

## Attachment III

## 15.5 Rate Schedule 5 - Payments and ~~Certain~~ Charges ~~For~~ for Black Start and System Restoration Services

~~This Rate Schedule applies to payments to Generators who provide Black Start and System Restoration Services to transmission facilities that are part of the ISO's Black Start and System Restoration plan ("the ISO Plan"); to payments to existing Generators of such services that are part of Transmission Owners' individual Black Start and System Restoration Services plans for their Transmission Districts; and to charges for such services that are allocated to Transmission Customers in the Consolidated Edison Company of New York, Inc.'s ("Consolidated Edison") Transmission District.~~ Black start and system restoration services ("Restoration Services") are provided under the ISO's black start and system restoration plan ("ISO Plan") or an individual Transmission Owner's black start and system restoration plan by generating units that are capable of starting without an outside electrical supply or are otherwise integral to the restoration of the NYS Transmission System after an outage. This Rate Schedule establishes the terms under which a Generator shall provide, and be paid by the ISO for providing, Restoration Services under the ISO Plan or an individual Transmission Owner's plan. This Rate Schedule also establishes the terms under which the ISO shall recover the costs of Restoration Services payments from Customers. Provisions specific to the Consolidated Edison Company of New York, Inc. ("Consolidated Edison") black start and system restoration plan ("Consolidated Edison Plan") are set forth in Section 15.5.4.

### 15.5.1 Requirements

The ISO shall develop and periodically review the ISO Plan. The ISO may amend the ISO Plan ~~to account for changes in system configuration if the ISO~~ and may solicit offers for additional resources if it determines that additional ~~Black Start and System~~ Restoration Services are needed. ~~The ISO shall have the flexibility to seek bids for new resources when it amends the~~

~~current ISO Plan.~~ The ISO shall establish procedures for acquiring ~~Black Start and System~~ Restoration Services and ~~testing requiring that the~~ selected Generators test their units providing ~~this service~~ Restoration Services (“Black Start Capability Test”). The ISO shall make ~~Black Start and System~~ Restoration Services payments only to those selected Generators that have appropriate equipment installed and available for service at the request of the ISO.

~~The full restoration of the NYS Power System may require additional Black Start and System Restoration Services from Generators, which are located in local Transmission Owner areas and which are not presently listed in the ISO Plan. Although the ISO Plan will restore a major portion of the NYS Power System there are portions of the NYS Power System that will remain under Transmission Owner restoration control. Where the Transmission Owner's restoration plan requires additional Black Start and System Restoration Services, the~~ A Transmission Owner shall develop and periodically review its black start and system restoration plan. A Transmission Owner shall designate generating units with the capability to provide Restoration Services to be included in its plan if it determines that the Restoration Services are needed. The ISO will make payments for such local ~~services directly to the Generators that provide it,~~ Restoration Services to the Generators that provide them under the terms of this Rate Schedule. ~~The LSEs in those local Transmission Owner areas will be additionally charged for those services by the ISO under the ISO OATT. Generators, which~~ Generators that are obligated to provide ~~Black Start and System~~ Restoration Services as a result of divestiture contract agreements will not receive ~~ISO~~ Restoration Services payments from the ISO for those services if they are already compensated ~~for such service~~ as part of those divestiture contracts. Customers in the local Transmission Owner service territories will be charged for those services by the ISO under the terms of this Rate Schedule. Customers may not Self-Supply Restoration Services.

**15.5.2 ~~Payment~~Payments to Generators ~~Under the Black Start and System for Provision of Restoration Services Plans Developed by Under the ISO and by Individual Plan and~~ Transmission Owners ~~Except for Existing Generators Under' Plans, Excluding~~ the Consolidated Edison Plan**

By May 1st of each year, Generators ~~which were~~ selected to provide ~~Black Start and System~~ Restoration Services under the ~~Black Start and System Restoration Services ISO Plan and under the~~ plans developed by ~~the ISO and by~~ individual Transmission Owners, except for ~~existing Generators within~~under the Consolidated Edison ~~Transmission District~~Plan, must provide the following cost information to the ISO based upon FERC Form No. 1 or equivalent data:

- Capital and fixed operation and maintenance costs associated with only that equipment which provides ~~Black Start and System~~ Restoration Services capability;
- Annual costs associated with training operators in ~~Black Start and System~~ Restoration Services; and
- Annual costs associated with Black Start ~~and System Restoration Services testing~~ Capability Tests in accordance with the ISO Plan or the plan of an individual Transmission Owner.

Each Billing Period, the ISO shall pay each Generator ~~will be paid~~ on the basis of its costs filed with the ISO. The daily rate for ~~Black Start and System~~ Restoration Services payments will be determined by dividing the Generator's annual cost by the number of days in the year from May 1st through April 30th of the following year.

Generators that provide ~~Black Start and System~~ Restoration Services shall conduct ~~tests~~ Black Start Capability Tests that are deemed necessary and appropriate for providers of these services under the ISO Procedures or local Transmission Owner procedures, as applicable. Any Generator that is awarded ~~Black Start and System~~ Restoration Services payments and ~~that~~ fails a ~~test~~ Black Start Capability Test shall forfeit all payments for such services since its last successful

test. Payments to that Generator shall ~~not resume until it successfully passes~~ upon its successful completion of the test.

~~**15.5.3 — Payments to and Charges for Existing Generators Providing Black Start and System Restoration Services Under the Consolidated Edison Transmission District**~~ **15.5.3 Charges to Support Payments to Generators Under the ISO Plan and Individual Transmission Owners' Plans, Excluding the Consolidated Edison Plan.**

Each Billing Period, the ISO shall charge, and each Customer shall pay based on its supply of Load that is *not* used to supply Station Power as a third-party provider under Part 5 of the ISO OATT, a charge for the recovery of the costs of the ISO's payments to Generators providing Restoration Services under the ISO Plan. The charge shall be equal to: (A) the product of: (i) the Customer's share of Load in the NYCA that is *not* used to supply Station Power as a third-party provider for each hour in the Billing Period, and (ii) the ISO's total payments to Generators providing Restoration Services under the ISO Plan under Section 15.5.2 to this Rate Schedule for the Billing Period, divided by the total number of hours in the Billing Period, (B) summed for all hours in the Billing Period.

Each Billing Period, the ISO shall charge, and each Customer shall pay based on its supply of Load that is used to supply Station Power as a third-party provider under Part 5 of the ISO OATT, a charge for the recovery of the costs of the ISO's payments to Generators providing Restoration Services under the ISO Plan. The charge shall be equal to: (A) the product of: (i) the Customer's share of Load in the NYCA that is used to supply Station Power as a third-party provider for each day in the Billing Period, and (ii) the ISO's total payments to Generators providing Restoration Services under the ISO Plan under Section 15.5.2 to this Rate Schedule for the Billing Period, divided by the total number of days in the Billing Period, (B) summed for all days in the Billing Period. The ISO shall credit these daily charge amounts to Customers based

on their share of the Load in the NYCA that is not used to supply Station Power as a third-party provider for that day. The ISO shall sum these daily credits for all days in the Billing Period.

A Customer will be responsible for the following additional charge if the Transmission Owner in whose Transmission District the Customer is located maintains a Restoration Services plan, except with respect to the Consolidated Edison Plan, the cost recovery requirements of which are set forth in Section 15.5.4.3 to this Rate Schedule. Each Billing Period, the ISO shall charge, and each Customer in the local Transmission Owner's Transmission District shall pay, a charge for the recovery of the costs of the ISO's payments to Generators providing Restoration Services under the Transmission Owner's local Restoration Services plan. This charge shall be equal to: (A) the product of: (i) the Customer's share of Load in the Transmission Owner's Transmission District for each hour in the Billing Period, and (ii) the ISO's total payments to Generators providing Restoration Services under the Transmission Owner's Restoration Services plan under Section 15.5.2 to this Rate Schedule for the Billing Period, divided by the total number of hours in the Billing Period, (B) summed for all hours in the Billing Period.

#### **15.5.4 Payments to Generators Providing Restoration Services Under the Consolidated Edison Plan and Recovery of Associated Costs**

On or before November 1, 2012, Consolidated Edison shall designate the generating units with Restoration Services capability to be included in the Consolidated Edison Plan beginning November 1, 2012. If Consolidated Edison designates a unit that a Generator committed before November 1, 2012, to provide Restoration Services under the Consolidated Edison Plan, the Generator may elect by notification to the ISO on or before December 3, 2012, for its unit to continue to provide, and be paid for providing, Restoration Services under the existing terms set forth in Section 15.5.4.1 and Appendices I and III to this Rate Schedule, until the completion of that unit's current commitment period. If the Generator does not provide the ISO with this

notice, the Generator's unit shall provide, and be paid for providing Restoration Services under the terms set forth in Section 15.5.4.2 and Appendices II and III to this Rate Schedule.

After November 1, 2012, Consolidated Edison shall designate from time to time additional generating units with Restoration Services capability to be included in the Consolidated Edison Plan, if it determines that additional Restoration Services are needed. A Generator's unit that is committed to provide Restoration Services under the Consolidated Edison Plan after November 1, 2012, shall provide, and be paid for providing, Restoration Services under the terms set forth in Section 15.5.4.2 and Appendices II and III to this Rate Schedule. In addition, all units commencing commercial operation after November 1, 2012, that provide Restoration Services shall do so under the terms set forth in Section 15.5.4.2 and Appendices II and III to this Rate Schedule.

~~Generators that are in service as of October 1, 2005 and are listed in the Consolidated Edison Black Start and System Restoration Services plan filed with the ISO as of that date shall be paid for those services in accordance with Section 15.5.3.1 below. Charges to fund such payments shall be allocated among Transmission~~ The ISO shall recover the costs of the payments established in Sections 15.5.4.1 and 15.5.4.2 from Customers in the Consolidated Edison Transmission District under ~~Section 15.5.3.2 below. Generators that are in service as of October 1, 2005 and are listed in the Consolidated Edison Black Start and System Restoration Services plan are deemed to have satisfied testing requirements for the testing period that ends April 30, 2005.~~ the terms set forth in Section 15.5.4.3. ~~15.5.3.1~~

**15.5.4.1** ~~Payments to Existing Generators~~Generators that Committed to Provide Restoration Services Under the Consolidated Edison Plan Before November 1, 2012, and Elected to Provide Service Under Then-Existing Terms

~~Existing Generators~~A Generator shall be eligible for ~~Black Start and System~~ Restoration Services payments, provided that they: (i) successfully test all necessary equipment in compliance with the ~~Consolidated Edison~~ testing criteria that are included in the ISO Procedures and provided that the testing criteria conform to Appendix I to this Rate Schedule; and (ii) commit its unit(s) to be available to provide these services for ~~an initial~~a minimum period of three years. At the end of the second year of the ~~initial~~ three year period a Generator, or Consolidated Edison, may give notice that the Generator's unit(s) will no longer be part of the Consolidated Edison ~~Black Start and System Restoration Services plan~~Plan, effective at the end of third year. ~~For subsequent periods, each~~If the Generator, ~~or Consolidated Edison, may give one year's advance notice at the end of every subsequent two year period, that the Generator will no longer be part of the Consolidated Edison plan, so that a rolling three year commitment is maintained.~~ or Consolidated Edison does not provide this notice, the unit shall begin a new three-year commitment period at the conclusion of its current commitment period under the terms set forth in Section 15.5.4.2 to this Rate Schedule.

Eligible ~~existing~~ Generators in the Consolidated Edison Transmission District shall receive annual compensation for providing ~~Black Start and System~~ Restoration Services based on unit type and the level of their interconnection to the New York State Transmission System pursuant to the following table.



	Steam Turbine	Gas Turbine
345 kV	\$350,000/yr/unit	\$350,000/yr/site
138 kV	\$300,000/yr/unit	\$300,000/yr/site

Each Billing Period, ~~existing Generators~~ a Generator shall receive the pro rata share of these annual amounts allocated for that Billing Period. The payments for each Billing Period shall also include compensation for legitimate, verifiable, and adequately documented operator training costs associated with readiness to provide ~~Black Start Service and System~~ Restoration Services, and for legitimate, verifiable, and adequately documented variable costs associated with annual tests of ~~Black Start and System~~ Restoration Services capability, that existing Generators invoice to the ISO, subject to the ISO's independent review.

Eligible ~~existing~~ Generators shall conduct annual Black Start ~~and System Restoration Services capability tests~~ Capability Tests and shall ensure that all relevant personnel are trained in ~~black start and restoration~~ Restoration Services operations. Detailed information about the tests and training standards shall be set forth in the ISO Procedures, which shall incorporate criteria developed by Consolidated Edison. The core features of the testing criteria are included in this ISO Services Tariff as Appendix I to this Rate Schedule and the ISO Procedures may not be revised in a manner that creates an inconsistency between them and Appendix I. Upon ~~successful~~ completion of a test, a Generator shall submit a certification form to the ISO in the form provided in Appendix ~~HIII~~ to this Rate Schedule indicating whether its unit successfully completed its annual Black Start Capability Test. If a Generator fails a Black Start ~~and System Restoration Services capability test~~ Capability Test, it shall be subject to a pro rata reduction in its

annual payments based on the elapsed time between the unsuccessful test and a subsequent successful test.

The ISO shall also reimburse ~~existing~~ Generators for equipment damage ~~that~~if the ISO reasonably finds: (1) ~~to have~~the damage resulted from operating such equipment in response to operational orders from the ISO, or Consolidated Edison, pursuant to the ISO Services Tariff or the ISO OATT, (2) that reasonably available and customary insurance was not available for the damages incurred, and (3) the damage would not have occurred but for the Generator's provision of ~~Black Start and System Restoration Services. Further, the ISO shall reimburse the owners of the Astoria Station steam units 3, 4 and 5 and Astoria Station gas turbines 4-3 and 4-4 for equipment upgrades that the ISO reasonably finds are needed to minimize the risk of equipment damage at the Astoria Station site in the Consolidated Edison Transmission District. The burden of making such showings~~ Restoration Services. The burden of making such showings will be upon the owners of the specified Generators. ~~Any such reimbursement shall be made available for review by the Commission upon request by a Market Participant.~~

**15.5.4.2 Payments to Generators that Committed to Provide Restoration Services Under the Consolidated Edison Plan On or After November 1, 2012, or Before November 1, 2012 and Elected to Provide Service Under New Terms**

**15.5.4.2.1 Commitment Requirements for Restoration Services**

The ISO shall, in conjunction with Consolidated Edison and Generators, determine in which one of three groups ("Commitment Groups") a unit that a Generator has committed to provide Restoration Services under the Consolidated Edison Plan before November 1, 2012, will be included. The Commitment Groups shall have the following initial commitment periods:

Commitment Group 1: November 1, 2012, through April 30, 2015.

Commitment Group 2: November 1, 2012, through April 30, 2016.

Commitment Group 3: November 1, 2012, through April 30, 2017.

The ISO shall assign a Generator's unit that is committed to provide Restoration Services under the Consolidated Edison Plan on or after November 1, 2012, to one of these Commitment Groups.

At the conclusion of each commitment period, a Generator's unit shall begin a new three (3) year commitment period to provide Restoration Services under the Consolidated Edison Plan; provided, however, that the unit shall not begin a new commitment period if the Generator or Consolidated Edison provides the ISO with notice at least two years prior to the conclusion of the previous commitment period that the unit will no longer be part of the Consolidated Edison Plan following the conclusion of that commitment period.

Consolidated Edison shall not remove from the Consolidated Edison Plan a Generator's new or repowered unit that is required to install Restoration Services capability and provide Restoration Services in the Consolidated Edison Plan pursuant to Section 30.2.5 of Attachment X to the ISO OATT before the Generator recovers the incremental capital costs it incurred in installing the Restoration Services capability for its unit. The Generator shall be deemed to have recovered these costs: (a) twenty-five years from the start of its unit's provision of Restoration Services under this Rate Schedule if the Generator is taking payment pursuant to Section 15.5.4.2.3.1 to this Rate Schedule, or (b) over the period set forth in the Generator's unit-specific rate approved by FERC pursuant to Section 15.5.4.2.3.2 to this Rate Schedule. If a Generator withdraws its unit from the Consolidated Edison Plan before the completion of this time period, it will forfeit its entitlement to recover its incremental capital costs.

If a Generator withdraws a unit that has committed to provide Restoration Services from the ISO's energy and capacity markets, the unit may cease its provision of Restoration Services

at the same time without completing its commitment period. If the Generator returns the unit to the ISO's energy and capacity markets within three years of its withdrawal, the unit shall be required to provide Restoration Services for that portion of its commitment period that it had not completed.

#### **15.5.4.2.2 Generator Testing and Training Requirements**

A Generator shall conduct an annual Black Start Capability Test of each unit that it has committed to provide Restoration Services under the Consolidated Edison Plan in accordance with the test protocols set forth in Appendix II to this Rate Schedule. A Generator shall also identify its unit's critical Restoration Services equipment, maintain this equipment and perform tests to verify the condition of this critical equipment in accordance with good utility practice. Upon the performance of a Black Start Capability Test for its unit, the Generator shall submit a certification to the ISO each year – in the form provided in Appendix III to this Rate Schedule – indicating whether its unit has successfully completed its annual Black Start Capability Test and certifying that it maintains and tests the unit's critical Restoration Services equipment in accordance with good utility practice. The Generator shall also ensure that all appropriate personnel are trained in Restoration Services operations.

#### **15.5.4.2.3 Payments to Generators for Providing Restoration Services Under the Consolidated Edison Plan**

##### **15.5.4.2.3.1 Standard Compensation**

Except as set forth in Section 15.5.4.2.3.2 to this Rate Schedule, the ISO shall pay a Generator each Billing Period the pro rata share of the sum of the annual payment amounts for the provision of Restoration Services under the Consolidated Edison Plan at each of the Generator's facilities, as determined for each facility as follows.

By May 1st of each year, the ISO shall calculate the annual Restoration Services payment amount for each Generator's facility for the compensation period of May 1 of that year through the following April 30; *provided, however,*

- (i) the ISO shall calculate by November 1, 2012, the annual Restoration Services payment amount for the initial November 1, 2012, through April 30, 2013, period, using a pro rata adjustment of the annual amounts in Tables A and B below for the shortened six-month compensation period, and
- (ii) the ISO shall recalculate the annual Restoration Services payment amount if, during the May 1 through April 30 compensation period, one of the Generator's units withdraws from the Consolidated Edison Plan pursuant to Section 15.5.4.2.1 to this Rate Schedule or fails a Black Start Capability Test pursuant to Section 15.5.4.2.3.4 to this Rate Schedule.

The annual Restoration Services payment amount for each Generator's facility shall be equal to the sum of the annual payment amounts, calculated according to the following formula, for: (i) each unit at a Generator's facility providing Restoration Services under the Consolidated Edison Plan that is the sole user of equipment necessary to black start the unit and is not designated with other units as a group by the ISO ("Sole Black Start Unit"), and (ii) each group of units at the Generator's facility providing Restoration Services under the Consolidated Edison Plan that share the equipment necessary to black start the units or are otherwise designated as a group by the ISO ("Black Start Unit Group"). The ISO shall designate a Generator's unit as a Sole Black Start Unit or as part of a Black Start Unit Group at the start of the unit's commitment period, and this designation shall not be subject to change for the duration of the unit's commitment period.

RSPayment<sub>AnnBSU</sub> =

$$\text{ActRSUnits}_{\text{BSU}} \times \left[ \frac{\text{RSSICap}_{\text{Ann}} + \text{RSSIO\&M}_{\text{Ann}} + \text{RSAddCap}_{\text{Ann}} + \text{RSAddO\&M}_{\text{Ann}}}{\text{DesRSUnits}_{\text{BSU}}} \right]$$

Where:

BSU = The Sole Black Start Unit or the Black Start Unit Group.

RSPayment<sub>AnnBSU</sub> = The annual amount, in \$, that the ISO shall pay a Generator for the Sole Black Start Unit or the Black Start Unit Group providing Restoration Services under the Consolidated Edison Plan.

DesRSUnits<sub>BSU</sub> = The number of units in the Sole Black Start Unit or the Black Start Unit Group designated by Consolidated Edison as participants in the Consolidated Edison Plan.

ActRSUnits<sub>BSU</sub> = The number of units in the Sole Black Start Units or the Black Start Unit Group actually participating in the Consolidated Edison Plan, which shall not include any unit designated by Consolidated Edison as a participant in the Consolidated Edison Plan that has withdrawn from the plan pursuant to Section 15.5.4.2.1 to this Rate Schedule or has failed a Black Start Capability Test pursuant to Section 15.5.4.2.3.4 to this Rate Schedule.

RSSICap<sub>Ann</sub> = The station-level capital payment amount, in \$, for the Sole Black Start Unit or for one unit of the Black Start Unit Group, as specified in the “Station-level” column of Table A, below, on the basis of that unit’s size.

RSSIO&M<sub>Ann</sub> = The station-level operating and maintenance amount, in \$, for the Sole Black Start Unit or for one unit of the Black Start Unit Group, as specified in the “Station-level” column of Table B, below, on the basis of the unit’s size.

RSAddCap<sub>Ann</sub> = The sum of the incremental capital payment amounts, in \$, for the remaining units in the Black Start Unit Group, as specified in the “Additional Resource” column of Table A, below, on the basis of the remaining units’ sizes.

RSAddO&M<sub>Ann</sub> = The sum of the incremental operating and maintenance payment amounts, in \$, for the remaining units in the Black Start Unit Group, as specified in the “Additional Resource” column in Table B, below, on the basis of the remaining units’ sizes.

**Table A - Restoration Services Capital Payments**

<b><u>Resource Type</u></b>	<b><u>Station-level Capital Payment</u></b>	<b><u>Additional Resource Capital Payment</u></b>
<u>MVA &lt; 10</u>	<u>\$21,770</u>	<u>\$10,880</u>
<u>10 &lt; MVA &lt; 60</u>	<u>\$214,570</u>	<u>\$10,880</u>
<u>60 &lt; MVA &lt; 90</u>	<u>\$248,460</u>	<u>\$10,880</u>
<u>90 &lt; MVA &lt; 300, Small Starting Requirement</u>	<u>\$414,980</u>	<u>\$10,880</u>
<u>90 &lt; MVA &lt; 300, Medium Starting Requirement</u>	<u>\$957,920</u>	<u>\$10,880</u>
<u>90 &lt; MVA &lt; 300, Large Starting Requirement</u>	<u>\$1,785,080</u>	<u>\$10,880</u>
<u>300 &lt; MVA, Large Starting Requirement</u>	<u>\$1,833,750</u>	<u>\$32,650</u>

**Table B - Restoration Services O&M Payments**

<b><u>Resource Type</u></b>	<b><u>Station-level O&amp;M Payment</u></b>	<b><u>Additional Resource O&amp;M Payment</u></b>
<u>MVA &lt; 10</u>	<u>\$22,335</u>	<u>\$6,040</u>
<u>10 &lt; MVA &lt; 60</u>	<u>\$42,295</u>	<u>\$8,200</u>
<u>60 &lt; MVA &lt; 90</u>	<u>\$49,850</u>	<u>\$10,140</u>
<u>90 &lt; MVA &lt; 300, Small Starting Requirement</u>	<u>\$118,255</u>	<u>\$33,665</u>
<u>90 &lt; MVA &lt; 300, Medium Starting Requirement</u>	<u>\$252,265</u>	<u>\$65,600</u>
<u>90 &lt; MVA &lt; 300, Large Starting Requirement</u>	<u>\$388,865</u>	<u>\$65,820</u>
<u>300 &lt; MVA, Large Starting Requirement</u>	<u>\$414,540</u>	<u>\$77,685</u>

The figures in Tables A and B are determined as of 2011. The ISO shall adjust these figures annually using the “Gas Turbogenerators” subcategory of the “Other Production Plant” category of the Handy Whitman Index for the North Atlantic Region.

**15.5.4.2.3.2 Unit-Specific Compensation**

A Generator shall be entitled to recover through this ISO Services Tariff the actual, incremental cost of its unit’s or units’ provision of Restoration Services under the Consolidated Edison Plan. If the Generator determines that its actual, incremental cost of providing

Restoration Services to the ISO from its unit(s) exceeds the payment amount determined under Section 15.5.4.2.3.1 to this Rate Schedule, the Generator shall have the right to file a proposed rate for the recovery of its actual, incremental costs of providing Restoration Services with FERC, pursuant to Section 206 of the Federal Power Act. If FERC finds that the actual, incremental costs that are reasonably and prudently incurred for a Generator's particular unit(s) solely for the purpose of providing Restoration Services exceed the payment amount determined under Section 15.5.4.2.3.1 to this Rate Schedule, then the parties to this ISO Services Tariff agree that the rates in Section 15.5.4.2.3.1 would be unjust and unreasonable for those unit(s). Upon approval by FERC, the Generator's unit(s)-specific rate shall be included as an addendum to this Rate Schedule. In such case, the ISO shall pay a Generator each Billing Period the pro rata share of the FERC-approved annual rate for its unit(s), except as set forth in Section 15.5.4.2.3.4 to this Rate Schedule. The ISO shall recover the costs of these payments from Customers in the Consolidated Edison Transmission District under Section 15.5.4.3 to this Rate Schedule.

#### **15.5.4.2.3.3 Eligibility for Additional Cost Recovery**

The ISO shall reimburse Generators for equipment damage if the ISO reasonably finds: (1) the damage resulted from operating such equipment in response to operational orders from the ISO, or Consolidated Edison, pursuant to the ISO Tariffs, (2) that reasonably available and customary insurance was not available for the damages incurred, and (3) the damage would not have occurred but for the Generator's provision of Restoration Services. The burden of making such showings shall be upon the Generator.

The payments for each Billing Period shall also include compensation for legitimate, verifiable, and adequately documented costs incurred solely as a result of a Generator's compliance with NERC critical infrastructure protection ("CIP") reliability standards applicable



to the provision of Restoration Services, i.e., a CIP cost that would not have been incurred if it were not providing Restoration Services. The Generator shall provide such invoices to the ISO, which will review and determine if compensation is appropriate.

#### **15.5.4.2.3.4 Forfeiture of Payments As a Result of Failed Black Start Capability Tests**

If a Generator's unit fails a Black Start Capability Test, the Generator shall forfeit all Restoration Service payments for that unit under Sections 15.5.4.2.3.1 and 15.5.4.2.3.2 from the date of the failed test; provided, however, that if the Generator's unit successfully completes the Black Start Capability Test within thirty days of the failed test, the Generator shall not forfeit its payments. This thirty-day period may be extended if agreed upon by the ISO, the Generator, and Consolidated Edison. If the Generator does not successfully complete its Black Start Capability Test within this thirty day, or extended, period and successfully completes the test at a later date, it shall receive its Restoration Services payments only from the date of the later, successful test going forward.

#### **15.5.3.2 15.5.4.3 Charges to Support Payments to ~~Existing~~ Generators Under the Consolidated Edison Plan**

~~The ISO shall collect each Billing Period a charge from each Transmission Customer in the Consolidated Edison Transmission District in order to fund the payments described above in Section 15.5.3.1. The~~ Each Billing Period, the ISO shall charge, and each Customer in the Consolidated Edison Transmission District shall pay based on its supply of Load in that Transmission District that is *not* used to supply Station Power as a third-party provider under Part 5 of the ISO OATT, a charge for the recovery of the ISO's payments to Generators providing Restoration Services under the Consolidated Edison Plan under Sections 15.5.4.1 and 15.5.4.2 to this Rate Schedule. This charge shall be equal to: (A) the product of ~~(a) the Transmission Customer's hourly load ratio share of Load in the Consolidated Edison~~

~~Transmission District, and (b) the total payments for existing Black Start and System Restoration Services in that Transmission District under Section 15.5.3.1, : (i) the Customer's share of Load in the Consolidated Edison Transmission District that is *not* used to supply Station Power as a third-party provided for each hour in the Billing Period, and (ii) the ISO's total payments to Generators for Restoration Services under the Consolidated Edison Restoration Plan under Sections 15.5.4.1 and 15.5.4.2 for the Billing Period,~~ divided by the total number of hours in the Billing Period.

~~15.5.3.3 — Payments to New Generators that Provide Black Start and System Restoration Services in the Consolidated Edison Transmission District~~

~~New Generators that agree to provide Black Start and System Restoration Services within the Consolidated Edison Transmission District shall be treated as set forth in Section 15.5.2 above,~~ (B) summed for all hours in the Billing Period.

Each Billing Period, the ISO shall charge, and each Customer in the Consolidated Edison Transmission District shall pay based on its supply of Load in that Transmission District that is used to supply Station Power as a third-party provider under Part 5 of the ISO OATT, a charge for the recovery of the ISO's payments to Generators providing Restoration Services under the Consolidated Edison Plan under Sections 15.5.4.1 and 15.5.4.2 to this Rate Schedule. This charge shall be equal to: (A) the product of: (i) the Customer's share of Load in the Consolidated Edison Transmission District that is used to supply Station Power as a third-party provided for each day in the Billing Period, and (ii) the ISO's total payments to Generators for Restoration Services under the Consolidated Edison Restoration Plan under Sections 15.5.4.1 and 15.5.4.2 for the Billing Period, divided by the total number of days in the Billing Period, (B) summed for all days in the Billing Period. The ISO shall credit these daily charge amounts to Customers based on their share of Load in the NYCA that is not used to supply Station Power as a third-

party provider for that day. The ISO shall sum these daily credits for all days in the Billing Period.

**Rate Schedule 5. Appendix I**  
**~~Core Features of Testing Criteria for Black Start and Restoration Services Testing~~**  
**~~Requirements Consolidated Edison Transmission District Capability Tests Pursuant to~~**  
**Section 15.5.4.1 of Rate Schedule 5**

**I.** General

1. Testing shall be performed annually, consistent with Consolidated Edison ~~Company of New York, Inc. (“Consolidated Edison”)~~ system operation requirements, to qualify for ~~Black Start and~~ Restoration Services payments during the annual compensation period, which shall be May 1<sup>st</sup> through April 30<sup>th</sup>.
2. A ~~test~~ Black Start Capability Test will be considered successful if it is completed in accordance with the ~~written black start test procedures that have been adopted by the plant~~ test protocols described below.

**II.** Scheduling a Test

1. The annual test period shall be November 1<sup>st</sup> to April 30<sup>th</sup>, and may be reasonably extended without financial penalty by mutual agreement among the ~~plant owner~~ Generator, Consolidated Edison and the ISO, ~~without financial penalty.~~
2. The test date must be agreed upon by the Generator, Consolidated Edison, ~~the plant owner~~ and the ISO.
3. An annual ~~black start test~~ Black Start Capability Test may be performed prior to a maintenance outage only if there is no other scheduling option within the test period.
4. If the annual ~~test~~ Black Start Capability Test is unable to be completed during the test period due to a forced outage or force majeure event, Consolidated Edison and the ~~plant owner~~ Generator will conduct the test outside the test period without a *pro rata* reduction in annual payments.

5. If a ~~black start test~~ Black Start Capability Test is not successful, the ~~plant owner~~Generator will have a reasonable opportunity to reschedule and conduct a subsequent test.

### III. Gas Turbine ~~Facility~~Unit Testing Requirements

1. A qualifying ~~test~~Black Start Capability Test of a gas turbine unit must be conducted when the unit is in a cold condition, *i.e.*, the unit will be off line and will be brought on line specifically to conduct the black start tests.
2. The gas turbine-~~Generator~~ units to be tested will be off line at the start of the test and will be isolated from all external Consolidated Edison light and power sources.
3. The ~~black start test~~Black Start Capability Test must demonstrate that (i) the designated black start unit can be started and can energize the isolated light and power bus; and (ii) that the light and power source is adequate for the purpose of bringing the other units on line. Part (ii) must be demonstrated by starting up an additional gas turbine unit from the light and power bus that has been energized through Part (i) of the test. Site specific appendices will be developed to reflect these general criteria.
4. Once isolated from Consolidated Edison's light and power, the gas turbine ~~facility~~ unit will have 90 minutes to ready the equipment and to request permission to synchronize the additional generating unit to a live bus on the Consolidated Edison transmission system. When authorized by the Consolidated Edison System Operator, the gas turbine-~~generator~~ unit will be asked to close its breaker. Once the gas turbine-~~generator~~ unit has synchronized and closed its breaker onto

the transmission bus, the ~~test~~Black Start Capability Test will be considered successful.

5. A maximum of two (2) Consolidated Edison System Operations or Engineering personnel are allowed to be onsite to witness the test. At its discretion, the ISO may have its representatives onsite to witness the test. If an ISO representative is not onsite, a representative from ~~Consolidated Edison and the plant owner~~the Generator will initiate calls to ISO operations personnel to signal the start time, completion time, and outcome of the test.
6. Upon ~~successful~~ completion of the ~~test~~Black Start Capability Test, the ~~generator owner~~Generator shall submit a certification form to the ISO; ~~–~~ in the form provided in Appendix HIII to this Rate Schedule – indicating whether its unit successfully completed its annual Black Start Capability Test; ~~to the ISO and Consolidated Edison.~~
7. ~~Consistent with past practice, plant owners will continue to~~Generators will test on a monthly basis their standby diesel generators, black start gas turbines and UPS/battery back up systems. If any of these critical systems are found to be non-operational or otherwise unavailable, the ~~plant owner~~Generator will notify Consolidated Edison and the ISO within 36 hours and provide a schedule for their repair and return to service.

#### IV. Steam Turbine ~~Facility~~Unit Testing Requirements

1. A qualifying ~~test~~Black Start Capability Test of a steam turbine unit must be conducted while the unit is in a hot condition, *i.e.*, the unit must be on line and firm to the system prior to the test. The ~~plant owner~~Generator, the ISO, and Consolidated Edison shall agree on a schedule for this test. The agreed upon test

date shall be deemed firm as of 48 hours prior to the scheduled beginning of the test. A firm test may not be called off or deferred except (1) by the ISO, for system or local reliability reasons; or (2) if the unit is unable to be in hot condition because it was not selected by the ISO to run ~~on~~ the day prior to the test. As is the case for any ISO-approved outage, the ~~plant owner~~ Generator shall not offer the unit into the Day Ahead Market for operation during the test ~~the~~ day, and such non-offering into the market shall be deemed not to diminish the unit's availability.

2. The steam turbine unit will be required to start up using energy and voltage control from a gas turbine ~~generator~~ unit to energize its internal light & power bus, and be ready to synchronize to an energized transmission system when directed by the Consolidated Edison System Operator.
3. A ~~test~~ Black Start Capability Test shall be considered successful if, after isolation from the Consolidated Edison transmission system, the hot steam turbine unit is synchronized to the transmission system in no more than 6 hours after the completion of the isolation and is firm to the system and operating at minimum load in no more than 8 hours after the completion of the isolation.
4. A maximum of two (2) Consolidated Edison System Operations or Engineering personnel will be allowed onsite to witness the test. ISO representatives may be onsite to witness the test. If an ISO representative is not onsite, a representative from Consolidated Edison and the ~~plant owner~~ Generator will initiate calls to ISO operations personnel to signal the start time, completion time and outcome of the test.

5. Upon successful completion of the ~~test~~Black Start Capability Test, Consolidated Edison shall SRE the unit until midnight of the test day or until the unit's reference minimum run time has elapsed, whichever is earlier.
6. Upon ~~successful~~ completion of the test, the ~~generator owner~~Generator shall submit a certification form to the ISO ~~;~~ in the form provided in Appendix ~~HIII~~ to this Rate Schedule ~~;~~ – indicating whether its unit successfully completed its annual Black Start Capability Test ~~to the ISO and Consolidated Edison~~.
7. Consistent with past practice, ~~plant owners~~Generators will continue monthly tests of standby diesel generators; black start gas turbines and UPS/battery back up systems. If any of these critical systems are found to be non-operational or otherwise unavailable, the ~~plant owner~~Generator will notify Consolidated Edison and the ISO within 36 hours and provide a schedule for their repair and return to service.



**Rate Schedule 5. Appendix II**  
**Testing Criteria for Black Start Capability Tests**  
**Pursuant to Section 15.5.4.2 of Rate Schedule 5**

**I. General**

1. A Generator shall perform a Black Start Capability Test annually for each of its units providing Restoration Services in accordance with the test protocols described below.
2. A Black Start Capability Test will be considered successful if it is completed in accordance with the test protocols described below.

**II. Scheduling a Test**

1. A Generator shall perform the annual Black Start Capability Test for its unit(s) between May 1<sup>st</sup> to April 30<sup>th</sup>, as may be reasonably extended by mutual agreement among the Generator, Consolidated Edison and the ISO, without financial penalty; *provided, however*, that the Generator shall not perform a Black Start Capability Test in June, July, or August.
2. The test date must be agreed upon by Consolidated Edison, the Generator and the ISO. The agreed upon test date shall be deemed firm as of 48 hours prior to the scheduled beginning of the test. A firm test may not be called off or deferred except by the ISO for system or local reliability reasons. As is the case for any ISO-approved outage, the Generator shall not offer the unit into the Day-Ahead Market for operation during the Black Start Capability Test that day, and such non-offering into the market shall be deemed not to diminish the unit's availability.

3. An annual Black Start Capability Test may be performed prior to a maintenance outage only if there is no other scheduling option within the test period.
4. If the annual Black Start Capability Test is unable to be completed during the test period due to a forced outage or force majeure event, Consolidated Edison and the Generator will conduct the test outside the test period without a *pro rata* reduction in annual payments.
5. If a Black Start Capability Test is not successful, the Generator will have a reasonable opportunity to reschedule and conduct a subsequent test.
6. Consolidated Edison and the ISO may have representatives present to witness the annual Black Start Capability Test. However, witnesses are not required for the Generator to perform the test.

### **III. Gas Turbine Unit Testing Requirements**

A Generator shall perform the following test for a gas turbine unit that is designated by Consolidated Edison to participate in the Consolidated Edison Plan as a gas turbine unit and not as part of a combined cycle facility.

#### **A. Test of Gas Turbine Unit That Is a Sole Black Start Unit**

1. A Generator shall perform the following Black Start Capability Test each year for its gas turbine unit that is a Sole Black Start Unit.
2. A qualifying Black Start Capability Test of the gas turbine unit must be conducted when the unit is in a cold condition, *i.e.*, the unit will be off line and will be brought on line specifically to conduct the test.

3. The gas turbine unit to be tested will be off line at the start of the Black Start Capability Test and will be isolated from all external Consolidated Edison light and power sources.
4. The Black Start Capability Test must demonstrate that the designated gas turbine unit can be started and can energize the isolated light and power bus.
5. Once isolated from Consolidated Edison's light and power bus, the Generator will have 80 minutes to ready the gas turbine unit and to request permission to synchronize the unit to a live bus on the Consolidated Edison transmission system. When authorized by the Consolidated Edison System Operator, the Generator will be asked to close the breaker for the gas turbine unit. Once the gas turbine unit has synchronized and its breaker has closed onto the transmission bus, the test will be considered successful.

**B. Test of Gas Turbine Units that Are Part of a Black Start Unit Group**

1. A Generator shall perform the following Black Start Capability Test each year for one of the units of a Black Start Unit Group. Once the Generator has successfully completed an annual Black Start Capability Test of one of the units of the Black Start Unit Group, it should perform in subsequent years an annual test of the remaining units of the Black Start Unit Group.
2. A qualifying Black Start Capability Test of a gas turbine unit must be conducted when the unit is in a cold condition, i.e., the unit will be off line and will be brought on line specifically to conduct the test.
3. The gas turbine unit to be tested will be off line at the start of the Black Start Capability Test and will be isolated from all external Consolidated Edison light and power sources.

4. The Black Start Capability Test must demonstrate that (i) an isolated gas turbine unit can be started and can energize the isolated light and power bus; and (ii) that the light and power source is adequate for the purpose of bringing the other units on line. Part (ii) must be demonstrated by starting up an additional gas turbine unit from the light and power bus that has been energized through Part (i) of the test.
5. Once isolated from Consolidated Edison's light and power bus, the Generator will have 90 minutes to ready the equipment and to request permission to synchronize the additional generating unit to a live bus on the Consolidated Edison transmission system. When authorized by the Consolidated Edison System Operator, the Generator will be asked to close the breaker for the additional gas turbine unit. Once the additional gas turbine unit has synchronized and its breaker has closed onto the transmission bus, the test will be considered successful.

#### **IV. Combined Cycle Unit Testing Requirements**

1. A Generator shall perform each year a Black Start Capability Test for its gas turbine and steam turbine units that are designated by Consolidated Edison to participate in the Consolidated Edison Plan as part of a combined cycle facility.
2. A qualifying Black Start Capability Test must be conducted when the combined cycle unit is isolated from the transmission system. The combined cycle unit must demonstrate that the designated gas turbine(s) unit can be started and can energize the isolated light and power bus; and that the light and power source is adequate for the purpose of bringing the steam turbine(s) on line. For a successful

Black Start Capability Test, the steam turbine(s) must synchronize to the transmission system within 6 hours of the start of the Black Start Capability Test.

## **V. Steam Turbine Unit Testing Requirements**

A Generator shall perform the following test for a steam turbine unit that is designated by Consolidated Edison to participate in the Consolidated Edison Plan as a steam turbine unit and not as part of a combined cycle facility.

### **A. Comprehensive Black Start Capability Test**

1. A Generator shall perform a “Comprehensive Black Start Capability Test” at least once every three years for its steam turbine unit(s) providing Restoration Services.
2. A qualifying Comprehensive Black Start Capability Test of a steam turbine unit may be conducted while the unit is in a cold condition or in a hot condition. If the steam turbine unit is in a cold condition its internal light and power bus may remain connected to the transmission system until it reaches a hot condition at which point it will separate from the transmission system and commence its test.
3. The steam turbine unit must be isolated from the transmission system and an isolated cranking path between it and a black start gas turbine unit must be established. The steam turbine unit is required to start up using energy and voltage control from the gas turbine unit to energize its internal light and power bus, and be ready to synchronize to an energized transmission system when directed by the Consolidated Edison System Operator.
4. A Comprehensive Black Start Capability Test shall be considered successful if, after isolation from the Consolidated Edison transmission system, the hot steam unit is synchronized to the transmission system, and is firm to the system and

operating at minimum load in no more than 8 hours after the completion of the isolation.

5. Upon successful completion of the Comprehensive Black Start Capability Test, Consolidated Edison shall SRE the unit until midnight of the test day or until the unit's reference minimum run time has elapsed, whichever is earlier.

**B. Intervening Years Black Start Capability Test**

1. To meet its annual steam turbine unit test obligation, a Generator may perform an “Intervening Years Black Start Capability Test” for its steam turbine unit(s) providing Restoration Services if it has successfully completed a Comprehensive Black Start Capability Test of that unit within the prior two years.
2. The steam turbine unit must be isolated from the transmission system and a cranking path between it and a black start gas turbine unit must be established. The steam turbine unit is required to use energy and voltage control from the gas turbine unit to energize the internal light and power bus. The steam turbine unit is then required to add the auxiliary load that is required to introduce fire into its boiler, e.g., boiler feed pump, fans, etc, except that no fire is required to be introduced into the boiler.
3. An Intervening Years Black Start Capability Test shall be considered successful if the gas turbine unit demonstrates ten minutes of steady operation supplying its load at the internal light and power bus within four hours after the completion of the isolation.

## VI. Reporting and Additional Testing Requirements

1. If an ISO representative is not onsite, a representative from the Generator will initiate calls to ISO operations personnel to signal the start time, completion time and outcome of the Black Start Capability Test.
2. Following its performance of a Black Start Capability Test for its unit, the Generator shall submit a certification form to the ISO – in the form provided in Appendix III to this Rate Schedule – indicating whether its unit successfully completed its annual Black Start Capability Test. Consolidated Edison shall acknowledge to the ISO its acceptance of a Generator's successful completion of the Black Start Capability Test.
3. A Generator will perform tests of its unit's critical Restoration Services equipment, including monthly tests of standby diesel generators, black start gas turbines and UPS/battery back up systems. As part of its annual certification to the ISO, the Generator shall certify – in the form provided in Appendix III to this Rate Schedule – that it maintains and tests its unit's critical Restoration Services equipment in accordance with good utility practice. If any of these critical systems are found to be non-operational or otherwise unavailable, the Generator will notify Consolidated Edison and the ISO within 36 hours and provide a schedule for their repair and return to service.

**Rate Schedule 5. Appendix ~~H~~III**  
**Restoration Services Certification Form**

[Name of Generator-~~Owner~~] hereby certifies that the [name/location of ~~generation equipment~~]-~~successfully~~ unit] performed a Black Start ~~and System Restoration Services test~~ Capability Test on [date] in accordance with the ISO Procedures and [successfully completed/did not complete] this test in accordance with the test protocols set forth in Appendix [I/II] of Rate Schedule 5 of the ISO Services Tariff.

[Name of Generator-~~Owner~~] further certifies that it ~~identifies and maintains~~ has identified a list of critical components in its ~~black start facilities~~ units providing Restoration Services (e.g., batteries, diesel back-up generators, inverters etc.), maintains such critical components, and has performed tests to verify the condition of these critical components in accordance with good ~~industry~~ utility practice.

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*Signature of Officer*