Ramapo 138	All 138 OCBs						
West Haverstraw	All breakers						
Hillbum	89-17-2Y T-89-59 65-17-2X	317-2Y T317-65 417-2X	31-17-2Y T417-31 917-2X	23-17-2Y T917-23	·	7-2X	
South Mahwah	T258-J3410 587-58-2Y		258-58-2X 72-52-2			8-587 -58-2	
Bowline	T255-68	T155-67					
Burns	50-19 - 2						
Harings Corner	45-30-2						

Schedule E

INSURANCE

Each Party at its cost and expense, shall maintain and keep in full force and effect during the term of this Agreement the following insurance forms and with insurance companies acceptable to the other Party:

(a) Workers' Compensation Insurance for statutory obligations imposed by Workers' Compensation or Occupational Disease Laws, and Employer's Liability Insurance with a minimum limit of \$1,000,000. When applicable, coverage shall include the United States Longshoreman's and Harbor Workers' Compensation Act and the Jones Act.

(b) General Liability Insurance including Bodily Injury, Personal Injury, Broad Form Property Damage, Excess Auto Liability, Products/Completed Operations, Explosion, Collapse and Underground (XCU) Liability, Contractual Liability and Contractors Protective Liability Insurance with minimum limits of liability of \$25,000,000 per occurrence. If any such coverage is maintained on a "claims made" basis, each Party agrees the retroactive date shall be no later than the effective date of this Agreement and the policy shall carry a minimum 5 year extended discovery period in the event the policy is cancelled or non-renewed.

(c) Automobile Liability Insurance, including coverage for all owned, nonowned and hired automotive equipment used by the Parties with minimum limits of liability of \$1,000,000 per occurrence.

(d) If applicable, Builders risk insurance or an installation floater with minimum limits of two times the probable maximum loss of the facilities as determined by a recognized expert, including, but not limited to coverage for earthquake and flood, collapse, faulty workmanship, materials and design, testing of machinery or equipment, freezing or changes in temperature, debris removal, partial occupancy and loss of revenues.

(e) During commercial operation of the facilities, property damage insurance including boiler and machinery coverage, with minimum limits of two times the probable maximum loss of the facilities as determined by a recognized expert.

(f) Business interruption and extra expense insurance covering expenses and losses due to business interruption, resulting from damage to facilities.



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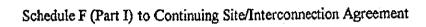
(g) Each Party shall have the right to accept reasonable deductibles or self insured retentions for the insurance listed in this Schedule E and each Party shall be responsible for such deductibles or self insured retentions under their respective policies.

(h) Each Party shall name the other an additional insured under the General Liability coverage listed above in clause (b), however such additional insured status shall only apply for each Parties' vicarious liability arising out of the other's facilities.

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Schedule F (Part I)

PRODUCTION METER LOCATIONS - /HYDRO

COMPENSATION Bank 52 REQUIRED Bank 13 Bank 13 Bank 13 Bank 13 Bank 63 2.4KV System 4KV System 4KV System 4KV System 4KV System 4KV System LOCATION ACCT/METER # Unit 4 Condensing Unit 1 Condensing Unit 3 Condensing Unit 2 Condensing Unit 1 Condensing Unit 2 Condensing Unit 4 Generation Unit 2 Generation Unit 3 Generation Unit 2 Generation Unit 1 Generation Unit 1 Generation PURPOSE Station Service Station Service COMPANY USE Electric Electric Mongaup Hydro DESCRIPTION Rio Hydro

PRODUCTION METER LOCATIONS - GT-HYDRO

Schedule F (Part I)

COMPENSATION REQUIRED	MPENSATION REQUIRED Bank 11	MPENSATION REQUIRED Bank 11 Bank 11	MPENSATION REQUIRED Bank 11 Bank 11 Bank 21	MPENSATION REQUIRED Bank 11 Bank 21 Bank 21 Bank 21
	Bank 11	Bank 11 Bank 11	Bank 11 Bank 11 Bank 11 Bank 21	Bank 11 Bank 11 Bank 21 Bank 21
-	13.2KV System	13.2KV System 13.2KV System	13.2KV System 13.2KV System 13.2KV System	13.2KV System 13.2KV System 13.2KV System 13.2KV System
	-			
-				
	Unit 1 Generation	Unit 1 Generation Unit 1 Condensing	Unit 1 Generation Unit 1 Condensing Unit 1A Generation	Unit 1 Generation Unit 1 Condensing Unit 1A Generation Unit 1A Condensing
	Electric			
	Swinging Bridge	Swinging Bridge Hydro	Swinging Bridge Hydro	Swinging Bridge Hydro
	Electric Unit 1 Generation 13.2KV System	Electric Unit 1 Generation 13.2KV System 13.2KV System 13.2KV System	Electric Unit 1 Generation 13.2KV System Unit 1 Condensing 13.2KV System Unit 1A Generation 13.2KV System	ElectricUnit 1 Generation13.2KV SystemBank 11Unit 1 Condensing13.2KV SystemBank 11Unit 1A Generation13.2KV SystemBank 21Unit 1A Condensing13.2KV SystemBank 21

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PRODUCTION METER LOCATIONS - GT-HYDRO

Schedule F (Part II) to Continuing Site/Interconnection Agreement

1

ANTICIPATED METER POINTS FOR PRODUCTION METERS

1

STATION NAME	STATION NO.	DATE
,	, [*] , 4	
MONGAUP	GDM2-A	5-6-99
MONGAUP	GDM2-B	5-6-99
RIO	GDM3-A	5-6-99
RIO	GDM3-B	5-6-99
SWINGING BRIDGE	GDM1-A	5-6-99
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e.

Confidential Energy Infrastructure Information ("CEII")

Confidential Energy Infrastructure Information ("CEII")

Schedule G to Continuing Site/Interconnection Agreement

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Schedule G

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METERING FOR RETAIL ACCOUNTS - GT/HYDRO

DESCRIPTION	COMPANY USE	PURPOSE	ACCT/METER#	OWNER		COMMENTS
				ORU	SEI	
NYC Water Substation Neversink Drive - PJ	Electric	Lights	033641950		×	Secondary Service
Mongaup	Electric	Well Pump	045485914		×	Secondary Service
NYC Water Substation North Street - PJ	Electric	Lights	055021053		×	Secondary Service
NYC Water Substation Neversink Drive - PJ	Electric	Lights	055021054		×	Secondary Service
Hydro Shop and Garage	Electric	Lights	055333410		×	Secondary Service
Rio Plant	Electric	Lights/Heat	050909324		×	Secondary Service
Mongaup Hydro	Electric	Lights	061000148		×	Second any Service
Rio Dam	Electric	Warning Siren	076958874		×	Secondary Service

PRODUCTION SERVICE ACCOUNTS - GT-HYDRO

Schedule G

COMMENTS		ervice	ervice	ervice	ervice
COM		Secondary Service	Secondary Service	Secondary Service	Secondary Service
OWNER	SEI	×	×	X	×
<u>8</u>	ORU				
ACCT/METER #		076958909	078776798	079189344	096841136
PURPOSE		Heat and Lights	Lights	Lights	Hydro-Gas Pumps
COMPANY USE		Electric	Electric	Electric	Electric
DESCRIPTION		Swinging Bridge Plant	NYC Water Substation Neversink Drive - PJ	Mongaup Plant	Mongaup Hydro

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Schedule H to Continuing Site/Interconnection Agreement

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Operating Instruction 1S

1.0 PURPOSE

This Operating Instruction defines the responsibility of the System Operations Department in directing and performing switching on equipment under the authority of the System Operator.

2.0 ACRONYMS & DEFINITIONS

CSO – Chief System Operator DS – Distribution Supervisor ECC – Energy Control Center (Spring Valley) EMS – Energy Management System LCC – Local Control Center NYISO – New York independent System Operator PJM – Pennsylvania, New Jersey, and Maryland Regional Transmission Operator SO – System Operator SSO – Senior System Operator

<u>Definitions –</u>

3.0 PERIODICITY OF REVIEW -

This policy shall be reviewed annually.

4.0 COMMUNICATIONS

All communications conducted by the S.O. concerning any action, request for action, response to such request, or information having a potential impact on any ongoing operations during normal or emergency conditions, will be conducted via the use of a taped communications device using Three-Part-Communication. Recorded telephones should be used for switching whenever available, keeping radio use to a minimum.

5.0 SCHEDULING AND SWITCH ORDER PREPARATION

Scheduling work on equipment under System Operator jurisdiction:

• All requests to schedule removal of equipment will be made in accordance with OI 3 S "Switch Order Preparation, Execution and Approval" and the employee safety manual section 43.3, paragraph A.

DATE: June 2010	SUPERSEDES: 1-S-8	DEPT. Control Center
Preparer: System Operations	ECC Switching Practices	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 1S

New construction and equipment under the jurisdiction of the System Operator:

• See the employee safety manual section 43.3

In preparing switch orders, the following guidelines should be observed where practical:

- Perform only necessary switching to provide complete safety clearance; unnecessary switching should be eliminated.
- Always interrupt load with a breaker where one is available; a load break device would be a second choice if no breaker is available.
- Switching should be written such that it will minimize unnecessary travel; assume only one crew will be available to switch.
- Disable relaying only when necessary, such as for breaker failure relays during trip tests.
- Switch order steps should not include those steps which are part of routine responsibilities such as to "check and adjust voltage," "check loop closed," etc.
- In switching transformers into or out of service, the transformer is always de-energized and reenergized from the high side.

6.0 GUIDELINES FOR REMOVAL AND RESTORATION OF EQUIPMENT

Removing Equipment from service:

- Supervisory control will always be used to open or close breakers, air breaks, or any remotely controlled switch to verify supervisory capability.
- Place a Control Inhibit Tag and verify a blue "C" on the CRT screen.
- Have the supervisory control turned off at the station for the device(s) that are included in the area of isolation.
- Have the switchman turn the recloser off, before switching a breaker out of service.
- Have the switchman make a check of the breaker to verify the open position and place a red tag on it before opening the line disconnects. Disconnect switches should be operated in the deenergized mode whenever possible.
- In the case of a motor operated air breaker or motor operated disconnect, request the switchman turn off the control power at the switch in addition to placing the supervisory in the off or local manual position.
- After all operation by supervisory are complete, proceed with the manual portion of the switch order as detailed in the Orange and Rockland Safety Manual.
- Always adhere to the testing and grounding procedures as detailed in the Orange and Rockland Employee Safety Manual.

DATE: June 2010	SUPERSEDES: 1-S-8	DEPT. Control Center
Preparer: System Operations	ECC Switching Practices	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 1S

Restoring equipment to service:

Complete the restoration process in the reverse order as above with the following exception: When a line has been removed for maintenance and when one end of the line is equipped with a circuit breaker and the other disconnect or air break switch, the SO shall first test the line by energizing via the circuit breaker. If the line proves to be fault free then the circuit breaker shall be re-opened, the disconnect or air break closed and the circuit breaker closed to place the line back in service.

NOTE: Care must be taken that a control inhibit tag is not removed from the CRT screen until all personnel having clearance are clear of facilities or in the case of an OCB until we are ready to close the particular breaker.

7.0 LIVE LINE RECLOSER CLEARANCE

- · Perform necessary steps to change recloser to off position
- Verify change on screen
- Perform necessary steps to install live line recloser clearance tags
- Verify "control inhibit C" on screen
- Issue Clearance making certain person receiving same is aware he has live line recloser protection only.

8.0 TAGGING PROCEDURE

See Section 43.2 of the Employee Safety Manual for information on tags and their proper use. This includes both red and green tags.

Additional Considerations for System Operations

- All transmission and distribution equipment inside the substation fence and the entire high voltage electrical system (34.5KV* and over) is under the jurisdiction of the System Operator and no work or switching may be done on any part of it without orders or permission from the System Operator. When any piece of electrical apparatus is removed from service for repairs or maintenance each switch or control mechanism the operation of which might endanger workmen, must be properly tagged with standard safety tags so that no one may operate any portion of this equipment by mistake. (*The 34.5KV transmission has no 19.9KV Distribution taps.)
- Each Department Manager, Superintendent or Supervisor shall designate the qualified employees who may have equipment tagged out. Equipment shall be tagged only for the persons on these lists (Section 43.5.1, paragraph A). Each Manager, Superintendent or Supervisor shall provide System Operation with a quarterly updated list of qualified employees.

DATE: June 2010	SUPERSEDES: 1-S-8	DEPT. Control Center
Preparer: System Operations	ECC Switching Practices	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator
<u>, , , , , , , , , , , , , , , , , , , </u>	Page 6 of 16	

Operating Instruction 1S

• All tags must be made out in the name of the person in charge of the job. This person will be responsible for all others working under his tags. If the equipment is available in an emergency, the person in charge must be available at the job site to clear people off equipment to facilitate a rapid restoration.

9.0 <u>GENERAL PROCEDURE FOR REMOVING A LINE FROM SERVICE UNDER SYSTEM</u> OPERATOR JURISDICTION

A. The switchman performing the switching at the first (sending) station (A) will be notified by the System Operator that the circuit breaker will be opened by supervisory control. The System Operator then will open the breaker via supervisory control and tag the breaker on the CRT with a control inhibiting tag.

B. After the switchman in station A has reported that the procedure above has been completed, the System Operator will notify the switchman in the second (receiving) switching station (B) that the circuit breaker will be opened by supervisory control.

- The System Operator will then open the breaker via supervisory control and tag the breaker on the EMS with a control inhibiting tag. When there is no circuit breaker in the line but a motor operated switch is available the switch will be opened via supervisory control.
- The switchman will be directed to confirm the breaker open and on all breakers equipped with automatic reclosing equipment, the reclosing will be disabled. On switches which are remotely controlled by supervisory equipment, the control power will be turned off, and the proper switch will be placed in the "local" position.
- The Switchman will check open the by-pass switch where one exists.
- The Switchman will open the appropriate disconnect's and, if gang operated, secure with lock or fastening device. Manually operated disconnect switches shall be locked as designated.
- The Switchman will remove all secondary fuses (open secondary cutouts) on all metering and relay transformers installed in the line and disable all associated coupling capacitor potential devices.
- Upon completion of these steps the switchman will report to the System Operator.
- C. After the switchman in station B has reported that the above procedure has been completed, the System Operator will instruct the employee at the first (sending) switching station (A) to:
 - Confirm the breaker open and on all breakers equipped with automatic reclosing equipment, the reclosing will be disabled. On switches which are remotely controlled by supervisory equipment, place the switch in the "local" position.
 - Check open the by-pass switch where one exists.

DATE: June 2010	SUPERSEDES: 1-S-8	DEPT. Control Center
Preparer: System Operations	ECC Switching Practices	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 1S

- Open the appropriate disconnects.
- Remove all secondary fuses (open secondary cutouts) on all metering and relay transformers installed in the line and disable all associated coupling capacitor potential devices.
- · Close the ground switch. Check that all ground switch blades are in correct positions.
- Apply the necessary red tags and report to the System Operator.
- D. After the switchman in station A has reported that the procedure described in C is complete, the System Operator will instruct the operator at the second (receiving) switching station (B) to:
 - Close the ground switch.
 - Apply the necessary red tags and report to the system Operator.
- E. If other work is to be done simultaneously which involves any station apparatus at either end of the line, the System Operator will order safety equipment tagging placed in accordance with Standard Tagging Rules.

10.0 <u>GENERAL PROCEDURE FOR RESTORING A LINE TO SERVICE UNDER SYSTEM</u> OPERATOR JURISDICTION

A. After work has been completed on a line or piece of equipment, the tag holder will report this to the System Operator who, in turn, will instruct the tag holder to remove all field grounds. After all tag holders report work complete, all grounds removed and all who received clearance have returned the line to the System Operator, the System Operator will then instruct the operator at the first (sending) switch station (A) to:

- Remove the tag from the ground switch.
- Open the ground switch and lock it open. Visually check that all switch blades are open.
- Report to the System Operator.
- B. The switchman at the second (receiving) station (B) will then be instructed by the System Operator to:
 - Remove all tags.
 - Open the ground switches and lock them open. Visually check that all switch blades are open.
 - Replace all secondary fuses in all metering on relay transformers if any are installed on the line and restore all coupling capacitor potential devises to normal operating conditions.
 - Request relay techs enable any relaying that may have been disabled to complete the switching.

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Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 1S

- Close the appropriate disconnects. Before closing any breaker disconnect switches, it is the
 responsibility of the switchman to visually check that the breaker position indicator is at the
 open position. Only when the open position has been confirmed, shall the disconnect be
 closed.
- Report to the System Operator.
- C. The switchman at the first (sending) switching station will then be instructed to:
 - Remove all remaining tags.
 - Replace all secondary fuses in all metering and relay transformers if any are installed on the line and restore all coupling capacitor potential devices to normal operating condition.
 - Request relay techs enable any relaying that may have been disabled to complete the switching.
 - Close the appropriate disconnects. Before closing any breaker disconnect switches, it is the responsibility of the switchman to visually check that the breaker position indicator is at the open position. Only if the open position is observed or confirmed shall the disconnect be closed.
 - Report to the System Operator.
- D. The switchman at the first (sending) switching station (A) will be instructed to:
 - Close the circuit breaker. On all breakers equipped with Automatic Reclosing equipment, the reclosing will be enabled after the breaker is closed, unless ordered otherwise.
 - Report to the System Operator.
- E. The switchman at the second (receiving) switching station (B) will be instructed to:
 - Close or synchronize the circuit breaker. On all breakers equipped with Automatic Reclosing equipment, the reclosing will be enabled after the breaker is closed, unless ordered otherwise. On switches which are remotely controlled by supervisory equipment, place the proper switch in the remote control position.
 - Note the reading of the voltmeters and ammeters on the line.
 - Report to the System Operator.

11.0 RECEIVING CLEARANCE FROM THE SYSTEM OPERATOR

Line Clearances will be given as outlined in the employee safety manual section 17.6.3.

Clearance to "Work", is a permission to proceed with a specific task (maintenance, testing) as requested through the scheduling process (Or emergency), for specific identified equipment and for a specific purpose.

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Preparer: System Operations	ECC Switching Practices	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 1S

Clearance to "Work" is facilitated through a two part process as follows:

- Once all switching to isolate a piece of equipment is complete, the System Operator will issue clearance to "test and ground" on a facility. Upon completion of the testing for potential and after having installed field grounds, the tag holder will notify the System Operator of same.
- The System Operator will then issue a "Clearance for Work" as communicated below: (In certain instances, application of field grounds may be declined by the tag holder)
 - The time clearance is given.
 - The name of the person receiving the clearance.
 - The line or equipment that has been tagged.
 - The work clearance is being given to do.
 - The locations (if any) where substation grounds have been applied.

Additional tags:

Should there be a need to provide clearance to personnel on equipment that is being worked on by others, tags may be installed if requested. The SO will evaluate and discuss with the requestor precisely what clearance points are needed and provide tags as necessary following the same switching guidelines as if the equipment was in service. Once tags have been added to the required devices the SO shall discuss he need for additional grounds, or if existing grounds shall be used, and provide clearance to the individual after verification of grounding.

12.0 DISTRIBUTION SWITCHING

Principles of distribution switching:

In Substations with breaker & ½ schemes (Allendale, Burns, Montvale, New Hempstead, West Haverstraw)

- When removing a bus breaker and placing the circuit on the tie breaker, all switching must be done by local control in the substation and not by supervisory control. (Breaker inter-lock does not allow three breakers (2 bus and their tie) closed at one time.
- Both circuit reclosers in the bay the switching is being performed shall be off until all switch moves are complete.
- When returning a bus breaker all switching must be done by local control as in (1 & 2) above.
- See Appendix B for an example

In Substations (Breaker & ½ schemes) equipped with "Pro-logic" relays (i.e. Congers, Orangeburg):

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Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 2S

Orange & Rockland

OI 2-S-14

SWITCHING/JURISDICTIONAL AUTHORITIES AT DIVESTED GENERATION AND SUBSTATION FACILITIES

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DATE: January 11, 2010	SUPERSEDES: 2-S-13	DEPT.System Operations
Preparer: System Operations	SWITCHING/JURISDICTIONAL AUTHORITIES AT DIVESTED GENERATION AND SUBSTATION FACILITIES	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO	SUBSTATION FACILITIES	Title: Chief System Operator

Operating Instruction 2S

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DATE: January 11, 2010	SUPERSEDES: 2-S-13	DEPT.System Operations
Preparer: System Operations	SWITCHING/JURISDICTIONAL AUTHORITIES AT DIVESTED GENERATION AND SUBSTATION FACILITIES	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 2S

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Preparer: System Operations	SWITCHING/JURISDICTIONAL AUTHORITIES AT DIVESTED GENERATION AND SUBSTATION FACILITIES	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO	SUBSTATION FACILITIES	Title: Chief System Operator

Operating Instruction 2S

1.0 PURPOSE

The purpose of this instruction is to delineate and clarify the jurisdictional authorities of Orange and Rockland (ORU), Mirant New York, Inc. (Mirant), and Alliance Energy as they relate to interconnected switching between the companies and facilities.

This procedure does not supersede any conditions set forth in the Asset Purchase and Continuing Operating Agreement or any other provisions stipulated as a condition of sale.

2.0 ACRONYMS & DEFINITIONS

SO – System Operator SSO – Senior System Operator

Definitions

Switching Authority

The company that operates and directs switching associated with a facility or certain piece of equipment. Generally speaking, Orange and Rockland is the switching authority for all devices under the control of the SO / SSO set forth in the "Jurisdictions" portion of this procedure.

3.0 **PERIODICITY OF REVIEW**

This policy shall be reviewed annually.

4.0 **PROCEDURE**

Scheduling

All Scheduled switching outages needed on the interconnection shall be made to the O&R Switching Coordinator in accordance with System Operations Operating Instruction 3S.

Switching Principles

- 1) Switching operations will be performed in accordance with the <u>O&R Employee Safety</u> Manual.
- 2) The System Operator will issue all switching and tagging steps.

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DATE: January 11, 2010	SUPERSEDES: 4-S-7	DEPT. System Operations
Preparer: System Operations	ORANGE AND ROCKLAND JOINT SWITCHING PRACTICES	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 2S

- 3) Switching is strictly limited to personnel listed on the "Qualified Switching List". Updated lists will be emailed to O&R System Operations per the periodicity set forth in the "Continuing Operating Agreement" which states "Every Three months, each party shall provide the other party with an updated list of employees qualified for the inclusion on to the list". Switching with newly approved personnel will not take place until the updated "Qualified Switching List" is disseminated to the O&R operating floor.
- 4) Upon arrival at any of Mirant's or Alliance's properties, ORU personnel will contact the onsite personnel and inform them of the purpose of their visit. Likewise, Mirant or Alliance's employees will notify the System Operator upon entering ORU facilities.
- 5) Either party will parallel tag the other party's equipment in accordance with the procedures set out in the O&R Safety Manual. For example, in performing maintenance work for Mirant, ORU personnel will parallel tag Mirant owned switches to provide the proper safety clearance.

<u>Bowline</u>

In the 345KV yard the power circuit breakers and associated switches designed for isolation and grounding will be switched and tagged by the Bowline Shift Team Leaders, at the direction of the ORU System Operator.

The past practice of tagging these switches for the ORU System Operator during unit outages will no longer be performed. The Bowline Shift Team leader will install Mirant Switching tags in place of the ORU System Operator Red tags. Should Mirant be performing specific work whereby they are issuing a work permit under their internal Lock-Out / Tag-Out procedures these tags may also be installed in parallel with the tags installed under the direction of the System Operator.

In the 138KV yard, ORU maintains and operates the substation facilities that serve as terminations for lines 56 and 561. This would include the ring bus oil circuit breakers. Mirant personnel may also tag this equipment when clearance is required for maintenance on one of the start up banks 555 or 655.

Bank 455 provides a 400MVA tie from the 345KV yard to the 138KV yard. Mirant and ORU have a 25%:75% shared ownership respectively of the Bank 455. ORU will maintain and operate Bank 455 up to and including the 345KV ACB 455-2. Mirant will maintain and operate, at the direction of the ORU System Operator, from the MOD 455-1 on into the 345KV yard as outlined above.

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Operating Instruction 2S

Alliance Facilities

Any time there is switching being performed by Alliance personnel, where their switching steps are being performed to provide O&R personnel with safety clearance, a Substation Supervisor shall be on-site to observe the switch moves being performed.

Gas Turbine Sites

All generating plant alarms will require notification to the Alliance Energy (AE) 24 hour desk. AE will call out Hydro and Gas Turbine Maintenance personnel who will determine whether ORU substation or relay personnel are required to assist. Priority one alarms to be addressed immediately. Each party will switch and tag the equipment it owns.

Hydro Stations

As in the case of the gas turbines, Swinging Bridge, Mongaup, and Rio generating plant alarms will require notification to the Alliance Energy (AE) 24 hour desk. AE will determine whether or not to call out Hydro and Gas Turbine Maintenance personnel who will determine whether ORU substation or relay personnel are required to assist. Priority one alarms to be addressed immediately.

The System Operator will direct all switching and tagging of equipment shown on the system diagram and substation one-line diagrams. This equipment includes generator and line circuit breakers, disconnects, transformers, potential devices, and supervisory – local/remote switches.

In accordance with Exhibit "A" attached, Alliance Operators will perform all switching inside the Hydro Plants including such devices as supervisory local/remote switches for OCB's in the O&R yard. Orange and Rockland Electricians or Relay Technicians will perform all switching outside the plant buildings including such devices as station service disconnects.

Hydro and Gas Turbine personnel are responsible to provide clearance of the generator equipment. This equipment includes controls, exciter breakers, gates and valves.

Emergency Switching at Alliance Facilities

If an Alliance qualified switch crew is not readily available to respond to an emergency situation, the System Operator will notify the Alliance 24hr desk that

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O&R personnel will be entering the applicable Alliance facility. Upon notification, the O&R Substation Supervisor will be directed to enter the Alliance control room and perform the Supervisory/Local switching step allowing switching to proceed in the most expeditious manner.

Alliance has granted O&R full access to both the Hillburn GT and Shoemaker GT facilities.

This emergency switching exception will only address system emergencies requiring switching in an Alliance facility for the purpose of isolating O&R equipment. This exception will be strictly limited to the Supervisory to local switching and tagging steps normally performed by Alliance personnel and associated with equipment necessary to clear an emergency condition.

5.0 **RESPONSIBILITES**

The responsible organization for this Procedure shall be the System Operations Department.

6.0 **EXCEPTIONS**

There are no exceptions or exclusions to compliance with the NERC standard, and any references to exceptions are only to the O&R policies and or procedures.

Should exceptions to this policy be required or necessary due to operational needs, technical limitations, special situations including construction or emergencies; the reasons and actions taken shall be documented.

Temporary changes may not require written changes to policy but may be handled as written documented interim changes to security policy, procedures or post orders during this temporary situation.

7.0 ADVICE AND COUNSEL

The Chief System Operator shall provide advice and counsel on this instruction.

8.0 EXHIBIT A

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Preparer: System Operations	ORANGE AND ROCKLAND JOINT SWITCHING PRACTICES	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 2S

SEE OI 2-S-

EXHIBIT "A" Memorandum of Agreement between Mirant, Orange & Rockland Utilities, Inc. and Local Union 503 LB.E.W.

Operationally speaking (Switching), Mirant Operators are responsible for all switching inside the plants. O&R Electricians are responsible for all operations outside the Plants in accordance with the one line (demarcation) diagrams.

Mechanically, (Maintenance) each Company is responsible for the maintenance and repair of their own equipment.

7/20, A martine and Robert V. Citrolo President/Business Manager Date

President/Business Manage Local Union 503 LB.E.W.

mond Ray Ray Depew Local Union 503 LB.E.W.

George Perfy Local Union 503 I.B.E.W.

Date Darciel A. Hunt

Manager – Substation Operations Engineer Orange & Rockland Willifies, Inc.

9/25 Date A. Hans Hasnay CT/Hydro Group Manager Mirant

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Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 3S

1.0 PURPOSE

This instruction shall be used for guidance on scheduling, preparing and approving scheduled switch orders as well as outline basic responsibilities of the System Operations Switching Coordinator. This instruction will outline notification requirements for scheduled outages with internal and external entities which include NYISO, PJM, other utilities and large commercial customers.

2.0 ACRONYMS & DEFINITIONS

CSO - Chief System Operator
DS - Distribution Supervisor
ECC - Energy Control Center (Spring Valley)
EMS - Energy Management System
NYISO - New York independent System Operator
PJM - Pennsylvania, New Jersey, and Maryland Regional Transmission Operator
SIRS - Scheduling Interface Recording System
SO - System Operator
SSO - Senior System Operator
SVOC - Spring Valley Operations Center
T&D - Transmission and Distribution
WMS - Work Management System

Definitions -

N-1 - The loss of any single generating unit, transmission line, transformer.

3.0 PERIODICITY OF REVIEW -

This policy shall be reviewed annually.

4.0 SCHEDULED OUTAGE REQUESTS

The System Operations Switching Coordinator, upon receiving a T&D Clearance Request, will review all areas of the request and if necessary, contact the requester for clarification or additional information.

The Switching Coordinator will then notify any other Orange and Rockland department that may have pending work on the facilities to ensure maximum coordination of activities for this particular outage.

The Switching Coordinator will then notify any other Orange and Rockland department that may have pending work on the facilities to ensure maximum coordination of activities for this particular outage.

DATE: April 2010	SUPERSEDES: 3-S-13	DEPT. Control Center
Preparer: System Operations	Switch Order Scheduling, Preparation and Approval	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 3S

The Switching Coordinator and Distribution Supervisor together will coordinate, establish, and provide a contingency plan for any loss of transmission and distribution facilities for all scheduled switching to mitigate exposure and maintain system reliability per N-1 criteria.

The Switching Coordinator must ensure that new equipment instructions are reviewed and approved before equipment is energized, and that all necessary EMS configuration changes have been modeled and tested.

Written work requests must be submitted to the Switch Coordinator no less than 72 hours before the requested switch start time. This will enable the creation of an efficient, safe, and fully approved switch order. Failure to comply with this request will normally result in postponement of the job.

All switch orders will be prepared and reviewed by Senior System Operators and System Operators in accordance with timelines in the SIRS and ECC personnel responsibilities portion of this section (5).

ENGINEERING, SUBSTATION AND EHV

Major construction and maintenance jobs will be requested in WMS as far in advance as possible. It is the responsibility of the requesting party to submit the WMS request. At no time will the Switching Coordinator be responsible for submitting WMS requests.

All job requests must contain a description of the work intended with a listing of adequate clearance points provided in the request. Any job requests that involve switching of clearances that cannot be adequately described on the WMS request form will be accompanied by an e-mail to the Switching Coordinator and Senior System Operators. This e-mail will provide a full description of the job scope and the work required to complete the job.

All requests must be made by 11 a.m. with no less than 72 hours notice prior to its scheduled date of execution. Jobs scheduled for Mondays must be scheduled no later than 11 a.m. Thursday of the previous week.

Emergency requests such as Hot Spots, Low Oil Levels, etc. do not require 72 hours notification. A phone call to the SSO is required and a WMS request should be submitted when time permits.

The Working Groups (Engineering, Substation & EHV) will meet with the Switching Coordinator on a regular basis to review upcoming jobs for scope and timing.

DATE: April 2010	SUPERSEDËS: 3-S-13	DEPT. Control Center
Preparer: System Operations	Switch Order Scheduling, Preparation and Approval	APPROVED BY: Thomas Bubler
Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 3S

The night SO will prepare switching for requests on a rolling fourteen-day schedule.

Example: The night SO on Monday will be preparing the switching for the Monday two weeks from then. The day SO will look at current day scheduled work, checking for both accuracy and any scheduling conflicts.

5.0 SWITCH ORDER PREPARATION

The basic guidelines to follow in preparing a switch order are:

1. Check the request information to determine exactly what clearance is needed.

2. Check the one-line diagrams of stations and lines to determine that continuity will be maintained and that no service interruption or voltage problems will take place.

3. Follow all O&R safety procedures in accordance with the Orange & Rockland Switching and Tagging section of the Safety Book. Check one-line diagrams for devices such as secondary pots, which must be disabled for safety.

4. Check Substation Instruction Book as well as one-line diagrams and SCADA memos for special instructions, which apply to a particular station, line or piece of equipment.

5. Under normal circumstances all switching will be prepared in SIRS. When preparing a switch order, all fields will be filled out in their proper location on the appropriate sheets.

6. The clear (Headers and footers section) shall be completed to the extent possible. This section will be completed when the switch order is executed.

7. The "Job Briefing" section will include the clearance points provided on the switch order, including any additional clearance points provided by System Operations that may not have been requested in the "clearance points requested" section.

At this point the switch order will be reviewed by the SSO and if acceptable approved as detailed in section 4.

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Distributed to: SO/SSO		Title: Chief System Operator

Operating Instruction 4S

Orange & Rockland

OI 4-S-8

ORANGE AND ROCKLAND JOINT SWITCHING PRACTICES

DATE: January 11, 2010	SUPERSEDES: 4-S-7	DEPT. System Operations
Preparer: System Operations	ORANGE AND ROCKLAND JOINT SWITCHING PRACTICES	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

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DATE: January 11, 2010	SUPERSEDES: 4-S-7	DEPT.System Operations
Preparer: System Operations	ORANGE AND ROCKLAND JOINT SWITCHING PRACTICES	APPROVED BY: Thomas Buhler
Distributed to: SO/SSO		Title: Chief System Operator

# **Operating Instruction 4S**

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Distributed to: SO/SSO		Title: Chief System Operator

# **Operating Instruction 4S**

#### 1.0 PURPOSE

Orange and Rockland, Consolidated Edison, Public Service, Mirant NY, and Alliance Energy share in the direction of switching on several jointly owned facilities. These facilities are the Ramapo, Ladentown, Bowline, South Mahwah, and West Haverstraw substations; and various generating facilities.

This Instruction will clarify the responsibilities of the previously mentioned companies regarding each facility with respect to initiating requests for clearance, responsibility for authorizing work on equipment and the preparation and direction of switching.

#### 2.0 ACRONYMS & DEFINITIONS

NYISO – New York Independent System Operator PJM – Pennsylvania, Jersey, Maryland Independent System Operator SO – System Operator SSO – Senior System Operator

#### **Definitions**

# Switching Authority

The company that operates and directs switching associated with a facility or certain piece of equipment. Generally speaking, Orange and Rockland is the switching authority for all devices under the control of the SO / SSO set forth in the "Jurisdictions" portion of this procedure.

# 3.0 PERIODICITY OF REVIEW

This policy shall be reviewed annually.

#### 4.0 **PROCEDURE**

#### **Transmission Switching**

Clearance for routine maintenance outages will be initiated by the company who is the switching authority. That company will assume responsibility for notification of all involved parties including New York Independent System Operator & PJM, describing the work and clearances required. Approval from all entities having termination points is required prior to the scheduling of the outage.

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Preparer: System Operations	ORANGE AND ROCKLAND JOINT SWITCHING PRACTICES	APPROVED BY: Thomas Bubler
Distributed to: SO/SSO		Title: Chief System Operator

# **Operating Instruction 4S**

#### Jurisdictions

Orange and Rockland System Operators will direct company O&R substation/relay crews and qualified Mirant & Alliance personnel in switching and tagging the following facilities:

- The Mirant, NY owned facilities of Bowline 345KV yard All switches and devices from where the lines come into the station from the Bulk Power System up to and including the T155-3 for Unit 1 and the 255-55-1 for Unit 2. Any switching beyond those devices will be under the direction of the Bowline Shift Team Leader only after switching has been completed with the Orange and Rockland System Operator isolating the unit from the Bulk Power System.
- Alliance Energy owned facilities of Monguap, Hillburn, Rio, Swinging Bridge and Shoemaker.
- Bowline: All 138 KV facilities.
- Ladentown: All 345 KV facilities.
- West Haverstraw: All facilities 345 KV to 13.2 KV.
- Ramapo: All facilities from and including the 345 KV 1300-4 and 2300-4 switches and the entire 138 KV yard.
- South Mahwah: All 345 KV switches in station 59, all 138 KV switches in station 58 and all 69 KV and 13.2 KV switches in station 52.

#### Joint Switching practices with other connected utilities

Any facility where two or more companies must switch in order to provide safety clearances, such as Y88, W72, Bank 1300/138 KV Bus "X", Bank 2300/138 KV Bus "Y", Bank 258, will be coordinated with the remote end company as appropriate, in accordance with individual company safety practices. None of the above-mentioned facilities, other than those owned by Mirant & Alliance need be directed by any one company on a step by step basis.

Routine maintenance and emergency repairs on certain 345 KV lines emanating from Ramapo will continue to be performed by O&R line crews. Clearance to O&R line crews will be issued by the O&R System Operator after being notified by the Con Edison system operator that switching for safety clearance has been completed and that clearance

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#### Operating Instruction 4S

to begin work may be issued. The O&R System Operator will issue clearance "to test and ground."

# **Relay Maintenance (In Service)**

Request for routine in-service relay maintenance will be initiated by the Orange and Rockland Switching Coordinator or Senior System Operator. Orange and Rockland will be responsible for notifying the New York Independent System Operator Scheduling Department, or PJM via EDART as well as any other affected parties as required.

Mirant, NY will coordinate their in service relay maintenance with the O&R Switch Coordinator.

Emergency relay work will be coordinated directly by the Orange and Rockland Senior System Operator.

# 5.0 **RESPONSIBILITES**

The responsible organization for this Procedure shall be the System Operations Department.

#### 6.0 EXCEPTIONS

There are no exceptions or exclusions to compliance with the NERC standard, and any references to exceptions are only to the O&R policies and or procedures.

Should exceptions to this policy be required or necessary due to operational needs, technical limitations, special situations including construction or emergencies; the reasons and actions taken shall be documented.

Temporary changes may not require written changes to policy but may be handled as written documented interim changes to security policy, procedures or post orders during this temporary situation.

#### 7.0 ADVICE AND COUNSEL

The Chief System Operator shall provide advice and counsel on this instruction.

DATE: January 11, 2010	SUPERSEDES: 4-S-7	DEPT. System Operations
Preparer: System Operations	ORANGE AND ROCKLAND JOINT SWITCHING PRACTICES	APPROVED BY: Thomas Bubler
Distributed to: SO/SSO		Title: Chief System Operator

# Employee Safety Manual SAFETY starts with me

# E Orrange & Rockland

#### Employee Safety Manual

Program details can be obtained from the Safety Department as well as in the most recent version of O&R's "Safety Guidelines 7025" and "7026" and the Drug and Alcohol Misuse addendum, which are available on the Safety Web site.

#### 17.0 Electrical Safety

#### 17.1 Qualifications/Training

Qualified trainers who perform training shall be competent in the skills and techniques necessary to satisfactorily train personnel to distinguish exposed live parts from other parts of electric equipment, to determine the nominal voltage of exposed live parts and to know the safe working clearance distances specified in this manual.

Only qualified persons and trainees working under the direct supervision of a qualified person may work on or with energized lines or exposed live parts of 50 volts or greater.

# 17.2 Hand and Portable Power Tools

All hand and portable power tools shall be either double-insulated or equipped with a three-wire cord that is wired to ground the frame of the tool. It is recommended that a Ground Fault Circuit Interrupter (GFCI), which provides additional protection against electrical shock, be utilized with all extension cords when the GFCI is located at the source of the extension cord. The use of the GFCI is required in all wet or damp areas. Cords shall be inspected prior to use. Ground pins shall not be removed at any time from extension cords or electrical powered equipment.

# 17.3 Safe Approach Distances

No person(s) shall approach or bring any conductive object without an insulating handle closer to energized lines or exposed live parts than the distance(s) set forth in Table 17.3.1.

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#### 17.3.1 AC LIVE-LINE WORK

# Minimum Approach Distances

in kilovolts, phase to phase		Di	stance	
		to Ground	Phase to Pl Exposu	
	(ft-in)	( <u>m</u> )	( <u>ft-in</u> )	(m)
.05 to 1.0	()	(')	(*)	()
.1 to 15.0	2-1	0.64	2-2	0.66
5.1 to 36.0	2-4	0.72	2-7	0.77
6.1 to 46.0	2-7	0.77	2-10	0.85
6.1 to 72.5	3-0	0.90	3-6	1.05
2.6 to 121	3-2	0.95	4-3	1.29
138 to 145	3-7	1.09	4-11	1.50
161 to 169	4-0	1.22	5-8	1.71
230 to 242	5-3	1.59	7-6	2.27
345 to 362	8-6	2.59	12-6	3.80
500 to 550	11-3	3.42	18-1	5.50
765 to 800	14-11	4.53	26-0	7.91

Note 1: These distances take into consideration the highest switching surge an employee will be exposed to on any system with air as the insulating medium and the maximum voltages shown

Note 2: The clear live-line tool distance shall equal or exceed the values for the indicated voltage ranges.

#### () Avoid Contact

- A. For areas restricted to qualified persons, the materials therein may not be stored within the allowable working space of energized lines or equipment.
- B. For areas that can be accessed by persons without the relevant qualifications, the distance at which materials and equipment shall be placed or stored is dependent on the power of the lines and equipment therein. If the power is:
  - 1. 50 kV or less, the distance is 10 feet (305 cm).
  - More than 50 kV, the distance is 10 feet (305 cm) plus four (4) inches for every 10 kV over 50 kV.

# Employee Safety Manual

- C. All wires, regardless of the type of covering, must be considered live, unless they are positively known to be dead and grounded.
- D. All conductors, terminations and related equipment shall be considered energized until de-energized, tested, grounded and tagged.
- E. When working with equipment, switches, cutouts and grounding devices, the worker shall place himself in a safe position with all components in clear view.

#### **17.4 Work Clearances in Substations**

When employees are required to perform work near energized high-voltage equipment, care must always be taken to ensure that proper clearances are maintained by all personnel.

- A. When lifting or handling loads in proximity to energized conductors and/or equipment in substations, ground trucks or cranes should be used (see Substation Work Procedure Manual).
- B. The antennae of either mobile or portable radios shall be kept at a safe distance from energized conductors and/or equipment at all times.
- C. Only trained personnel can enter an energized substation unescorted by a qualified person.
- D. All personnel entering a substation or switching station that is under the control of the System Operator shall notify the System Operator upon their arrival and prior to unlocking the locked gates of the substation. Once work activities are completed, all personnel shall notify the System Operator that they have left the substation.

#### 17.5 Switching

# 17.5.1 Basic Principles of Switching (Substations/Switching Stations)

Information regarding this subject can be found in the Substation Department Work Procedures.

# 17.5.2 Substation Backfeed Situations

Information on this subject can be found in Substation Department Work Procedures.

# 17.5.3 Distribution Switching and Tagging

For all distribution switching and tagging, please reference the company's/department's most current work procedures in the OHL, URD and the Control Center Procedures Book.

#### 17.6 Clearances

#### Employee Safety Manual

# 17.6.1 Use of Electrical Mechanical Equipment within Substation Properties

Mechanical equipment shall be operated so that the required clearance distances are maintained for exposed energized lines and equipment.

Equipment and the attached load operating near energized lines or equipment shall be treated as energized by persons on the ground.

Further information can be found in the most recent version of the Substation Work Procedures SP 0110-1.

# 17.6.2 Procedure for Removing from Service a Line that is Under the Jurisdiction of the System Operator

Reference S.O. Operating Instructions 1-S and any revisions thereto in the Control Center Procedures Book.

# 17.6.3 Receiving Clearance from the System Operator

- A. Use of the term "Clearance" Upon completion of the steps of a Switch Order executed by a System Operator, the term "Clearance" will always be accompanied by a statement that defines its purpose. For example, upon completion of the required switching for a relay technical to perform his/her relay tests, the System Operator will issue "Clearance to (name of field person) on OCB (Name) for testing."
- B. All lines are considered energized until ALL of the following have been completed:
  - 1. The system operator issues clearance, AND
  - 2. the designated tests to prove absence of potential have been performed at the work location, AND
  - 3. the lines have been grounded.
- C. Clearance is issued when the System Operator contacts the employee for whom the line or equipment has been tagged. Upon completing all switching steps to isolate a line, facility or piece of equipment for work or maintenance, the System Operator will proceed by making the following statement to the employee who is to receive the clearance: "At (state time) you have clearance to Test and Ground."

The employee receiving clearance to Test and Ground can now proceed to test the isolated area for potential and to install personal field grounds as required. After completing the testing and grounding procedures, the employee will then contact the System Operator to inform him/her that the testing and grounding have been completed. The System Operator will then issue the following declaration: "At this time (state time) you have clearance on (equipment) to do (purpose), e.g. Doble class #3 inspection, etc."

#### **Employee Safety Manual**

D. If Testing and Grounding is <u>not</u> required by field personnel, due to the nature of the work at hand (such as trip testing or work that is distant from the de-energized equipment), the fact that personal grounds will not be installed should be made known to the System Operator when the switching steps are completed. Since clearance to test and ground will not be issued, the System Operator can then issue clearance to perform the work that is needed.

# 17.6.4 Procedure to Be Used when Field Personnel Surrender Clearance

- A. Upon completion of their work, field personnel will notify the System Operation that their work is done. At this time, field personnel will be instructed by the System Operator to remove all personal field grounds, if any.
- B. After removing all personal field grounds, field personnel will report clear of the isolated area to the System Operator and clearly state that all field grounds have been removed. Switching to restore the isolated area can then begin.
- 17.6.5 General Procedure for Returning to Service a Line That Is Under the Jurisdiction of the System Operator

Reference S.O. Operating Instructions 1-S in the Control Center Procedure Book.

# 17.7 De-energization and Grounding Transmission and Distribution Lines and Equipment

Reference the most recent version of the following Department Work Procedures and:

#### Substation SP-0107-2 Electric Operations C3100 and C3201 UGL 3017 and 3018

- A. De-energized lines shall be tested and found absent of nominal voltage before installing grounds or performing work on the lines or equipment.
- B. Before de-energized lines are worked on, temporary protective grounds shall be installed at the work location, in compliance with the various department work procedures.
- C. The grounds shall have impedance to ground low enough to permit for the prompt operation of protective devices, in case the lines or equipment is unexpectedly energized.
- D. Protective grounds shall be capable of conducting the maximum ground-fault current that could flow at the point of grounding for the time necessary to clear the fault.
- E. The ground-end connection shall be attached first, and then the other end shall be attached to the de-energized conductor by means of live-line tools.

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- F. Where facilities are 600 volts or less, grounds may be applied using appropriate PPE rated for the voltage to be worked on.
- G. The grounding device shall be removed from the lines or equipment first, using liveline tools or other insulated devices, and removed from the grounding point last.

# 17.8 Fault-Locating Equipment Use

When using the fault-locating equipment, the truck and equipment shall be grounded per the manufacturer's recommendation. For all fault locating, Class 2 rubber gloves are required.

# 17.9 Guarding of Rooms Containing Electric Supply Equipment

Unqualified employees are prohibiting from entering rooms/spaces where electric-supply lines and equipment exist, without direct control from and the supervision of a qualified person. The unqualified employees shall heed the instructions of the qualified employees at all times.

# 17.10 Testing and Test Facilities

For information on this subject, reference Protective Equipment Test Center Work Procedures.

# 17.11 Handling Fallen Wires

- A. Only trained, qualified and authorized persons shall handle fallen wires.
- B. All wires, primary or secondary, that are on the ground but still attached to the pole on one end must be considered and treated as energized.
- C. A line technician alone shall not attempt to put back up an energized primary wire which is down on the ground, but shall guard it and send for or seek assistance.
- D. In handling a case of "wires down," a person must never climb a pole, unless climbing space is clear. If necessary, before repairs are made, wires must be cut dead on an adjacent pole that has clear climbing space, but only after any required temporary grying has been provided.

# 17.12 Inducted Voltage(s)

Before lines are installed parallel to existing energized lines, a determination shall be made of the approximate voltage to be induced in the new lines, or work shall proceed on the assumption that the induced voltage is hazardous. Unless it can be demonstrated that the lines being installed are not subject to the induction of a hazardous voltage or unless the lines are treated as energized, the following requirements also apply:

A. Each bare conductor shall be grounded at least every two miles.

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- B. The grounds shall remain in place until the conductor installation is completed between the dead ends, including during the aerial cleanup.
- C. Grounds shall also be installed at each location where persons are working on bare conductors and at all open dead-end and catch-off points or at the next adjacent structure.
- D. When two overhead conductors must be spliced, they shall be bonded and grounded.
- E. Grounding procedures shall be in accordance with the work procedures of the various departments.

#### 17.13 Current Transformer Secondaries

- A. The secondary of a current transformer shall not be opened while the transformer is energized.
- B. If the primary of the current transformer cannot be de-energized before work is performed on an instrument, a relay or another section of the current transformer secondary circuit, the circuit shall be bridged to prevent the current transformer secondary from being opened.

#### **17.14 Transformers**

- A. When transformers are being raised or suspended in the air, any person on the pole must take a position above or well in the clear of the transformers.
- B. A secondary voltage test must be made on all transformers before they are connected to the secondary mains.
- C. When work requires the disconnection of taps from a supply line to equipment, the disconnection shall be made at the point where the taps meet the supply line, and never so an unprotected energized wire remains within reaching distance.

#### **17.15 Capacitors**

Capacitors are devices that store a charge. In our applications, they are used for voltage support and power factor correction. They are provided with a discharge device for draining the residual charge to a low value, approximately five minutes after they have been completely disconnected from the line. Before working on capacitors, they shall be de-energized, discharged and grounded. In addition, the capacitor bank-support framework shall be grounded.

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These discharge devices must not be depended upon for safety. In light of this, employees shall adhere to the following rules when working with capacitors:

- A. Capacitors shall not be worked on and the connections or terminals shall not be handled until the fuses or disconnect switches have been opened and the terminals have been shorted or grounded.
- B. Where oil switches are installed, they will be opened before cutouts or disconnects are opened.
- C. After opening the fuses or disconnects, wait at least five minutes before applying the shorting jumpers and grounds. The shorting jumpers shall be applied with a "hot stick."
- D. Capacitor cases shall be considered energized as long as the capacitor is connected to the line and until after the capacitor has been shorted and grounded.

#### 17.16 Operating Switches and Cutouts

- A. When operating or replacing cutouts, the line technician must always protect himself/herself against accidental contact with energized wires or grounded equipment by using Class 2 Gloves.
- B. Cutouts and disconnects equipped with Loadbuster® "ears" shall always be opened with a Loadbuster or other tool(s) that will provide arc-free interruption whenever possible. All other cutouts not adaptable to these tools shall be opened with an approved cutout or switch stick.
- C. All cutouts or switches shall be closed with an approved cutout or switch stick. Before opening or closing, the main porcelain housing should be inspected for structural cracking. If the housing integrity is questionable and could be damaged when closing, the unit should be replaced.
- D. When closing any cutout or switch, it is very important that it be done without hesitation, in order to prevent an arc.
- E. Whenever a worker is called upon to operate any switch carrying more than 300 volts, appropriate rated rubber gloves must be worn.
- F. Where line cutouts are used to permit dead-line work, the fuse holder shall be opened and removed and the de-energized conductor shall be tested and grounded before proceeding with work.

# **17.17** Mobile Substations

Reference Substation Department Work Procedures and any revisions thereto.

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**17.18 Transmission Operations** 

#### Transmission

In addition to the hazards particular to electrical operations, other non-electrical hazards may be encountered. Employees in the electrical operations departments should therefore be familiar with all other sections of the Safety Manual that may apply to their work.

Definition of Transmission Circuit: Any circuit, apparatus or equipment normally energized at 34.5 kV (Delta connected) or above shall be classified as transmission.

#### 17.18.1 Live-Line Tools and Equipment

- A. Only properly inspected and labeled tools with the proper voltage rating and sufficient length to secure proper clearance for safety shall be used. It is possible to depend too much on the voltage rating of the tools and not enough on clearance between the employee and the live wires.
- B. The employee in charge must at all times be sure that the sticks, straps, ropes and other equipment are in first class condition and have been electrically tested in accordance with company standards.

#### 17.18.2 Live-Line Maintenance

- A. Maintenance, repair and construction work on electric circuits or apparatus shall not be done until the proper authorization has been obtained for performing the work.
- B. Before any work is undertaken on energized equipment, workers shall be qualified by training and experience to perform work by the prescribed method for the voltage involved and shall be familiar with minimum working clearance.
- C. Whenever it becomes necessary to replace a worker or supervisor during a job, such replacement should be made only after the replacement worker or supervisor has been fully informed of existing conditions.
- D. Lines should always be de-energized, if it can be done without jeopardizing continuity of service.
- E. Where it is necessary to maintain continuity of service on transmission lines, it is permissible to work on such lines when they are energized, provided that hot-line tools designed and tested for this type of work are used.
- F. Routine live-line work shall be done only during favorable weather conditions. Rain, snow, sleet and dampness, for example, create dangerous conditions that preclude routine live-line work.
- G. Obtain proper clearance from the system operator.

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- H. When it is necessary to work on transmission lines with more than one circuit, and there is insufficient working clearance between circuits for live-line work, the circuits not being worked on shall either be de-energized and grounded or shifted with hot-line tools, in order to provide proper working clearance.
- Live-line work shall not be performed on any conductors smaller than No. 4 B & S gauge.
- The principal factor in safe live-line work is adequate clearance between the employees and all wires on the pole or structure, including the wires being worked on.

# 17.19 Electric Meter Testing/Installation and/or Removal

#### General

The following rules apply specifically to conditions encountered in the checking and testing of electric meters in the field. However, all applicable rules set forth in other sections of this manual as well as departmental safety and procedural guidelines must also be observed by all persons doing service, meter or relay work. Please reference departmental safety and work procedures for additional information.

- A. Employees must at all times realize that there may be hazards while testing or changing meters. Safe working conditions are essential to the safety of customers and employees.
- B. Whenever any employee is called upon to operate a live switch, the employee shall wear an approved class of rubber gloves, approved apparel and safety glasses (flash) as defined in Apparel Wear section 5.0. Gloves shall be tested and inspected prior to use.
- C. Work gloves and safety glasses MUST be worn while setting or removing socket meters. When testing meters, an approved class of rubber gloves and safety glasses shall be worn.
- D. When applicable in testing, repairing, installing and changing meter equipment, personal protective safety equipment such as hardhats, eye protection, leather protective gloves or rubber gloves shall be used.
- E. Electric meter and control wiring shall be treated as energized at all times. The handling of circuits with a voltage of 120, 240 or higher requires reasonable precautions to prevent personal injuries.

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# 17.20 Underground Electric Operations (UGL)

#### 17.20.1 General

- A. Class 2 rubber gloves shall be used on all energized cables and equipment. Hot-line tools shall also be used while working on primary circuits for switching, loadbreaking and grounding operations.
- B. Test points, when provided, shall be used.
- C. A primary or secondary system neutral shall never be operated for any reason while the system is energized.
- D. Before doing work on de-energized primary circuits or equipment:
  - 1. A visible open break shall be provided, if possible.
  - 2. A voltage test shall be made.
  - 3. The equipment shall be grounded.
  - 4. The cable or equipment shall be tagged per the instructions of the Distribution Supervisor.
- E. When work is to be done on equipment or cable of an underground system, precaution to prevent backfeed shall be taken. This shall include grounding of the conductors or other approved methods where applicable.
- F. Before paralleling positions of an open loop, it shall be determined that the separate sections of the loop are of the same phase.
- G. Faulted cables shall be isolated, tested, grounded and tagged before repair work. Approved tester/equipment shall be used to ensure that the cable is de-energized before grounding.
- H. When unattended, hand holes, manholes, silo covers and pad-mounted equipment shall be secured or bolted at all locking points with approved company locks and special keyed bolts supplied by the manufacturer. Missing bolts shall be replaced.
- L Ladders or other climbing devices shall be used to enter and exit manholes and subsurface vaults that exceed four (4) feet (122 cm) in depth. Ladders shall be inspected prior to use.
- J. Persons shall not step on cables or bangers to exit out of manholes or vaults.
- K. When work is performed on buried cable or on cable in manholes or vaults, metallic-sheath continuity shall be maintained.

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# 17.20.2 UGL Work Area Protection

- A. When loading or unloading cable reels, care should be taken so that reels are under control at all times. Cable ends shall be tacked or tied down to prevent unraveling.
- B. Ropes and cables laid temporarily across sidewalks during pulling operations shall be properly protected to avoid possible injury to pedestrians. Cables laid out temporarily to restore power shall be protected in the same manner.
- C. Do not use cables or cable racks to support chain falls, lifting tackle, weights or planks.
- D. Equipment and cable shall not be left on the jobsite after the completion of work. Good housekeeping shall be maintained at all times around the work area.
- E. Care shall be taken when pulling cables to protect employees and the public from possible injury. This requires a study of the vehicular and pedestrian traffic for the particular location, to enable the equipment to be set up in the safest possible manner that will cause the public the least inconvenience. All persons, including employees, should be warned to keep away from taut ropes or cables. If necessary, barricades shall be installed to divert pedestrians and vehicles away from the pull-site.
- F. Workers who are in a roadside work zone, exposed to vehicular traffic on a roadway or exposed to construction equipment within a work zone will be required to wear Class 2 safety gaments at all times.

# 17.20.3 UGL Manhole Operations

- A. Load-breaking devices in the manhole must be operated from outside the manhole. No one is to be inside the manhole when such devices are operated.
- B. For O&R employees, work shall only proceed in a manhole if all circuits are deenergized, grounded and tagged. If necessary, the cable to be worked on shall be spiked to ensure that it is de-energized.
- C. Employees shall not remain in a hole while installing or removing cable if the pulling system is operating and/or under tension.
- D. Prior to opening a manhole, tests for oxygen deficiency and combustible atmosphere must be made. Manhole-lifting equipment shall be used to open the manhole. No entry into a manhole shall be made in an "Immediately Dangerous to Life and Health" or "IDLH" atmosphere unless in the pursuit of life or limb. The atmosphere shall be made safe prior to entry. All sources of combustible gas, smoking, vehicle exhaust and any source of ignition shall be kept at a distance while testing.
- E. A visual inspection for unusual and/or hazardous conditions shall be made prior to entering a manhole. Heavy mud and waste should be cleared away prior to entry.

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- F. Cable and cable racks shall not be used as ladders or to support tools and equipment.
- G. Equipment used to lower or raise materials into a manhole shall be inspected for defects prior to use. Workers shall be clear of the area directly beneath the opening of a manhole when equipment or materials are being lowered or raised.
- H. In case of manhole fires, the workers shall evacuate the manhole before using the fire extinguisher and shall not re-enter the manhole until the fire has been extinguished and the manhole has been properly ventilated and tested (see Permit-Required Confined Space Entry).

# 18.0 Emergency Response/Evacuation

#### 18.1 Emergency Action Plan

Each location shall have a written Emergency Action Plan that covers the following:

- Applicability to all types of emergencies
- General site information
- Evacuation Plan and procedures
- Emergency notifications
- Fire alarm systems
- Training and drill requirements
- Records management

Employees are required to familiarize themselves and keep up to date with the Emergency Action Plan for each facility in which they work.

# 18.2 Mutual Assistance at Other Utilities

When O&R employees are assisting in the restoration of service at another utility, all employees will follow the safety practices outlined in this manual. Additional safety practices and procedures required by the host company will also be followed.

#### 18.3 Mayday Procedures

The following shall be the procedures for a distress call signal:

A. When faced with an emergency situation (i.e. an aggressive customer, a serious accident or injury, electrical contact, an incident that causes harm to the public, or a situation that has the potential to cause one of these conditions), field personnel with a radio-equipped vehicle should, as soon as possible, issue a MAYDAY.

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- B. The field person, if able, shall initiate a MAYDAY over the radio. The distress call shall consist of the clearly-spoken word <u>MAYDAY</u> repeated <u>three (3)</u> <u>times.</u> followed by the vehicle number. The distress call shall be repeated until the call is acknowledged by either the Dispatcher or the Distribution Supervisor in the ECC/GAS DCC.
- C. If the field person is unable to initiate a verbal MAYDAY, the MAN DOWN button should be depressed. Depressing the MAN DOWN button will generate an audible and visual alert for the Dispatcher or Distribution Supervisor to notify him/her to the existence of an emergency event. The alert will also indicate the vehicle number to Control Center personnel. The MAN DOWN button WILL NOT provide the location of the vehicle (see Note below).
- D. The driver/occupants of any radio-equipped vehicle who become aware of another vehicle in distress that cannot make radio contact with the ECC/GAS DCC may directly transmit the message and/or relay the location information to the ECC/GAS DCC.
- E. Upon receiving and verifying a distress call from any vehicle, the Distribution Supervisor shall direct the Dispatchers to immediately clear all airways on all frequencies by issuing the MAYDAY tones and stating "To all vehicles: There is a MAYDAY in progress at this time....Clear this frequency until further notice."
- F. After clearing the airways, the dispatcher should contact the distressed vehicle and request his/her MAYDAY message. In the event that the vehicle cannot be reached or located, the ECC/GAS DCC shall initiate all efforts to locate the vehicle.
- G. The operating authority is responsible for ensuring that the MAN DOWN buttons function properly.

Note: Once the MAYDAY procedure has been initiated via the MAN DOWN button, the mobile radio will send out a series of alerts to the Control Center and will be muted for 10-15 seconds, after which time the radio will automatically un-mute. If the ECC/Gas DCC does not respond within 15 seconds, the individual initiating the MAYDAY will need to key the microphone one (1) time.

# 18.4 Pole-Top/Tower Rescue

Safe and timely pole-top/tower rescue is essential in assisting employees who may have been involved in an accident or incident. Rescue shall be attempted as soon as safely permitted. It is paramount that the safety of the rescuers is considered in every circumstance.

Pole-top rescue training will be provided annually and performed in accordance with applicable departmental procedures. For additional information, refer to departmental procedures.

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#### **18.4.1** General Precautions

- A. In cases of electric shock, there must be no delay in providing resuscitation, as every moment lost decreases the possibility of restoring breathing.
- B. Call or have someone call for help immediately. The Mayday procedure should be utilized in communications for assistance.
- C. There are many possible conditions that may make it a difficult matter to properly position a victim of electric shock on a pole or elevated structure.
- D. The flexibility of mouth-to-mouth resuscitation makes it particularly suitable for this type of rescue.
- E. After freeing the victim from contact with the electrical apparatus and/or wire and taking such measures as may be necessary to protect both the victim and rescuer from further contact, the victim should be secured in any manner that will place the victim face up. The chin lift is used since it is the most effective method of opening the airway. The tongue is attached to the lower jaw. When you lift the chin, you lift the tongue from the back of the throat, which opens the airway. In cases where neck injury is a possibility, the head tilt should be absent or minimal to avoid aggravating the neck injury.
- F. Month-to-mouth resuscitation with applicable protection may then be performed.
- G. Resuscitation should continue on the pole and/or elevated position until all arrangements are completed for lowering, which should be done as quickly as possible. Resuscitation efforts should be resumed immediately when the victim is on the ground.
- H. Care should be taken to avoid having a person who was suspended lie down, since he/she could be suffering from suspension trauma/orthostatic intolerance. He/she should instead stand with support of additional personnel to ensure circulation of the deoxygenated blood that mat have gathered in the legs. Lying this person down immediately could send the deoxygenated blood to the heart, causing the individual to go into shock.

# 18.4.2 Bucket-Truck Bucket Rescue Training (Single and Double)

Rescue Bucket Training shall be provided annually.

All employees shall be trained on the operation and rescue procedures for each bucket truck type they may use. If an employee is not trained in either operation or rescue procedure, he/she shall not utilize such equipment.

#### 18.5 Tower Rescue

Reference the Department Tower Rescue Procedure.

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# 43.0 Safety Tagging - Lockout/Tagout

# 43.1 General Requirements

# 43.1.1 Gas Operations and Gas Customer Service Lockout/Tagout

Procedures covering gas operations and gas customer service that require any lockout/tagout can be found in the department procedures manual.

#### 43.1.2 Substation Operations

For procedures covering tagging in substations, refer to the most recent version of Workplace Procedure SP-0105.

# 43.1.3 Distribution Switching and Tagging

For all distribution switching and tagging, please reference the most recent version of company/department Work Procedure C-3100 and revisions thereto.

# 43.2 Electric Distribution and Transmission Tags

The standard safety tags contain eyelets for attaching them with an electric tie to the operating and control handles of an apparatus. The tags used under the System Operator and Distribution Supervisor are in two colors (red and green), each of which has a distinct purpose. In no case will either tag be used for any purpose other than that for which it is intended.

- A. The red tag with black lettering shall be used only under the supervision of the System Operator and/or Distribution Supervisor. It is used for high-voltage equipment and associated control mechanisms together with any low-voltage equipment that the System Operator may designate. Facilities that have had red tags applied shall not be operated under any conditions until the qualified employee whose name is on the tags releases them.
- B. The green tag shall be placed on equipment solely to indicate an abnormal equipment condition or status and necessitates that such information be readily available to any employees involved in the operation or maintenance of the equipment. The green tag shall never be placed to provide clearance.
  - Equipment with a green tag shall be operated only with the approval of the System Operator or the Distribution Supervisor, whoever has authority over that tag.
  - 2. The reason for placement of the green tag shall be clearly stated on the tag, including any specific operating limits.
  - Requests to remove a green tag shall be made to the appropriate authority governing the tag to assure that the restriction or abnormality has been corrected.

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- 4. Requests to operate green-tagged equipment within the stated restriction shall be made to the authority governing the tag.
- 5. Multiple green tags may be applied to the same switching device.
- 6. The green tag may indicate more than one abnormality or restriction, provided that the tagging was done during the initial arrangements with the authority governing the tag.

Green Tag Special Note: A green tag shall never be placed for clearance protection. A red tag may be applied to green-tagged equipment, devices or switches, provided that the abnormality or restriction does not prevent the equipment, device or switch from serving the purpose for which the red tag is being applied.

# 43.3 Scheduling Work on Equipment under the System Operator's Jurisdiction

The Department Manager, Superintendent, Supervisor or their designated representatives may ask the System Operator to release equipment under their jurisdiction for work as follows:

- A. The removal of equipment or lines from service required for all non-emergency work must be requested on a Transmission/Distribution Clearance Request Form at least 72 hours in advance of when such work is scheduled to begin. This request shall be filled out in its entirety and shall be made to the System Operations Scheduling Supervisor or, in his/her absence, to the System Operator directly, by the employee in whose name the circuit or equipment is to be tagged or by that person's supervisor. This procedure also applies to Thirdparty interconnects and their O&R coordinators.
- B. During the construction of new equipment, when the installation or construction work has progressed to the point of energization from any station or other external source of any piece of transmission equipment or distribution equipment within the substation fence, the System Operator shall be so informed by the Engineering Department as follows:
  - This information shall be in writing, shall indicate by sketch its location in relation to the then-existing System Diagram and shall specify the Qualified Engineering Department representative in whose name protective tagging should be issued.
  - 2. The System Operator will immediately order the qualified employee(s) to tag out of service with red tags all switches and control equipment that could energize the new equipment.
  - 3. The tags will be made out in the name of a qualified substation, relay or engineering employee, or other qualified personnel.

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- 4. All requests for the placement or removal of tags on equipment to energize it for test purposes will be made to the System Operator through the qualified substation or relay employee.
- Revisions or additions to the System Diagram and SCADA system located in the Energy Control Center must be made before any new equipment or line is placed in service.
- 6. For emergency work, the person in charge of the job shall consult with the system operator to determine which equipment should be cleared and tagged out in order to make the job safe.

#### 43.4 Qualifications/Training

# 43.4.1 Definition of an Employee Qualified to Use Lockont/Tagout

A person who tags and/or locks out equipment in order to perform service or maintenance must be qualified. To be qualified, a person shall have received training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control.

The qualified person must understand the purpose and function of the Energy Control Program and have all the skills required for the safe application, usage and removal of energy controls. For further information on switching and tagging operations, reference Electric Systems Operations Operating Instructions 1-S-4.

#### 43.5 Key Requirements

Lines, circuits, feeders and apparatus must be considered energized at all times unless they are properly tagged out.

# 43.5.1 Electric Distribution and Transmission Tagging Key Requirements

- A. Only qualified employees may have equipment tagged out. Third-party interconnects shall also supply a list of qualified employees to perform switching/tagout. Equipment shall be tagged only for the persons appearing on these lists. It shall be the responsibility of the Manager, Superintendent or Supervisor to determine which employees are qualified.
- B. All tags must be made out in the name of the person who is in charge of the job. This person shall be responsible for all others working under his tag on the jobsite. The person in charge must be available at the jobsite to clear people off of equipment and/or lines that may need to be restored in an emergency.
- C. In filling out tags, care should be taken to ensure that all required information is complete, correct and legible.

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- D. Tags shall be tied securely to the control handle of equipment with electric ties. For equipment that does not have a control handle, including single-phase disconnect switches and cutouts, the tag shall be fastened in an approved manner (using the hot stick tag holder, for instance).
- E. When the person in charge of a job is scheduled to be absent and the job is expected to be continued, he/she should arrange with the authority governing the tag – the Department Manager, Superintendent and/or Supervisor – to have his/her tags released and/or replaced. In the event of an unforeseen absence, the Line or Substation Supervisor can assume the responsibility of the tag and appoint a new person in charge.
- F. Other qualified personnel may parallel tag apparatus with Electrical Distribution, Transmission and Substation personnel or System Operators. This tagging is subject to the approval of the authority governing the tag. The tags are to be placed and removed by the qualified employee(s).
- G. When more than one group of persons is working on the same line or apparatus, each group may request protection by its own set of tags.
- H. When work is performed at separate locations on one line or piece of equipment but under the jurisdiction of qualified employees, each qualified employee shall request his/her own tags using the above procedure.

#### 43.5.2 Use of the Term "Clearance"

Upon completion of the steps within a Switch Order executed by the System Operator or Distribution Supervisor, the use of the term "clearance" will always be accompanied by a statement that defines the purpose for which the clearance is being issued. For example, upon completion of the required switching for a relay technician to perform his relay tests, the System Operator will issue "Clearance to (name of field person) on OCB (name) for testing." For example, the Distribution Supervisor would issue clearances as follows: "As of (time), (name of field person) has clearance to (specify work) between (ID Location points)." The employee who received the clearance shall repeat the clearance back to the SO or DS until both agree that the clearance is correct. For example: The field worker, after receiving clearance from the System Operator, will repeat the information: "I understand that as of (time), I have clearance to (specify work) between (ID location points)" and so on.

#### 44.0 Safety Training

#### 44.1 New Employee Orientation

Each new employee shall attend a New Employee Safety and Health Orientation prior to performing unescorted work activities at O&R. The orientation shall cover facility safety requirements and topics related to the job tasks the employee is to perform. Topics not covered in the orientation shall be communicated to the employee's supervisor or chief to ensure that the employee is not assigned tasks that he/she is not trained to perform.