SERVICE AGREEMENT NO. 2756

**SERVICE AGREEMENT NO. 2756**

**AMENDED AND RESTATED**

**STANDARD SMALL GENERATOR**

**INTERCONNECTION AGREEMENT**

**AMONG THE**

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

**NIAGARA MOHAWK POWER CORPORATION**

**D/B/A NATIONAL GRID,**

**AND**

**HAWTHORN SOLAR, LLC**

**Dated as of January 16, 2025**

**(Hawthorn Solar Facility)**

SERVICE AGREEMENT NO. 2756

**TABLE OF CONTENTS**

[**Article 1**](#br6)

[1.1](#br6)

[**Scope and Limitations of Agreement ...................................................................2**](#br6)

[Applicability ........................................................................................................... 2](#br6)

[Purpose.................................................................................................................... 2](#br6)

[Scope of Interconnection Service ........................................................................... 2](#br6)

[Limitations.............................................................................................................. 2](#br6)

[Responsibilities of the Parties................................................................................. 2](#br6)

[Parallel Operation Obligations................................................................................ 4](#br8)

[Metering.................................................................................................................. 4](#br8)

[Reactive Power and Primary Frequency Response ................................................ 5](#br9)

[Capitalized Terms ................................................................................................... 8](#br12)

[1.2](#br6)

[1.3](#br6)

[1.4](#br6)

[1.5](#br6)

[1.6](#br8)

[1.7](#br8)

[1.8](#br9)

[1.9](#br12)

[**Article 2**](#br13)

[**Inspection, Testing, Authorization, and Right of Access ...................................9**](#br13)

[Equipment Testing and Inspection.......................................................................... 9](#br13)

[Authorization Required Prior to Parallel Operation ............................................... 9](#br13)

[Right of Access..................................................................................................... 10](#br14)

[2.1](#br13)

[2.2](#br13)

[2.3](#br14)

[**Article 3**](#br15)

[**Effective Date, Term, Termination, and Disconnection...................................11**](#br15)

[Effective Date ....................................................................................................... 11](#br15)

[Term of Agreement............................................................................................... 11](#br15)

[Termination........................................................................................................... 11](#br15)

[Temporary Disconnection..................................................................................... 12](#br16)

[3.1](#br15)

[3.2](#br15)

[3.3](#br15)

[3.4](#br16)

[**Article 4**](#br18)

[**Cost Responsibility for Interconnection Facilities and Distribution**](#br18)

[**Upgrades...............................................................................................................14**](#br18)

[Interconnection Facilities...................................................................................... 14](#br18)

[Distribution Upgrades........................................................................................... 14](#br18)

[4.1](#br18)

[4.2](#br18)

[**Article 5**](#br19)

[**Cost Responsibility for System Upgrade Facilities and System**](#br19)

[**Deliverability Upgrades.......................................................................................15**](#br19)

[Applicability ......................................................................................................... 15](#br19)

[System Upgrades .................................................................................................. 15](#br19)

[Special Provisions for Affected Systems.............................................................. 15](#br19)

[5.1](#br19)

[5.2](#br19)

[5.3](#br19)

[**Article 6**](#br20)

[**Billing, Payment, Milestones, and Financial Security ......................................16**](#br20)

[Billing and Payment Procedures and Final Accounting ....................................... 16](#br20)

[Milestones............................................................................................................. 16](#br20)

[Financial Security Arrangements.......................................................................... 17](#br21)

[6.1](#br20)

[6.2](#br20)

[6.3](#br21)

[**Article 7**](#br22)

[**Assignment, Liability, Indemnity, Force Majeure, Consequential**](#br22)

[**Damages, and Default..........................................................................................18**](#br22)

[Assignment ........................................................................................................... 18](#br22)

[Limitation of Liability........................................................................................... 18](#br22)

[Indemnity.............................................................................................................. 18](#br22)

[Consequential Damages........................................................................................ 19](#br23)

[Force Majeure ....................................................................................................... 20](#br24)

[7.1](#br22)

[7.2](#br22)

[7.3](#br22)

[7.4](#br23)

[7.5](#br24)

i

SERVICE AGREEMENT NO. 2756

[7.6 Breach and Default ............................................................................................... 20](#br24)

[**Article 8**](#br26)

[**Insurance ..............................................................................................................22**](#br26)

[**Confidentiality......................................................................................................23**](#br27)

[**Disputes.................................................................................................................25**](#br29)

[**Taxes......................................................................................................................26**](#br30)

[**Miscellaneous........................................................................................................27**](#br31)

[**Article 9**](#br27)

[**Article 10**](#br29)

[**Article 11**](#br30)

[**Article 12**](#br31)

[12.1 Governing Law, Regulatory Authority, and Rules ............................................... 27](#br31)

[12.2 Amendment........................................................................................................... 27](#br31)

[12.3 No Third-Party Beneficiaries................................................................................ 27](#br31)

[12.4 Waiver................................................................................................................... 27](#br31)

[12.5 Entire Agreement.................................................................................................. 27](#br31)

[12.6 Multiple Counterparts........................................................................................... 28](#br32)

[12.7 No Partnership ...................................................................................................... 28](#br32)

[12.8 Severability ........................................................................................................... 28](#br32)

[12.9 Security Arrangements.......................................................................................... 28](#br32)

[12.10 Environmental Releases........................................................................................ 28](#br32)

[12.11 Subcontractors....................................................................................................... 28](#br32)

[12.12 Reservation of Rights............................................................................................ 29](#br33)

[**Article 13**](#br34)

[**Notices ...................................................................................................................30**](#br34)

[13.1 General.................................................................................................................. 30](#br34)

[13.2 Billing and Payment.............................................................................................. 31](#br35)

[13.3 Alternative Forms of Notice ................................................................................. 31](#br35)

[13.4 Designated Operating Representative................................................................... 32](#br36)

[13.5 Changes to the Notice Information....................................................................... 33](#br37)

[**Article 14**](#br38)

[**Signatures .............................................................................................................34**](#br38)

[Attachment 1 Glossary of Terms](#br39)

[Attachment 2 Detailed Scope of Work, Including Description and Costs of the Small Generating](#br44)

[Facility, Interconnection Facilities, and Metering Equipment](#br44)

[Attachment 3 One-line Diagram Depicting the Small Generating Facility, Interconnection](#br58)

[Facilities, Metering Equipment, and Upgrades](#br58)

[Attachment 4 Milestones](#br59)

[Attachment 5 Additional Operating Requirements for the New York State Transmission System,](#br64)

[the Distribution System and Affected Systems Needed to Support the Interconnection](#br64)

[Customer’s Needs](#br64)

[Attachment 6 Connecting Transmission Owner’s Description of its Upgrades and Best Estimate](#br65)

[of Upgrade Costs](#br65)

[Attachment 7 Insurance Coverage](#br69)

ii

SERVICE AGREEMENT NO. 2756

Attachment 8 Initial Synchronization Date

Attachment 9 Commercial Operation Date

iii

SERVICE AGREEMENT NO. 2756

This Amended and Restated Standard Small Generator Interconnection Agreement

(“Agreement” or “SGIA”) is made and entered into this 16th day of January, 2025, by and

among the New York Independent System Operator, Inc., a not-for-profit corporation organized

and existing under the laws of the State of New York (“NYISO”) and Niagara Mohawk Power

Corporation d/b/a National Grid, a corporation organized and existing under the laws of the State

of New York (“Connecting Transmission Owner”), and Hawthorn Solar, LLC a Limited

Liability Company organized and existing under the laws of the State of Delaware

(“Interconnection Customer”) each hereinafter sometimes referred to individually as “Party” or

referred to collectively as the “Parties.”

In consideration of the mutual covenants set forth herein, the Parties agree as follows:

1

SERVICE AGREEMENT NO. 2756

**Article 1 Scope and Limitations of Agreement**

**1.1 Applicability**

This Agreement shall be used for all Interconnection Requests submitted under the Small

Generator Interconnection Procedures (SGIP) except for those submitted under the 10 kW

Inverter Process contained in SGIP Attachment 5.

**1.2**

**Purpose**

This Agreement governs the terms and conditions under which the Interconnection

Customer’s Small Generating Facility will interconnect with, and operate in parallel with, the

New York State Transmission System or the Distribution System.

**1.3**

**Scope of Interconnection Service**

1.3.1 The NYISO will provide Energy Resource Interconnection Service and Capacity

Resource Interconnection Service to Interconnection Customer at the Point of

Interconnection.

1.3.2 This Agreement does not constitute an agreement to purchase or deliver the

Interconnection Customer’s power. The purchase or delivery of power and other

services that the Interconnection Customer may require will be covered under

separate agreements, if any, or applicable provisions of NYISO’s or Connecting

Transmission Owner’s tariffs. The Interconnection Customer will be responsible

for separately making all necessary arrangements (including scheduling) for

delivery of electricity in accordance with the applicable provisions of the ISO

OATT and Connecting Transmission Owner’s tariff. The execution of this

Agreement does not constitute a request for, nor agreement to, provide Energy,

any Ancillary Services or Installed Capacity under the NYISO Services Tariff or

any Connecting Transmission Owner’s tariff. If Interconnection Customer wishes

to supply or purchase Energy, Installed Capacity or Ancillary Services, then

Interconnection Customer will make application to do so in accordance with the

NYISO Services Tariff or Connecting Transmission Owner’s tariff.

**1.4**

**Limitations**

Nothing in this Agreement is intended to affect any other agreement by and among the

NYISO, Connecting Transmission Owner and the Interconnection Customer, except as otherwise

expressly provided herein.

**1.5**

**Responsibilities of the Parties**

1.5.1 The Parties shall perform all obligations of this Agreement in accordance with all

Applicable Laws and Regulations, Operating Requirements, and Good Utility

Practice.

2

SERVICE AGREEMENT NO. 2756

1.5.2 The Interconnection Customer shall construct, interconnect, operate and maintain

its Small Generating Facility and construct, operate, and maintain its

Interconnection Facilities in accordance with the applicable manufacturer’s

recommended maintenance schedule, and in accordance with this Agreement, and

with Good Utility Practice.

1.5.3 The Connecting Transmission Owner shall construct, operate, and maintain its

Interconnection Facilities and Upgrades covered by this Agreement in accordance

with this Agreement, and with Good Utility Practice. If all the Parties agree, the

Interconnection Customer may construct the Connecting Transmission Owner’s

Interconnection Facilities and Upgrades as specified in Attachment 2.

1.5.4 The Interconnection Customer agrees to construct its facilities or systems in

accordance with applicable specifications that meet or exceed those provided by

the National Electrical Safety Code, the American National Standards Institute,

IEEE, Underwriter’s Laboratory, and Operating Requirements in effect at the time

of construction and other applicable national and state codes and standards. The

Interconnection Customer agrees to design, install, maintain, and operate its Small

Generating Facility so as to reasonably minimize the likelihood of a disturbance

adversely affecting or impairing the system or equipment of the Connecting

Transmission Owner or Affected Systems.

1.5.5 The Connecting Transmission Owner and Interconnection Customer shall operate,

maintain, repair, and inspect, and shall be fully responsible for the facilities that it

now or subsequently may own unless otherwise specified in the Attachments to

this Agreement. Each of those Parties shall be responsible for the safe

installation, maintenance, repair and condition of their respective lines and

appurtenances on their respective sides of the point of change of ownership. The

Connecting Transmission Owner and the Interconnection Customer, as

appropriate, shall provide Interconnection Facilities that adequately protect the

Connecting Transmission Owner’s electric system, personnel, and other persons

from damage and injury. The allocation of responsibility for the design,

installation, operation, maintenance and ownership of Interconnection Facilities

shall be delineated in the Attachments to this Agreement.

1.5.6 The NYISO shall coordinate with all Affected Systems to support the

interconnection. The Connecting Transmission Owner shall cooperate with the

NYISO in these efforts.

1.5.7 The Interconnection Customer shall ensure “frequency ride through” capability

and “voltage ride through” capability of its Small Generating Facility. The

Interconnection Customer shall enable these capabilities such that its Small

Generating Facility shall not disconnect automatically or instantaneously from the

system or equipment of the Connecting Transmission Owner and any Affected

Systems for a defined under-frequency or over-frequency condition, or an under-

voltage or over-voltage condition, as tested pursuant to section 2.1 of this

agreement. The defined conditions shall be in accordance with Good Utility

3

SERVICE AGREEMENT NO. 2756

Practice and consistent with any standards and guidelines that are applied to other

generating facilities in the Balancing Authority Area on a comparable basis. The

Small Generating Facility’s protective equipment settings shall comply with the

Transmission Owner’s automatic load-shed program. The Transmission Owner

shall review the protective equipment settings to confirm compliance with the

automatic load-shed program. The term “ride through” as used herein shall mean

the ability of a Small Generating Facility to stay connected to and synchronized

with the system or equipment of the Transmission Owner and any Affected

Systems during system disturbances within a range of conditions, in accordance

with Good Utility Practice and consistent with any standards and guidelines that

are applied to other generating facilities in the Balancing Authority on a

comparable basis. The term “frequency ride through” as used herein shall mean

the ability of a Small Generating Facility to stay connected to and synchronized

with the system or equipment of the Transmission Owner and any Affected

Systems during system disturbances within a range of under-frequency and over-

frequency conditions, in accordance with Good Utility Practice and consistent

with any standards and guidelines that are applied to other generating facilities in

the Balancing Authority Area on a comparable basis. The term “voltage ride

through” as used herein shall mean the ability of a Small Generating Facility to

stay connected to and synchronized with the system or equipment of the

Transmission Owner and any Affected Systems during system disturbances

within a range of under-voltage and over-voltage conditions, in accordance with

Good Utility Practice and consistent with any standards and guidelines that are

applied to other generating facilities in the Balancing Authority Area on a

comparable basis.

**1.6**

**Parallel Operation Obligations**

Once the Small Generating Facility has been authorized to commence parallel operation,

the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel

operation of the Small Generating Facility in the applicable control area, including, but not

limited to: (1) the rules and procedures concerning the operation of generation set forth in the

NYISO tariffs or ISO Procedures or the Connecting Transmission Owner’s tariff; (2) any

requirements consistent with Good Utility Practice or that are necessary to ensure the safe and

reliable operation of the Transmission System or Distribution System; and (3) the Operating

Requirements set forth in Attac[hment 5](#br64) of this Agreement.

**1.7**

**Metering**

The Interconnection Customer shall be responsible for the Connecting Transmission

Owner’s reasonable and necessary cost for the purchase, installation, operation, maintenance,

testing, repair, and replacement of metering and data acquisition equipment specified in

Attac[hments 2](#br44) a[nd 3](#br58) of this Agreement. The Interconnection Customer’s metering (and data

acquisition, as required) equipment shall conform to applicable industry rules and Operating

Requirements.

4



SERVICE AGREEMENT NO. 2756

**1.8**

**Reactive Power and Primary Frequency Response**

1.8.1 Power Factor Design Criteria

1.8.1.1 Synchronous Generation. The Interconnection Customer shall design its

Small Generating Facility to maintain a composite power delivery at continuous

rated power output at the Point of Interconnection at a power factor within the

range of 0.95 leading to 0.95 lagging, unless the NYISO or the Transmission

Owner in whose Transmission District the Small Generating Facility

interconnects has established different requirements that apply to all similarly

situated generators in the New York Control Area or Transmission District (as

applicable) on a comparable basis, in accordance with Good Utility Practice.

1.8.1.2 Non-Synchronous Generation. The Interconnection Customer shall

design its Small Generating Facility to maintain a composite power delivery at

continuous rated power output at the high-side of the generator substation at a

power factor within the range of 0.95 leading to 0.95 lagging, unless the NYISO

or the Transmission Owner in whose Transmission District the Small Generating

Facility interconnects has established a different power factor range that applies to

all similarly situated non-synchronous generators in the control area or

Transmission District (as applicable) on a comparable basis, in accordance with

Good Utility Practice. This power factor range standard shall be dynamic and can

be met using, for example, power electronics designed to supply this level of

reactive capability (taking into account any limitations due to voltage level, real

power output, etc.) or fixed and switched capacitors, or a combination of the two.

This requirement shall only apply to newly interconnecting non-synchronous

generators that have not yet executed a Facilities Study Agreement as of

September 21, 2016.

1.8.2 The NYISO is required to pay the Interconnection Customer for reactive power,

or voltage support service, that the Interconnection Customer provides from the

Small Generating Facility in accordance with Rate Schedule 2 of the NYISO

Services Tariff.

1.8.3 Primary Frequency Response. Interconnection Customer shall ensure the primary

frequency response capability of its Small Generating Facility by installing,

maintaining, and operating a functioning governor or equivalent controls. The

term “functioning governor or equivalent controls” as used herein shall mean the

required hardware and/or software that provides frequency responsive real power

control with the ability to sense changes in system frequency and autonomously

adjust the Small Generating Facility’s real power output in accordance with the

droop and deadband parameters and in the direction needed to correct frequency

deviations. Interconnection Customer is required to install a governor or

equivalent controls with the capability of operating: (1) with a maximum 5

percent droop and ±0.036 Hz deadband; or (2) in accordance with the relevant

droop, deadband, and timely and sustained response settings from an approved

Applicable Reliability Standard providing for equivalent or more stringent

5

SERVICE AGREEMENT NO. 2756

parameters. The droop characteristic shall be: (1) based on the nameplate

capacity of the Small Generating Facility, and shall be linear in the range of

frequencies between 59 to 61 Hz that are outside of the deadband parameter; or

(2) based on an approved Applicable Reliability Standard providing for an

equivalent or more stringent parameter. The deadband parameter shall be: the

range of frequencies above and below nominal (60 Hz) in which the governor or

equivalent controls is not expected to adjust the Small Generating Facility’s real

power output in response to frequency deviations. The deadband shall be

implemented: (1) without a step to the droop curve, that is, once the frequency

deviation exceeds the deadband parameter, the expected change in the Small

Generating Facility’s real power output in response to frequency deviations shall

start from zero and then increase (for under-frequency deviations) or decrease (for

over-frequency deviations) linearly in proportion to the magnitude of the

frequency deviation; or (2) in accordance with an approved Applicable Reliability

Standard providing for an equivalent or more stringent parameter.

Interconnection Customer shall notify NYISO that the primary frequency

response capability of the Small Generating Facility has been tested and

confirmed during commissioning. Once Interconnection Customer has

synchronized the Small Generating Facility with the New York State

Transmission System, Interconnection Customer shall operate the Small

Generating Facility consistent with the provisions specified in Articles 1.8.3.1 and

1.8.3.2 of this Agreement. The primary frequency response requirements

contained herein shall apply to both synchronous and non-synchronous Small

Generating Facilities.

1.8.3.1 Governor or Equivalent Controls. Whenever the Small Generating Facility

is operated in parallel with the New York State Transmission System,

Interconnection Customer shall operate the Small Generating Facility with its

governor or equivalent controls in service and responsive to frequency.

Interconnection Customer shall: (1) in coordination with NYISO, set the

deadband parameter to: (1) a maximum of ±0.036 Hz and set the droop parameter

to a maximum of 5 percent; or (2) implement the relevant droop and deadband

settings from an approved Applicable Reliability Standard that provides for

equivalent or more stringent parameters. Interconnection Customer shall be

required to provide the status and settings of the governor and equivalent controls

to NYISO and/or the Connecting Transmission Owner upon request. If

Interconnection Customer needs to operate the Small Generating Facility with its

governor or equivalent controls not in service, Interconnection Customer shall

immediately notify NYISO and the Connecting Transmission Owner, and provide

both with the following information: (1) the operating status of the governor or

equivalent controls (*i.e.*, whether it is currently out of service or when it will be

taken out of service); (2) the reasons for removing the governor or equivalent

controls from service; and (3) a reasonable estimate of when the governor or

equivalent controls will be returned to service. Interconnection Customer shall

make Reasonable Efforts to return its governor or equivalent controls into service

as soon as practicable. Interconnection Customer shall make Reasonable Efforts

to keep outages of the Small Generating Facility’s governor or equivalent controls

6

SERVICE AGREEMENT NO. 2756

to a minimum whenever the Small Generating Facility is operated in parallel with

the New York State Transmission System.

1.8.3.2 Timely and Sustained Response. Interconnection Customer shall ensure

that the Small Generating Facility’s real power response to sustained frequency

deviations outside of the deadband setting is automatically provided and shall

begin immediately after frequency deviates outside of the deadband, and to the

extent the Small Generating Facility has operating capability in the direction

needed to correct the frequency deviation. Interconnection Customer shall not

block or otherwise inhibit the ability of the governor or equivalent controls to

respond and shall ensure that the response is not inhibited, except under certain

operational constraints including, but not limited to, ambient temperature

limitations, physical energy limitations, outages of mechanical equipment, or

regulatory requirements. The Small Generating Facility shall sustain the real

power response at least until system frequency returns to a value within the

deadband setting of the governor or equivalent controls. An Applicable

Reliability Standard with equivalent or more stringent requirements shall

supersede the above requirements.

1.8.3.3 Exemptions. Small Generating Facilities that are regulated by the United

States Nuclear Regulatory Commission shall be exempt from Articles 1.8.3,

1.8.3.1, and 1.8.3.2 of this Agreement. Small Generating Facilities that are

behind the meter generation that is sized-to-load (*i.e.*, the thermal load and the

generation are near-balanced in real-time operation and the generation is primarily

controlled to maintain the unique thermal, chemical, or mechanical output

necessary for the operating requirements of its host facility) shall be required to

install primary frequency response capability requirements in accordance with the

droop and deadband capability requirements specified in Article 1.8.3, but shall

be otherwise exempt from the operating requirements in Articles 1.8.3, 1.8.3.1,

1.8.3.2, and 1.8.3.4 of this Agreement.

1.8.3.4 Electric Storage Resources. Interconnection Customer interconnecting an

electric storage resource shall establish an operating range in Attachment 5 of its

SGIA that specifies a minimum state of charge and a maximum state of charge

between which the electric storage resource will be required to provide primary

frequency response consistent with the conditions set forth in Articles 1.8.3,

1.8.3.1, 1.8.3.2, and 1.8.3.3 of this Agreement. Attachment 5 shall specify

whether the operating range is static or dynamic, and shall consider (1) the

expected magnitude of frequency deviations in the interconnection; (2) the

expected duration that system frequency will remain outside of the deadband

parameter in the interconnection; (3) the expected incidence of frequency

deviations outside of the deadband parameter in the interconnection; (4) the

physical capabilities of the electric storage resource; (5) operational limitations of

the electric storage resources due to manufacturer specification; and (6) any other

relevant factors agreed to by the NYISO, Connecting Transmission Owner, and

Interconnection Customer. If the operating range is dynamic, then Attachment 5

7

SERVICE AGREEMENT NO. 2756

must establish how frequently the operating range will be reevaluated and the

factors that may be considered during its reevaluation.

Interconnection Customer’s electric storage resource is required to provide timely

and sustained primary frequency response consistent with Article 1.8.3.2 of this

Agreement when it is online and dispatched to inject electricity to the New York

State Transmission System and/or receive electricity from the New York State

Transmission System. This excludes circumstances when the electric storage

resource is not dispatched to inject electricity to the New York State Transmission

System and/or dispatched to receive electricity from the New York State

Transmission System. If Interconnection Customer’s electric storage resource is

charging at the time of a frequency deviation outside of its deadband parameter, it

is to increase (for over-frequency deviations) or decrease (for under-frequency

deviations) the rate at which it is charging in accordance with its droop parameter.

Interconnection Customer’s electric storage resource is not required to change

from charging to discharging, or vice versa, unless the response necessitated by

the droop and deadband settings requires it to do so and it is technically capable

of making such a transition.

**1.9**

**Capitalized Terms**

Capitalized terms used herein shall have the meanings specified in the Glossary of Terms

in Attac[hment 1](#br39) or the body of this Agreement. Capitalized terms used herein that are not so

defined shall have the meanings specified in Appendix 1 of Attachment Z, Section 25.1.2 of

Attachment S, or Section 30.1 of Attachment X of the ISO OATT.

8



SERVICE AGREEMENT NO. 2756

**Article 2 Inspection, Testing, Authorization, and Right of Access**

**2.1 Equipment Testing and Inspection**

2.1.1 The Interconnection Customer shall test and inspect its Small Generating Facility

and Interconnection Facilities prior to interconnection. The Interconnection

Customer shall notify the NYISO and the Connecting Transmission Owner of

such activities no fewer than five Business Days (or as may be agreed to by the

Parties) prior to such testing and inspection. Testing and inspection shall occur on

a Business Day. The Connecting Transmission Owner may, at its own expense,

send qualified personnel to the Small Generating Facility site to inspect the

interconnection and observe the testing. The Interconnection Customer shall

provide the NYISO and Connecting Transmission Owner a written test report

when such testing and inspection is completed. The Small Generating Facility

may not commence parallel operations if the NYISO, in consultation with the

Connecting Transmission Owner, finds that the Small Generating Facility has not

been installed as agreed upon or may not be operated in a safe and reliable

manner.

2.1.2 The NYISO and Connecting Transmission Owner shall each provide the

Interconnection Customer written acknowledgment that it has received the

Interconnection Customer’s written test report. Such written acknowledgment

shall not be deemed to be or construed as any representation, assurance,

guarantee, or warranty by the NYISO or Connecting Transmission Owner of the

safety, durability, suitability, or reliability of the Small Generating Facility or any

associated control, protective, and safety devices owned or controlled by the

Interconnection Customer or the quality of power produced by the Small

Generating Facility.

**2.2**

**Authorization Required Prior to Parallel Operation**

2.2.1 The NYISO, in consultation with the Connecting Transmission Owner, shall use

Reasonable Efforts to list applicable parallel Operating Requirements in

Attac[hment 5](#br64) of this Agreement. Additionally, the NYISO, in consultation with

the Connecting Transmission Owner, shall notify the Interconnection Customer of

any changes to these requirements as soon as they are known. The NYISO and

Connecting Transmission Owner shall make Reasonable Efforts to cooperate with

the Interconnection Customer in meeting requirements necessary for the

Interconnection Customer to commence parallel operations by the in-service date.

2.2.2 The Interconnection Customer shall not operate its Small Generating Facility in

parallel with the New York State Transmission System or the Distribution System

without prior written authorization of the NYISO. The NYISO, in consultation

with the Connecting Transmission Owner, will provide such authorization once

the NYISO receives notification that the Interconnection Customer has complied

with all applicable parallel Operating Requirements. Such authorization shall not

be unreasonably withheld, conditioned, or delayed.

9



SERVICE AGREEMENT NO. 2756

**2.3**

**Right of Access**

2.3.1 Upon reasonable notice, the NYISO and/or Connecting Transmission Owner may

send a qualified person to the premises of the Interconnection Customer at or

immediately before the time the Small Generating Facility first produces energy

to inspect the interconnection, and observe the commissioning of the Small

Generating Facility (including any required testing), startup, and operation for a

period of up to three Business Days after initial start-up of the unit. In addition,

the Interconnection Customer shall notify the NYISO and Connecting

Transmission Owner at least five Business Days prior to conducting any on-site

verification testing of the Small Generating Facility.

2.3.2 Following the initial inspection process described above, at reasonable hours, and

upon reasonable notice, or at any time without notice in the event of an

emergency or hazardous condition, the NYISO and Connecting Transmission

Owner each shall have access to the Interconnection Customer’s premises for any

reasonable purpose in connection with the performance of the obligations

imposed on them by this Agreement or if necessary to meet their legal obligation

to provide service to their customers.

2.3.3 Each Party shall be responsible for its own costs associated with following this

article.

10

SERVICE AGREEMENT NO. 2756

**Article 3 Effective Date, Term, Termination, and Disconnection**

**3.1 Effective Date**

This Agreement shall become effective upon execution by the Parties subject to

acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by the FERC.

The NYISO and Connecting Transmission Owner shall promptly file, or cause to be filed, this

Agreement with FERC upon execution, if required. If the Agreement is disputed and the

Interconnection Customer requests that it be filed with FERC in an unexecuted form, the NYISO

shall file, or cause to be filed, this Agreement and the NYISO shall identify the disputed

language.

**3.2**

**Term of Agreement**

This Agreement shall become effective on the Effective Date and shall remain in effect

for a period of twenty (20) years from the Effective Date and shall be automatically renewed for

each successive one-year period thereafter, unless terminated earlier in accordance with article

[3.3](#br15) of this Agreement.

**3.3**

**Termination**

No termination shall become effective until the Parties have complied with all Applicable

Laws and Regulations applicable to such termination, including the filing with FERC of a notice

of termination of this Agreement (if required), which notice has been accepted for filing by

FERC.

3.3.1 The Interconnection Customer may terminate this Agreement at any time by

giving the NYISO and Connecting Transmission Owner 20 Business Days written

notice. The NYISO may terminate this Agreement after the Small Generating

Facility is Retired.

3.3.2 Any Party may terminate this Agreement after Default pursuant to artic[le 7.6.](#br24)

3.3.3 Upon termination of this Agreement, the Small Generating Facility will be

disconnected from the New York State Transmission System or the Distribution

System, as applicable. All costs required to effectuate such disconnection shall be

borne by the terminating Party, unless such termination resulted from the non-

terminating Party’s Default of this SGIA or such non-terminating Party otherwise

is responsible for these costs under this SGIA.

3.3.4 The termination of this Agreement shall not relieve any Party of its liabilities and

obligations, owed or continuing at the time of the termination. The

Interconnection Customer shall pay all amounts in excess of any deposit or other

security without interest within 30 calendar days after receipt of the invoice for

such amounts. If the deposit or other security exceeds the invoice, the Connecting

Transmission Owner shall refund such excess within 30 calendar days of the

invoice without interest. If the Interconnection Customer disputes an amount to

be paid the Interconnection Customer shall pay the disputed amount to the

11

SERVICE AGREEMENT NO. 2756

Connecting Transmission Owner or into an interest bearing escrow account,

pending resolution of the dispute in accordance with Artic[le 10](#br29) of this Agreement.

To the extent the dispute is resolved in the Interconnection Customer’s favor, that

portion of the disputed amount will be returned to the Interconnection Customer

with interest at rates applicable to refunds under the Commission’s regulations.

To the extent the dispute is resolved in the Connecting Transmission Owner’s

favor, that portion of any escrowed funds and interest will be released to the

Connecting Transmission Owner.

3.3.5 The limitations of liability, indemnification and confidentiality provisions of this

Agreement shall survive termination or expiration of this Agreement.

**3.4**

**Temporary Disconnection**

Temporary disconnection shall continue only for so long as reasonably necessary under

Good Utility Practice.

**3.4.1 Emergency Conditions**

“Emergency Condition” shall mean a condition or situation: (1) that in the judgment of

the Party making the claim is imminently likely to endanger life or property; or (2) that, in the

case of the NYISO or Connecting Transmission Owner, is imminently likely (as determined in a

non-discriminatory manner) to cause a material adverse effect on the security of, or damage to

the New York State Transmission System or Distribution System, the Connecting Transmission

Owner’s Interconnection Facilities or the electric systems of others to which the New York State

Transmission System or Distribution System is directly connected; or (3) that, in the case of the

Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner)

to cause a material adverse effect on the security of, or damage to, the Small Generating Facility

or the Interconnection Customer’s Interconnection Facilities. Under Emergency Conditions, the

NYISO or Connecting Transmission Owner may immediately suspend interconnection service

and temporarily disconnect the Small Generating Facility. The NYISO or Connecting

Transmission Owner shall notify the Interconnection Customer promptly when it becomes aware

of an Emergency Condition that may reasonably be expected to affect the Interconnection

Customer’s operation of the Small Generating Facility. The Interconnection Customer shall

notify the NYISO and Connecting Transmission Owner promptly when it becomes aware of an

Emergency Condition that may reasonably be expected to affect the New York State

Transmission System or Distribution System or any Affected Systems. To the extent

information is known, the notification shall describe the Emergency Condition, the extent of the

damage or deficiency, the expected effect on the operation of each Party’s facilities and

operations, its anticipated duration, and the necessary corrective action.

**3.4.2 Routine Maintenance, Construction, and Repair**

The NYISO or Connecting Transmission Owner may interrupt interconnection service or

curtail the output of the Small Generating Facility and temporarily disconnect the Small

Generating Facility from the New York State Transmission System or Distribution System when

necessary for routine maintenance, construction, and repairs on the New York State

12

SERVICE AGREEMENT NO. 2756

Transmission System or Distribution System. The NYISO or the Connecting Transmission

Owner shall provide the Interconnection Customer with five Business Days’ notice prior to such

interruption. The NYISO and Connecting Transmission Owner shall use Reasonable Efforts to

coordinate such reduction or temporary disconnection with the Interconnection Customer.

**3.4.3 Forced Outages**

During any forced outage, the NYISO or Connecting Transmission Owner may suspend

interconnection service to the Interconnection Customer to effect immediate repairs on the New

York State Transmission System or the Distribution System. The NYISO shall use Reasonable

Efforts to provide the Interconnection Customer with prior notice. If prior notice is not given,

the NYISO shall, upon request, provide the Interconnection Customer written documentation

after the fact explaining the circumstances of the disconnection.

**3.4.4 Adverse Operating Effects**

The NYISO or Connecting Transmission Owner shall notify the Interconnection

Customer as soon as practicable if, based on Good Utility Practice, operation of the Small

Generating Facility may cause disruption or deterioration of service to other customers served

from the same electric system, or if operating the Small Generating Facility could cause damage

to the New York State Transmission System, the Distribution System or Affected Systems, or if

disconnection is otherwise required under Applicable Reliability Standards or the ISO OATT.

Supporting documentation used to reach the decision to disconnect shall be provided to the

Interconnection Customer upon request. If, after notice, the Interconnection Customer fails to

remedy the adverse operating effect within a reasonable time, the NYISO or Connecting

Transmission Owner may disconnect the Small Generating Facility. The NYISO or Connecting

Transmission Owner shall provide the Interconnection Customer with five Business Day notice

of such disconnection, unless the provisions of artic[le 3.4.1](#br16) apply.

**3.4.5 Modification of the Small Generating Facility**

The Interconnection Customer must receive written authorization from the NYISO and

Connecting Transmission Owner before making any change to the Small Generating Facility that

may have a material impact on the safety or reliability of the New York State Transmission

System or the Distribution System. Such authorization shall not be unreasonably withheld.

Modifications shall be done in accordance with Good Utility Practice. If the Interconnection

Customer makes such modification without the prior written authorization of the NYISO and

Connecting Transmission Owner, the Connecting Transmission Owner shall have the right to

temporarily disconnect the Small Generating Facility. If disconnected, the Small Generating

Facility will not be reconnected until the unauthorized modifications are authorized or removed.

**3.4.6 Reconnection**

The Parties shall cooperate with each other to restore the Small Generating Facility,

Interconnection Facilities, and the New York State Transmission System and Distribution

System to their normal operating state as soon as reasonably practicable following a temporary

disconnection.

13

SERVICE AGREEMENT NO. 2756

**Article 4 Cost Responsibility for Interconnection Facilities and Distribution Upgrades**

**4.1 Interconnection Facilities**

4.1.1 The Interconnection Customer shall pay for the cost of the Interconnection

Facilities itemized in Attac[hment 2](#br44) of this Agreement. The NYISO, in

consultation with the Connecting Transmission Owner, shall provide a best

estimate cost, including overheads, for the purchase and construction of its

Interconnection Facilities and provide a detailed itemization of such costs. Costs

associated with Interconnection Facilities may be shared with other entities that

may benefit from such facilities by agreement of the Interconnection Customer,

such other entities, the NYISO, and the Connecting Transmission Owner.

4.1.2 The Interconnection Customer shall be responsible for its share of all reasonable

expenses, including overheads, associated with (1) owning, operating,

maintaining, repairing, and replacing its own Interconnection Facilities, and

(2) operating, maintaining, repairing, and replacing the Connecting Transmission

Owner’s Interconnection Facilities, as set forth in Attac[hment 2](#br44) to this

Agreement.

**4.2**

**Distribution Upgrades**

The Connecting Transmission Owner shall design, procure, construct, install, and own

the Distribution Upgrades described in Attachmen[t 6](#br65) of this Agreement. If the Connecting

Transmission Owner and the Interconnection Customer agree, the Interconnection Customer may

construct Distribution Upgrades. The actual cost of the Distribution Upgrades, including

overheads, shall be directly assigned to the Interconnection Customer. The Interconnection

Customer shall be responsible for its share of all reasonable expenses, including overheads,

associated with owning, operating, maintaining, repairing, and replacing the Distribution

Upgrades, as set forth in Attac[hment 6](#br65) to this Agreement.

14



SERVICE AGREEMENT NO. 2756

**Article 5 Cost Responsibility for System Upgrade Facilities and System Deliverability**

**Upgrades**

**5.1**

**Applicability**

No portion of this artic[le 5](#br19) shall apply unless the interconnection of the Small Generating

Facility requires System Upgrade Facilities or System Deliverability Upgrades.

**5.2**

**System Upgrades**

The Connecting Transmission Owner shall procure, construct, install, and own the

System Upgrade Facilities and System Deliverability Upgrades described in Attac[hment 6](#br65) of this

Agreement. To the extent that design work is necessary in addition to that already accomplished

in the Class Year Interconnection Facilities Study for the Interconnection Customer, the

Connecting Transmission Owner shall perform or cause to be performed such work. If all the

Parties agree, the Interconnection Customer may construct System Upgrade Facilities and

System Deliverability Upgrades.

5.2.1 As described in Section 32.3.5.3 of the SGIP in Attachment Z of the ISO OATT,

the responsibility of the Interconnection Customer for the cost of the System

Upgrade Facilities and System Deliverability Upgrades described in Attach[ment 6](#br65)

of this Agreement shall be determined in accordance with Attachment S of the

ISO OATT, as required by Section 32.3.5.3.2 of Attachment Z. The

Interconnection Customer shall be responsible for all System Upgrade Facility

costs as required by Section 32.3.5.3.2 of Attachment Z or its share of any System

Upgrade Facilities and System Deliverability Upgrades costs resulting from the

final Attachment S process, as applicable, and Attac[hment 6](#br65) to this Agreement

shall be revised accordingly.

5.2.2 Pending the outcome of the Attachment S cost allocation process, if applicable,

the Interconnection Customer may elect to proceed with the interconnection of its

Small Generating Facility in accordance with Section 32.3.5.3 of the SGIP.

**5.3**

**Special Provisions for Affected Systems**

For the repayment of amounts advanced to the Affected System Operator for System

Upgrade Facilities or System Deliverability Upgrades, the Interconnection Customer and

Affected System Operator shall enter into an agreement that provides for such repayment, but

only if responsibility for the cost of such System Upgrade Facilities is not to be allocated in

accordance with Attachment S of the ISO OATT. The agreement shall specify the terms

governing payments to be made by the Interconnection Customer to the Affected System

Operator as well as the repayment by the Affected System Operator.

15



SERVICE AGREEMENT NO. 2756

**Article 6 Billing, Payment, Milestones, and Financial Security**

**6.1 Billing and Payment Procedures and Final Accounting**

6.1.1 The Connecting Transmission Owner shall bill the Interconnection Customer for

the design, engineering, construction, and procurement costs of Interconnection

Facilities and Upgrades contemplated by this Agreement on a monthly basis, or as

otherwise agreed by those Parties and as set forth in Section 2 of Attachment 4.

The Interconnection Customer shall pay all invoice amounts within 30 calendar

days after receipt of the invoice.

6.1.2 Within three months of completing the construction and installation of the

Connecting Transmission Owner’s Interconnection Facilities and/or Upgrades

described in the Attachments to this Agreement, the Connecting Transmission

Owner shall provide the Interconnection Customer with a final accounting report

of any difference between (1) the Interconnection Customer’s cost responsibility

for the actual cost of such facilities or Upgrades, and (2) the Interconnection

Customer’s previous aggregate payments to the Connecting Transmission Owner

for such facilities or Upgrades. If the Interconnection Customer’s cost

responsibility exceeds its previous aggregate payments, the Connecting

Transmission Owner shall invoice the Interconnection Customer for the amount

due and the Interconnection Customer shall make payment to the Connecting

Transmission Owner within 30 calendar days. If the Interconnection Customer’s

previous aggregate payments exceed its cost responsibility under this Agreement,

the Connecting Transmission Owner shall refund to the Interconnection Customer

an amount equal to the difference within 30 calendar days of the final accounting

report.

6.1.3 If the Interconnection Customer disputes an amount to be paid, the

Interconnection Customer shall pay the disputed amount to the Connecting

Transmission Owner or into an interest bearing escrow account, pending

resolution of the dispute in accordance with Article [10](#br29) of this Agreement. To the

extent the dispute is resolved in the Interconnection Customer’s favor, that portion

of the disputed amount will be credited or returned to the Interconnection

Customer with interest at rates applicable to refunds under the Commission’s

regulations. To the extent the dispute is resolved in the Connecting Transmission

Owner’s favor, that portion of any escrowed funds and interest will be released to

the Connecting Transmission Owner.

**6.2**

**Milestones**

Subject to the provisions of the SGIP, the Parties shall agree on milestones for which

each Party is responsible and list them in Attac[hment 4](#br59) of this Agreement. A Party’s obligations

under this provision may be extended by agreement. If a Party anticipates that it will be unable

to meet a milestone for any reason other than a Force Majeure event, it shall immediately notify

the other Parties of the reason(s) for not meeting the milestone and: (1) propose the earliest

reasonable alternate date by which it can attain this and future milestones, and (2) requesting

16



SERVICE AGREEMENT NO. 2756

appropriate amendments to Attac[hment 4. The](#br59) Party affected by the failure to meet a milestone

shall not unreasonably withhold agreement to such an amendment unless: (1) it will suffer

significant uncompensated economic or operational harm from the delay, (2) attainment of the

same milestone has previously been delayed, or (3) it has reason to believe that the delay in

meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained

by the Party proposing the amendment.

**6.3**

**Financial Security Arrangements**

At least 20 Business Days prior to the commencement of the design, procurement,

installation, or construction of a discrete portion of the Connecting Transmission Owner’s

Interconnection Facilities and Upgrades, the Interconnection Customer shall provide the

Connecting Transmission Owner, at the Interconnection Customer’s option, a guarantee, a surety

bond, letter of credit or other form of security that is reasonably acceptable to the Connecting

Transmission Owner and is consistent with the Uniform Commercial Code of the jurisdiction

where the Point of Interconnection is located. Such security for payment shall be in an amount

sufficient to cover the costs for constructing, designing, procuring, and installing the applicable

portion of the Connecting Transmission Owner’s Interconnection Facilities and Upgrades and

shall be reduced on a dollar-for-dollar basis for payments made to the Connecting Transmission

Owner under this Agreement during its term. The Connecting Transmission Owner may draw

on any such security to the extent that the Interconnection Customer fails to make any payments

due under this Agreement. In addition:

6.3.1 The guarantee must be made by an entity that meets the creditworthiness

requirements of the Connecting Transmission Owner, and contain terms and

conditions that guarantee payment of any amount that may be due from the

Interconnection Customer, up to an agreed-to maximum amount.

6.3.2 The letter of credit or surety bond must be issued by a financial institution or

insurer reasonably acceptable to the Connecting Transmission Owner and must

specify a reasonable expiration date.

6.3.3 Notwithstanding the above, Security posted for System Upgrade Facilities for a

Small Generating Facility required to enter the Class Year process, or cash or

Security provided for System Deliverability Upgrades, shall meet the

requirements for Security contained in Attachment S to the ISO OATT.

17



SERVICE AGREEMENT NO. 2756

**Article 7 Assignment, Liability, Indemnity, Force Majeure, Consequential Damages,**

**and Default**

**7.1**

**Assignment**

This Agreement, and each and every term and condition hereof, shall be binding upon

and inure to the benefit of the Parties hereto and their respective successors and assigns. This

Agreement may be assigned by any Party upon 15 Business Days prior written notice and

opportunity to object by the other Parties; provided that:

7.1.1 A Party may assign this Agreement without the consent of the other Parties to any

affiliate of the assigning Party with an equal or greater credit rating and with the

legal authority and operational ability to satisfy the obligations of the assigning

Party under this Agreement, provided that the Interconnection Customer promptly

notifies the NYISO and the Connecting Transmission Owner of any such

assignment. A Party may assign this Agreement without the consent of the other

Parties in connection with the sale, merger, restructuring, or transfer of a

substantial portion of all of its assets, including the Interconnection Facilities it

owns, so long as the assignee in such a transaction directly assumes all rights,

duties and obligation arising under this Agreement.

7.1.2 The Interconnection Customer shall have the right to assign this Agreement,

without the consent of the NYISO or Connecting Transmission Owner, for

collateral security purposes to aid in providing financing for the Small Generating

Facility.

7.1.3 Any attempted assignment that violates this article is void and ineffective.

Assignment shall not relieve a Party of its obligations, nor shall a Party’s

obligations be enlarged, in whole or in part, by reason thereof. An assignee is

responsible for meeting the same financial, credit, and insurance obligations as

the Interconnection Customer. Where required, consent to assignment will not be

unreasonably withheld, conditioned or delayed.

**7.2**

**Limitation of Liability**

Each Party’s liability to the other Parties for any loss, cost, claim, injury, liability, or

expense, including reasonable attorney’s fees, relating to or arising from any act or omission in

its performance of this Agreement, shall be limited to the amount of direct damage actually

incurred. In no event shall any Party be liable to the other Parties for any indirect, special,

consequential, or punitive damages.

**7.3**

**Indemnity**

7.3.1 This provision protects each Party from liability incurred to third parties as a

result of carrying out the provisions of this Agreement. Liability under this

provision is exempt from the general limitations on liability found in artic[le 7.2.](#br22)

18

SERVICE AGREEMENT NO. 2756

7.3.2 Each Party (the “Indemnifying Party”) shall at all times indemnify, defend, and

hold harmless the other Parties (each an “ Indemnified Party”) from, any and all

damages, losses, claims, including claims and actions relating to injury to or death

of any person or damage to property, the alleged violation of any Environmental

Law, or the release or threatened release of any Hazardous Substance, demand,

suits, recoveries, costs and expenses, court costs, attorney fees, and all other

obligations by or to third parties (any and all of these a “Loss”), arising out of or

resulting from: (i) the Indemnified Party’s performance under this Agreement on

behalf of the Indemnifying Party, except in cases where the Indemnifying Party

can demonstrate that the Loss of the Indemnified Party was caused by the gross

negligence or intentional wrongdoing by the Indemnified Party, or (ii) the

violation by the Indemnifying Party of any Environmental Law or the release by

the Indemnifying Party of a Hazardous Substance.

7.3.3 If a Party is entitled to indemnification under this article as a result of a claim by a

third party, and the Indemnifying Party fails, after notice and reasonable

opportunity to proceed under this article, to assume the defense of such claim,

such Indemnified Party may at the expense of the Indemnifying Party contest,

settle or consent to the entry of any judgment with respect to, or pay in full, such

claim.

7.3.4 If an Indemnifying Party is obligated to indemnify and hold any Indemnified

Party harmless under this article, the amount owing to the Indemnified Party shall

be the amount of such Indemnified Party’s actual loss, net of any insurance or

other recovery.

7.3.5 Promptly after receipt by an Indemnified Party of any claim or notice of the

commencement of any action or administrative or legal proceeding or

investigation as to which the indemnity provided for in this article may apply, the

Indemnified Party shall notify the Indemnifying Party of such fact. Any failure of

or delay in such notification shall not affect a Party’s indemnification obligation

unless such failure or delay is materially prejudicial to the Indemnifying Party.

**7.4**

**Consequential Damages**

Other than as expressly provided for in this Agreement, no Party shall be liable under any

provision of this Agreement for any losses, damages, costs or expenses for any special, indirect,

incidental, consequential, or punitive damages, including but not limited to loss of profit or

revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services,

whether based in whole or in part in contract, in tort, including negligence, strict liability, or any

other theory of liability; provided, however, that damages for which a Party may be liable to

another Party under another agreement will not be considered to be special, indirect, incidental,

or consequential damages hereunder.

19

SERVICE AGREEMENT NO. 2756

**7.5**

**Force Majeure**

7.5.1 As used in this article, a “Force Majeure Event” shall mean “any act of God, labor

disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood,

explosion, breakage or accident to machinery or equipment, any order, regulation

or restriction imposed by governmental, military or lawfully established civilian

authorities, or any other cause beyond a Party’s control. A Force Majeure Event

does not include an act of negligence or intentional wrongdoing.” For the

purposes of this article, this definition of Force Majeure shall supersede the

definitions of Force Majeure set out in Section 32.10.1 of the ISO OATT.

7.5.2 If a Force Majeure Event prevents a Party from fulfilling any obligations under

this Agreement, the Party affected by the Force Majeure Event (“Affected Party”)

shall promptly notify the other Parties, either in writing or via the telephone, of

the existence of the Force Majeure Event. The notification must specify in

reasonable detail the circumstances of the Force Majeure Event, its expected

duration, and the steps that the Affected Party is taking to mitigate the effects of

the event on its performance. The Affected Party shall keep the other Parties

informed on a continuing basis of developments relating to the Force Majeure

Event until the event ends. The Affected Party will be entitled to suspend or

modify its performance of obligations under this Agreement (other than the

obligation to make payments) only to the extent that the effect of the Force

Majeure Event cannot be mitigated by the use of Reasonable Efforts. The

Affected Party will use Reasonable Efforts to resume its performance as soon as

possible.

**7.6**

**Breach and Default**

7.6.1 No Breach of this Agreement shall exist where such failure to discharge an

obligation (other than the payment of money) is the result of a Force Majeure

Event or the result of an act or omission of the other Parties. Upon a Breach, the

non-breaching Party shall give written notice of such Breach to the Breaching

Party. Except as provided in artic[le 7.6.2, the Bre](#br24)aching Party shall have 60

calendar days from receipt of the Breach notice within which to cure such Breach;

provided however, if such Breach is not capable of cure within 60 calendar days,

the Breaching Party shall commence such cure within 20 calendar days after

notice and continuously and diligently complete such cure within six months from

receipt of the Breach notice; and, if cured within such time, the Breach specified

in such notice shall cease to exist.

7.6.2 If a Breach is not cured as provided in this article, or if a Breach is not capable of

being cured within the period provided for herein, a Default shall exist and the

non-defaulting Parties acting together shall thereafter have the right to terminate

this Agreement, in accordance with artic[le 3.3](#br15) hereof, by written notice to the

defaulting Party at any time until cure occurs, and be relieved of any further

obligation hereunder and, whether or not those Parties terminate this Agreement,

to recover from the defaulting Party all amounts due hereunder, plus all other

20

SERVICE AGREEMENT NO. 2756

damages and remedies to which they are entitled at law or in equity. The

provisions of this article shall survive termination of this Agreement.

7.6.3 In cases where the Interconnection Customer has elected to proceed under

Section 32.3.5.3 of the SGIP, if the Interconnection Request is withdrawn or

deemed withdrawn pursuant to the SGIP during the term of this Agreement, this

Agreement shall terminate.

21

SERVICE AGREEMENT NO. 2756

**Article 8 Insurance**

8.1

The Interconnection Customer shall, at its own expense, maintain in force general

liability insurance without any exclusion for liabilities related to the interconnection

undertaken pursuant to this Agreement. The amount of such insurance shall be sufficient

to insure against all reasonably foreseeable direct liabilities given the size and nature of

the generating equipment being interconnected, the interconnection itself, and the

characteristics of the system to which the interconnection is made. Such insurance

coverage is specified in Attac[hment **7**](#br69) to this Agreement. The Interconnection Customer

shall obtain additional insurance only if necessary as a function of owning and operating

a generating facility. Such insurance shall be obtained from an insurance provider

authorized to do business in New York State where the interconnection is located.

Certification that such insurance is in effect shall be provided upon request of the

Connecting Transmission Owner, except that the Interconnection Customer shall show

proof of insurance to the Connecting Transmission Owner no later than ten Business

Days prior to the anticipated commercial operation date. An Interconnection Customer

of sufficient creditworthiness may propose to self-insure for such liabilities, and such a

proposal shall not be unreasonably rejected.

8.2

8.3

The NYISO and Connecting Transmission Owner agree to maintain general liability

insurance or self-insurance consistent with the existing commercial practice. Such

insurance or self-insurance shall not exclude the liabilities undertaken pursuant to this

Agreement.

The Parties further agree to notify one another whenever an accident or incident occurs

resulting in any injuries or damages that are included within the scope of coverage of

such insurance, whether or not such coverage is sought.

22



SERVICE AGREEMENT NO. 2756

**Article 9 Confidentiality**

9.1

Confidential Information shall mean any confidential and/or proprietary information

provided by one Party to the other Party that is clearly marked or otherwise designated

“Confidential.” For purposes of this Agreement all design, operating specifications, and

metering data provided by the Interconnection Customer shall be deemed Confidential

Information regardless of whether it is clearly marked or otherwise designated as such.

Confidential Information shall include, without limitation, information designated as

such by the NYISO Code of Conduct contained in Attachment F to the ISO OATT.

9.2

Confidential Information does not include information previously in the public domain,

required to be publicly submitted or divulged by Governmental Authorities (after notice

to the other Party and after exhausting any opportunity to oppose such publication or

release), or necessary to be divulged in an action to enforce this Agreement. Each Party

receiving Confidential Information shall hold such information in confidence and shall

not disclose it to any third party nor to the public without the prior written authorization

from the Party providing that information, except to fulfill obligations under this

Agreement, or to fulfill legal or regulatory requirements.

9.2.1 Each Party shall employ at least the same standard of care to protect Confidential

Information obtained from the other Parties as it employs to protect its own

Confidential Information.

9.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its

rights under this provision to prevent the release of Confidential Information

without bond or proof of damages, and may seek other remedies available at law

or in equity for breach of this provision.

9.3

Notwithstanding anything in this article to the contrary, and pursuant to 18 CFR §

lb.20, if FERC, during the course of an investigation or otherwise, requests

information from one of the Parties that is otherwise required to be maintained in

confidence pursuant to this Agreement, the Party shall provide the requested

information to FERC, within the time provided for in the request for information.

In providing the information to FERC, the Party may, consistent with 18 CFR §

388.112, request that the information be treated as confidential and non-public by

FERC and that the information be withheld from public disclosure. Each Party is

prohibited from notifying the other Parties to this Agreement prior to the release

of the Confidential Information to FERC. The Party shall notify the other Parties

to this Agreement when it is notified by FERC that a request to release

Confidential Information has been received by FERC, at which time either of the

Parties may respond before such information would be made public, pursuant to

18 CFR § 388.112. Requests from a state regulatory body conducting a

confidential investigation shall be treated in a similar manner if consistent with

the applicable state rules and regulations.

9.4

Consistent with the provisions of this artic[le 9, the Par](#br27)ties to this Agreement will

cooperate in good faith to provide each other, Affected Systems, Affected System

23

SERVICE AGREEMENT NO. 2756

Operators, and state and federal regulators the information necessary to carry out

the terms of the SGIP and this Agreement.

24

SERVICE AGREEMENT NO. 2756

**Article 10 Disputes**

10.1 The NYISO, Connecting Transmission Owner and Interconnection Customer agree to

attempt to resolve all disputes arising out of the interconnection process according to the

provisions of this article.

10.2 In the event of a dispute, the Parties will first attempt to promptly resolve it on an

informal basis. The NYISO will be available to the Interconnection Customer and

Connecting Transmission Owner to help resolve any dispute that arises with respect to

performance under this Agreement. If the Parties cannot promptly resolve the dispute on

an informal basis, then any Party shall provide the other Parties with a written Notice of

Dispute. Such notice shall describe in detail the nature of the dispute.

10.3 If the dispute has not been resolved within two Business Days after receipt of the notice,

any Party may contact FERC’s Dispute Resolution Service (“DRS”) for assistance in

resolving the dispute.

10.4 The DRS will assist the Parties in either resolving their dispute or in selecting an

appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral

evaluation, or technical expert) to assist the Parties in resolving their dispute. The result

of this dispute resolution process will be binding only if the Parties agree in advance.

DRS can be reached at 1-877-337-2237 or via the internet at

http://www.ferc.gov/legal/adr.asp.

10.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for

one-third of any costs paid to neutral third-parties.

10.6 If any Party elects to seek assistance from the DRS, or if the attempted dispute resolution

fails, then any Party may exercise whatever rights and remedies it may have in equity or

law consistent with the terms of this Agreement.

25

SERVICE AGREEMENT NO. 2756

**Article 11 Taxes**

11.1 The Parties agree to follow all applicable tax laws and regulations, consistent with FERC

policy and Internal Revenue Service requirements.

11.2 Each Party shall cooperate with the other Parties to maintain the other Parties’ tax status.

Nothing in this Agreement is intended to adversely affect the tax status of any Party

including the status of NYISO, or the status of any Connecting Transmission Owner with

respect to the issuance of bonds including, but not limited to, Local Furnishing Bonds.

Notwithstanding any other provisions of this Agreement, LIPA, NYPA and Consolidated

Edison Company of New York, Inc. shall not be required to comply with any provisions

of this Agreement that would result in the loss of tax-exempt status of any of their Tax-

Exempt Bonds or impair their ability to issue future tax-exempt obligations. For

purposes of this provision, Tax-Exempt Bonds shall include the obligations of the Long

Island Power Authority, NYPA and Consolidated Edison Company of New York, Inc.,

the interest on which is not included in gross income under the Internal Revenue Code.

11.3 LIPA and NYPA do not waive their exemptions, pursuant to Section 201(f) of the FPA,

from Commission jurisdiction with respect to the Commission’s exercise of the FPA’s

general ratemaking authority.

11.4 Any payments due to the Connecting Transmission Owner under this Agreement shall be

adjusted to include any tax liability incurred by the Connecting Transmission Owner with

respect to the interconnection request which is the subject of this Agreement. Such

adjustments shall be made in accordance with the provisions of Article 5.17 of the LGIA

in Attachment X of the ISO OATT. Except where otherwise noted, all costs, deposits,

financial obligations and the like specified in this Agreement shall be assumed not to

reflect the impact of applicable taxes.

26

SERVICE AGREEMENT NO. 2756

**Article 12 Miscellaneous**

**12.1 Governing Law, Regulatory Authority, and Rules**

The validity, interpretation and enforcement of this Agreement and each of its provisions

shall be governed by the laws of the state of New York, without regard to its conflicts of law

principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party

expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or

regulations of a Governmental Authority.

**12.2 Amendment**

The Parties may amend this Agreement by a written instrument duly executed by the

Parties, or under artic[le 12.12](#br33) of this Agreement.

**12.3 No Third-Party Beneficiaries**

This Agreement is not intended to and does not create rights, remedies, or benefits of any

character whatsoever in favor of any persons, corporations, associations, or entities other than the

Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their

successors in interest and where permitted, their assigns. Notwithstanding the foregoing, any

subcontractor of the Connecting Transmission Owner or NYISO assisting either of those Parties

with the Interconnection Request covered by this Agreement shall be entitled to the benefits of

indemnification provided for under Artic[le 7.3](#br22) of this Agreement and the limitation of liability

provided for in Article [7.2](#br22) of this Agreement.

**12.4 Waiver**

12.4.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict

performance of any provision of this Agreement will not be considered a waiver

of any obligation, right, or duty of, or imposed upon, such Party.

12.4.2 Any waiver at any time by a Party of its rights with respect to this Agreement

shall not be deemed a continuing waiver or a waiver with respect to any other

failure to comply with any other obligation, right, duty of this Agreement.

Termination or default of this Agreement for any reason by Interconnection

Customer shall not constitute a waiver of the Interconnection Customer’s legal

rights to obtain an interconnection from the NYISO. Any waiver of this

Agreement shall, if requested, be provided in writing.

**12.5 Entire Agreement**

This Agreement, including all Attachments, constitutes the entire agreement between the

Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous

understandings or agreements, oral or written, between the Parties with respect to the subject

matter of this Agreement. There are no other agreements, representations, warranties, or

covenants which constitute any part of the consideration for, or any condition to, any Party’s

compliance with its obligations under this Agreement.

27

SERVICE AGREEMENT NO. 2756

**12.6 Multiple Counterparts**

This Agreement may be executed in two or more counterparts, each of which is deemed

an original but all constitute one and the same instrument.

**12.7 No Partnership**

This Agreement shall not be interpreted or construed to create an association, joint

venture, agency relationship, or partnership between the Parties or to impose any partnership

obligation or partnership liability upon any Party. No Party shall have any right, power or

authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an

agent or representative of, or to otherwise bind, another Party.

**12.8 Severability**

If any provision or portion of this Agreement shall for any reason be held or adjudged to

be invalid or illegal or unenforceable by any court of competent jurisdiction or other

Governmental Authority, (1) such portion or provision shall be deemed separate and

independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the

benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement

shall remain in full force and effect.

**12.9 Security Arrangements**

Infrastructure security of electric system equipment and operations and control hardware

and software is essential to ensure day-to-day reliability and operational security. FERC expects

the NYISO, the Connecting Transmission Owner, Market Participants, and Interconnection

Customers interconnected to electric systems to comply with the recommendations offered by

the President’s Critical Infrastructure Protection Board and, eventually, best practice

recommendations from the electric reliability authority. All public utilities are expected to meet

basic standards for system infrastructure and operational security, including physical,

operational, and cyber-security practices.

**12.10 Environmental Releases**

Each Party shall notify the other Parties, first orally and then in writing, of the release of

any hazardous substances, any asbestos or lead abatement activities, or any type of remediation

activities related to the Small Generating Facility or the Interconnection Facilities, each of which

may reasonably be expected to affect the other Parties. The notifying Party shall: (1) provide the

notice as soon as practicable, provided such Party makes a good faith effort to provide the notice

no later than 24 hours after such Party becomes aware of the occurrence, and (2) promptly

furnish to the other Parties copies of any publicly available reports filed with any governmental

authorities addressing such events.

**12.11 Subcontractors**

Nothing in this Agreement shall prevent a Party from utilizing the services of any

subcontractor as it deems appropriate to perform its obligations under this Agreement; provided,

28

SERVICE AGREEMENT NO. 2756

however, that each Party shall require its subcontractors to comply with all applicable terms and

conditions of this Agreement in providing such services and each Party shall remain primarily

liable to the other Parties for the performance of such subcontractor.

12.11.1

The creation of any subcontract relationship shall not relieve the hiring

Party of any of its obligations under this Agreement. The hiring Party

shall be fully responsible to the other Parties to the extent provided for in

Articles 7.2 and 7.3 above for the acts or omissions of any subcontractor

the hiring Party hires as if no subcontract had been made; provided,

however, that in no event shall the NYISO or Connecting Transmission

Owner be liable for the actions or inactions of the Interconnection

Customer or its subcontractors with respect to obligations of the

Interconnection Customer under this Agreement. Any applicable

obligation imposed by this Agreement upon the hiring Party shall be

equally binding upon, and shall be construed as having application to, any

subcontractor of such Party.

12.11.2

The obligations under this article will not be limited in any way by any

limitation of subcontractor’s insurance.

**12.12 Reservation of Rights**

Nothing in this Agreement shall alter the right of the NYISO or Connecting Transmission

Owner to make unilateral filings with FERC to modify this Agreement with respect to any rates,

terms and conditions, charges, classifications of service, rule or regulation under Section 205 or

any other applicable provision of the Federal Power Act and FERC’s rules and regulations

thereunder which rights are expressly reserved herein, and the existing rights of the

Interconnection Customer to make a unilateral filing with FERC to modify this Agreement under

any applicable provision of the Federal Power Act and FERC’s rules and regulations are also

expressly reserved herein; provided that each Party shall have the right to protest any such filing

by another Party and to participate fully in any proceeding before FERC in which such

modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties

or of FERC under Sections 205 or 206 of the Federal Power Act and FERC’s rules and

regulations, except to the extent that the Parties otherwise agree as provided herein.

29

SERVICE AGREEMENT NO. 2756

**Article 13 Notices**

**13.1 General**

Unless otherwise provided in this Agreement, any written notice, demand, or request

required or authorized in connection with this Agreement shall be deemed properly given if

delivered in person, delivered by recognized national courier service, or sent by first class mail,

postage prepaid, to the person specified below:

If to the Interconnection Customer:

Interconnection Customer:

Hawthorn Solar, LLC

Attention: Eric Millard, Chief Commercial Officer

Address: 2045 Lincoln Highway

City: Edison State: NJ

Phone: 732-860-4660

Zip: 08817

With Copy to:

Hawthorn Solar, LLC

Attention: Corporate Counsel

Address: 2045 Lincoln Highway

City: Edison State: NJ

Zip: 08817

If to the Connecting Transmission Owner:

Niagara Mohawk Power Corporation d/b/a National Grid

Attention: Vishal Ahirrao

Address: 2 Hanson Place 12th Floor

City: Brooklyn

State: NY

Zip: 11217

Phone: (781) 907--3002

If to the NYISO:

Before Commercial Operation of the Small Generating Facility

New York Independent System Operator, Inc.

Attention: Vice President, System and Resource Planning

Address: 10 Krey Boulevard

City: Rensselaer

State: NY

Zip: 12144

Phone: (518) 356-6000

After Commercial Operation:

New York Independent System Operator, Inc.

Attention: Vice President, Operations

30

SERVICE AGREEMENT NO. 2756

Address: 10 Krey Boulevard

City: Rensselaer State: NY

Phone: (518) 356-6000

Zip: 12144

**13.2 Billing and Payment**

Billings and payments shall be sent to the addresses set out below:

Interconnection Customer:

Hawthorn Solar, LLC

Attention: Eric Millard, Chief Commercial Officer

Address: 2045 Lincoln Highway

City: Edison

State: NJ

Zip: 08817

With Copy to:

Hawthorn Solar, LLC

Attention: Corporate Counsel

Address: 2045 Lincoln Highway

City: Edison

State: NJ

Zip: 08817

Connecting Transmission Owner:

Niagara Mohawk Power Corporation d/b/a National Grid

Attention: Director, Customer Energy Integration and Commercial Services NY

Address: 2 Hanson Place 12th Floor

City: Brooklyn

State: NY

Zip: 11217

**13.3 Alternative Forms of Notice**

Any notice or request required or permitted to be given by either Party to the other and

not required by this Agreement to be given in writing may be so given by telephone or e-mail to

the telephone numbers and e-mail addresses set out below:

If to the Interconnection Customer:

Interconnection Customer:

Hawthorn Solar, LLC

Attention: Eric Millard, Chief Commercial Officer

Address: 2045 Lincoln Highway

City: Edison

State: NJ

Zip: 08817

Phone: 732-860-4660

E-mail: [emillard@csenergy.com](mailto:emillard@csenergy.com)

With Copy to:

Hawthorn Solar, LLC

Attention: Corporate Counsel

Address: 2045 Lincoln Highway

31



SERVICE AGREEMENT NO. 2756

City: Edison

State: NJ

Zip: 08817

E-mail: legal@csenergy.com

If to the Connecting Transmission Owner:

Niagara Mohawk Power Corporation d/b/a National Grid

Attention: Vishal Ahirrao

Address:2 Hanson Place 12th Floor

City: Brooklyn

Phone: (781) 907 - 3002

E-mail: Vishal.Ahirrao@nationalgrid.com

State: NY

Zip: 11217

If to the NYISO:

New York Independent System Operator, Inc.

Attention: Vice President, Operations

Address: 10 Krey Boulevard

City: Rensselaer

Phone: (518) 356-6000

E-mail: interconnectionsupport@nyiso.com

State: NY

Zip: 12144

**13.4 Designated Operating Representative**

The Parties may also designate operating representatives to conduct the communications

which may be necessary or convenient for the administration of this Agreement. This person

will also serve as the point of contact with respect to operations and maintenance of the Party’s

facilities.

Interconnection Customer’s Operating Representative:

Hawthorn Solar, LLC

Attention: Eric Millard, Chief Commercial Officer

Address: 2045 Lincoln Highway

City: Edison

State: NJ

Zip: 08817

Phone: 732-860-4660

E-mail: [emillard@csenergy.com](mailto:emillard@csenergy.com)

With Copy to:

Hawthorn Solar, LLC

Attention: Corporate Counsel

Address: 2045 Lincoln Highway

City: Edison

State: NJ

Zip: 08817

E-mail: legal@csenergy.com

32



SERVICE AGREEMENT NO. 2756

Connecting Transmission Owner’s Operating Representative:

Niagara Mohawk Power Corporation d/b/a National Grid

Attention: Director, Customer Energy Integration and Commercial Services NY

Address: 2 Hanson Place 12th Floor

City: Brooklyn

State: NY

Zip: 11217

Phone: (781) 907-3002

E-mail: Vishal.Ahirrao@nationalgrid.com

NYISO’s Operating Representative:

New York Independent System Operator, Inc.

Attention: Vice President, Operations

Address: 10 Krey Boulevard

City: Rensselaer

Phone: (518) 356-6000

E-mail: interconnectionsupport@nyiso.com

State: NY

Zip: 12144

**13.5 Changes to the Notice Information**

Either Party may change this information by giving five Business Days written notice

prior to the effective date of the change.

33

SERVICE AGREEMENT NO. 2756

**Article 14 Signatures**

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their

respective duly authorized representatives.

For the New York Independent System Operator, Inc.

By:

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

For Niagara Mohawk Power Corporation d/b/a National Grid

By:

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

For Hawthorn Solar, LLC

By:

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

34



SERVICE AGREEMENT NO. 2756

**Attachment 1**

**Glossary of Terms**

**Affected System –** An electric system other than the transmission system owned, controlled or

operated by the Connecting Transmission Owner that may be affected by the proposed

interconnection.

**Affected System Operator** – Affected System Operator shall mean the operator of any Affected

System.

**Affected Transmission Owner** –The New York public utility or authority (or its designated

agent) other than the Connecting Transmission Owner that: (i) owns facilities used for the

transmission of Energy in interstate commerce and provides Transmission Service under the

Tariff, and (ii) owns, leases or otherwise possesses an interest in a portion of the New York State

Transmission System where System Deliverability Upgrades or System Upgrade Facilities are

installed pursuant to Attachment Z and Attachment S to the ISO OATT.

**Applicable Laws and Regulations –** All duly promulgated applicable federal, state and local

laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or

administrative orders, permits and other duly authorized actions of any Governmental Authority,

including but not limited to Environmental Law.

**Applicable Reliability Standards –** The criteria, requirements and guidelines of the North

American Electric Reliability Council, the Northeast Power Coordinating Council, the New York

State Reliability Council and related and successor organizations, or the Transmission District to

which the Interconnection Customer’s Small Generating Facility is directly interconnected, as

those criteria, requirements and guidelines are amended and modified and in effect from time to

time; provided that no Party shall waive its right to challenge the applicability of or validity of

any criterion, requirement or guideline as applied to it in the context of Attachment Z to the ISO

OATT and this Agreement. For the purposes of this Agreement, this definition of Applicable

Reliability Standards shall supersede the definition of Applicable Reliability Standards set out in

Attachment X to the ISO OATT.

**Base Case** – The base case power flow, short circuit, and stability data bases used for the

Interconnection Studies by NYISO, Connecting Transmission Owner or Interconnection

Customer; described in Section 32.2.3 of the Large Facility Interconnection Procedures.

**Breach -** The failure of a Party to perform or observe any material term or condition of this

Agreement.

**Business Day** – Monday through Friday, excluding federal holidays.

**Capacity Resource Interconnection Service** –The service provided by NYISO to

Interconnection Customers that satisfy the NYISO Deliverability Interconnection Standard or

that are otherwise eligible to receive CRIS in accordance with Attachment S to the ISO OATT;

1-1

SERVICE AGREEMENT NO. 2756

such service being one of the eligibility requirements for participation as a NYISO Installed

Capacity Supplier.

**Commercial Operation** shall mean the status of the Small Generating Facility that has

commenced generating electricity for sale, excluding electricity generated during Trial

Operation, notice of which must be provided to the NYISO in the form of Attachment 9 to this

Agreement.

**Commercial Operation Date** of a unit shall mean the date on which the Large Generating

Facility commences Commercial Operation as agreed to by the Parties, notice of which must be

provided to the NYISO in the form of Attachment 9 to this Agreement.

**Connecting Transmission Owner –** The New York public utility or authority (or its designated

agent) that: (i) owns facilities used for the transmission of Energy in interstate commerce and

provides Transmission Service under the Tariff, (ii) owns, leases or otherwise possesses an

interest in the portion of the New York State Transmission System or Distribution System at the

Point of Interconnection, and (iii) is a Party to the Standard Small Generator Interconnection

Agreement.

**Default –** The failure of a Party in Breach of this Agreement to cure such Breach under the

Small Generator Interconnection Agreement.

**Distribution System** – The Transmission Owner’s facilities and equipment used to distribute

electricity that are subject to FERC jurisdiction, and are subject to the NYISO’s Large Facility

Interconnection Procedures in Attachment X to the ISO OATT or Small Generator

Interconnection Procedures in Attachment Z to the ISO OATT under FERC Order Nos. 2003

and/or 2006. For the purpose of this Agreement, the term Distribution System shall not include

LIPA’s distribution facilities.

**Distribution Upgrades –** The additions, modifications, and upgrades to the Connecting

Transmission Owner’s Distribution System at or beyond the Point of Interconnection to facilitate

interconnection of the Small Generating Facility and render the transmission service necessary to

effect the Interconnection Customer’s wholesale sale of electricity in interstate commerce.

Distribution Upgrades do not include Interconnection Facilities or System Upgrade Facilities or

System Deliverability Upgrades.

**Energy Resource Interconnection Service** – The service provided by NYISO to interconnect

the Interconnection Customer’s Small Generating Facility to the New York State Transmission

System or Distribution System in accordance with the NYISO Minimum Interconnection

Standard, to enable the New York State Transmission System to receive Energy and Ancillary

Services from the Small Generating Facility, pursuant to the terms of the ISO OATT.

**Force Majeure –** Any act of God, labor disturbance, act of the public enemy, war, insurrection,

riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any order,

regulation or restriction imposed by governmental, military or lawfully established civilian

authorities, or any other cause beyond a Party’s control. A Force Majeure event does not include

an act of negligence or intentional wrongdoing. For the purposes of this Agreement, this

1-2

SERVICE AGREEMENT NO. 2756

definition of Force Majeure shall supersede the definitions of Force Majeure set out in Section

32.2.11 of the NYISO Open Access Transmission Tariff.

**Good Utility Practice** – Any of the practices, methods and acts engaged in or approved by a

significant portion of the electric industry during the relevant time period, or any of the practices,

methods and acts which, in the exercise of reasonable judgment in light of the facts known at the

time the decision was made, could have been expected to accomplish the desired result at a

reasonable cost consistent with good business practices, reliability, safety and expedition. Good

Utility Practice is not intended to be limited to the optimum practice, method, or act to the

exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted

in the region.

**Governmental Authority –** Any federal, state, local or other governmental regulatory or

administrative agency, court, commission, department, board, or other governmental subdivision,

legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over

the Parties, their respective facilities, or the respective services they provide, and exercising or

entitled to exercise any administrative, executive, police, or taxing authority or power; provided,

however, that such term does not include the Interconnection Customer, NYISO, Affected

Transmission Owner, Connecting Transmission Owner or any Affiliate thereof.

**Initial Synchronization Date** shall mean the date upon which the Small Generating Facility is

initially synchronized and upon which Trial Operation begins, notice of which must be provided

to the NYISO in the form of Attachment 9.

**In-Service Date** shall mean the date upon which the Developer reasonably expects it will be

ready to begin use of the Connecting Transmission Owner’s Interconnection Facilities to obtain

back feed power.

**Interconnection Customer** – Any entity, including the Transmission Owner or any of the

affiliates or subsidiaries, that proposes to interconnect its Small Generating Facility with the New

York State Transmission System or the Distribution System.

**Interconnection Facilities** – The Connecting Transmission Owner’s Interconnection Facilities

and the Interconnection Customer’s Interconnection Facilities. Collectively, Interconnection

Facilities include all facilities and equipment between the Small Generating Facility and the

Point of Interconnection, including any modification, additions or upgrades that are necessary to

physically and electrically interconnect the Small Generating Facility to the New York State

Transmission System or the Distribution System. Interconnection Facilities are sole use facilities

and shall not include Distribution Upgrades or System Upgrade Facilities.

**Interconnection Request** – The Interconnection Customer’s request, in accordance with the

Tariff, to interconnect a new Small Generating Facility, or to materially increase the capacity of,

or make a material modification to the operating characteristics of, an existing Small Generating

Facility that is interconnected with the New York State Transmission System or the Distribution

System. For the purposes of this Agreement, this definition of Interconnection Request shall

supersede the definition of Interconnection Request set out in Attachment X to the ISO OATT.

1-3

SERVICE AGREEMENT NO. 2756

**Interconnection Study** – Any study required to be performed under Sections 32.2 or 32.3 of the

SGIP.

**Material Modification** – A modification that has a material impact on the cost or timing of any

Interconnection Request with a later queue priority date.

**New York State Transmission System** – The entire New York State electric transmission

system, which includes: (i) the Transmission Facilities under ISO Operational Control; (ii) the

Transmission Facilities Requiring ISO Notification; and (iii) all remaining transmission facilities

within the New York Control Area.

**NYISO Deliverability Interconnection Standard** – The standard that must be met, unless

otherwise provided for by Attachment S to the ISO OATT, by (i) any generation facility larger

than 2MW in order for that facility to obtain CRIS; (ii) any Class Year Transmission Project

proposing to interconnect to the New York State Transmission System and receive Unforced

Capacity Delivery Rights; (iii) any entity requesting External CRIS Rights, and (iv) any entity

requesting a CRIS transfer pursuant to Section 25.9.5 of Attachment S to the ISO OATT. To

meet the NYISO Deliverability Interconnection Standard, the Interconnection Customer must, in

accordance with the rules in Attachment S to the ISO OATT, fund or commit to fund any System

Deliverability Upgrades identified for its project in the Class Year Deliverability Study.

**NYISO Minimum Interconnection Standard** – The reliability standard that must be met by

any generation facility or Class Year Transmission Project that is subject to NYISO’s Large

Facility Interconnection Procedures in Attachment X to the ISO OATT or the NYISO’s Small

Generator Interconnection Procedures in this Attachment Z, that is proposing to connect to the

New York State Transmission System or Distribution System, to obtain ERIS. The Minimum

Interconnection Standard is designed to ensure reliable access by the proposed project to the

New York State Transmission System or to the Distribution System. The Minimum

Interconnection Standard does not impose any deliverability test or deliverability requirement on

the proposed interconnection.

**Operating Requirements –** Any operating and technical requirements that may be applicable

due to Regional Transmission Organization, Independent System Operator, control area, or the

Connecting Transmission Owner’s requirements, including those set forth in the Small Generator

Interconnection Agreement. Operating Requirements shall include Applicable Reliability

Standards.

**Party or Parties** – The NYISO, Connecting Transmission Owner, Interconnection Customer or

any combination of the above.

**Point of Interconnection** – The point where the Interconnection Facilities connect with the New

York State Transmission System or the Distribution System.

**Reasonable Efforts** – With respect to an action required to be attempted or taken by a Party

under this Agreement, efforts that are timely and consistent with Good Utility Practice and are

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

1-4

SERVICE AGREEMENT NO. 2756

**Small Generating Facility** – The Interconnection Customer’s facility, no larger than 20 MW for

the production and/or storage for later injection of electricity identified in the Interconnection

Request if proposing to interconnect to the New York State Transmission System or Distribution

System, but shall not include (i) facilities proposing to simply receive power from the New York

State Transmission System or the Distribution System; (ii) facilities proposing to interconnect to the

New York State Transmission System or the Distribution System made solely for the purpose of

generation with no wholesale sale for resale nor to net metering; (iii) facilities proposing to the New

York State Transmission System or the Distribution System made solely for the purpose of net

metering; (iv) facilities proposing to interconnect to LIPA’s distribution facilities; and (v) the

Interconnection Customer’s Interconnection Facilities. A facility will be treated as a single Small

Generating Facility if all units within the facility are behind a single facility meter, even if such units

are different technology types.

**System Deliverability Upgrades** – The least costly configuration of commercially available

components of electrical equipment that can be used, consistent with Good Utility Practice and

Applicable Reliability Requirements, to make the modifications or additions to the existing New

York State Transmission System that are required for the proposed project to connect reliably to

the system in a manner that meets the NYISO Deliverability Interconnection Standard for

Capacity Resource Interconnection Service.

**System Upgrade Facilities –** The least costly configuration of commercially available

components of electrical equipment that can be used, consistent with Good Utility Practice and

Applicable Reliability Requirements to make the modifications to the existing transmission

system that are required to maintain system reliability due to: (i) changes in the system,

including such changes as load growth and changes in load pattern, to be addressed in the form

of generic generation or transmission projects; and (ii) proposed interconnections. In the case of

proposed interconnection projects, System Upgrade Facilities are the modification or additions to

the existing New York State Transmission System that are required for the proposed project to

connect reliably to the system in a manner that meets the NYISO Minimum Interconnection

Standard.

**Tariff** – The NYISO’s Open Access Transmission Tariff, as filed with the FERC, and as

amended or supplemented from time to time, or any successor tariff.

**Trial Operation** shall mean the period during which Interconnection Customer is engaged in on-

site test operations and commissioning of the Small Generating Facility prior to Commercial

Operation.

**Upgrades –** The required additions and modifications to the Connecting Transmission Owner’s

portion of the New York State Transmission System or the Distribution System at or beyond the

Point of Interconnection. Upgrades may be System Upgrade Facilities or System Deliverability

Upgrades Distribution Upgrades. Upgrades do not include Interconnection Facilities.

1-5

SERVICE AGREEMENT NO. 2756

**Attachment 2**

**Detailed Scope of Work, Including Description and Costs of the Small Generating Facility,**

**Interconnection Facilities, and Metering Equipment**

Equipment, including the Small Generating Facility, Interconnection Facilities, and

metering equipment shall be itemized and identified as being owned by the Interconnection

Customer, or the Connecting Transmission Owner. The NYISO, in consultation with the

Connecting Transmission Owner, will provide a best estimate itemized cost, including overheads,

of its Interconnection Facilities and metering equipment, and a best estimate itemized cost of the

annual operation and maintenance expenses associated with its Interconnection Facilities and

metering equipment.

**A.**

**PROJECT DESCRIPTION**

The Interconnection Customer has proposed to construct a 20MW solar powered electricity

generation facility (the “Small Generating Facility”) located on Fords Road in Hoosick Falls, New

York, Rensselaer County. The Small Generating Facility will consist of five (5) SMA SC 4600UP

4.6MVA solar inverters coupled with 690V/34.5kV 4.6MVA step-up transformers. The output of

the five step-up transformers are aggregated into a medium voltage collection circuit (“Collection

Feeder Line”). The home run of the Collection Feeder Line ties to the Interconnection Customer’s

Collector Station (“Hawthorn Solar Collector Substation”) where it is stepped up to 115kV via a

15/20/25MVA 115kV/34.5kV transformer.

The Point of Interconnection (“POI”) for the Small Generating Facility is Connecting

Transmission Owner’s 115kV North Troy-Hoosick Line 5, located approximately 14.5 miles from

Connecting Transmission Owner’s North Troy Substation and approximately 3.21 miles from

Connecting Transmission Owner’s Hoosick Substation. Interconnection to the electric power

system will be via a tap. The Point of Change of Ownership (“PCO”) will be at the line side

connection of the Interconnection Customer’s disconnect switch located on the Interconnection

Customer’s termination structure inside the Hawthorn Solar Collector Substation. The

Connecting Transmission Owner will own the insulators, whips, and hardware connections to the

disconnect switch. The POI and PCO are detailed on the one-line diagram in Attachment 3.

**B.**

**INTERCONNECTION CUSTOMER’S INTERCONNECTION FACILITIES**

The Interconnection Customer’s Interconnection Facilities (“ICIFs”) include all of the

facilities between the Interconnection Customer’s side of the PCO and the Small Generating

Facility, except the Connecting Transmission Owner-owned metering, remote terminal unit

(“RTU”), and telecommunications equipment described in Section C below. As depicted on the

one-line diagram in Attachment 3, the ICIFs consist of the following:

2-1

SERVICE AGREEMENT NO. 2756

**1.**

**Hawthorn Solar Collector Substation**

The Hawthorn Solar Collector Substation will be located approximately 100 feet southeast

of Line 5 and will be comprised of the following major equipment:

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one (1) three phase, three winding, 115-34.5kV grounded wye-grounded wye,

step-up transformer rated 15/20/25MVA (ONAN/ONAF/ONAF), z=9%;

six (6) single phase 76kV maximum continuous operating voltage (“MCOV”)

station class surge arresters;

one (1) 115kV, 1200A, 550kV basic insulation level (“BIL”) group operated

air break switch;

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one (1) 115kV, 1200A, 550kV BIL, 40 kAIC SF-6 circuit breaker;

three (3) 69kV-115/69V; capacitive voltage transformers 600/1000:1:1;

six (6) single phase 24.4kV MCOV station class surge arresters;

one (1) 38kV, 1200A, 200kV BIL, gang operated disconnect switch;

one (1) 28kV, 1200A, 200kV BIL, 25kAIC vacuum circuit breaker;

one (1) 38kV, 300A, 200kV BIL, fused hook stick switch;

three (3) 38kV, 1200A, hook stick operated disconnect switches;

three (3) 19.9kV voltage transformers 300:1; and

one (1) 50kVA 19.9kV – 120/240V station service transformer.

**2.**

**System Protection Requirements**

*a) Line 5*

Direct transfer trip (“DTT”) will be used between the Hawthorn Solar Collector

Substation and the line terminals at the Connecting Transmission Owner’s North Troy and

Hoosick Substations to ensure removal of the generation. This will require installation of two (2)

RFL GARDPro tele-protection sets at the Hawthorn Solar Collector Substation. The Connecting

Transmission Owner will provide details on the GARDPro model number with the Connecting

Transmission Owner’s logic during detailed engineering design. The Interconnection Customer

will provide redundant 115kV line protection to remove the generation for line faults. Two sets

of C800 multi-ratio current transformers (“CTs”) shall be provided for these schemes.

*b)*

*Transformer*

The 115–34.5kV transformer shall be protected by two independent protection systems;

one must be a transformer differential. If overcurrent protection is used for the other system, then

both phase and ground time and instantaneous protection shall be provided. Each of the two

schemes must operate separate lockout relays to trip and block the necessary breakers.

*c)*

*Breaker*

Breaker failure protection shall be provided for the 115kV breaker R5; this protection

must trip the Interconnection Customer’s 115kV breaker and send DTT to North Troy and

Hoosick Substations. For loss of SF6, the breaker must trip and block close. (*Note*: When the

facility’s interrupter fails to interrupt for internal station faults and loss of SF6 condition, the

2-2

SERVICE AGREEMENT NO. 2756

Interconnection Customer is not to rely on the Connecting Transmission Owner’s 115kV system

for remote backup.)

DTT receive from North Troy and Hoosick Substations will be required to trip the

Interconnection Customer’s 115kV breaker for a line relay operation or breaker failure at the

North Troy and Hoosick substations. The Interconnection Customer shall provide on/off switches

for the DTT schemes.

**3.**

**Telecommunications Circuit**

The Interconnection Customer will be responsible for bringing a new telco fiber facility

from the local carrier to the Hawthorn Solar Collector Substation. In accordance with Electric

System Bulletins (“ESBs”), the Interconnection Customer shall:

• install a dedicated 4’x8’x3/4” backboard for cable termination and local carrier

equipment installation;

• construct two (2) 4” Schedule 80 conduits from the meet point outside the

Hawthorn Solar Collector Substation into the control house (if required by the

local carrier) for telecom cable placement; and

• provide a dedicated DC power rack (the DC power rack will contain a DC/DC

converter system to convert 125VDC station battery to -48VDC). The rack will

also contain a 125VDC to 120VAC inverter. DC power rack output will support

the telco fiber mux equipment.

The Interconnection Customer shall order one (1) Verizon MPLS T1/128K circuit or

10Mb/s ethernet for the SCADA/RTU at the site.

(*Note*: Verizon may retire T1 services in the future. If T1 circuits are not available at the

time of project implementation, alternative technologies will be required which could change the

overall cost of the telecom solution.)

Once the telco fiber facility is installed at the Hawthorn Solar Collector Substation and the

Interconnection Customer has completed all make ready work, the Connecting Transmission

Owner will order the point-to-point tele-protection circuits between the Hawthorn Solar Collector

Substation and the remote substations (North Troy and Hoosick).

The Connecting Transmission Owner’s revenue meter will require a communications link

to its RTU. In accordance with the ESBs, the Interconnection Customer shall install a conduit for

the communication cables that will run between meter equipment enclosure and RTU enclosure in

the Hawthorn Solar Collector Substation control house. The Connecting Transmission Owner

will specify and run the communication cables between the meter equipment and RTU

enclosures. (*Note*: Third party telecommunications are potentially long lead time items).

To the extent the Small Generating Facility feeder lines, communication circuits, access

roads, and/or driveways cross Connecting Transmission Owner-owned transmission or

distribution circuits, such crossings must be reviewed by the Connecting Transmission Owner in

accordance with the Connecting Transmission Owner’s land use requirements. Per the Hawthorn

2-3

SERVICE AGREEMENT NO. 2756

Solar Project Specifications (defined below), feeder line crossings shall be underground so as to

maintain the reliability of service provided by the Connecting Transmission Owner to other

customers via the impacted transmission and distribution facilities.

**C.**

**CONNECTING TRANSMISSION OWNER’S INTERCONNECTION**

**FACILITIES**

As depicted in the one-line diagram in Attachment 3, the Connecting Transmission

Owner’s Interconnection Facilities (“CTOIFs”) consist of the following items constructed or

installed between the POI and PCO, as well as the revenue metering and a RTU located at the

Hawthorn Solar Collector Substation.

**1.**

**Revenue Metering**

The revenue metering shall be located in the Hawthorn Solar Collector Substation control

enclosure on the generator side of the 115kV breaker and shall consist of:

• three (3) combination current/potential transformer (CT/PT) units, also called

metering units, one for each phase. Manufacturer and model shall be ABB/Hitachi

KXM-550 or other Connecting Transmission Owner specific equivalent;

• revenue meter; and

• revenue socket.

The ratios of CTs and PTs will be provided by the Connecting Transmission Owner upon

review of the Interconnection Customer’s design documents in accordance with the ESBs. (*Note*:

Connecting Transmission Owner’s revenue metering CTs and PTs cannot be used to feed the

Interconnection Customer’s check meter).

The metering of any redundant or standby station service provisions (if required) at the

Hawthorn Solar Collector Substation shall be added in accordance with the Connecting

Transmission Owner’s retail tariff, PSC No. 220, and ESB 750.

**2.**

**EMS-RTU**

The Connecting Transmission Owner will procure and provide the RTU to the

Interconnection Customer for installation on the Interconnection Customer provided mounting

panel in the control house. The RTU cabinet is typically 42” H x 30” W x 12” D and shall be

wall-mounted with the bottom edge 36” above the floor with a 5-foot clear working space in front

of the mounting panel.

**3.**

**Line 5 Tap**

The Small Generating Facility will interconnect to Connecting Transmission Owner’s

115kV system via a radial tap off the North Troy-Hoosick Line 5 between existing structures 141

and 142. The Hawthorn Solar Collector Substation is to be located approximately 100 feet

southeast of Line 5 and will be oriented perpendicular to the transmission lines. Based on the

location of the Hawthorn Solar Collector Substation, the radial tap will require:

2-4

SERVICE AGREEMENT NO. 2756

Removal of:

• one (1) wood H-frame suspension structure.

Installation of:

• one (1) 3-pole steel tapping structure with caisson foundations;

• one (1) H-frame light duty steel pole direct buried structure;

• two (2) direct bury H-frame steel flyover switch structure with switches;

• three (3) inline disconnect switches; and

• approximately 200 circuit feet of 795 MCM 36/1 “COOT” ACSR conductor.

*Note*: at this time the Connecting Transmission Owner’s transmission control center

(“TCC”) does not anticipate the need for motor operated disconnect switches (“MODs”).

However, if during final engineering and outage planning TCC determines that MODs are

required to accommodate the interconnection, the Interconnection Customer shall be responsible

for the incremental cost.

Take off structure heights and phase spacing will need to be established between

Interconnection Customer and Connecting Transmission Owner before final design and material

specifications are prepared. Soil borings for the line tap will be completed by the Connecting

Transmission Owner and all line phasing shall match the exiting Line 5.

The Connection Transmission Owner and the Interconnection Customer agree that the

Connecting Transmission Owner shall endeavor in good faith to use commercially reasonable

efforts to design and site all components of the Line 5 Tap equipment, including vertical switch

structures, as close as reasonably practical to the Hawthorn Solar Collector Substation for the

purpose of simplifying any real estate or permitting needs, so long as the design and siting of such

equipment is in accordance with Good Utility Practice.

**D.**

**SCOPE OF WORK AND RESPONSIBILITIES**

**1. Interconnection Customer’s Scope of Work and Responsibilities**

The Interconnection Customer shall design, construct, operate, and maintain the ICIFs in

accordance with the following requirements, to the extent not inconsistent with the terms of this

Agreement, the ISO OATT, or applicable ISO procedures; the NYISO’s requirements; industry

standards and specifications; regulatory requirements; the Connecting Transmission Owner’s

applicable ESBs; and the Connecting Transmission Owner’s System Protection and

Interconnection Customer Attachment Facilities Electric Installation Specification for Hawthorn

Solar Project (“Hawthorn Solar Project Specifications”) and *Standards and Requirements*

*Relating to Third Party Acquisition and Transfer of Real Property Interests to Niagara Mohawk*

*Power Corporation for Electric Facilities and Survey Specifications*, dated January 2019. The

Hawthorn Solar Project Specifications may be amended after receipt and review of the

Interconnection Customer’s final design and equipment specifications for the Small Generating

Facility and notice to proceed with funding under the terms of the Interconnection Agreement.

2-5

SERVICE AGREEMENT NO. 2756

The Interconnection Customer shall furnish and install:

•

a billing meter panel in the Hawthorn Solar Collector Substation control

building in accordance with ESB 756 and ESB 750 (the billing meter panel

must be near the RTU);

conduit for the wiring from the instrument transformers to the Connecting

Transmission Owner supplied meter socket in accordance with ESB 758, ESB

752, and ESB 750.

•

The Interconnection Customer shall run the Connecting Transmission Owner provided

color-coded instrument transformer secondary cable from the instrument transformers to the

meter socket in accordance with the Hawthorn Solar Project Specifications.

As per ESB 756 and ESB 752, the Interconnection Customer shall install the RTU indoors

and within 15 feet of the meter(s) and remote from:

• heavy traffic areas, work areas, and loading areas;

• heat producing or high electrostatic or electromagnetic field producing equipment;

and

• station batteries.

The Interconnection Customer shall provide:

• a dedicated 20A, 120VAC single phase 60 hertz power circuit for the RTU;

• conduit and wiring (minimum No. 10 AWG copper) to the RTU cabinet, which

shall enter the cabinet from the bottom (a 3 foot length of all conductors shall be

provided for final connection); and

• a dedicated 10A, 48VDC or 125VDC circuit for the RTU from the station battery.

New right-of-way (“ROW”) will be required for the construction, operation, and

maintenance of the tap line and must accommodate the 125’ x 125’ work pads (temporary)

required for the installation of the new structures. The Interconnection Customer is responsible

for obtaining all real estate/easements and environmental permits for Connecting Transmission

Owner to construct, operate, and maintain the transmission infrastructure including all permanent

and temporary real estate for construction of the facilities and all access roads (permanent and

temporary). The Interconnection Customer shall acquire all required real estate in accordance

with the Connecting Transmission Owner’s Standards and Requirements Relating to Third Party

Acquisition and Transfer of Real Property Interests to Niagara Mohawk Power Corporation for

Electric Facilities and Survey Specifications.

Permanent access roads are required for access to the new load break disconnect switches.

Property rights for the line tap and transmission line facilities and associated access roads must be

transferred to Connecting Transmission Owner at least two (2) months in advance of construction

initiation.

2-6

SERVICE AGREEMENT NO. 2756

**2.**

**Connecting Transmission Owner’s Scope of Work and Responsibilities**

The Connecting Transmission Owner shall:

• provide color-coded instrument transformer secondary cable and complete all

terminations of the cable in the control house;

• provide the meter socket for the Interconnection Customer to install on the billing

meter panel; and

• supply and install the revenue meter.

The Connecting Transmission Owner will procure and provide the RTU to the

Interconnection Customer for installation on the Interconnection Customer provided mounting

panel in the control house.

The Connecting Transmission Owner shall procure and install the Garrettcom DX-940E

gateway required for interfacing the RTU to the Connecting Transmission Owner’s EMS

network, and will complete all wiring, testing, and commissioning of the RTU.

The Connecting Transmission Owner shall engineer, design, construct, own, and maintain

the Line 5 Tap.

The Connecting Transmission Owner shall engineer, design, and construct all System

Upgrade Facilities.

**E.**

**ESTIMATED COSTS OF INTERCONNECTION FACILITIES**

The total estimated costs (+30%/-15%) of the work associated with the Interconnection

Facilities required for the interconnection of the Small Generating Facility (in 2022 dollars) are

presented in the table below.

2-7

SERVICE AGREEMENT NO. 2756

As described in the Facilities Study for the Small Generating Facility, the estimates

provided herein:

Assume:

• 5 x 10 construction work week;

• outages are available;

• all major material is delivered to site (i.e., no costs are included for transport from

storage);

• existing equipment to remain is functional; and

• mobile generation will be required for approximately seven (7) calendar days.

Exclude (as applicable):

• discussions and negotiations of issued interconnection study;

• application fees;

• applicable surcharges;

• overall project sales tax;

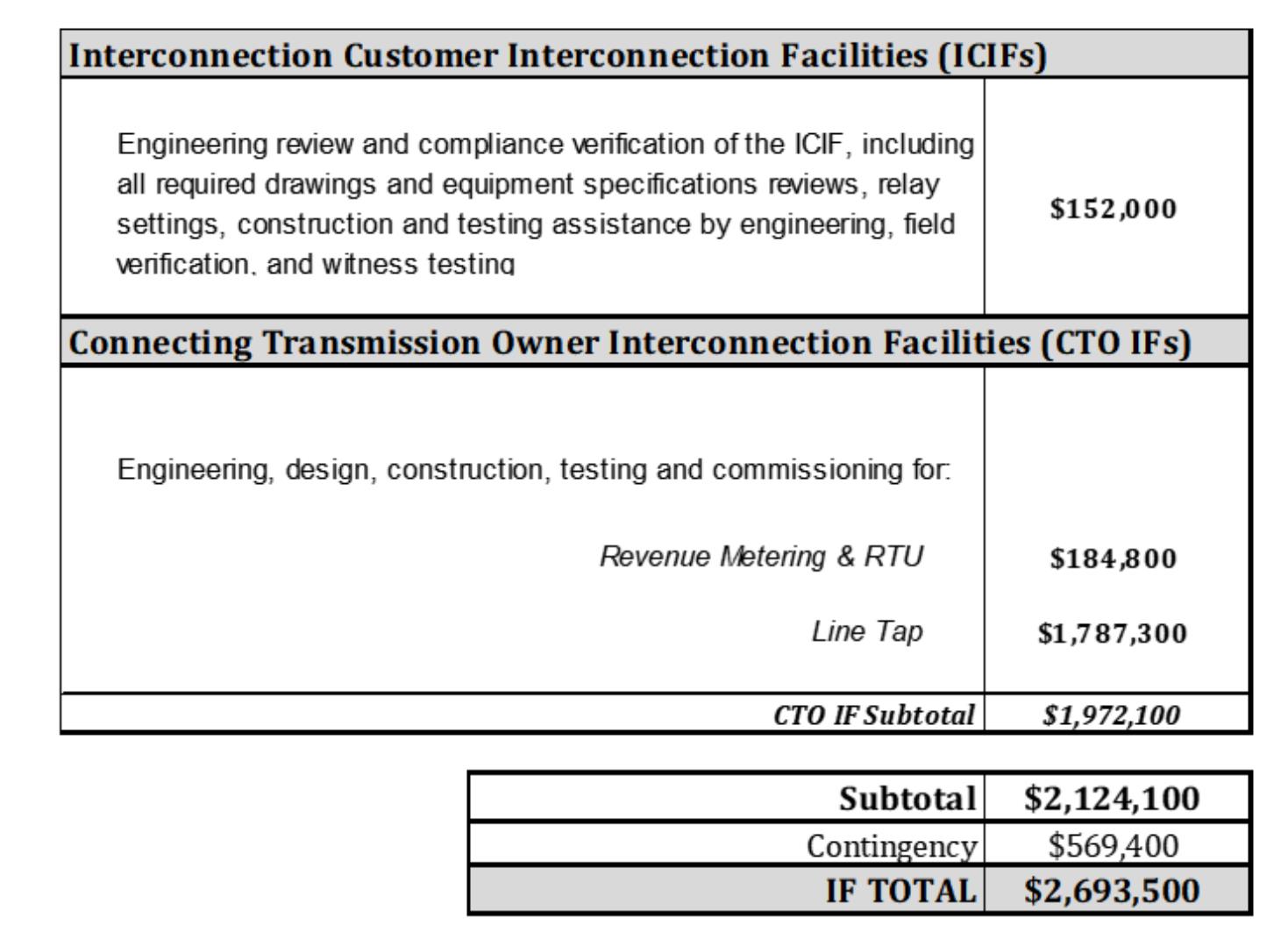
• property taxes;

• line switching;

• property/easement acquisitions;

• access roads and associated matting;

2-8



SERVICE AGREEMENT NO. 2756

• future operation and maintenance costs;

• recurring monthly communications circuits’ charges, if any, responsible by the

Interconnection Customer to the communications utility;

• soil testing;

• adverse field conditions such as rock, water, weather, and Interconnection

Customer electrical equipment obstructions;

• environmental mitigation;

• extended engineering to minimize outage time or Connecting Transmission

Owner’s public utility to serve;

• impacts resulting from modifications to the project and/or any variance to the

assumptions, including the energization date and outage requirements;

• extended craft labor hours, to minimize outage and/or construction time, or;

• any required permits.

**F.**

**O&M EXPENSES FOR INTERCONNECTION FACILITIES**

In accordance with Article **Error! Reference source not found.** of this Agreement, the

Interconnection Customer shall be responsible for all reasonable expenses associated with the

operation, maintenance, repair and replacement of the Connecting Transmission Owner’s

Interconnection Facilities, as such facilities are detailed in this Attachment 2 (“O&M Expenses”).

The Interconnection Customer shall have the option to pay such O&M Expenses either

under the procedure described in Option 1 or in Option 2 below.

Option 1: Fixed On-Going Charge Payment:

The Connecting Transmission Owner will invoice and Interconnection Customer

shall pay an annual payment to the Connecting Transmission Owner equal to the

product of the Gross Plant Investment associated with the Connecting

Transmission Owner’s Interconnection Facilities and the Annual Transmission

Ongoing Charge Factor, for the term of this Agreement.

For purposes of this Agreement, Gross Plant Investment shall mean the investment

from the plant account records associated with the Connecting Transmission

Owner’s Interconnection Facilities for the Small Generating Facility.

All payments due to be made by the Interconnection Customer shall be made

within thirty (30) days after receiving an invoice from the Connecting

Transmission Owner. Connecting Transmission Owner will bill Interconnection

Customer for the O&M Expenses on a quarterly basis.

The Project’s Gross Plant Investment associated with the Connecting Transmission

Owner’s Interconnection Facilities shall be established in writing by the

Connecting Transmission Owner no later than 90 days following commercial

operation.

2-9

SERVICE AGREEMENT NO. 2756

The Annual Transmission On-Going Charge Factor shall be calculated annually

each July based on the Connecting Transmission Owner’s most recent FERC Form

1 data and will equal the sum of the Revenue Requirement Components as

identified in O&M Attachment 1 divided by the Total Gross Plant of the

Connecting Transmission Owner. Total Gross Plant shall equal the sum of Item

Nos. A (1)(a)(b)(c) in O&M Attachment 1.

Option 2: Quarterly Actual O&M Expenses

The Interconnection Customer shall pay for all actual O&M Expenses incurred by

the Connecting Transmission Owner, which expenses shall be billed by the

Connecting Transmission Owner quarterly as accumulated during the quarter for

which they were incurred.

All payments due to be made by the Interconnection Customer shall be made

within thirty (30) days after receiving an invoice from the Connecting

Transmission Owner, which invoice shall be issued after the end of each quarter

for the most recent quarter.

Selection by Interconnection Customer

The Interconnection Customer shall select which option for paying such O&M Expenses

by providing written notice to the Connecting Transmission Owner within thirty (30) days after

the Gross Connecting Transmission Owner’s Interconnection Facilities Plant Investment cost and

the most recent Annual Transmission Ongoing Charge Factor have been provided to the

Interconnection Customer. If the Interconnection Customer fails to provide timely notice to the

Connecting Transmission Owner of the option selected, the Interconnection Customer will be

deemed to have selected Option 2: Quarterly Actual O&M Expenses.

**O&M ATTACHMENT 1**

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

**Allocation Factor**

(1)

General Plant Allocation Factor shall equal Electric General Plant divided by the sum of

Electric General Plant plus gas general plant as reported in the Annual Report filed with the New

York State Public Service Commission.

(2)

Gross Transmission Plant Allocation Factor shall equal the total investment in

Transmission Plant in Service divided by the sum of the total Transmission Plant in Service plus

the total Distribution Plant in Service, excluding Intangible Plant, General Plant and Common

Plant.

(3)

Transmission Wages and Salaries Allocation Factor shall equal the ratio of Connecting

Transmission Owner Transmission-related direct electric wages and salaries including any direct

2-10



SERVICE AGREEMENT NO. 2756

wages or salaries charged to Connecting Transmission Owner by a Connecting Transmission

Owner Affiliate to Connecting Transmission Owner’s total electric direct wages and salaries

including any wages charged to Connecting Transmission Owner by a Connecting Transmission

Owner Affiliate excluding any electric administrative and general wages and salaries.

**Ratebase and Expense items**

(1)

Administrative and General Expense shall equal electric expenses as recorded in FERC

Account Nos. 920-935.

(2)

Amortization of Investment Tax Credits shall equal electric credits as recorded in FERC

Account No. 411.4.

(3)

Distribution Plant in Service shall equal the gross plant balance as recorded in FERC

Account Nos. 360 – 374.

(4)

Electric Common Plant shall equal the balance of Common Plant recorded in FERC

Account Nos. 389-399 multiplied by the General Plant Allocation Factor.

(5)

General Plant shall equal electric gross general plant balance recorded in FERC Account

Nos. 389-399.

(6)

Materials and Supplies shall equal electric materials and supplies balance as recorded in

FERC Account No. 154.

(7)

Payroll Taxes shall equal those electric payroll tax expenses as recorded in FERC Account

Nos. 408.100, 408.110 and 408.130.

(8)

Prepayments shall equal electric prepayment balance as recorded in FERC Account

No. 165.

(9)

Real Estate Tax Expenses shall equal electric transmission-related real estate tax expense

as recorded in FERC Account No. 408.140 and 408.180.

(10) Transmission Operation and Maintenance Expense shall equal electric expenses as

recorded in FERC Account Nos. 560, 562-573.

(11) Transmission Plant in Service shall equal the gross plant balance as recorded in FERC

Account Nos. 350-359.

(12) Transmission Revenue Credits shall equal the revenue reported in Account 456

(13) Transmission Related Bad Debt Expense shall equal Bad Debt Expense as reported in

Account 904 related to transmission billing.

(14) Wholesale Metering Cost shall equal any costs associated with any Revenue or Remote

Terminal Unit (RTU) meters and associated equipment located at an internal or external tie at

voltages equal to or greater than 23V. The cost shall be determined by multiplying the number of

2-11



SERVICE AGREEMENT NO. 2756

wholesale meters in FERC Account No. 370.3 by the average cost of the meters plus the average

costs of installation.

In the event that the above-referenced FERC accounts are renumbered, renamed, or

otherwise modified, the above sections shall be deemed amended to incorporate such renumbered,

renamed, modified or additional accounts.

**Revenue Requirement Components**

The Revenue Requirement Components shall be the sum of Connecting Transmission

Owner’s (A) Return and Associated Income Taxes, (B) Transmission Related Real Estate Tax

Expense, (C) Transmission Related Amortization of Investment Tax Credits, (D) Transmission

Related Payroll Tax Expense (E) Transmission Operation and Maintenance Expense, (F)

Transmission Related Administrative and General Expenses, less (G) Revenue Credits, plus (H)

Bad Debt Expense.

A.

Return and Associated Income Taxes shall equal the product of the Transmission

Investment Base as identified in A(1) below and the Cost of Capital Rate.

1.

Transmission Investment Base shall be defined as

Transmission Related General Plant plus Transmission Related Common

Plant plus Transmission Related Regulatory Assets plus Transmission

Related Prepayments plus Transmission Related Materials and Supplies plus

Transmission Related Cash Working Capital.

(a)

Transmission Plant in Service shall equal the balance of Total

investment in Transmission Plant plus Wholesale Metering Cost.

(b)

Transmission Related General Plant shall equal the balance of

investment in General Plant multiplied by the Transmission Wages

and Salaries Allocation Factor.

(c)

(d)

Transmission Related Common Plant shall equal Electric Common

Plant multiplied by the Gross Transmission Plant Allocation Factor

and multiplied by the Transmission Wages and Salaries Allocation

Factor.

Transmission Related Regulatory Assets shall equal balances in

FERC Account Nos. 182.3 and 254 for state and federal regulatory

assets and liabilities related to FAS109, and excess AFUDC

multiplied by the Gross Transmission Plant Allocation Factor

(e)

(f)

Transmission Related Prepayments shall equal the electric balance of

Prepayments multiplied by the Gross Transmission Plant Allocation

Factor.

Transmission Related Materials and Supplies shall equal the balance

of Materials and Supplies assigned to Transmission added to the

2-12



SERVICE AGREEMENT NO. 2756

remainder of Material and Supplies not directly assigned to either

Transmission or Distribution multiplied by the Gross Transmission

Plant Allocation Factor.

(g)

Transmission Related Cash Working Capital shall be a 12.5%

allowance (45 days/360 days) of the Transmission Operation and

Maintenance Expense (less FERC Account 565: Transmission of

Electricity by Others) and Transmission-Related Administrative and

General Expense.

2.

Cost of Capital Rate

The Cost of Capital Rate shall equal the proposed Weighted Costs of Capital

plus Federal Income Taxes and State Income Taxes.

(a)

The Weighted Costs of Capital will be calculated for the

Transmission Investment Base using Connecting Transmission

Owner’s actual capital structure and will equal the sum of (i), (ii),

and (iii) below:

(i)

the long-term debt component, which equals the product of

the actual weighted average embedded cost to maturity of

Connecting Transmission Owner’s long-term debt then

outstanding and the actual long-term debt capitalization ratio.

(ii)

the preferred stock component, which equals the product of

the actual weighted average embedded cost to maturity of

Connecting Transmission Owner’s preferred stock then

outstanding and the actual preferred stock capitalization ratio;

(iii) the return on equity component, shall be the product of the

allowed ROE of 10.30% or such value as most recently

approved by the Commission plus a 50 basis point adder (per

FERC Order 697 and 697-A, if authorized by the

Commission for the Connecting Transmission Owner) and

Connecting Transmission Owner’s actual common equity

capitalization ratio.

(b)

Federal Income Tax shall equal

A x Federal Income Tax Rate

(1 - Federal Income Tax Rate)

where A is the sum of the preferred stock component and the return

on equity component, each as determined in Sections 2.(a)(ii) and for

the ROE set forth in 2.(a)(iii) above

(c)

State Income Tax shall equal

2-13



SERVICE AGREEMENT NO. 2756

(A + Federal Income Tax) x State Income Tax Rate

(1 – State Income Tax Rate)

Where A is the sum of the preferred stock component and the return on

equity component as determined in A.2.(a)(ii) and A.2.(a)(iii) above and

Federal income Tax is determined in 2.(b) above.

B.

Transmission Related Real Estate Tax Expense shall equal the Real Estate Tax

Expenses multiplied by the Gross Plant Allocation Factor.

C.

Transmission Related Amortization of Investment Tax Credits shall equal the

electric Amortization of Investment Tax Credits multiplied by the Gross Transmission Plant

Allocation Factor.

D.

Transmission Related Payroll Tax Expense shall equal Payroll Taxes multiplied by

the Transmission Wages and Salaries Allocation Factor.

E.

Transmission Operation and Maintenance Expense shall equal the Transmission

Operation and Maintenance Expense as previously defined.

F.

Transmission Related Administrative and General Expenses shall equal the sum of

the electric Administrative and General Expenses multiplied by the Transmission Wages and

Salaries Allocation Factor.

G.

Revenue Credits shall equal all Transmission revenue recorded in FERC account

456.

H.

Transmission Related Bad Debt Expense shall equal Transmission Related Bad

Debt Expense as previously defined.

2-14



SERVICE AGREEMENT NO. 2756

**Attachment 3**

**One-line Diagram Depicting the Small Generating Facility, Interconnection Facilities, Metering Equipment, and Upgrades**

**115 kV Line 5**

**~14.5 miles to**

**North TroyStation**

**Interconnection Customer**

**Interconnection Facilities**

**TB1**

**34.5Y/13.8kV – 115Y kV**

**CTO Interconnection Facilities**

**(metering & RTU)**

**15/20/25 MVA**

**ONAN/ONAF/ONAF**

**z=9%**

EMS-

MV90

RTU

**CTO**

**Interconnection Facilities**

**52F1**

**588**

**544**

**20 MW**

**R5**

**(~100 ft )**

**533**

INVERTERS

(5) SMA SC

4600 UP

**Station Service**

**19.9 kV-240/120 V**

**50 kVA**

**Point of**

**Interconnection**

**(POI)**

**Point of Change of**

4.6MVA

**Ownership (PCO)**

(Note: PCO is at the

connection to the IC s

Disconnect Switch.

National Grid will own the

insulators, whips, and

connection hardware.)

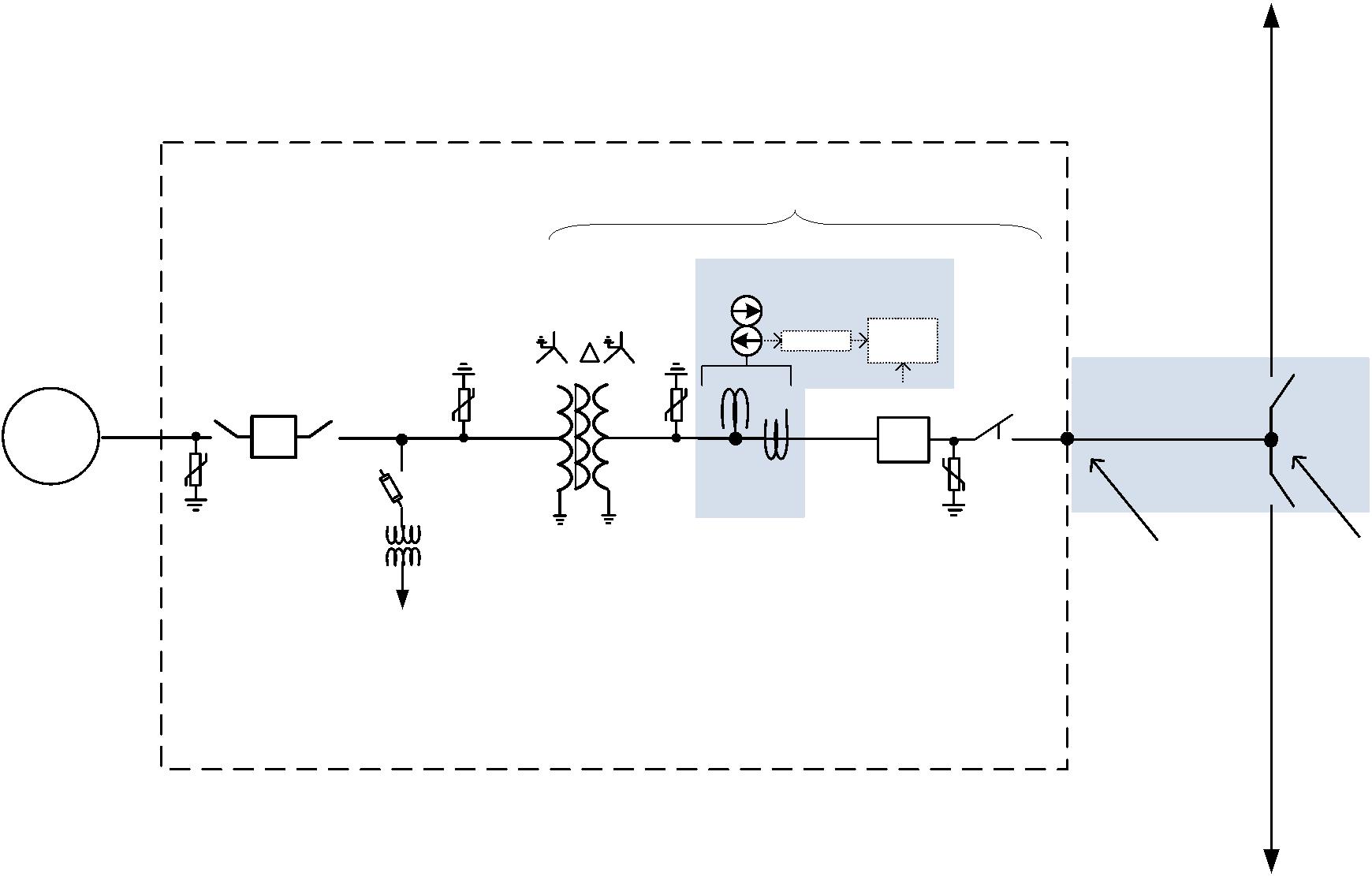
**Hawthorn Solar Collector Station**

**115kV Line 5**

**~3.21 miles to**

**HoosickStation**

3-1



SERVICE AGREEMENT NO. 2756

**Attachment 4**

**Milestones**

In-Service Date:

**1. Milestones**

Critical milestones and responsibility as agreed to by the Parties:

12/2026

**MILESTONE**

**DATE**

**RESPONSIBLE**

**PARTY**

1. Execute Interconnection Agreement

Interconnection

Customer/Connecting

Transmission Owner

Completed

01/2025

2. Complete Cost Estimate Update in

accordance with NYISO OATT Section

40.6.3.5.3

Connecting Transmission

Owner

3. Provide initial prepayment for

engineering and procurement

4. Issue written authorization to

proceed with engineering and

procurement

Interconnection Customer

Interconnection Customer

01/2025

01/2025

02/2025

5. Project initiation

Connecting Transmission

Owner

6. Project management level kickoff

meeting

Connecting Transmission

Owner/Interconnection

Customer

03/2025

04/2025

04/2025

7. Provide property rights

documentation (*i.e*., options, deeds,

easements, etc.) to Connecting

Transmission Owner for review

8. Start engineering on

Interconnection Customer

Interconnection Customer

Interconnection Customer’s

Interconnection Facilities

9. Provide final civil plans for

Collector Station with surveyed

location and height of termination

structure, grading plan, access

roads, and wetlands delineation

maps (in CAD format)

10. Start engineering on all System

Upgrade Facilities and Connecting

Transmission Owner’s

Interconnection Customer

04/2025

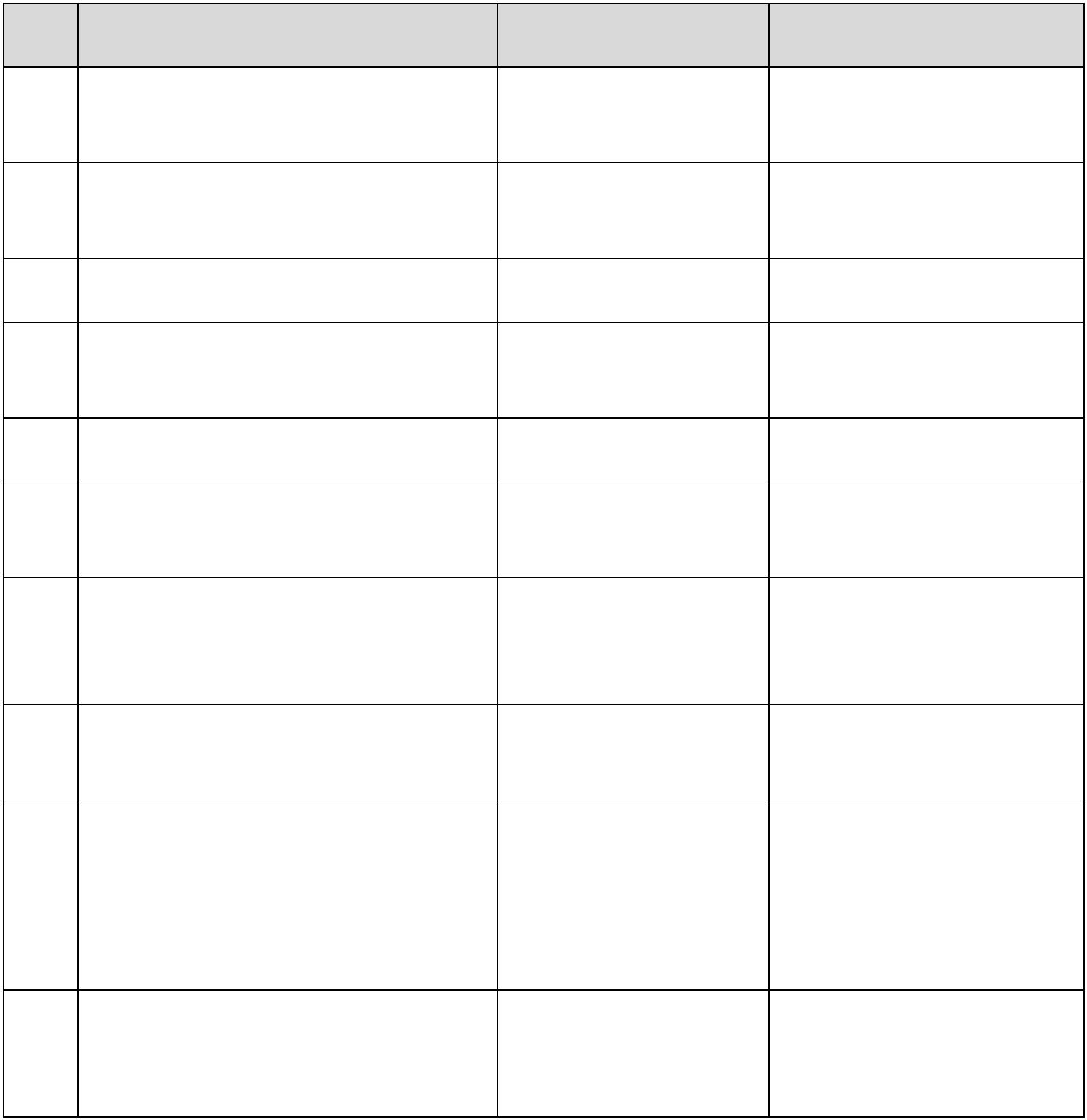
05/2025

Connecting Transmission

Owner

Interconnection Facilities

4-1



SERVICE AGREEMENT NO. 2756

**MILESTONE**

**DATE**

**RESPONSIBLE**

**PARTY**

11. Start procurement for

Interconnection Customer’s

Interconnection Facilities

12. Start procurement for System

Upgrade Facilities and Connecting

Transmission Owner’s

Interconnection Facilities

13. Complete engineering on

Interconnection Customer’s

Interconnection Facilities

(including Connecting

Transmission Owner approvals)

14. Complete procurement for

Interconnection Customer’s

Interconnection Facilities

15. Start construction of

Interconnection Customer’s

Interconnection Facilities

(including but not limited to site

civil preparation and foundation

work)

Interconnection Customer

05/2025

06/2025

Connecting Transmission

Owner

Connecting Transmission

Owner/Interconnection

Customer

10/2025

08/2025

Interconnection Customer

Interconnection Customer

Interconnection Customer

Interconnection Customer

08/2025

08/2025

08/2025

04/2026

16. Provide prepayment/security for

construction

17. Provide written authorization to

proceed with construction of

System Upgrade Facilities (“SUF”)

and Connecting Transmission

Owner’s Interconnection Facilities

(“CTOIF”)

18. Complete engineering on SUF and

CTOIF

Connecting Transmission

Owner

19. Deliver property rights to CTO for

SUF and CTOIF

Interconnection Customer

04/2026

06/2026

08/2026

20. Start construction of SUF and

CTOIF

Connecting Transmission

Owner

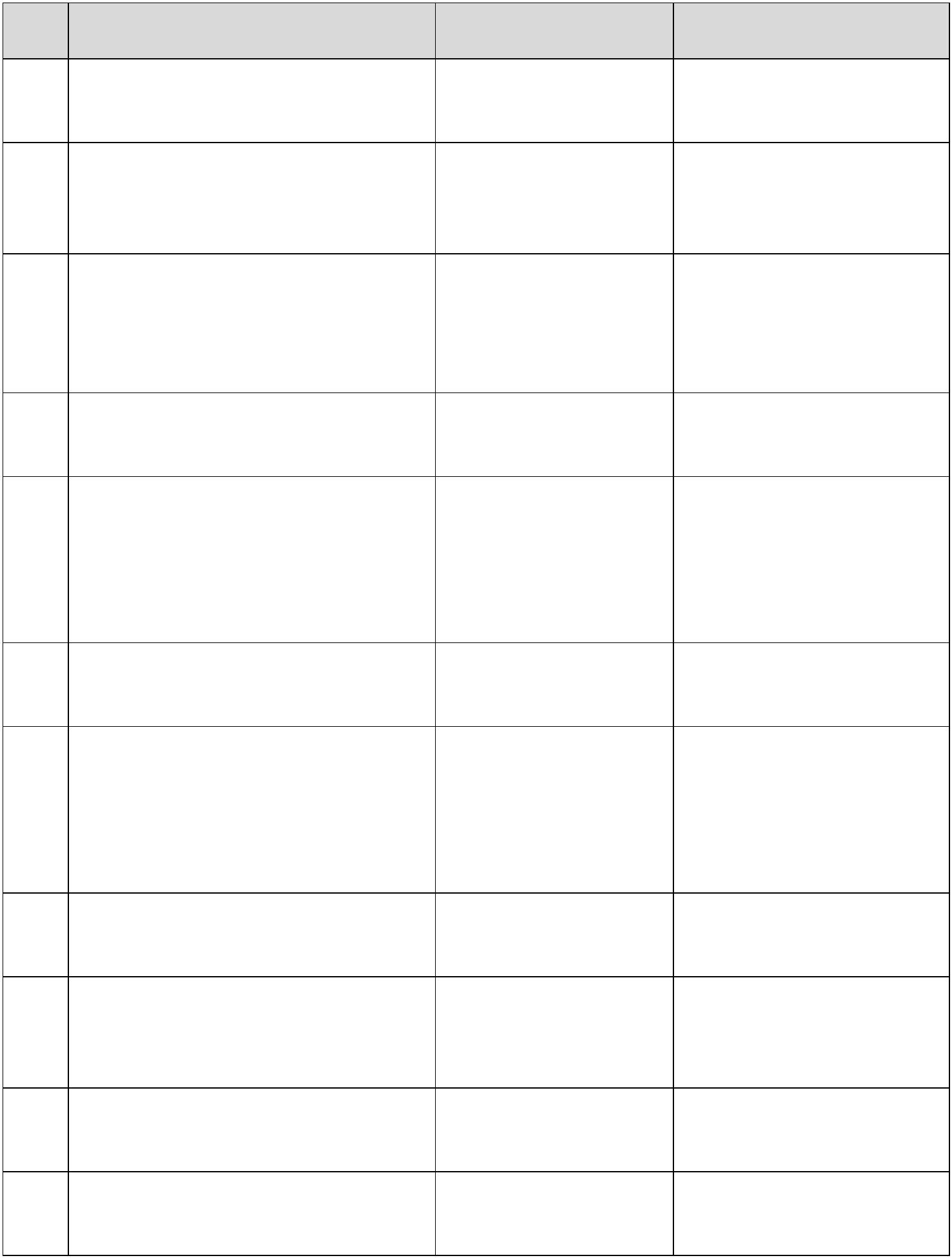
21. Complete procurement for SUF and

CTOIF

Connecting Transmission

Owner

4-2



SERVICE AGREEMENT NO. 2756

**MILESTONE**

**DATE**

**RESPONSIBLE**

**PARTY**

22. Complete construction of

Interconnection Customer’s

Interconnection Facilities including

all telecom circuits installation and

provisioning, as well as all make

ready work for revenue metering

and RTU

Interconnection Customer

03/2026

23. Start construction of the Line 15

Tap (CTOIF)

Connecting Transmission

Owner

06/2026

09/2026

24. Provide Connecting Transmission

Owner the NYISO assigned PTID

number and associated project

name (must be provided at least 2

months in advance of

Interconnection

Customer

synchronization)

25. Complete construction and testing

of SUF and CTOIF

Connecting Transmission

Owner

10/2026

26. Field verification and witness

testing of Interconnection

Customer’s Interconnection

Facilities

Connecting Transmission

Owner/Interconnection

Customer

11/2026

11/2026

27. Initial Synchronization Date

Interconnection

Customer/Connecting

Transmission Owner

28. Complete testing and

commissioning

Interconnection Customer

11/2026

29. In-Service Date

Interconnection Customer

Interconnection Customer

12/2026

12/2026

30. Commercial Operations Date

31. Submit Interconnection Customer’s

Interconnection Facilities as builts

Interconnection Customer

02/2027

04/2027

32. Complete as builts for SUF and

CTOIF

Connecting Transmission

Owner

33. Complete review/acceptance of

Interconnection Customer’s

Interconnection Facilities as builts

34. Complete project closeout and final

invoicing

Connecting Transmission

Owner

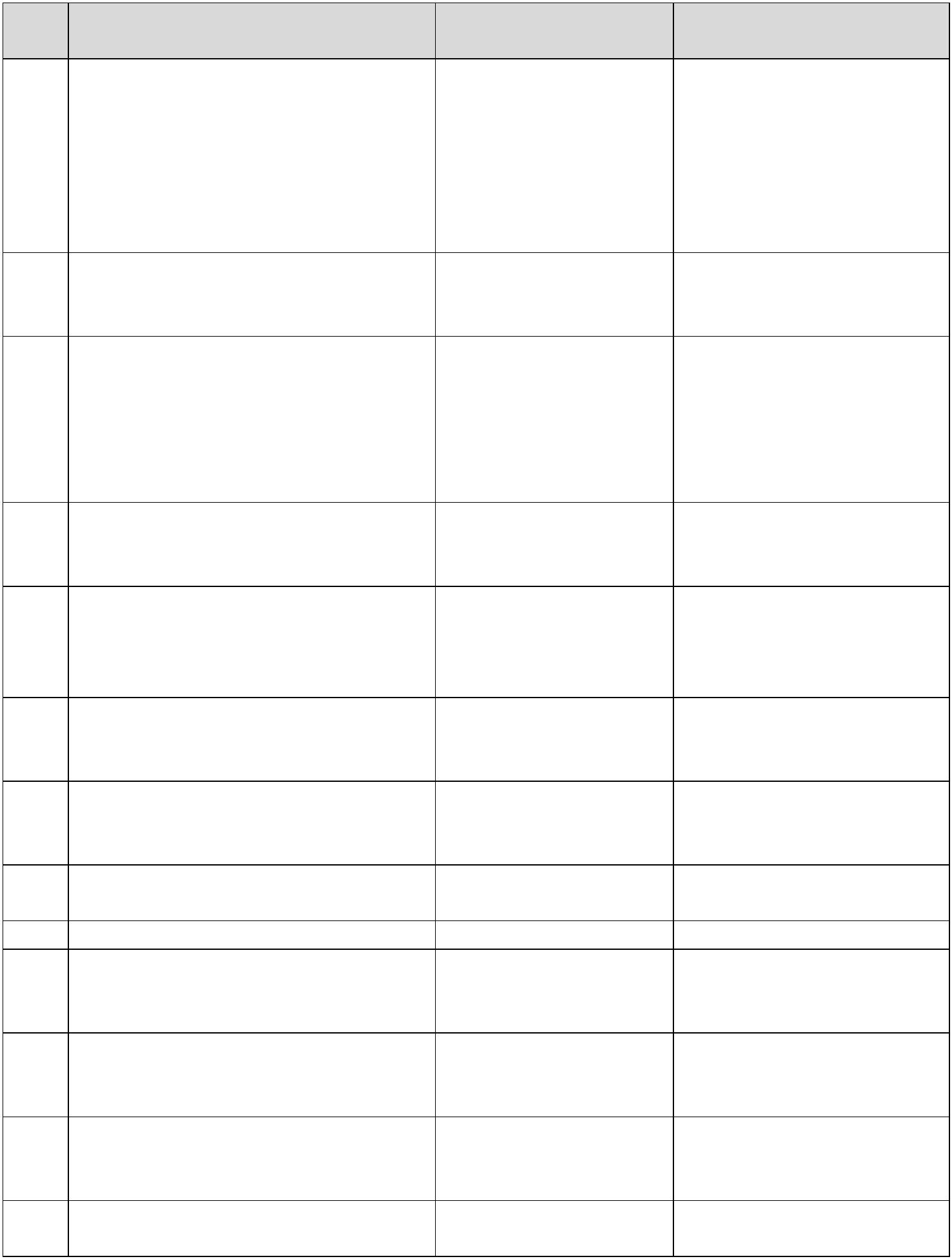
05/2027

07/2027

Connecting Transmission

Owner

4-3



SERVICE AGREEMENT NO. 2756

These milestones are contingent upon, but not limited to, outage scheduling, and the

Interconnection Customer’s successful compliance with all interconnection requirements and

timely completion of its obligations in Appendix C to the Facilities Study for the Small

Generating Facility. Due to the impact of the COVID-19 pandemic on equipment lead times, the

ability to deliver the Small Generating Facility in accordance with these milestones may be at

risk.

**2.**

**Security**

Security Arrangement

As agreed upon by Connecting Transmission Owner and Interconnection Customer

pursuant to Article 6.1.1 of this Agreement, the Interconnection Customer shall, at the

Interconnection Customer’s discretion, either (i) make prepayments (in lieu of posting the security

contemplated by Article 6.3 of this Agreement), or (ii) provide security installments to Connecting

Transmission Owner in the form contemplated by Article 6.3 of this Agreement, in each case for

its estimated costs to design, engineer, procure, construct, and install Connecting Transmission

Owner’s Interconnection Facilities and Upgrades. Interconnection Customer shall make such

prepayment or security installments in accordance with the following schedule:

(1)

$1,385,000 such prepayment amount or security amount to be provided at least

twenty (20) Business Days prior to Interconnection Customer’s issuance of the

written authorization to proceed with engineering and procurement. Such amount

to be provided as contemplated by Milestones 2 and 3 in the table contained in

Section 1 of this Attachment 4; and

(2)

$1,971,300 such prepayment or security amount to be provided at least twenty (20)

Business Days prior to Interconnection Customer’s issuance of the written

authorization to proceed with construction. Such amount to be provided as

contemplated by Milestones 14 and 16 in the table contained in Section 1 of this

Attachment 4; and

The actual amount of the prepayment or security to be provided by Interconnection

Customer may be adjusted by Connecting Transmission Owner following completion of

engineering for Connecting Transmission Owner’s Interconnection Facilities and System Upgrade

Facilities; Connecting Transmission Owner shall provide written notice to Interconnection

Customer of the adjusted prepayment or security amount, together with reasonable supporting

documentation of the related cost estimates.

If at any time after Interconnection Customer has made a prepayment of amounts due in

accordance with this Section 2 of Attachment 4, Interconnection Customer provides Connecting

Transmission Owner with security satisfying the requirements of Article 6.3 in an amount at least

equal to the amount required to be provided as of such date by this Section 2, Connecting

Transmission Owner will refund to Interconnection Customer any prepayment or portion thereof

that Interconnection Customer has made prior to the date such alternate security is provided and

that has not been applied against Interconnection Customer’s payment obligations as of such date.

4-4



SERVICE AGREEMENT NO. 2756

The Connecting Transmission Owner shall not be obligated to commence engineering,

procurement, or construction, as applicable, unless the Connecting Transmission Owner has

received the corresponding prepayment or security installment as contemplated above.

As agreed to by Interconnection Customer and Connecting Transmission Owner, the

Connecting Transmission Owner shall issue Interconnection Customer an invoice on a monthly

basis detailing Interconnection Customer’s cost responsibility under this Agreement and providing

the net amount, if any, due to Connecting Transmission Owner after Connecting Transmission

Owner has applied any prepayment amounts towards settlement of the invoice. For the avoidance

of doubt, Connecting Transmission Owner shall apply the full amount of any prepayment amount

held by Connecting Transmission Owner against Interconnection Customer’s cost responsibility

under this Agreement before Interconnection Customer is required to pay any amount in excess of

such prepayment amount. If any amount is due from Interconnection Customer, it shall make such

payments pursuant to Article 6.1.1 of this Agreement. The amount of any security provided by

Interconnection Customer under this Section 2 shall be reduced for payments made by

Interconnection Customer as provided in Article 6.3 of this Agreement.

4-5

SERVICE AGREEMENT NO. 2756

**Attachment 5**

**Additional Operating Requirements for the New York State Transmission System, the**

**Distribution System and Affected Systems Needed to Support the Interconnection**

**Customer’s Needs**

The NYISO, in consultation with the Connecting Transmission Owner, shall also provide

requirements that must be met by the Interconnection Customer prior to initiating parallel

operation with the New York State Transmission System or the Distribution System.

(a)

Interconnection Customer must comply with all applicable NYISO tariffs

and Procedures, as amended from time to time.

(b)

To the extent not inconsistent with the terms of this Agreement, the ISO

OATT, or applicable NYISO procedures, Interconnection Customer must comply with

Connecting Transmission Owner’s operating instructions and requirements, which

requirements shall include the dedicated data circuits, including system protection

circuits, to be maintained by Interconnection Customer in accordance with Article 1.5 of

this Agreement. Interconnection Customer must also comply with the applicable

requirements as set out in the Connecting Transmission Owner’s ESBs, which have been

identified and provided to the Interconnection Customer as amended from time to time, to

the extent not inconsistent with the terms of this Agreement or applicable NYISO tariffs

and procedures. Upon the Connecting Transmission Owner’s notice to the

Interconnection Customer of amendments to the ESBs, the Interconnection Customer has

30 days to comply with such amendments.

5-1

SERVICE AGREEMENT NO. 2756

**Attachment 6**

**Connecting Transmission Owner’s Description of its Upgrades and Best Estimate of**

**Upgrade Costs**

The NYISO, in consultation with the Connecting Transmission Owner, shall describe

Upgrades and provide an itemized best estimate of the cost, including overheads, of the

Upgrades and annual operation and maintenance expenses associated with such Upgrades. The

Connecting Transmission Owner shall functionalize Upgrade costs and annual expenses as either

transmission or distribution related.

The cost estimate for System Upgrade Facilities and System Deliverability Upgrades

shall be taken from the ISO OATT Attachment S cost allocation process or applicable

Interconnection Study, as required by Section 32.3.5.3.2 of Attachment Z. The cost estimate for

Distribution Upgrades shall include the costs of Distribution Upgrades that are reasonably

allocable to the Interconnection Customer at the time the estimate is made, and the costs of any

Distribution Upgrades not yet constructed that were assumed in the Interconnection Studies for

the Interconnection Customer but are, at the time of the estimate, an obligation of an entity other

than the Interconnection Customer.

The cost estimates for Distribution Upgrades, System Upgrade Facilities, and System

Deliverability Upgrades are estimates. The Interconnection Customer is ultimately responsible

for the actual cost of the Distribution Upgrades, System Upgrade Facilities, and System

Deliverability Upgrades needed for its Small Generating Facility, as that is determined under

Attachments S, X, and Z of the ISO OATT.

**A.**

**DISTRIBUTION UPGRADES**

None.

**B.**

**SYSTEM UPGRADE FACILITIES (“SUF”)**

The interconnection of the Small Generating Facility to the North Troy-Hoosick Line 5

will require System Upgrades at the North Troy and Hoosick Substations.

**1.**

**North Troy Substation**

*a) Protection*

The existing Line 5 relays will be reused and reset for the addition of the Small

Generating Facility. The “A” package uses an ERLPhase LPRO 4000 and will be converted to

a permissive overreaching transfer tip scheme (“POTT”) with the addition of a RFL GardPro

communications package. The “B” package will remain step distance using an SEL-311C.

Breaker failure and protection will be incorporated in the line relays. DTT transmit and

receive will be added between the Hawthorn Solar Collector Station and the North Troy and

Hoosick substations. The GardPro installed for POTT to Hoosick will also be used for DTT

to/from Hoosick Substation and an additional RFL GARDPro will be added for the DTT

6-1

SERVICE AGREEMENT NO. 2756

to/from the Hawthorn Solar Collector Substation. The existing reclosing relay is an SEL-351

and will need to be rewired to add DTL for DTT receive.

*b)*

*Controls and Integration*

The existing RTU is sufficient for the scope of this project. Spare I/O points will be

used to accommodate the additions required.

*c)*

*Telecommunications*

A new Verizon fiber facility will need to be installed at North Troy Station. Once

installed, two (2) new DS1 circuits will be provisioned: one between the Hawthorn Solar

Collector Substation and North Troy Substation and one between North Troy Substation and

Hoosick Substation.

**2.**

**Hoosick Substation**

*a) Protection*

The existing Line 5 relays will be reused and reset for the addition of the Small

Generating Facility. The “A” package uses an ABB RED670 relay which will be converted to

a POTT scheme and the “B” package will remain step distance using an GE D60 relay. DTT

transmit and receive will be added between the Hawthorn Solar Collector Station and the

North Troy and Hoosick substations. A GARDPro communications package will be installed

for POTT and DTT signals to/from North Troy and an additional RFL GARDPro

communications package will be added for the DTT to/from the Hawthorn Solar Collector

Substation. (*Note*: Since Hoosick is an IEC61850 station, the new RFL equipment must be

IEC61850 compliant.) Breaker reclosing will be done by the System 1 breaker control which

is a GE C60 relay. The System 2 breaker control will be an ABB REC670 relay. Both System

1 and System 2 breaker controllers will be used for breaker failure protection. Drive to

lockout for DTT will be added to the GE C60 relay. Both System 1 and System 2 breaker

control relays will be used for DTT send and receive.

*b)*

*Controls and Integration*

Since Hoosick Substation is an IEC61850 station, it has an SEL-3355 station controller

interfaced to EMS through a GarrettcomDX940E industrial router. The new relays will be

interfaced to the station controller via the station bus. Spare ports on the relay panel’s ethernet

switch(es) will be used for new relays. Additional ethernet port modules will be added to the

relays or switches to the relay panels, as required. The HMI and station controller will need to

be reprogrammed to interface the new relays to EMS and may require third-party support.

(*Note*: the cost estimate in this Agreement is based on the assumption that no third party

support is required. If it is determined to be required during final engineering and/or

construction, the Interconnection Customer shall be responsible for the incremental costs.)

*c)*

*Telecommunications*

Two (2) new DS1 circuits will be provisioned; on the existing Verizon fiber facility at

Hoosick Substation to support DTT. One circuit will be between Hoosick Substation and the

Hawthorn Solar Collector Substation and the other will be between the Hoosick Substation and

the North Troy Substation.

6-2

SERVICE AGREEMENT NO. 2756

(*Note*: Due to the addition of the Small Generating Facility, an area coordination study

will be completed during final engineering and may result in resetting of relays in the area. The

cost of the coordination study is included in the cost estimates provided in this Agreement. If the

area coordination study determines that additional relays in the area must be reset, the costs

associated with resetting the relays will be the responsibility of the Interconnection Customer.)

**C. ELECTIVE SYSTEM UPGRADE FACILITIES (“ELECTIVE SUFS”)**

None.

**D. COST ESTIMATES RELATED TO DISTRIBUTION UPGRADES AND**

**SYSTEM UPGRADE FACILITIES**

The total estimated costs (+30%/-15%) of the work associated with the System Upgrade

Facilities required for the interconnection of the Small Generating Facility (in 2022 dollars) are

presented in the table below.

As described in the Facilities Study for the Small Generating Facility, the estimates

provided herein:

Assume:

• 5 x 10 construction work week;

• outages are available;

• all major material is delivered to site (i.e., no costs are included for transport from

storage);

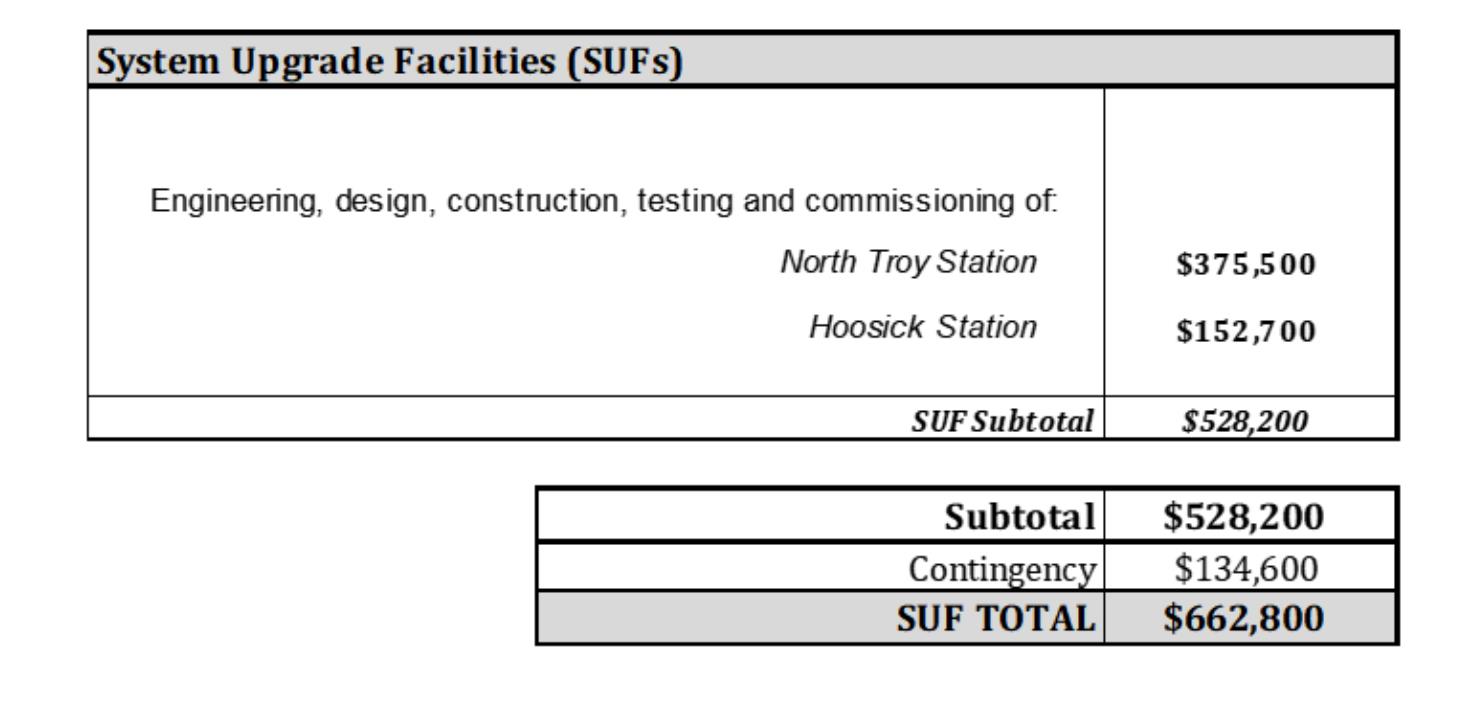
• existing equipment to remain is functional; and

• mobile generation will be required for approximately seven (7) calendar days.

Exclude (as applicable):

• discussions and negotiations of issued interconnection study;

6-3



SERVICE AGREEMENT NO. 2756

• application fees;

• applicable surcharges;

• overall project sales tax;

• property taxes;

• line switching;

• property/easement acquisitions;

• access roads and associated matting;

• future operation and maintenance costs;

• recurring monthly communications circuits’ charges, if any, responsible by the

Interconnection Customer to the communications utility;

• soil testing;

• adverse field conditions such as rock, water, weather, and Interconnection

Customer electrical equipment obstructions;

• environmental mitigation;

• extended engineering to minimize outage time or Connecting Transmission

Owner’s public utility to serve;

• extended craft labor hours, to minimize outage and/or construction time,

• any required permits, or

• any modifications to the project and/or any variance to the assumptions, including

the energization date and outage requirements, which may impact this cost

estimates.

6-4

SERVICE AGREEMENT NO. 2756

**Attachment 7**

**Insurance Coverage**

Interconnection Customer shall, at its own expense, maintain in force throughout the

period of this Agreement, the following minimum insurance coverage, with insurers authorized

to do business in the State of New York.

Commercial General Liability Insurance including, but not limited to, bodily injury,

property damage, products/completed operations, contractual and personal injury liability with a

combined single limit of $2 million per occurrence, $5 million annual aggregate.

7-1

SERVICE AGREEMENT NO. 2756

**Attachment 8**

**Initial Synchronization Date**

[**Date**]

New York Independent System Operator, Inc.

Attn: Vice President, Operations

10 Krey Boulevard

Rensselaer, NY 12144

Niagara Mohawk Power Corporation d/b/a National Grid

Attention: Kevin Reardon

Director, Transmission Commercial Services

40 Sylvan Road

Waltham, MA 02541-1120

Re: Hawthorn Solar Small Generating Facility

Dear

:

On **[Date] [Interconnection Customer]** initially synchronized the Small Generating Facility

**[specify units, if applicable]**. This letter confirms that **[Interconnection Customer]**’s Initial

Synchronization Date was **[specify]**.

Thank you.

[**Signature**]

[**Interconnection Customer Representative**]

8-1



SERVICE AGREEMENT NO. 2756

**Attachment 9**

**Commercial Operation Date**

**[Date]**

New York Independent System Operator, Inc.

Attn: Vice President, Operations

10 Krey Boulevard

Rensselaer, NY 12144

Niagara Mohawk Power Corporation d/b/a National Grid

Attention: Kevin Reardon

40 Sylvan Road

Waltham, MA 02541-1120

Re:

Hawthorn Solar Small Generating Facility

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

On **[Date] [Interconnection Customer]** has completed Trial Operation of Unit No. \_\_\_. This

letter confirms that **[Interconnection Customer]** commenced Commercial Operation of the

Small Generating Facility **[specify units, as applicable]**, effective as of **[Date plus one day]**.

Thank you.

**[Signature]**

**[Interconnection Customer Representative]**

9-1

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