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Service Agreement No. 2498

INTERCONNECTION AGREEMENT

BETWEEN

NIAGARA MOHAWK POWER CORPORATION D/B/A NATIONAL GRID

AND

GR Catalyst Two LLC

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This Interconnection Agreement (“Agreement”) is made and entered into this 26th day of

November, 2019, by and between Niagara Mohawk Power Corporation d/b/a National Grid, a corporation existing under the laws of the State of New York (“Connecting Transmission   
Owner”), and GR Catalyst Two LLC, a limited liability company organized and existing under the laws of the State of New York (“Interconnection Customer”) each hereinafter sometimes referred to individually as “Party” or referred to together as the “Parties.”

Connecting Transmission Owner Information

Niagara Mohawk Power Corporation d/b/a National Grid

Attention: Kathryn Cox-Arslan, Director, Transmission Commercial

Address: 40 Sylvan Road

City: Waltham State: MA Zip: 02451 Phone: (781) 907-2422

Fax: (781) 907-5707

Interconnection Customer Information   
 GR Catalyst Two LLC

Attention: General Counsel

Address: 1401 Walnut Street, Suite 420

City: Boulder State: Colorado Zip: 80302

Phone: 303-615-3104   
Fax: 720-420-9956

Interconnection Customer Application No: N/A.

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

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Article 1. Scope and Limitations of Agreement

1.1. Applicability

This Small Generator Interconnection Agreement (“SGIA”) 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 Parties understand that the New York Independent System Operator   
 (“NYISO”) will provide Energy Resource Interconnection Service   
 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 NYISO   
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 between Connecting   
Transmission Owner and the Interconnection Customer, except as otherwise expressly provided   
herein.

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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.

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.

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 Party 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 Connecting Transmission Owner shall cooperate with the NYISO to

coordinate with all Affected Systems to support the interconnection.

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

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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   
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 Attachment 5 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   
Attachments 2 and 3 of this Agreement. The Interconnection Customer’s metering (and data

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

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 by 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 Parties understand that the Interconnection Customer shall be paid by the

NYISO 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

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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   
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

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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 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

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relevant factors agreed to by the NYISO, Connecting Transmission Owner, and Interconnection Customer. If the operating range is dynamic, then Attachment 5 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 Attachment 1 or the body of this Agreement. Capitalized terms used herein that are not so   
defined shall have the meanings specified in Section 32.5 or Attachment S or Attachment X of   
the NYISO OATT.

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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 in accordance with NYISO tariffs or ISO Procedures or the Connecting   
Transmission Owner’s tariff or procedures.

2.1.2. The Connecting Transmission Owner shall, and the NYISO may, 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 Connecting Transmission Owner, in consultation with the NYISO, shall use   
 Reasonable Efforts to list applicable parallel Operating Requirements in   
 Attachment 5 of this Agreement. Additionally, the Connecting Transmission   
 Owner, in consultation with the NYISO, shall notify the Interconnection   
 Customer of any changes to these requirements as soon as they are known. The   
 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 Parties understand that the   
 NYISO, in consultation with the Connecting Transmission Owner, will provide   
 such authorization once the NYISO receives notification that the Interconnection

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Customer has complied with all applicable parallel Operating Requirements.

Such authorization shall not be unreasonably withheld, conditioned, or delayed.

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.

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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 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 Connecting   
Transmission Owner shall file, or cause to be filed, this Agreement and the Connecting   
Transmission Owner 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 Error! Reference source not found. 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 Connecting Transmission Owner 20 Business Days written notice. The Connecting Transmission Owner may terminate this Agreement after the Small Generating Facility is Retired.

3.3.2. Either Party may terminate this Agreement after Default pursuant to article

Error! Reference source not found..

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 nonterminating 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 either 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

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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 Error! Reference   
source not found. 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 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

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

Transmission System or Distribution System. NYISO or the Connecting Transmission Owner shall provide the Interconnection Customer with five (5) Business Days’ notice prior to such interruption. The Connecting Transmission Owner shall use Reasonable Efforts to coordinate such reduction or temporary disconnection with the Interconnection Customer. The Parties understand that any actions the NYISO is authorized to take under this article 3.4.2 are   
conditioned upon the NYISO’s use of 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 Connecting Transmission   
Owner shall use Reasonable Efforts to provide the Interconnection Customer with prior notice.   
If prior notice is not given, the Connecting Transmission Owner shall, upon request, provide the   
Interconnection Customer written documentation after the fact explaining the circumstances of   
the disconnection. The Parties understand that any suspension or disconnection the NYISO is   
authorized to make under this article 3.4.3 are conditioned upon: (i) the NYISO’s use of   
Reasonable Efforts to provide the Interconnection Customer with prior notice; and (ii) if prior   
notice is not given, the NYISO’s provision to the Interconnection Customer, upon request, of   
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 NYISO   
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 article Error! Reference source not found.   
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

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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.

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Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades

4.1. Interconnection Facilities

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

itemized in Attachment 2 of this Agreement. 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, and the Connecting Transmission Owner.

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 Attachment 2 to this Agreement

4.2. Distribution Upgrades

The Connecting Transmission Owner shall design, procure, construct, install, and own   
the Distribution Upgrades described in Attachment 6 of this Agreement. If the Connecting   
Transmission Owner and the Interconnection Customer agree, the Interconnection Customer may   
construct Distribution Upgrades that are located on land owned by the Interconnection Customer.   
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 Attachment 6 to this   
Agreement.

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

Upgrades

5.1. Applicability

No portion of this article Error! Reference source not found. 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 Attachment 6 of this Agreement. To the extent that design work is necessary in addition to that already accomplished in the Class Year facilities study for the Interconnection Customer, the Connecting Transmission Owner shall perform or cause to be performed such work. If the Parties agree, the   
Interconnection Customer may construct System Upgrade Facilities and System Deliverability Upgrades that are located on land owned by the Interconnection Customer.

5.2.1. As described in Section 32.3.5.3 of the SGIP in Attachment Z of the NYISO

OATT, the responsibility of the Interconnection Customer for the cost of the

System Upgrade Facilities and System Deliverability Upgrades described in

Attachment 6 of this Agreement shall be determined in accordance with

Attachment S of the NYISO 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 Attachment 6 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 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 NYISO OATT. The agreement shall specify the terms governing payments to be made by the Interconnection Customer to Affected System Operator as well as the repayment by Affected System Operator.

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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 the Parties. 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 Error! Reference source not   
found. 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 Attachment 4 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 Party 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

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appropriate amendments to Attachment 4. The 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 NYISO OATT.

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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 either Party upon 15 Business Days prior written notice and opportunity to object by the other Party; provided that:

7.1.1. A Party may assign this Agreement without the consent of the other Party 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 Connecting Transmission Owner of any such assignment. A Party   
 may assign this Agreement without the consent of the other Party 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 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 Party 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 either Party be liable to the other Party 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 article   
 Error! Reference source not found..

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

hold harmless the other Party (the “ 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 an 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 the other Party under another agreement will not be considered to be special, indirect, incidental, or   
consequential damages hereunder..

7.5. Force Majeure

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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 NYISO OATT.

7.5.2. If an event of Force Majeure 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 Party, 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 Party   
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 Party. Upon a Breach, the   
 non-breaching Party shall give written notice of such Breach to the Breaching   
 Party. Except as provided in article Error! Reference source not found., the   
 Breaching 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 Party shall thereafter have the right to terminate this Agreement, in   
 accordance with article Error! Reference source not found. 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 that Party terminates this   
 Agreement, to recover from the Defaulting Party all amounts due hereunder, plus   
 all other damages and remedies to which they are entitled at law or in equity. The   
 provisions of this article shall survive termination of this Agreement.

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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.

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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 Attachment 7 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. Connecting Transmission Owner agrees 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.

8.3. 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.

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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 NYISO 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 Party 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   
the other Party 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 Party to this Agreement   
prior to the release of the Confidential Information to FERC. The Party shall notify the   
other Party 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 article Error! Reference source not found., the

Parties to this Agreement will cooperate in good faith to provide each other, Affected

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Systems, Affected System Operators, and state and federal regulators the information necessary to carry out the terms of the SGIP and this Agreement.

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Article 10. Disputes

10.1. The 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. If the Parties cannot promptly resolve the dispute on an informal basis, then either Party shall provide the other Party 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,

either 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.](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-half of any costs paid to neutral third-parties.

10.6. If either Party elects to seek assistance from the DRS, or if the attempted dispute

resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this Agreement.

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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 Party to maintain the other Party’s tax status.

Nothing in this Agreement is intended to adversely affect the tax status of either Party 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, TaxExempt 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 NYISO 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.

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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 article Error! Reference source not found. 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 assisting that Party with the   
Interconnection Request covered by this Agreement shall be entitled to the benefits of   
indemnification provided for under Article Error! Reference source not found. of this   
Agreement and the limitation of liability provided for in Article Error! Reference source not   
found. 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

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covenants which constitute any part of the consideration for, or any condition to, either Party’s compliance with its obligations under this Agreement.

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 either 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, the other 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 Party, first orally and then in writing, of the release of   
any hazardous substances, any asbestos or lead abatement activities, or any type of remediation   
activities related to the Small Generating Facility or the Interconnection Facilities, each of which   
may reasonably be expected to affect the other Party. 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 Party copies of any publicly available reports filed with any governmental authorities addressing such events.

12.11. Subcontractors

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

subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party 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 Party to the extent provided for in Sections 32.7.2   
and 32.7.3 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 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 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 the other 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.

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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 (“Notice”) shall be deemed properly given if delivered in person, delivered by recognized national currier service, or sent by first class mail, postage prepaid, to the person specified below:

If to the Interconnection Customer:

GR Catalyst Two LLC

Attention: General Counsel

Address: 1401 Walnut Street, Suite 420

City: Boulder State: Colorado Zip: 80302 Phone: 303-615-3104

Fax: 720-420-9956

If to the Connecting Transmission Owner:

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

Attention: Kathryn Cox-Arslan, Director, Transmission Commercial Address: 40 Sylvan Road

City: Waltham State: MA Zip: 02451 Phone: (781) 907-2422

Fax: (781) 907-5707

E-mail: Kathryn.cox-arslan@nationalgrid.com

If to the NYISO:

Attention: Vice President, Operations

Address: New York Independent System Operator, Inc., 3890 Carman Road City: Schenectady State: NY Zip: 12303

Phone: (518) 356-6000

Fax: (518) 356-6118

13.2. Billing and Payment

Billings and payments shall be sent to the addresses set out below: Interconnection Customer: GR Catalyst Two LLC

Attention: Accounting Manager

Address: 1401 Walnut Street, Suite 420

City: Boulder State: Colorado Zip: 80302

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Connecting Transmission Owner: Niagara Mohawk Corporation d/b/a National Grid

Attention: Kathryn Cox-Arslan, Director, Transmission Commercial Address: 40 Sylvan Road

City: Waltham State: MA Zip: 02451

E-mail: Kathryn.cox-arslan@nationalgrid.com

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, facsimile or e-mail to the telephone numbers and e-mail addresses set out below:

If to the Interconnection Customer:

GR Catalyst Two LLC

Attention: General Counsel

Address: 1401 Walnut Street, Suite 420

City: Boulder State: Colorado Zip: 80302 Phone: 303-615-3104

Fax: 720-420-9956

If to the Connecting Transmission Owner:

Niagara Mohawk Power Corporation d/b/a National Grid

Attention: Kathryn Cox-Arslan, Director, Transmission Commercial Address: 40 Sylvan Road

City: Waltham State: MA Zip: 02451 Phone: (781) 907-2422

Fax: (781) 907-5707

E-mail: Kathryn.cox-Arslan@nationalgrid.com

If to the NYISO:

Attention: Vice President, Operations

Address: New York Independent System Operator, Inc., 3890 Carman Road City: Schenectady State: NY Zip: 12303

Phone: (518) 356-6000

Fax: (518) 356-6118

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.

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Interconnection Customer’s Operating Representative:

GR Catalyst Two LLC

Attention: Jim Fulmer

Address: 1401 Walnut Street, Suite 420

City: Boulder State: Colorado Zip: 80302 Phone: 864-704-6760

Fax: 720-420-9956

Connecting Transmission Owner’s Operating Representative:

Niagara Mohawk Corporation d/b/a

National Grid

Attention: ERCC Shift Supervisor

Address: 5215 Western Turnpike

City: Altamont State: NY Zip: 12009 Phone: (518) 356-6471

NYISO’s Operating Representative:

Attention: Vice President, Operations

Address: New York Independent System Operator, Inc., 3890 Carman Road City: Schenectady State: NY Zip: 12303

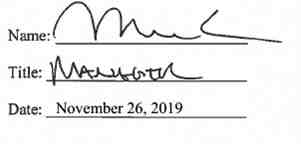
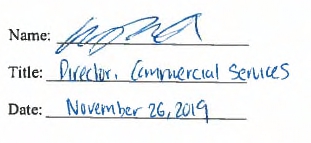
Phone: (518) 356-6000

Fax: (518) 356-6118

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.

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Article 14. Signatures

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

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

For GR Catalyst Two LLC

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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 NYISO 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

NYISO 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 NYISO 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; such service being one of the eligibility requirements for participation as a NYISO Installed   
Capacity Supplier.

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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 this SGIA.

Deliverability Interconnection Standard - The standard that must be met by any Small

Generating Facility larger than 2MW proposing to interconnect to the New York State

Transmission System or Distribution System and to become a qualified Installed Capacity

Supplier, and must be met by any merchant transmission project proposing to interconnect to the   
New York State Transmission System and receive Unforced Capacity Delivery Rights. To meet   
the NYISO Deliverability Interconnection Standard, the Interconnection Customer must, in   
accordance with the rules in Attachment S to the NYISO OATT, fund or commit to fund the   
System Deliverability Upgrades identified for its project in the Class Year Deliverability Study.

Default - The failure of a Party in Breach of this Agreement to cure such Breach under this   
SGIA.

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 NYISO 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   
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.

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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.

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 NYISO   
OATT.

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.

Minimum Interconnection Standard - The reliability standard that must be met by any Small   
Generating Facility proposing to connect to the New York State Transmission System or   
Distribution System. The Standard is designed to ensure reliable access by the proposed project

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to the New York State Transmission System. The Standard does not impose any deliverability test or deliverability requirement on the proposed interconnection.

New York State Transmission System -shall mean the entire New York State electric

transmission system, which includes: (i) the Transmission Facilities under ISO Operational Control; (ii) the Transmission Facilities Requiring ISO Notification; and (iii) all remaining transmission facilities within the New York Control Area.

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 2 MW 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.

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 this SGIA.   
Operating Requirements shall include Applicable Reliability Standards.

Party or Parties - Connecting Transmission Owner or Interconnection Customer or both.

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.

Small Generating Facility - The Interconnection Customer’s device no larger than 20 MW for   
the production and/or storage for later injection of electricity identified in the Interconnection   
Request, but shall not include the Interconnection Customer’s Interconnection Facilities.

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

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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.

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.

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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 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

Interconnection Customer is currently selling the output of its Dahowa Hydroelectric

Project, a 12.265 MW (12.9 MVA) Small Generation Facility located at 190 County Route 53 in   
Greenwich, New York, to Connecting Transmission Owner pursuant to a Qualifying Facility   
power purchase agreement. Interconnection Customer plans to begin engaging in NYISO   
wholesale market operations for the entire output of its facility and is executing this Agreement   
to meet necessary engineering requirements and make facility improvements required to engage   
in such wholesale transactions. The electrical arrangement of this 12.265 MW facility is   
described in detail in Attachment 3 to this Agreement. The Point of Interconnection is switch   
#199 located at Connecting Transmission Owner’s Cement Mountain Substation and the point of   
change of ownership (“POCO”) is switch #188 located on a steel structure located adjacent to the   
Dahowa Hydroelectric Project.

B. INTERCONNECTION CUSTOMER’S INTERCONNECTION FACILITIES

Interconnection Customer’s interconnection facilities includes switch #188 and the

overhead circuit that continues from switch #188 onward toward Interconnection Customer’s

Small Generating Facility to another Interconnection Customer-owned disconnect switch #6488,   
which then continues overhead to an Interconnection Customer-owned riser pole.   
Interconnection Customer-owned underground cable continues to an indoor (metal enclosed)   
recloser and downstream metering cabinet. The facility has a 12.9MVA synchronous generator   
which provides an output voltage of 13.8kV. The generator output voltage is stepped-up through   
a single 10.5MVA oil filled transformer, to 34.5kV, and establishes a connection to the   
Connecting Transmission Owner’s electric power system at this voltage. Interconnection   
Customer will upgrade their existing facility and interconnection equipment as described in   
Section D.1 of this Attachment 2. .

C. CONNECTING TRANSMISSION OWNER’S INTERCONNECTION

FACILITIES

Connecting Transmission Owner’s Interconnection Facilities consist of a Remote

Terminal Unit (“RTU”) to be installed and all facilities and all equipment, including metering,   
owned, controlled or operated by the Connecting Transmission Owner from the POCO to the   
Point of Interconnection, including any modifications, additions or upgrades to such facilities

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and equipment. Connecting Transmission Owner’s interconnection facilities are sole use facilities and shall not include other Upgrades.

D. SCOPE OF WORK AND RESPONSIBILITIES

1. Interconnection Customer’s Scope of Work and Responsibilities

The Interconnection Customer’s Interconnection Facilities described in this Section D.1 shall be designed, constructed, operated and maintained by the Interconnection Customer in   
accordance with industry standards and specifications and the Connecting Transmission Owner’s (“CTO”) Electric System Bulletins (“ESBs”) which are available at:

[https://www9.nationalgridus.com/niagaramohawk/construction/3\_elec\_specs.asp](https://www9.nationalgridus.com/niagaramohawk/construction/3_elec_specs.asp/)

The Interconnection Customer shall submit all engineering design and electrical

specifications associated with the Interconnection Customer Interconnection Facilities and any modifications to the Small Generating Facility, to the CTO for review and written acceptance in accordance with the ESBs.

Interconnection Customer shall coordinate activities with the Connecting Transmission   
Owner to ensure the Connecting Transmission Owner may proceed with the requested reviews,   
testing and approvals. These activities and requirements may include, but may not be limited to,   
up-front costs, performance agreements, rights of way, and site suitability prior to any potential   
relocation of Connecting Transmission Owner’s existing facilities and installation of new   
facilities, as necessary.

Interconnection Customer will submit a full set of technical submittals as outlined by

ESB 751, as modified by Exhibit E of the “National Grid Electric Service Plan - Dahowa Hydro

34.5 kV Substation Upgrade, dated May 1, 2019.”, included herewith as Attachment 8. In

addition to these technical submittals, the Project will need to comply with the following specific measures:

Recloser:

The new proposed recloser shall be installed by Interconnection Customer as soon as practical to allow the facility to operate with proper service equipment (means of disconnection and   
overcurrent protection). Therefore, this installation may occur prior to final approvals of the remainder of the technical submittals and equipment installations.

The new recloser shall be equipped with capacitive voltage sensing in its primary 34.5kV

termination bushings. These sensors shall be configured to provide 3Vo protection, through a   
relay, PLC, or similar, and shall be demonstrated on the Functional Electrical Drawings (single   
line, three line, and breaker controls drawings) as described in ESB 751. Although the facility   
appears to have a robust 3Vo scheme with voltage sensing on the generator-side of the recloser,   
the proposed functionality (capacitive voltage sensing in recloser 34.5kV bushings) will provide   
line to ground detection during periods when the recloser is “open”. This detection of a line to   
ground condition when the recloser is in the open position will result in the lock-out of the

recloser.

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When the recloser is “closed” and operating in normal conditions, the existing 3Vo system may be employed to detect line to ground conditions. The capacitive voltage sensors shall be   
configured as a redundant 3Vo scheme under this condition. This arrangement shall be clearly described within the control drawings required by ESB 751.

Manufacturer’s drawings, including schematic circuit drawings, nameplate ratings and physical data shall be provided for the Company’s review.

Arresters:

The 34.5kV side arresters were previously reviewed by Connecting Transmission Owner during   
the review of the newly proposed recloser. The Connecting Transmission Owner-accepted   
36kV/27kV MCOV station class arresters will be installed by Interconnection Customer within   
the recloser cabinet and must be reflected in the functional electrical drawings as required by   
ESB 751.

13.8kV Generator Paralleling Breaker:

The existing13.8kV breaker shall be fully developed and documented through the required

Functional Electrical Drawings as required by ESB 751, and shall be installed by the

Interconnection Customer. This includes a full DC control schematic in addition to fully

developed single line and three line drawings for the Connecting Transmission Owner’s review.

Battery System:

The newly proposed recloser shall be equipped by Interconnection Customer with integral, manufacturer-provided batteries for open and closing energy. However, the remainder of the battery support throughout the entire electrical generation and relaying systems throughout the plant shall be provided in detail, along with alarm drawings and an explanation of the various alarms and the conditions by which they alarm.

Relay power and tripping power is required to be from a DC source. The AC source for battery   
power is typically required to be powered from a source located on the utility side of the   
customer high side three phase interrupting device. The design of the facility is to be such that it   
incorporates fail safe provisions to provide for tripping the generation from the EPS for loss or   
degradation of DC to protective relays, loss of protective relay power supplies, and loss or   
degradation of tripping power to the required interrupting devices. A review of the single line   
diagram does show multiple sources to the AC power panels including a backup generator. The   
one-line diagram does not show the source of the battery charging circuit. The one-line diagram   
does not show that a fail-safe design is being provided. These features shall be clearly   
demonstrated on the future Stage B technical submittals to be provided to the Connecting   
Transmission Owner.

Battery system maintenance records shall be provided to the Connecting Transmission Owner for their review. Where no such recent maintenance records exists, the battery system shall be tested and certified by a qualified third party contractor. Battery chargers shall also be reviewed and confirmed for adequacy and suitability to the existing battery supply system.

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Utility Reconnect Relay:

A utility reconnect relay which detects adequate voltage and ungrounded line conditions shall allow the Interconnection Customer to interconnect with the Connecting Transmission Owner’s EPS after a minimum five (5) minute duration, post-event. The parameters of the voltage and frequency windows shall be as prescribed by IEEE 1547 Section 4.2.6. This relay shall be   
connected through voltage sensing devices (or potential transformers, if deemed necessary) on the high-side of the newly proposed recloser.

Specific Relay Settings and Adjustments:

Refer to the “Protection Review for Dahowa Hydro” dated 12/23/16 for specific relay

adjustments required to meet the Connecting Transmission Owner’s approvals. Relay settings

and adjustments shall be done in accordance with ESB 756 or reasonably adjusted as directed by Connecting Transmission Owner.

Ground Grid Testing:

The Interconnection Customer shall substantiate the viability of their existing ground grid to

attenuate step and touch potentials near the area of the main disconnects, recloser, and metering cabinet. The existing ground grid shall be tested by a qualified testing agency, and the results of the test, including ground grid resistances (at various locations mentioned above), step and touch potential thresholds, and actual step and touch potential determinations.

If the ground grid(s) cannot attenuate step and touch potentials below those prescribed by IEEE   
80, an expanded ground grid design shall be presented to the Connecting Transmission Owner   
for their review. An acceptable ground grid design consists of a report which shows the various   
parameters and calculation methods involved in the design, and a design sheet showing the grid   
geometry, grounding rods bonding locations, and limits of the ground grid, at a minimum.

Heaters:

Switchgear and enclosure heaters are a critical component in the long term viability of the

Connecting Transmission Owner’s instrument metering transformers and main service

equipment, when installed within a metal enclosed cabinet and exposed to outdoor conditions.

The Interconnection Customer will show, schematically, the wiring scheme proposed to maintain service to the enclosure heaters and shall also provide a method of testing the heaters on a   
regular basis. This may be through an external terminal strip which can be probed for current flow, or by an alarm scheme.

T1 Communication Line

The Interconnection Customer is required to install a T1 communication line for the RTU and shall be responsible for all costs associated with such installation. Once installed, the T1 Line will become the permanent means of communication for the RTU.

2. Connecting Transmission Owner’s Scope of Work and Responsibilities

Connecting Transmission Owner shall pursue the necessary rights of way for the legal   
installation of its’s facilities. A RTU and associated temporary RTU communication equipment   
may be required for this installation and such installation shall be done by Connecting   
Transmission Owner. Connecting Transmission Owner endeavors to monitor current, voltage

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and status of critical interconnection devices, remotely, from the Connecting Transmissions ’s   
Eastern Regional Control Center. The RTU will be provided by the Connecting Transmission   
Owner. The unit will be delivered and mounted in a mutually acceptable location as determined   
by the Parties. Interconnection Customer is required to provide the necessary connections to the   
Interconnection Customer owned equipment of interest to the Connecting Transmission Owner.   
Given the anticipated delay in receiving a T1 communications line from Verizon,

Interconnection Customer and Connecting Transmission Owner have agreed to pursue a radiobased communication scheme as an interim and temporary solution. The Interconnection   
Customer shall pay the Connecting Transmission Owner the fully loaded cost of the RTU and   
any necessary temporary RTU communication equipment, including installation, wiring and   
commissioning, as provided herein. Connecting Transmission Owner shall send a letter to   
NYISO in the form contained in Attachment 10 prior to Interconnection Customer commencing wholesale market operations.

3. Site Access

Consistent with the Articles 2.3.2, 7.3, and 8 of this Agreement, NYISO and Connecting Transmission Owner shall be provided access to Interconnection Customer’s premises in a   
manner which reasonably, consistent with Good Utility Practice, meets the needs of the party   
needing access but shall be provided in a manner so as not to unreasonably interfere with the   
ongoing business operations, rights, and obligations of Interconnection Customer. Except in an emergency situation, however, unless an alternative means of access is provided, the Parties   
agree not to temporarily restrict a Party’s right hereunder to the other Party’s facilities, property or equipment without prior written notice.

4. Interconnection Customer Option to Build

If the date designated for RTU installation in Attachment 4 of this Agreement is not met   
by Connecting Transmission Owner, Interconnection Customer shall have the option to assume   
responsibility for the installation of the RTU. Except for the RTU, Interconnection Customer   
shall have no right to construct any other Connecting Transmission Owner facilities under this   
option.

If Interconnection Customer assumes responsibility for the installation of the RTU by providing five (5) days written notice to Connecting Transmission Owner,

(1) Interconnection Customer shall engineer, procure equipment, and construct the RTU (or

portions thereof) using Good Utility Practice and using standards and specifications provided in advance by Connecting Transmission Owner attached hereto as Attachment 11

(2) Interconnection Customer's engineering, procurement and construction of the RTU shall

comply with all requirements of law to which Connecting Transmission Owner would be subject in the engineering, procurement or construction of the RTU;

(3) Connecting Transmission Owner shall review and approve the engineering design, equipment acceptance tests, and the construction of Connecting Transmission Owner’s RTU;

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(4) Prior to commencement of construction, Interconnection Customer shall provide to

Connecting Transmission Owner a schedule for construction of Connecting Transmission Owner’s RTU, and shall promptly respond to requests for information from Connecting Transmission Owner;

(5) Consistent with Section D.3 of this Attachment, at any time during construction, Connecting Transmission Owner shall have the right to gain unrestricted access to Connecting Transmission Owner’s RTU and to conduct inspections of the same;

(6) At any time during construction, should any phase of the engineering, equipment

procurement, or construction of Connecting Transmission Owner’s RTU not meet the standards   
and specifications provided by Connecting Transmission Owner, Interconnection Customer shall   
be obligated to remedy deficiencies in that portion of Connecting Transmission Owner’s RTU;

(7) Interconnection Customer shall indemnify Connecting Transmission Owner for claims

arising from Interconnection Customer's construction of Connecting Transmission Owner’s RTU under the terms and procedures applicable to Article 7.3 Indemnity;

(8) Interconnection Customer shall transfer control of Connecting Transmission Owner’s RTU to Transmission Provider upon completion of construction;

(9) Unless Parties otherwise agree, Interconnection Customer shall transfer ownership of the RTU to Connecting Transmission Owner by executing a Bill of Sale in a form acceptable to Connecting Transmission Owner, in its sole discretion;

(10) Connecting Transmission Owner shall approve and accept for operation and maintenance the RTU to the extent engineered, procured, and constructed in accordance with this Attachment 2, Section D.4 and Attachment 11; and

(11) Interconnection Customer shall deliver to Connecting Transmission Owner "as-built"   
drawings, information, and any other documents that are reasonably required by Connecting Transmission Owner to assure that the RTU is built to the standards and specifications required by Connecting Transmission Owner.

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E. ESTIMATED COSTS OF INTERCONNECTION FACILITIES

Description Estimated Cost

Review of Stage B Submittals $33,000.00

RTU $65,000.00

Temporary RTU Radio Communication (at option of $30,000.00

Interconnection Customer)

Testing and Commissioning-Relay/Protection $3,200.00

Company’s walkthrough of installation $2,200

Estimated Project Total Costs owed to Connecting $133,400.00

Transmission Owner

F. O&M EXPENSES FOR INTERCONNECTION FACILITIES

In accordance with Article 4.1 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 by providing written notice to Connecting Transmission Owner.

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 Interconnection Facility   
and the Annual Transmission Ongoing Charge Factor, for the term of this Interconnection   
Agreement.

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.

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The Project’s Gross Connecting Transmission Owner’s Interconnection Facilities Plant Investment cost shall be established in writing by the Connecting Transmission Owner no later than 90 days following commercial operation.

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: Annual 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: Annual Actual O&M Expenses.

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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 wages or salaries charged to Connecting Transmission Owner by a National Grid Affiliate to Connecting Transmission Owner’s total electric direct wages and salaries including any wages charged to Connecting Transmission Owner by a National Grid 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.

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(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 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.

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(b) Transmission Related General Plant shall equal the balance of

investment in General Plant multiplied by the Transmission Wages and Salaries Allocation Factor.

(c) 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.

(d) 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) Transmission Related Prepayments shall equal the electric balance of

Prepayments multiplied by the Gross Transmission Plant Allocation

Factor.

(f) Transmission Related Materials and Supplies shall equal the balance

of Materials and Supplies assigned to Transmission added to the 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

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outstanding and the actual preferred stock capitalization ratio;   
and

(iii) the return on equity component, shall be the product of the

allowed ROE of 11.9% plus a 50 basis point adder (per FERC Order 697 and 697A) 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

(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

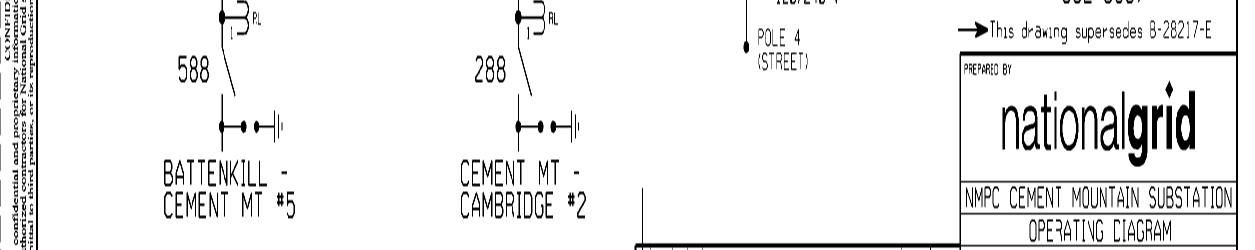
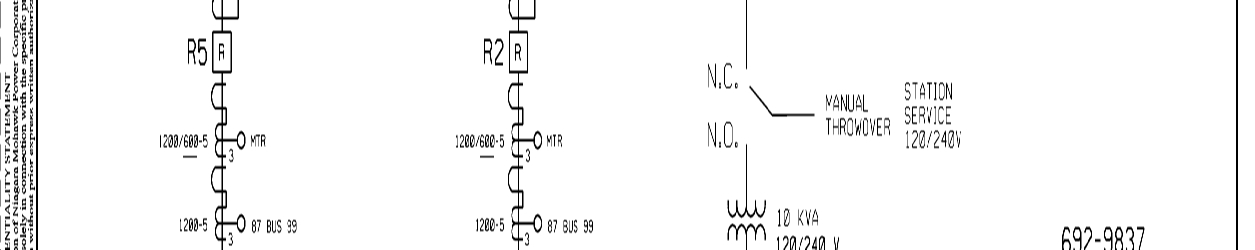
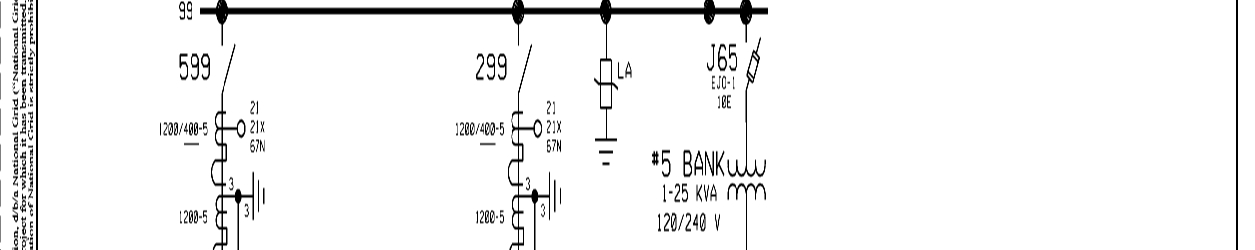
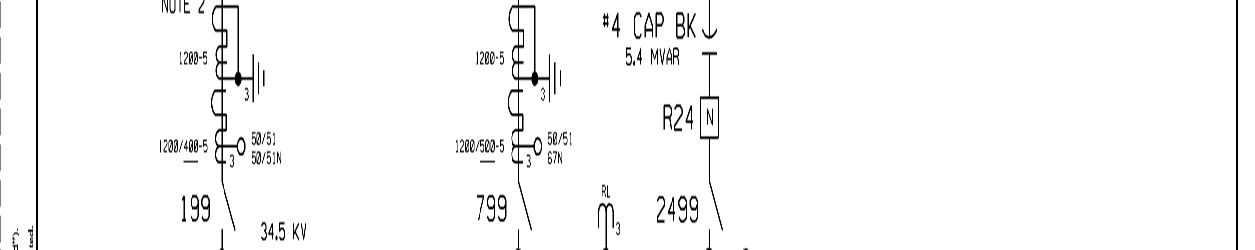
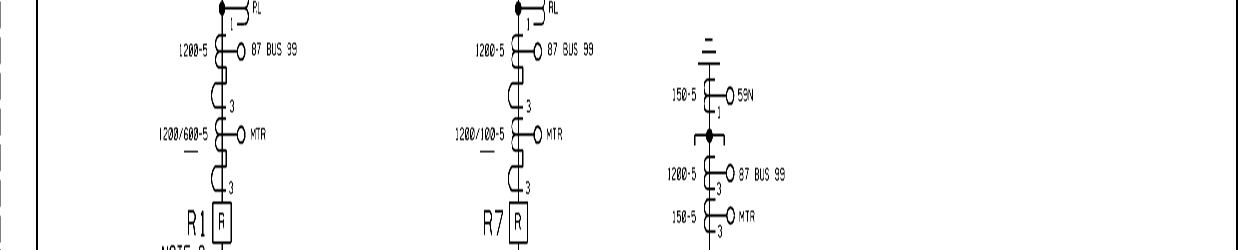
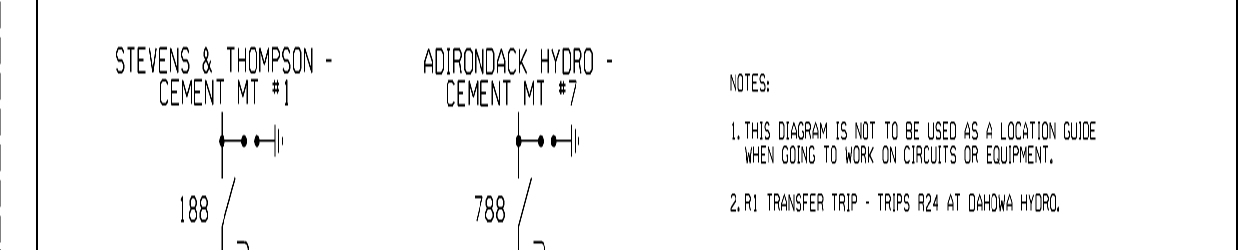
Expense as previously defined.

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Attachment 3

One-line Diagram Depicting the Small Generating Facility, Interconnection Facilities,   
 Metering Equipment, and Upgrades

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Attachment 4   
Milestones

Milestone/Date

Task Milestone   
1. RTU Installed

1.a. CTO Review of

Interconnection Customer (IC) RTU Installation (if IC Option to Build exercised)

2. Completion of Interconnection

Customer Scope of Work & Responsibilities

3. CTO Review of

Interconnection Customer’s Compliance with

Interconnection Customer Scope of Work &

Responsibilities

4. RTU Communication Installed,

Tested and Commissioned

5. Execution of RTU Bill of Sale

(if IC Option to Build exercised)

6. Transmit Attachment 10 Letter

to NYISO

7. Commencement of Energy

Sales into the NYISO Wholesale Market.

8. Commencement of Cost

Reconciliation Procedures

Responsible Party

Date Responsible Party

Not later than CTO 12/30/19

Within fifteen (15) CTO days after RTU

Installation

Not later than IC 12/30/19

Not later than CTO   
1/17/20

Not later than CTO   
1/17/20

within ten (10) CTO/IC business days of

the completion of Task 4

within one (1) CTO or IC business day of the

completion of Task   
4

within forty (40) IC business days of

the completion of Task 4

within ten (10) CTO/IC business days of

the completion of Task 4

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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.

The Interconnection Customer must comply with all applicable NYISO tariffs and

procedures, as amended from time to time. The Interconnection Customer must also comply with the Connecting Transmission Owner’s operating instructions and requirements as referenced in Sections 1.5 and 1.6 of this Agreement, which requirements shall include equipment outages and control arrangements, tagging agreements and procedures, maintenance arrangements and   
responsibilities, company contacts and phone numbers and supervisory equipment.

The Interconnection Customer must comply with relevant provisions of the Connecting

Transmission Owner’s Electric System Bulletins, including appendices, as amended from time to   
 time, to the extent not inconsistent with the terms of this Agreement or the NYISO OATT.

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Attachment 6

Connecting Transmission Owner’s Description of its Upgrades and Best Estimate of   
 Upgrade Costs

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 NYISO 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 and System Upgrade Facilities and System Deliverability Upgrades are estimates. The Interconnection Customer is ultimately responsible for the actual cost of the Distribution Upgrades and System Upgrade Facilities and System   
Deliverability Upgrades needed for its Small Generating Facility, as that is determined under Attachments S and X and Z of the NYISO OATT.

A. DISTRIBUTION UPGRADES

None.

B. SYSTEM UPGRADE FACILITIES (“SUF”) - STAND ALONE SUFs   
None.

C. SYSTEM UPGRADE FACILITIES - OTHER SUFs   
None.

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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 $1 million per occurrence, $2 million annual aggregate.

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Attachment 8

ESB 751 Submittal Requirements

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National Grid / Supplement to Specifications for Electrical Installations / ESB 751 June 2014

APPENDIX A

REQUIRED SUBMITTALS BASED ON PROJECT TYPE AND DELIVERY VOLTAGE

TYPE OF SERVICE

REFERENCE ESB 750 SUPPLEMENTAL BULLETINS ESB 752 ESB753 ESB758, 759B ESB 753,758,756, 759B ESB 752,756

COMPLETE FUNCTIONAL ELECTRICAL SINGLE LINE X X X X X

SITE PLANS X X X X X

ELECTRICAL ASSEMBLY X X X X X

PROFILE DRAWINGS X X X X X

SUBSTATION LIGHTNING PROTECTION PLANS X X 1

PROTECTIVE DEVICE COORDINATION STUDY X X X X X

AC ELEMENTARY (THREE LINE) DRAWINGS X X X X X

DC ELEMENTARY DRAWINGS X X X X X 2

STRUCTURAL DETAILS X X 3

GROUND GRID ANALYSIS X X

METER, CONTROL CABLE AND POWER CONDUIT DRAWINGS X X X X

CONTROL HOUSE LAYOUT X X 4

RELAY PANEL DRAWINGS X X X X

DETAILED MANUFACTURER'S CUT SHEETS X X X X X

TELECOMMUNICATIONS X X X 5

MAINTENANCE PLAN X X X X X

SEQUENCE OF OPERATIONS X X X 5

TESTING AND COMMISSIONING PLAN X X X X 5

ENERGIZATION PLAN X X X 5

NOTES:

GENERAL: ANY ADDITIONAL SUBMITTALS MAY BE REQUIRED BY THE COMPANY AS NECESSARY. THIS MATRIX

PROVIDES ONLY GENERAL GUIDANCE BASED ON TYPICAL PROJECTS.

1. ONLY REQUIRED FOR OPEN AIR INSTALLATIONS WHERE CONDUCTORS OR TERMINATIONS ARE DIRECTLY

EXPOSED TO LIGHTNING STRIKES

2. IF MAIN AND SECONDARY PROTECTIVE DEVICES ARE FUSES, THERE IS NO NEED FOR DC ELEMENTARY

DRAWINGS. IF EITHER MAIN OR SECONDARY PROTECTIVE DEVICE IS A CIRCUIT BREAKER, OR IF THE

GENERATOR PROTECTION INCLUDES A CIRCUIT BREAKER, A DC ELEMENTARY DRAWING(S) IS REQUIRED.

3. UNLESS OTHERWISE REQUESTED BY THE COMPANY AT THE COMPANY'S DISCRETION

4. WHERE CONTROL HOUSE IS PROVIDED

5. AS SPECIFICALLY REQUIRED BY COMPANY

For the latest authorized version please refer to the Company’s website at [http://www.nationalgridus.com/electricalspecifications.](http://www.nationalgridus.com/electricalspecifications./) 17

SUBSTATION-SERVICE

ABOVE 15KV

PRIMARY METERED

SERVICE TO METER POLE

600V-15KV

PRIMARY METERED

SERVICE TO

SWITCHGEAR 600V-15KV

PARALLEL GENERATOR-

SERVICE FROM 600V TO

15KV

PARALLE GENERATOR-

SERVICE ABOVE 15KV

NOTES

Attachment 9

Relay Settings and Adjustments

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DISTRIBUTION PLANNING   
 DOCUMENT

Interconnection Study

Doc. #SP.NY-20627   
 Page 1 of 9

Small Generating Facility-Protection Review Version 1.0 -12/23/2016

Project Dahowa Hydro

12,265 kW Hydro-electric Generator,   
 Greenwich, NY

Protection Review   
 For

Dahowa Hydro   
 12,265 kW

Hydro-electric Generator System

190 County Rte. 53, Greenwich, NY 12834

Interconnection to National Grid   
 Northeast Region

Cement Mountain #1 Line

34.5 kV

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DISTRIBUTION PLANNING   
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Interconnection Study

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 Page 2 of 9

Small Generating Facility-Protection Review Version 1.0 -12/23/2016

Project Dahowa Hydro

12,265 kW Hydro-electric Generator,   
 Greenwich, NY

CONCLUSIONS:

Below is the review and requirements of the existing Dahowa hydro-electric generator facility.

Standards for Review:

ESB No. 756 Appendix A - Requirements For Parallel Generation Connected to

National Grid Radial Facilities in New York, version 1.2 (“ESB 756”)

ESB No. 755 Operations and Maintenance Requirements For Services Above 600 Volts, June 2003.

IEEE Std 1547™-2003 (R2008), IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems.

Drawings provided for review:

Dahowa Hydroelectric Project, Single Line Diagram, revision dated 7/12/2016

Documents provided for review:

Transformer Test Review

Circuit Breaker Test Report

Dahowa Gen Saturation Curve National Industries Dahowa Gen Vee Curve National Industries   
Dahowa Site Map

Form G

Protective Relay Test Report   
Transformer Test Report

Drawings or Documents required for review:

Updated three-line drawing for all equipment (high side recloser, transformer, 13.8 kV generator breaker, generators, CT’s/PT’s, relaying, metering, control power) showing actual equipment installed, with a NYS PE stamp.

The DC control schematic for the 34.5 kV system pad mounted recloser shall be provided, with a NYS PE stamp

The DC control schematic for the 13.8 KV system generator breaker shall be provided, with a NYS PE stamp.

Control and alarm schematic for the DC battery and charger system. RTU configuration and point list.

Transformer nameplate including impedances.   
Battery charging, alarm and control schematics.



DISTRIBUTION PLANNING   
 DOCUMENT

Interconnection Study

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 Page 3 of 9

Small Generating Facility-Protection Review Version 1.0 -12/23/2016

Project Dahowa Hydro

12,265 kW Hydro-electric Generator,   
 Greenwich, NY

Maintenance Requirements:

DC Trip Scheme test document is required. EPS protective relays are required to trip

the 86E lockout relay and documentation of those functional tests needs to be provided.   
An 86E lockout relay functional test trip to the circuit breaker is also required.   
The test report for the Basler BE1-51/27R most likely has an incorrect part number. The   
test for this relay is required to show the effect of the collapsing voltage on the current   
pickup and timing.

A ground grid test and step and touch potential calculation is required (ESB 755 section

4.1.5).

DC Battery maintenance records.

Maintenance reports for the high side disconnect switch.

Maintenance reports for the high side pad mounted recloser.

Maintenance records and testing reports for the backup generator.

Updates required to Dahowa hydro-electric generator facility equipment and/or documentation provided as part of review:

The Single Line Diagram is required to be submitted with a NYS PE stamp.

The revenue meter instrument transformer labeling shall be updated to include the ratios and to indicate no fusing on the PT’s.

The description for the three phase gang operated disconnect switch shall be updated to include Utility 24/7 access.

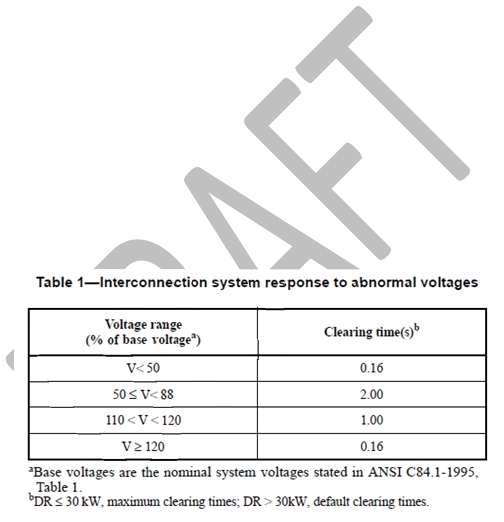
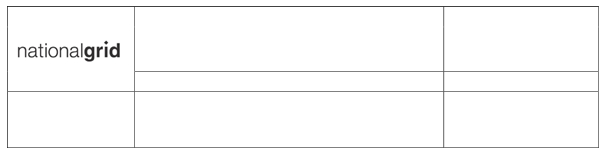
The description for the three phase 34.5 kV S&C SM5 fuses 200E fuses shall be updated to indicate the speed (i.e. standard, slow).

The 39 kV arresters shall be examined to determine the suitability for this application.

Typical arresters for effectively grounded designed systems for this voltage class are 27   
kV class (22 kV MCOV). This size arrester would be subject to damage during   
ungrounded islanded operation of this facility on the Cement Mountain - Stevens and   
Thompson Line #1. The 39 kV class arrester is a 31.5 kV MCOV arrester. The sizing is   
for long term ungrounded applications (2000 hours). While the system is not designed   
for effective grounding, National Grid operates the system with ground fault relaying and   
significantly shorter clearing times. The use of this size arrester does allow for the high   
unfaulted phase voltages, but does not provide as good a protective margin as a 36 kV   
class (27 kV MCOV) arrester.

CT accuracy class must be provided for relaying CT’s.

A utility reconnect relay must be provided at the 34.5 kV voltage level on the utility side   
of the high side pad mounted recloser to comply with IEEE 1547 section 4.2.6. The



DISTRIBUTION PLANNING   
 DOCUMENT

Interconnection Study

Doc. #SP.NY-20627   
 Page 4 of 9

Small Generating Facility-Protection Review Version 1.0 -12/23/2016

Project Dahowa Hydro

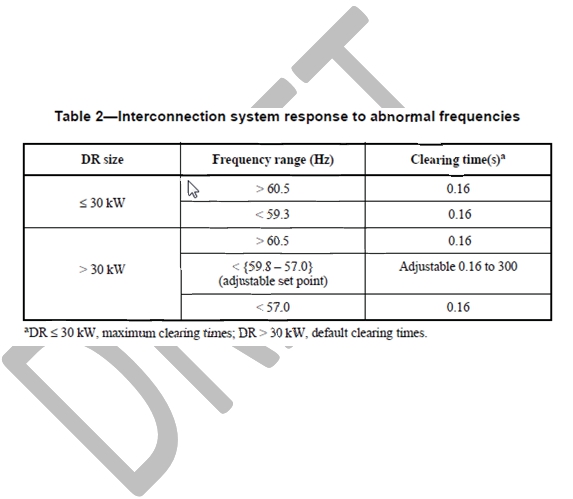
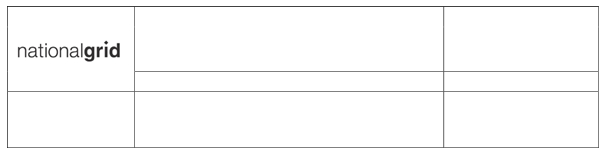
12,265 kW Hydro-electric Generator,   
 Greenwich, NY

utility restoration scheme is required to prevent the generation from being connected to   
the EPS until the relay has detected that the Utility EPS has been within the voltage and   
frequency windows identified by IEEE 1547 section 4.2.6 for a minimum of five minutes.   
The 27, 59, & 81 relaying which is presently provided by the discreet Basler relays on   
the one line diagram is required to be located on the 34 kV system side of the GSU   
transformer, on the utility side of high side recloser, in order to facilitate detection of   
single phase line disturbances. This shall be facilitated by three phase Wye-ground/   
Wye-ground PT’s. The relaying shall be set in accordance with IEEE 1547-2003.   
The existing 27 undervoltage settings, per the relay test sheets, are 107.5 VAC for 0.5   
seconds and fed from the 13.8 kV generator system 14400/120 L-L PT’s. There are 3   
relays total. This setting equates to approximately 93% at 0.5 seconds. The   
undervoltage requirements are to be per IEEE 1547, connected on the 34.5 kV system   
and will require two distinct settings. Per the standard, the total clear will be the relay   
trip time plus the breaker clearing times to meet the requirements in the table below.   
The existing 59 overvoltage settings, per the relay test sheets, are 124 VAC for 0.5   
seconds and fed from the 13.8 kV generator system 14400/120 L-L PT’s. There are 3   
relays total. This setting equates to 107% at 0.5 seconds. The overvoltage   
requirements are to be per IEEE 1547, connected on the 34.5 kV system and will require   
two distinct settings. Per the standard, the total clear will be the relay trip time plus the   
breaker clearing times to meet the requirements in the table below.

The voltage table from IEEE 1547 is provided below:

The existing 81 under frequency settings, per the relay test sheets, are 59 HZ VAC for

0.5 seconds and fed from the 13.8 kV generator system 14400/120 L-L PT’s. There is   
one relay for this function. The under frequency requirements are to be per IEEE 1547,



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Interconnection Study

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Project Dahowa Hydro

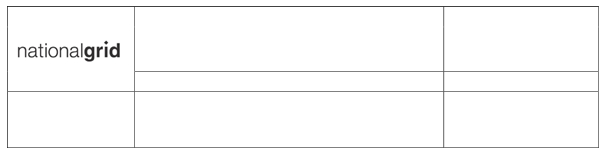
12,265 kW Hydro-electric Generator,   
 Greenwich, NY

connected on the 34.5 kV system and will require two distinct settings as shown below.   
Per the standard, the total clear will be the relay trip time plus the breaker clearing times   
to meet the requirements in the table below. Be aware that the under frequency settings   
must comply with the NPCC Directory 12 under frequency criteria and curve.   
The existing 81 over frequency settings, per the relay test sheets, are 60.5 Hz for 0.5   
seconds and fed from the 13.8 kV generator system 14400/120 L-L PT’s. There is one   
relay for this function. The under frequency requirements are to be per IEEE 1547,   
connected on the 34.5 kV system and will require one distinct settings. Per the standard,   
the total clear will be the relay trip time plus the breaker clearing times to meet the   
requirements in the table below.

The frequency table from IEEE 1547 is provided below:

The existing PT’s used to feed the existing 34.5 kV system 64 (3Vo) scheme are shown as 34500/120 ratio and are shown on the customer side of the customer high side   
recloser. This is not a typical ratio (287.5:1) and needs to be verified. This scheme needs to be relocated to the utility side of the recloser.

The protective relay test report document shows testing for a 59 device. The one-line   
diagram shows a 64 designation provided for 3Vo. Clarification is required. The setting   
shown for the 59 device (3Vo), assuming it is the required EPS 3Vo protective function,   
is acceptable with the provided 39 kV class arresters on the customer equipment and   
Company metering. Any arrester changes will require a review of the setting.   
The DTT scheme previously installed as part of the original installation and disconnected   
in 2009 is not required. Anti-islanding mitigation for this facility is not required as the line



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is operated radially with only the hydro facility on the line. Should load customers be

added to the line, DTT will most likely be required to be re-activated.

The one-line diagram shows protective functions 50/51 and 50/51N. The relay test

report provided only shows a test for the phase 51 function. The relay test report for the

51 function provides for a time dial of zero, no curve type listed (B3 curve assumed

based on part number), and shows no instantaneous setting which does not match the one-line diagram. The setting at the CT ratio shown does not appear to be correct with the rating of the bank. Relay settings and a test report are required for the 50, 51, 50N and 51N functions.

Sync check for the generator is required. This function is shown on the one-line

diagram. No settings have been provided. Settings must comply with table 5 of IEEE 1547 shown below:

Sync check is not required for the high side pad mounted recloser as the one-line

diagram shows that an open recloser automatically trips the low side 13.8 kV generator breaker. This will need to be verified against the DC breaker schematics which were not provided for this review.

Test switches are required for all non-drawout EPS relays (27, 59, 81O/U, 51V, 64) as required by ESB 756 Appendix B including the lockout relays.

Relay power and tripping power is required to be from a DC source. The AC source for   
battery power is typically required to be powered from a source located on the utility side   
of the customer high side three phase interrupting device. The design of the facility is to   
be such that it incorporates fail safe provisions to provide for tripping the generation from   
the EPS for loss or degradation of DC to protective relays, loss of protective relay power   
supplies, and loss or degradation of tripping power to the required interrupting devices.   
A review of the single line diagram does show multiple sources to the AC power panels   
including a backup generator. The one-line diagram does not show the source of the



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battery charging circuit. The one-line diagram does not show that a fail-safe design is being provided.

An RTU is required for this installation.

The Form G document shows that the exciter is a Basler DECS 400 which is not

indicated on the one-line diagram. Any protective functions such as voltage or

frequency that may be used in this equipment must comply with IEEE 1547. The IC is

advised that operating in power factor mode or voltage regulate is at the discretion of the   
Company. Excitation system limiters are to adhere to the requirements of the bulletin.

System Upgrades required to National Grid EPS:

1. None required.

CUSTOMER REQUIREMENTS:

The Report on Review of the Retail Customer Interconnection Application dated 12/23/2016 outlines upgrades to existing switchgear, protective relays and control systems. Prior to entering construction the DG Customer must provide a complete design package signed by licensed engineer in the state of NY including 1L, 3L, DC schematics, equipment specification sheets, protective device coordination study & proposed digital settings file, sequence of operation & test procedure(s) and records of interval testing and electrical equipment maintenance in accordance with the Company’s ESB’s 750, 751, 753, 755, 756, 758, IEEE 1547 and the NYS SIR for review and acceptance by National Grid.

The estimate for National Grid’s labor required for review of customer documentation, field   
verification & commissioning is $23,992. See Attachment A hereto for the estimate

breakdown.

Attachment 10

Form of Letter to NYISO

59

{National Grid Letterhead }

{ }

{ }

{ }

To the NYISO Customer Registration Team,

Niagara Mohawk Power Corporation is the connecting transmission owner to which the

Dahowa Hydroelectric Project (“Dahowa”), located in NYISO Zone F on the Battenkill River, is   
interconnected. This letter is written to confirm that Dahowa has the below communications   
equipment installed. Niagara Mohawk Power Corporation can confirm that the facility has   
both:

1. Metering and communications equipment capable of 6-second data send and receive

2. Revenue grade meter

This equipment is in place and operational. Thank you,

{Appropriate signer from Niagara Mohawk Power Corporation}

Attachment 11

RTU Standards and Specifications

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12,265 kW Hydro-Electric Generator, 10/18/2019

Greenwich, NY

SCADA Communications

Installation Requirements Document

For The Dahowa Hydro-electric Generator System   
 12,265 kW

190 County Rte. 53, Greenwich, NY 12834

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Sponsor:   
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1. OBJECTIVE

The objective of this specification is to provide the applicable standards and criteria for the design and installation of a National Grid Communication Gateway (“RTU”) at Generation facilities1 (“Facilities”, or “Customer”) providing SCADA information to the Niagara Mohawk Corporation d/b/a National Grid (“National Grid” or “Company”) Energy Management System. This requirement is documented in a Company impact study that lists telecommunications requirements to the Customer’s Facility in order to provide real time data to National Grid’s Regional Control Operators.

2. GENERAL

To protect the integrity of the Company’s EPS, real time system configurations and load flow data is required to allow for system operators to make informed switching and operations decisions. SCADA data is required from the Customer substation imported into National Grid’s energy management system. As such; National Grid has developed standard RTU packages for various types of generation facilities. This document provides a Customer-Generator with the RTU requirements specifically associated with the Facility.

3. DESIGN AND INSTALLATION REQUIREMENTS

3.1 Communications between the RTU and the Company’s Energy Management System

The Customer shall be responsible for initiating contact with the local telephone company and ordering the required circuits in accordance with this document and the Company’s ESB 756.

The RTU equipment at the Customer’s facility shall utilize a DSO 64k/MPLS circuit. This circuit shall be connected by the local telephone company onto the National Grid VPN Network Reconfiguration Service (NRS). VPN number to be determined by National Grid at the time of ordering.

In addition to the requirements described in these specifications, the telephone company will require the Customer to complete and return the following forms: private IP extranet agreement, high voltage protection form, PIP circuit order. The Customer will need to meet with the telephone company’s outside plant engineer to coordinate the following: communications conduit paths, site plans, and equipment placement & mounting. Further details on these requirements will be provided to the Customer by the telephone company.

DPAM and the customer have agreed to a temporary solution where the NG RTU telemetry values   
will be sent via 900 MHz radio communication from Dahowa Hydro to Cement Mountain or Battekill   
substation. The Customer will be responsible to purchase, install and maintain the necessary radio   
equipment and find an appropriate mounting location to reliably receive this signal at Dahowa Hydro.

NG will be responsible to purchase, install and maintain the necessary radio equipment and find an   
appropriate mounting location to reliably receive this signal at Cement Mountain or Battekill   
substation. All the cost for work and materials shall be reimbursed to the company by the customer.

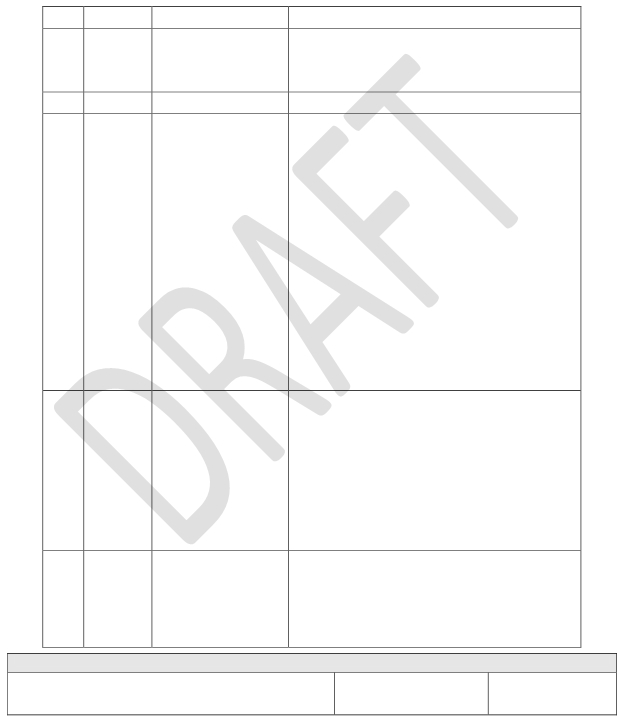
1 A distributed generation facility interconnecting with the Company’s distribution system for parallel operation, excluding facilities transacting in the wholesale market.

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3.2 RTU Hardware

The following equipment shall be provided by the Company:

Item Quantity Description Notes

1 1 Novatech Starfish Novatech Starfish RTU. Includes:

RTU Enclosure

Orion LXm

2 Misc. Cables Internal to RTU cabinet, as needed.

3 1 GarrettCom DX940 DX940 base unit loaded with Firmware Version

NY-Configuration #2 3.1.6.

24-48VDC Per Four RJ45 10/100 Ethernet ports in slot B.

GarrettcomUsing Includes 24 - 48V DC power supply, panel

Firmware Version mounting.

3.1.6 Two Alarm Contacts, software controlled.

Wire speed filtering and forwarding across all

DX940-4RJ-L Ethernet ports.

With Options: MNS-DX software license included.

DXC-4SERIAL Software includes IP Routing, per VLAN Routing,

DXC-T1E1 ICMP, ARP, Diffserv, Port Security, event logging

ACC-DX-00-RM and alarms, and more.

MNS-DX-ADVAR Web-based GUI and CLI via Telnet.

MNS-DX-SECURE P/N DX940-4RJ-L

P/N MNS-DX software license included

NG Protection Telecommunications Operations personnel to configure and install this unit within the RTU Cabinet.

4 1 Serial Radio Schweitzer Engineering Laboratories; SEL-

3031 Serial Radio Transceiver.

Product: SEL-3031

Part Number: 30310R41XXX Frequency: 900MHz Frequency Mounting: 19 in Rack Mount

Power Supply: 125VDC

Comm. Option: Three RS-232 serial ports Encryption: None

5 2 Yagi Directional Marathon Yagi Antenas, 800/900 MHz Series

Antenna Product: PCTEL Maxrad

Part Number: BMYD8900, 14 Dbd gain Yagi antenna with connectors.

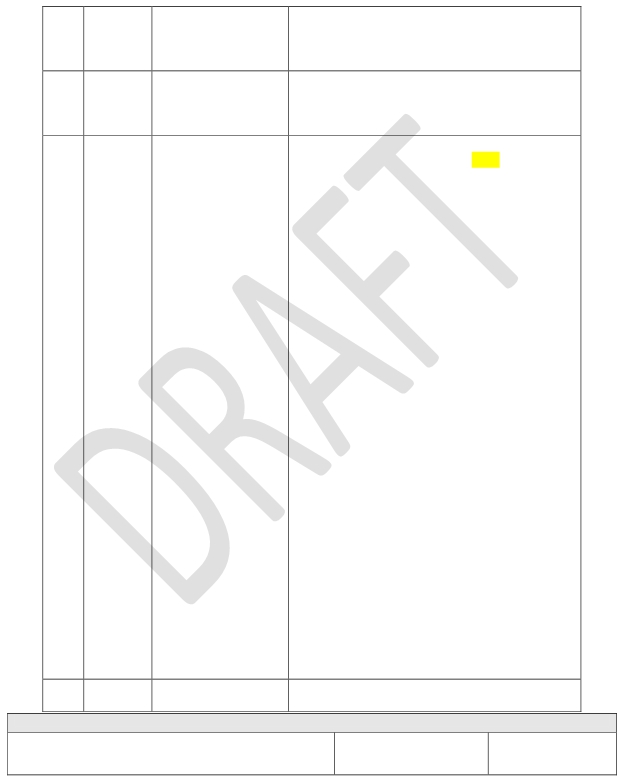
Frequency: 890-960MHz Frequency Mounting: BWC1001(A) mount

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12,265 kW Hydro-Electric Generator, 10/18/2019

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6 200 ft Flexible coax cable Model: LMR-400.

Note: with connectors as needed to connect to the radio, polyphaser, and antenna.

7 2 Lighting protection Polyphaser

Model: IS-NEMP-C2 with Hardware Kit

connected to earth ground

8 1 EMS Gateway GarrettCom DX940:

Model #: DX940ETXH-2GTX-DDS-XXX-4S-

To be installed at SA-XX

Cement RD DX940 base unit with four RJ45 10/100/1000

Ethernet ports in slot B. Includes 90 - 250   
VDC/VAC power supply, panel mounting. Two

Alarm Contacts, software controlled. Wire speed filtering and forwarding across all Ethernet ports. MNS-DX software license included. Software   
includes IP Routing, per VLAN Routing, ICMP, ARP, Diffserv, Port Security, event logging and alarms, and more. Web-based GUI and CLI via Telnet. (DX940ETXH)

Two (2) 10.100.1000 Mb RJ45 Ethernet ports in Slot A (2GTX)

Four (4) Serial ports module in DX940 slot D   
(4S)

Contains both MNS-DX-ADVAR and MNS-DX-  
SECURE software, key-enabled licensed

software for use on one Magnum DX or 10-series Configurable Industrial Router. (SA)

No conformal coating (XX)

P/N ACC-DX-00-RM   
Rack-mount brackets

Please ship to EMS CNI NY for programming:

Ed Dumas - EMS CNI NY

7437 Henry Clay Blvd., Bldg. HCB3 Liverpool, NY.13088

9 1 Serial Radio Schweitzer Engineering Laboratories; SEL-

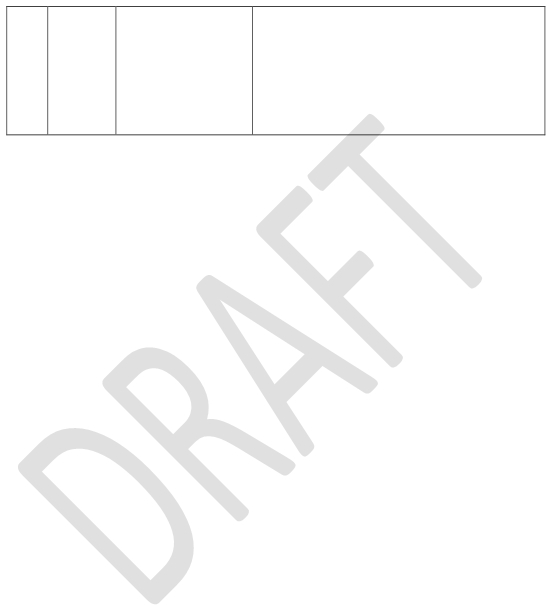
3031 Serial Radio Transceiver.

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NY- 20627 Dahowa Hydro

12,265 kW Hydro-Electric Generator, 10/18/2019

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Product: SEL-3031

Part Number: 30310W01XXX Frequency: 900MHz Frequency Mounting: Wall Mount

Power Supply: 9-30VDC

Comm. Option: Three RS-232 serial ports Encryption: None

3.3 Customer Installation Requirements

3.3.1 General

The Customer shall install all equipment associated with the RTU in accordance with all applicable codes. The installation shall be performed by qualified contractors/personnel.

All electrical and mechanical hardware required to facilitate the installation of the RTU and its   
associated circuits shall be provided by the Customer except where explicitly identified otherwise.

3.3.2 Mounting and Location

RTU equipment mounting location(s) shall be mutually agreed upon between the Company and Customer and shall be capable of safely supporting RTU enclosure, associated components and complete installation contents.

• The RTU equipment shall be located so as to restrict access from the general public.

• RTU enclosure shall have a minimum of 4 feet wide wall space measured on center of   
 the enclosure and 4 feet of clear working space or the clear space requirements for   
 electrical equipment as defined in Article 110 in the NEC, whichever is greater.

• The RTU equipment shall be independent of the other Customer communications   
 equipment and shall be accessible to Company personnel.

• All mounting hardware shall be provided by the Customer.

• Refer to Figure 4 for physical details of the RTU enclosure.

3.3.3 Grounding and Bonding

• Mounting height shall be 3’-6” to bottom of cabinet from finished grade.

• The RTU cabinet shall be bonded to the customer’s grounding electrode system.

• Where metallic conduits are installed, they shall have nylon insulated ground bushing at   
 entrances. Metallic conduits shall be bonded to the Customer’s local equipment   
 grounding system in accordance with the NEC.

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3.3.4 Circuits and Wiring

The following circuits shall be provided to the RTU by the Customer:

4.

• One (1) 20 A, 120 VAC, 60 Hz circuit to the RTU enclosure.

• A dedicated 10A, 48VDC or 125VDC input is required to the RTU from the station

battery.

• All analog or digital circuits from the respective Customer equipment to the RTU as

required by Figures 1 and 2.

• Communications circuits from Customer owned equipment (meters, protective relays,

etc) to the RTU shall be accomplished via an RS-232 port on the RTU. Due to the limitations of RS-232 serial communications cable, if the distance between the RTU and the Customer’s respective communications device exceeds 50 circuit feet, the Customer may utilize an alternate communications medium such as RS-485 communications or fiber optic cable if the appropriate media converters are provided and the alternate communications medium is accepted by the Company.

3.3.5 Communications Protocol and Programming

• The communications protocol for digital circuits between the customer owned equipment

to the RTU shall be DNP3.

• The port configuration and addressing of the customer’s equipment shall be as specified

in Figures 1 and 2.

• Binary status, control, and analog data points shall be configured in the binary/analog

in/out tables of the DNP point map of the customer’s device as specified in Tables 1, 2, and 3.

• Analogs shall be configured as 16-bit signed integers.

TESTING AND COMMISSIONING

• Prior to testing and commissioning the Customer is responsible for verifying installation   
 and performing wire checks or logic testing of the Customer-owned equipment and attest

to its accuracy in writing to the Company.

• The Company, with assistance from the Customer, will perform final testing and   
 commissioning of the complete RTU installation to verify acceptable signal presence and

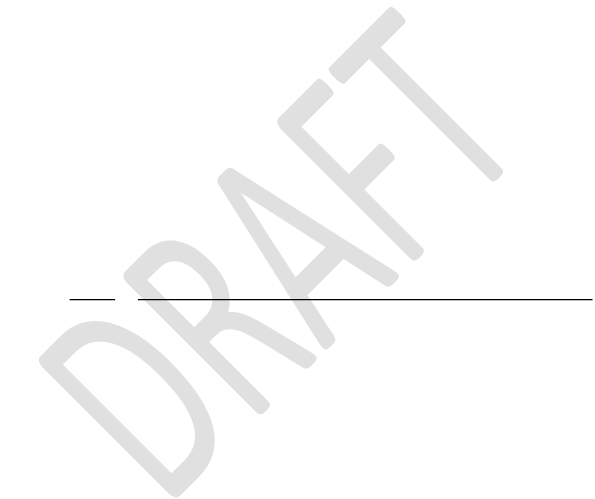
system performance.

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5. OPERATION AND MAINTENANCE

5.1 Customer Responsibilities

• In addition to the requirements of ESB 756, the Customer shall refer to Section 1.7 of the   
 ESB 750 and to ESB 755 regarding their responsibility for their electric service operating   
 and maintenance requirements.

• The Customer shall provide the Company safe access to allow Company personnel the   
 ability to inspect, maintain and operate the Company’s RTU equipment at the Company’s   
 discretion. Access shall include a clear safe work environment for testing and calibration   
 and adjustment of the equipment during initial installation and commissioning.

• The Customer may only operate the Generator in parallel with the Company’s EPS upon   
 loss of RTU if permitted by the Company and after the establishment of proper   
 administrative protocols with the Regional Control Operator.

5.2 Company Responsibilities

The Company is responsible for the operation and maintenance of the Company’s equipment at the Customer’s facility.

6. REVISION HISTORY

Version Date Description of Revision

1.0 07/27/2016 RTU Specifications Requirements for Customer Facility.

2.0 01/23/2017 Updated the mounting requirements in section 3.3.3, and removed the GFCI

outlet requirements in section 3.3.4.

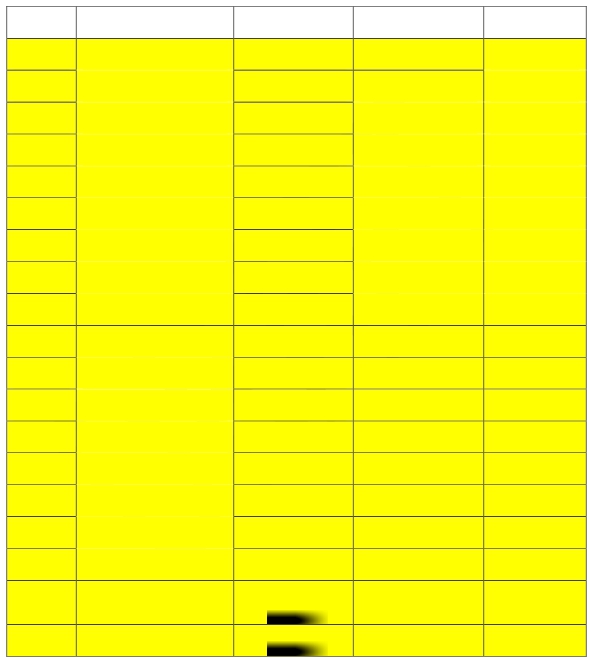
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Table 1 - Analog\_IN Point Assignment

EMS Pt.   
 No.

Description /ID

Quantity Ports

Input Source

Orion LXm

0 REVENUE METER LN1 MW 3ph Port 3 REV\_MET

1 MVAR 3ph

2 A ph1

3 A ph2

4 A ph3

5 KV ph1-n

6 KV ph2-n

7 KV ph3-n

8 kV Avg (L-L)

9

BKR R52R

Orion LXm Port 2 A ph1

SEL\_RTAC   
 Port 1

10

11

12

13

14

15

|

A ph2

|

A ph3

|

KV ph1-n

|

KV ph2-n

|

KV ph3-n

| MW 3ph

|

|

|

|

|

|

16

17

18

Dahowa Hydro 6   
Second Unit Desired

Generation (UDG)

Dahowa Hydro 5 minute   
 Basepoint

|

MVAR 3ph   
 |

|

|

|

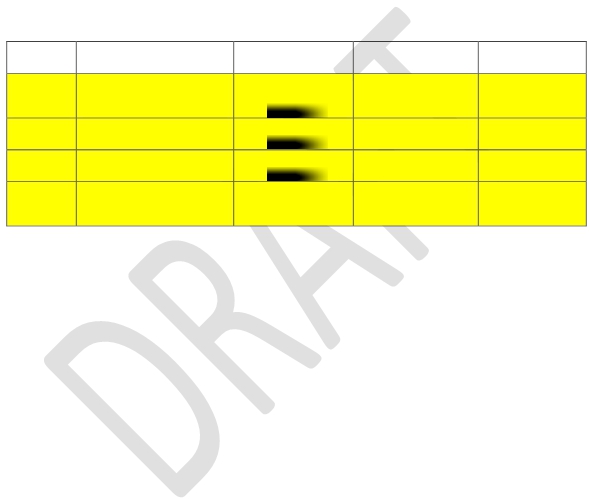
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19 Net Generation | |

Dahowa Hydro

Curtailment Flag ▼ ▼

20 (0=ON, 1=OFF)

Table 2 - Analog\_OUT Point Assignment

EMS Pt.   
 No.

0

Description /ID

Dahowa Hydro 6   
Second Unit Desired   
 Generation (UDG)

Quantity Ports Input Source

Orion LXm SEL\_RTAC

Port 4 Port 2

Dahowa Hydro 5 minute   
1 Basepoint

| |

2 Net Generation | |

Dahowa Hydro

Curtailment Flag ▼ ▼

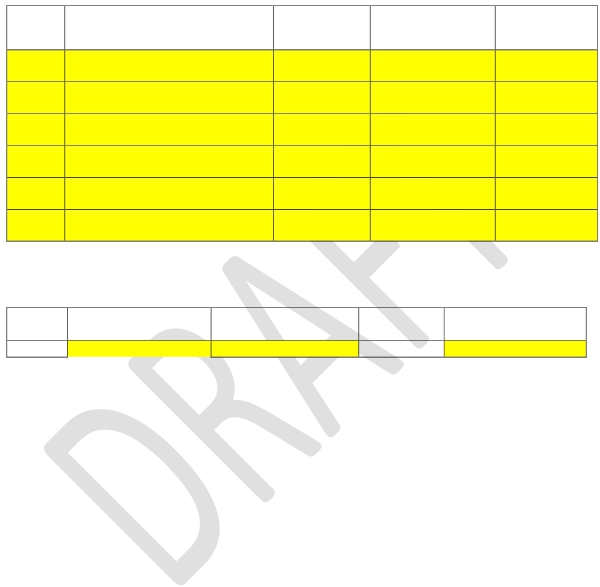
3 (0=ON, 1=OFF)

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Table 3 - Status Point Assignment

EMS

Pt. Description Ports Input Source Device

No

0 69S Remote/Local Orion LXm IN01 Orion LXm

1 UPS Alarm Orion LXm INB1 ▼

2 Radio Trouble

3 Dahowa\_Hydro Comm Status

4 BKR R52R

5 REV\_MET LN1 Comm Status

Orion LXm   
 Port 1

Orion LXm   
 Port 2

Orion LXm   
 Port 2

Orion LXm   
 Port 3

Radio SEL-3031

SEL-RTAC

SEL-RTAC

REV\_MET REV\_MET/LN1

Table 4 - Control Point Assignment

EMS

Pt. No. Description /ID Polling Port Output Device

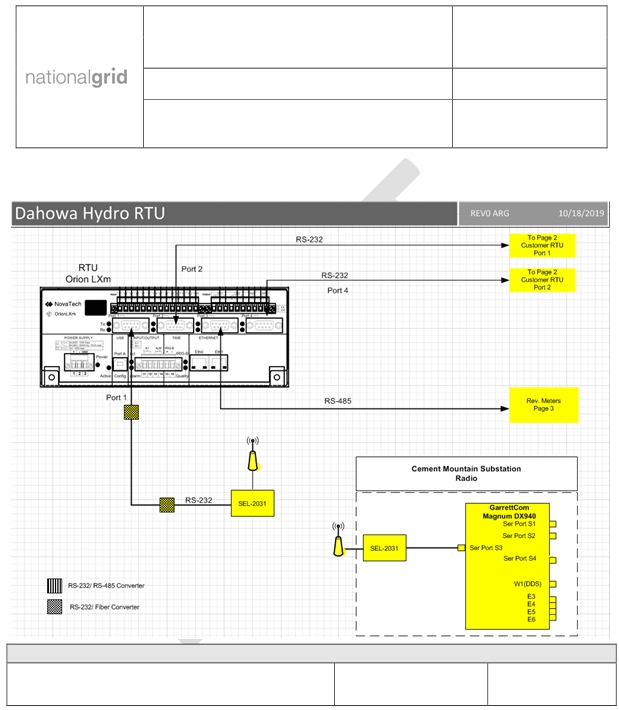
0 BKR R52R Orion LXm Port 2 SEL-RTAC

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Retail Connections Eng.

Sponsor:   
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NY- 20627 Dahowa Hydro

12,265 kW Hydro-Electric Generator, 10/18/2019

Greenwich, NY

Figure 1 - RTU Functional Diagram

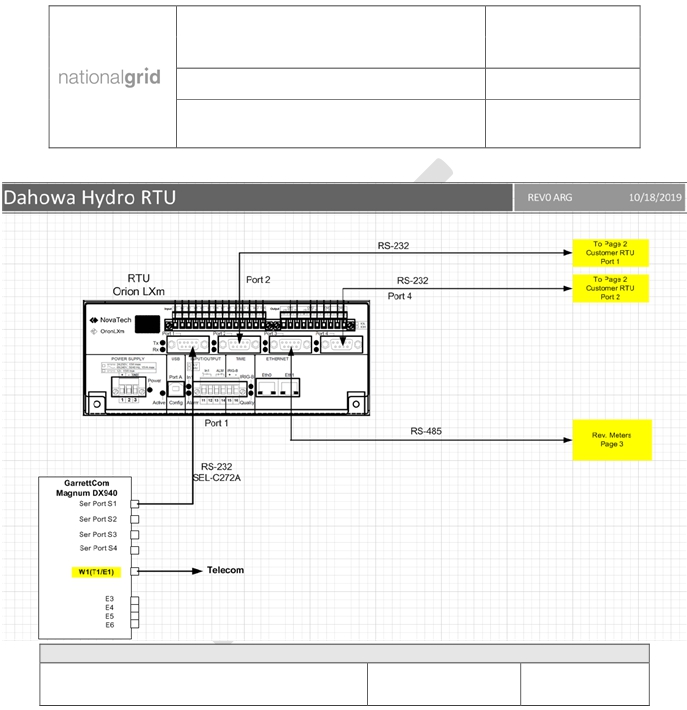
Temporary proposal

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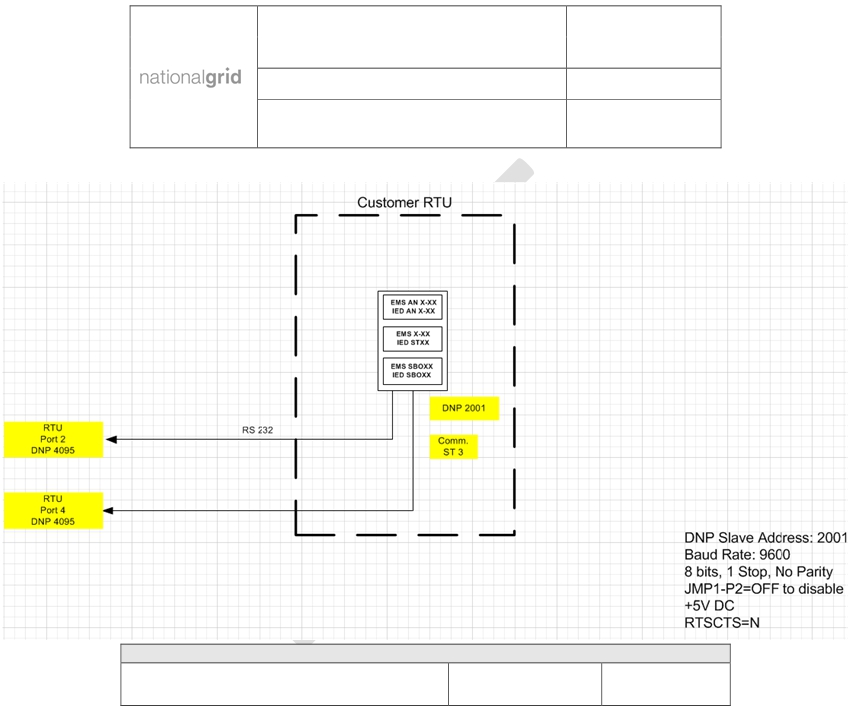
Final proposal

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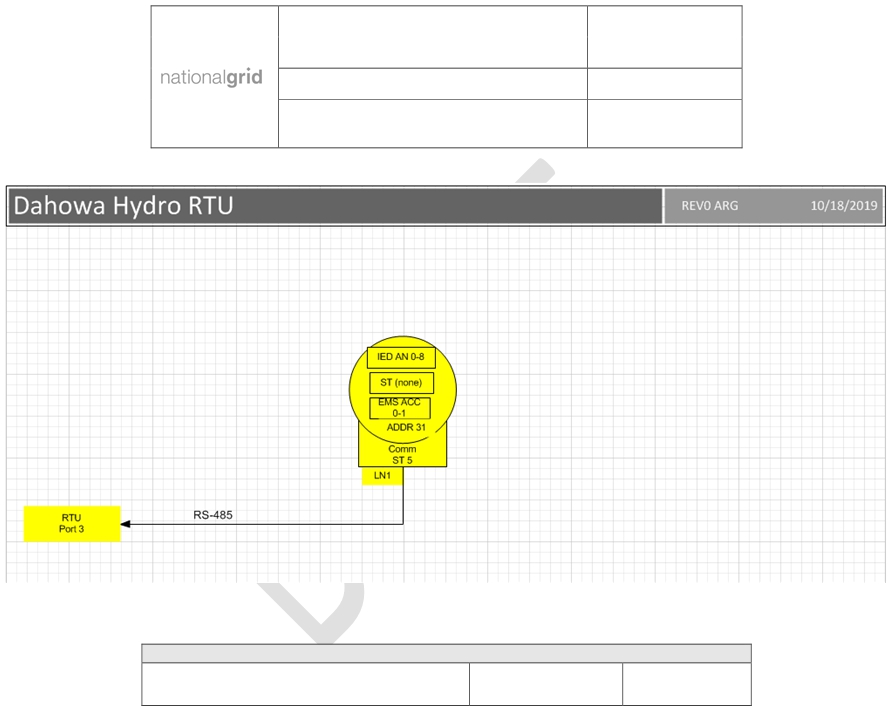
Figure 2 - Customer to RTU Functional Diagram

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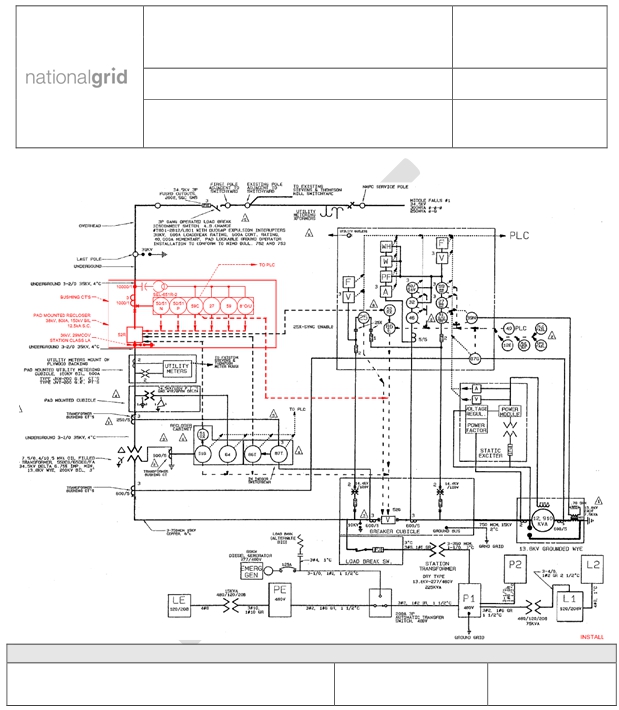
Figure 3 - Revenue Meter

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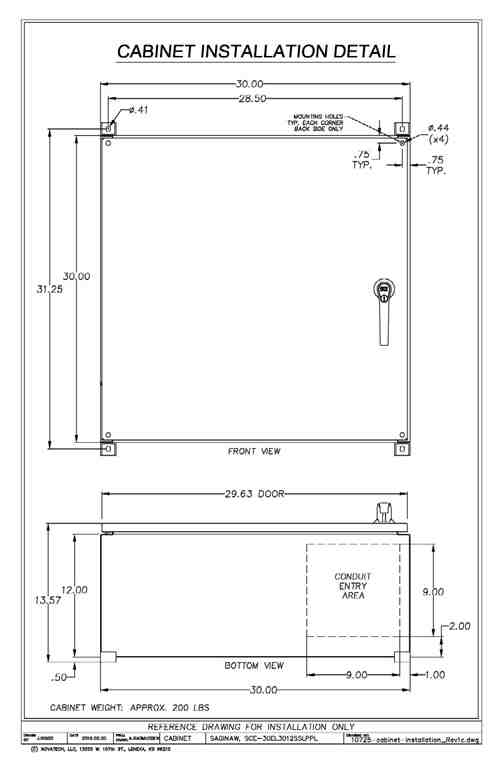
Figure 4 - Interconnection Plan

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Figure 5 - RTU Cabinet Layout

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