



Request for Proposal (RFP)

Non-Wires Alternatives Solutions Project Development Services

***New Krumkill Substation
Albany, NY***

RFP Issue Date: October 31, 2024

Proposal Submission Deadline: February 4th 2025, 5pm EST

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1.0 General Information

1.1 Introduction

Niagara Mohawk Power Corporation d/b/a National Grid (National Grid or the Company) is an electric and gas investor-owned utility committed to providing safe, reliable, and affordable energy to all customers throughout its service territory in Upstate New York. As a part of providing this service, National Grid is pursuing the potential implementation of Non-Wires Alternatives (NWA) solutions in its service territory. Find out more about National Grid and its affiliate companies at <https://www.nationalgrid.com/about-us>

Such implementation aligns with principles set forth in the following:

- National Grid's *Responsible Business Charter*,¹ with a commitment to reduce greenhouse gas (GHG) emissions by 2050
- New York: Climate Leadership and Community Protection Act (CLCPA)²
- New York's Grid of the Future Proceeding³

This request for proposal (RFP) is open to all NWA approaches that have the potential to provide NWA solutions in the area(s) identified in the problem description. National Grid has several long-term goals in consideration (in alignment with state, federal, and Company ambitions) that impact the viability of any given proposal.

The Company is introducing a classification for Non-Wire Alternative (NWA) solutions into two distinct categories: NWA Secure Service and NWA Sustain Service. Please see Section 4.2 Eligible Flexibility Solutions for definitions and details on the two services.

- **NWA Secure Service** encompasses any front-of-the-meter (FTM) exporting distributed energy resource (DER), or behind-the-meter (BTM) asset with exporting capabilities that are equipped to receive direct, real-time dispatch signals. This enables direct telemetry through National Grid's approved supervisory control and data acquisition (SCADA) systems utilizing the Distributed Network Protocol 3 (DNP3). The defining feature of the NWA Secure Service is its capacity for load following (real-time dispatch), allowing the Company to issue a 6-second internal direct signal to the NWA solution in response to live NWA events. NWA Secure Service will have real-time dispatchable capabilities where the DER facility must be able to respond to real-time dispatches from the Company where the dispatch signal is dependent on real-time conditions.

- **NWA Sustain Service** is designed for primary connected FTM exporting DERs and BTM DERs (including aggregation of DERs) or any installation that combines a load with a non-exporting DER. Unlike the NWA Secure Service, the NWA Sustain Service does not require real-time dispatch capabilities. Dispatch for NWA Sustain Services is event-driven, based on contracted loads, with kW dispatch levels determined prior to the NWA dispatch event. NWA Sustain Service can include single or aggregations of DERs that can operate based on the NWA service definition above when called upon a

¹ National Grid's Responsible Business Charter 2023, *available at* www.nationalgrid.com/document/150371/download

² Chapter 106 of the Laws of New York, 2019. The CLCPA is *available at* <https://legislation.nysenate.gov/pdf/bills/2019/S6599>

³ Case 24-E-0165, *Proceeding on Motion of the Commission Regarding the Grid of the Future*, Order Instituting Proceeding (issued April 18, 2024).

day ahead by the Company. These are similar to ‘event-based’ grid resources, akin to traditional demand response programs.

This strategic categorization ensures that the Company can encourage, to the extent possible, a broad range of possible NWA solutions, and effectively manage and dispatch a portfolio of NWA solutions that align with our commitment to reliability, efficiency, and the integration of sustainable energy resources.

The Company is encouraging a new type of procurement where bidders are able to propose pricing on a per kW structure based on the actual dispatches, in addition to continuing to allow the traditional fixed-price fee proposals. The Company is also encouraging demand-side solutions to participate in this NWA RFP.

1.3 RFP Schedule

The RFP schedule presented below is subject to change.

Tentative Date	Milestone
October 31, 2024	RFP issued and bidder qualification period opens on Piclo Flex platform
Week of November 18, 2024	Pre-bid teleconference
February 4, 2025, 5 PM EST	RFP closes; bidders must have all proposal information, including bids, submitted to Piclo Flex platform
June 2025	End of bid evaluation; all bidders notified of their status

[OBJ]

2.0 Offer Submittal Process

2.1 Proposal Submission Instructions

Proposals that do not provide the requested information below may be disqualified by National Grid.

All proposals must be submitted via the Piclo Flex portal: <https://usa.picloflex.com/dashboard>. For assistance using the Piclo Flex platform, please contact support@picloflex.com. In the event a bidder is unable to complete the bid process using the Piclo platform, please reach out to support@picloflex.com and Non-WiresAlternativeSolutions@nationalgrid.com.

It is the bidder’s responsibility to thoroughly review all provisions of the respective supporting documents, appendices, and requirements of this RFP process as applicable. It is also the bidder’s responsibility to understand all anticipated costs that should be factored into the bid price.

Any questions on or technical issues with submitting a proposal before the deadline should be promptly directed to Non-WiresAlternativeSolutions@nationalgrid.com.

2.2 Execution of Agreement

By submitting a proposal, bidder agrees, if their proposal is selected by National Grid, that they are prepared to execute a definitive contract consistent with the bid price and contract terms; please see the Standard Flexibility Contract Appendix B for NWA Secure Service and Appendix C for NWA Sustain Service. It is the bidder’s responsibility to be aware of all eligibility requirements and terms and conditions before execution of a contract.

3.0 Offer Evaluation Criteria

National Grid will evaluate and prioritize bids (bidders' proposed solutions or proposals) based on eligibility per the criteria set forth in this RFP. The number of projects and quantity of MWs which the Company will procure is a function of the proposal price, benefit-cost analysis (BCA) adherence, diversity and sustainability, project feasibility, company experience, size of portfolio submitted, terms adherence, qualifications and the Company's final discretion.

Bids providing partial solutions for the total load relief needed will be considered by the Company. Partial solutions that provide a reasonable portion of the solution requirements will be considered where the Company can identify other partners to create a full solution portfolio. Bidders may also team up to offer a portfolio solution using multiple technologies, sizes, and implementation schedules as a single bid, if this would provide the best value proposition. Bids will be considered based on their portfolio quantity committed load relief, and at what price the NWA solution provider is proposing. The NWA solution(s) will be required to operate as needed to support the electric system requirements as specified in Section 4.1 and Appendix B or C, depending on the type of NWA Service provided.

Bidders must provide the contract price through the Piclo platform directly, see 4.3 Project Economics for details. Final pricing will be memorialized within the service agreement executed between the Company and the winning bidder(s).

The Company reserves the right to close or extend this solicitation at any time and/or add to the solicitation. If changes are made, notification will be posted on the Company's NWA website and the Piclo Flex platform.

This procurement does not commit the Company to award a contract, to pay any costs incurred in the preparation of the proposal, nor to procure or contract for any services and or supplies. The Company reserves the right to accept or reject any or all proposals received, or to cancel this procurement in part or in its entirety, if in doing so is in the best interests of National Grid.

4.0 Project Information

In the sections below, the Company has provided information on the background of the distribution/sub-transmission need in the NWA location, the solution requirements to meet the need, and any location-specific information.

4.1 Distribution System Need Requirements

The following sections describe the planned use case for the NWA solution and the detailed system need requirements that must be addressed by the NWA portfolio:

Problem Description

New Krumkill is a 115/13.2 kV substation in Albany, New York with 4.16/13.2 kV ties to neighboring substations. Based on increased forecasted load in this area, the substation transformer may be unable to pick up adequate load from neighboring feeders at peak times of the year during a contingency event. These load transfer constraints are attributable to capacity limitations of the feeder getaway cables at New Krumkill and the main 115/13.2 kV substation bank. Feeder 32751 at the Company’s McKownville substation has four feeder ties to New Krumkill feeders 42151, 42127, and 42153. Under a contingency event, McKownville could temporarily transfer load to New Krumkill. A DER would help relieve the load that would need to be picked up by New Krumkill during a contingency event.

During the contract term of this NWA, the Company has planned capital infrastructure improvements to expand the New Krumkill substation so as to eventually transfer the load served by nearby retiring substations permanently to the New Krumkill substation. Therefore, in addition to mitigating customer interruption in the event of a contingency, the NWA solution will also support load transfers during construction at the New Krumkill substation until that work and associated feeder work has been completed.

NWA Solution Requirements		Description
Commercial Operation Term (Contract Term)	June 2026 through September 2030	The Company is looking for at least a one-year NWA solution so bidders, at a minimum, must provide at least a one-year bid; singular yearly bids will be accepted as well as multi-year bids (shortest contract term to be awarded would be one year). Bidders may propose NWA solutions beyond 2030.
Contract Term	1 year minimum, up to 5 years	The Company is seeking at least a one-year contract and may consider a contract beyond 5 years.
Maximum MW Need	Starting 2026: Up to 0.2 MWs	Amount of load relief that is required to meet the need at peak loading, but should not limit the project size (i.e., projects with aggregate nameplate over or under 'Maximum MW Need' will be considered). The Company will consider partial NWA solutions as well as portfolio solutions. Bidders are encouraged to offer partial solutions if a full solution is not possible.
	Starting 2027: Up to 0.7 MWs	
	Starting 2028: Up to 1.1 MWs	
	Starting 2029: Up to 1.7 MWs	
	Starting 2030: Up to 2.2 MWs	
Maximum MWh Need per Day	Starting 2026: Up to 0.7 MWh	Largest continuous 24-hour MWh need of NWA solution (calculated by adding average hourly MW need over any 24-hour period) assuming average MW need would be affected by field operations (i.e., feeder ties/switching). Guaranteed nominal power and capacity ratings must be met for the duration of the contract period.
	Starting 2027: Up to 3.6 MWh	
	Starting 2028: Up to 5.4 MWh	
	Starting 2029: Up to 7.0 MWh	
	Starting 2030: Up to 9.0 MWh	
Days of Week Needed	Weekdays and Weekends	Type of day when the NWA solution could be called on.
Duration per Call	Up to 4 continuous hours	Longest, continuous need for the NWA solution. Not all hours may be at the "Maximum MW Need."

Minimum MW Bid	100 kW	NWA solution providers must bid at least 100 kW of load relief (i.e., a single bidder, including an aggregator) must submit at least 100 kW of load relief.
Call Response Time	24 hours load notice	Lead time between a request for load relief by the Company and when the NWA solution is expected to provide the load relief.
Service Window	13:00-19:00	Earliest and latest possible times of need by the Company (based on projections, not continuous hours). See “Duration per Call” requirement.
Number of Times Called per Year	Up to 10	Calls per year based on annual overload projections. The NWA solution will need to be available for at least the number of times called per year as stated.
Maximum Consecutive Days Called	Up to 3	The number of consecutive days that the NWA solution may be called upon by the Company (based on projections).
Guaranteed Performance	95% availability	Guaranteed performance is defined by the amount of load reduction the NWA solution provides during a dispatch window as a percentage of the amount called upon by the Company. See the Standard Flexibility Contract for more details.

National Grid is issuing this RFP and inviting bidders to submit solutions for:

- Either single or multi-year contracts; bidders may submit a solution starting and ending at any year within the RFP term.
- The Company is willing to consider a bid for NWA solutions beyond 2030 if bidders are able to optimize solution benefits and/or improve contract economics for the Company.
- The Company is open to considering a portfolio of NWA solutions to fulfill the comprehensive annual requirements; projects with aggregate nameplates over or under ‘Maximum MW Need’ will be considered by the Company in the bid evaluation process.

4.2 Other Locational Information

Substations & Feeders

Target Substation	Target Distribution Feeders
New Krumkill	All feeders: 42151, 42152, 42153, 42126, 42127
McKownville	32751

All feeders are supplied from 115kV-13.2kV transformers with 13.2 kV as the operating voltage.

Bidders may access the National Grid System Data Portal for more information that is available online, including but not limited to hosting capacity and distributed generation (DG) applications in the Company’s interconnection queue, via the following link: <https://www.nationalgridus.com/Business-Partners/NY-System-Portal>

Any NWA solution location downstream of the New Krumkill substation feeder getaways (*i.e.*, where the feeders leave the substation) or other feeders listed above has the potential to solve the loading issue. Some solutions may require a full interconnection study to be undertaken by National Grid. Bidder should utilize the Piclo Flex platform and visit the National Grid New York System Data Portal cited above to search for the New Krumkill substation and feeders under the Distribution Assets Overview tab.

Customer Demographics

Feeder	Commercial Customers	Residential Customers	Total Customers
42151	35	2566	2601
42152	15	893	908
42153	71	1889	1960
42126	4	1010	1014
42127	6	590	596
32751	74	2098	2172
Total	205	9046	9251

Development Site - Company-Owned Property

The Company does not own viable, available, and usable land in the area. The bidder is responsible for acquiring, leasing, or otherwise obtaining any/all land needed to develop new project(s).

4.2 Eligible Flexibility Solutions

The procurement of grid services from new and/or existing DERs as an NWA solution could reduce the overall demand at critical periods and thereby address potential overloading due to a N-1 contingency at the New Krumkill substation.

The Company is looking to procure grid services from NWA solutions (standalone or as an aggregation) that represent one of the following flexibility services:

- **NWA Secure Service** - services from a DER that are activated at least day-ahead and are able to respond to real-time dispatches from the Company and the dispatch signal is dependent on real-time conditions through the use of continuous real-time telemetry (see Appendix B for more detailed service requirements). **DERs co-located with load (i.e., behind-the-meter) are ineligible to provide this service.**
- **NWA Sustain Service** - services from a single DER or aggregation of DERs that can operate at a fixed, flat level dispatch when called upon a day ahead by the Company, based on a pre-agreed output and a minimum run time defined for the DER within the Service Window without the use of continuous real-time telemetry (see Appendix C for more detailed service requirements). The Company does not consider bid values from NWA Sustain Service and NWA Secure Service the same and may consider the capacity value (e.g., bid value) of NWA Sustain Service lower in comparison to NWA Secure Service due to its lack of real-time dispatchability, and given that additional

procurement of NWA Sustain Service may be required to adequately address the system need. **The Minimum Run Time for any proposed NWA Sustain Service bid shall be 2 hours or 4 hours.**

All proposed solutions from bidders must meet the requirements in Section 4.1 Distribution System Need Requirements and the appropriate appendix (Appendix B or Appendix C) that relate to each individual solution bid. Note, depending on responsive bid proposals received, the Company may elect to accept multiple proposals that when combined will provide a portfolio of NWA solutions; the Company may only need a portion of the bidder's proposed solution or committed MWs.

The Company will consider resources that may include one or more, or a combination of the following technologies in this RFP:

- New Build Distributed Generation⁴
- Energy Storage
- Demand Response
- Energy Efficiency
- Other resources that can meet the identified reliability needs

Direct participants, such as commercial and industrial customers of the Company, DER owners, DER operators, developers, and aggregators may submit proposals. Depending on the nature of the NWA solution proposed, potential infrastructure upgrades may be required to accommodate and connect new DER facilities as it is necessary for the solution to be located downstream of the New Krumkill substation transformer to solve the problem. Only upon a completion of the relevant interconnection study (*i.e.*, Coordinated Electric System Interconnection Review (CESIR)) for each such proposal will the scope and cost of such utility infrastructure upgrades be known. Any such upgrades would be the responsibility of the Company.

⁴ All proposed distributed generation must abide by the operational and metering requirements (see Appendices B and C) to ensure that the proposed NWA solution can still meet either the NWA Secure Service or NWA Sustain Service requirements.

4.3 Project Economics

The estimated net present value of the benefits (Approximate Value) of implementation an NWA solution for New Krumkill substation is \$1,980,000 for the total need of 2026-2030. The benefits increase year by year based on the MW need.

The Approximate Value is the estimated net present value derived from the calculated deferral value of the traditional wires solution for the specified amount of time as well as the sum of the applicable benefits. The Company provides the Approximate Value of a potential NWA solution so that bidders can determine if a given NWA solution is cost-competitive when compared to the traditional wires solution. The Company does not consider bid values from NWA Sustain Service and NWA Secure Service the same and may consider the capacity value (e.g., bid value) of NWA Sustain Service lower in comparison to NWA Secure Service due to its lack of real-time dispatchability, and given that additional procurement of NWA Sustain Service may be required to adequately address the system need.

The Company is seeking cost-effective solutions that provide value to our customers. Bidders should submit their lowest price to be considered for enrollment. See Appendix C of the Standard Flexibility Contract for NWA Secure Service and Appendix D for NWA Sustain Service. Bidder's pricing shall be submitted directly through the Piclo Flex platform,

Bidders should note that dispatch payment may also be referred to as utilization rate on the Piclo Flex platform.

Bidders will be required, at a minimum, to detail the amount of load relief they will provide and the corresponding bid price such as the NWA solution cost rate per kW or yearly contract price, and other supporting information.

Note: The cost of interconnection should NOT be included in any proposals. Interconnection costs will be borne by the Company and included as a cost in the Company's BCA.

4.4 Payment Structures

National Grid is providing flexibility in the payment structures such that bidders have the option to propose:

- a fixed yearly contract cost (i.e., an annual availability payment), regardless of the number of dispatches where bidders may propose a fixed contract price for a fixed load relief for a certain period of time or;
- a cost per kW with an availability payment or;
- other payment structures that may be more favorable such as a Construction Service Agreement (CSA).

Please note that the Company does not guarantee the number of calls or dispatches in a given year (as shown in Section 4.1 Distribution System Need Requirements above) and the number of calls may vary based on real-time conditions.

Bidders have an option of three payment structures for either NWA Secure Service or NWA Sustain Service:

- 1) A set yearly contract cost, with an annual payment to bidder by the Company, that could vary year by year and is not dependent on the number of dispatches. Contract value would be calculated as follows:

$$\begin{aligned} \text{Annual Payment to Bidder} &= \text{Availability Payment}_{\$ \text{ per MW}} \times \text{Committed MW} \\ &\quad - \sum(\text{Non Performance Liquidated Damages per event}) \end{aligned}$$

- 2) An annual availability payment paired with a dispatch payment based on the actual number of dispatches. Example: A bidder may propose a per kW payment based on the dispatches a year paired with an annual

payment (based on the bid size). The contract value per year for a combination of availability payment and dispatch payment is as follows:

Annual Payment to Bidder

$$\begin{aligned} &= \text{Availability Payment}_{\$ \text{ per MW}} \times \text{Committed MW} \\ &+ \sum(\text{Dispatch Payment}_{\$ \text{ per MWh}} \times \text{Delivered MWh per event}) \\ &- \sum(\text{Non Performance Liquidated Damages per event}) \end{aligned}$$

- 3) A dispatch payment based on the actual number of dispatches. Example: A bidder may propose a per kW payment based on the actual number of dispatches where that would be the only payment made to the bidder. Contract value per year for dispatch payment only is:

Annual Payment to Bidder

$$\begin{aligned} &= \sum(\text{Dispatch Payment}_{\$ \text{ per MWh}} \times \text{Delivered MWh per Event}) \\ &- \text{Non Performance Liquidated Damages per Event} \end{aligned}$$

Bidders may additionally specify if they want an availability payment or Dispatch Payment (per MWh/MVAR) or a combination of the two. Bidders who are awarded a contract by the Company under a per MW structure may receive an Availability Payment at the end of each calendar year (in addition to payments for the dispatched MWs).

Bidders must account for standard utility electric service costs, inclusive of delivery charges, when submitting a price; for new build assets the rate will be dependent on the project's size, parent service classification, and voltage delivery level. For aggregations and BTM assets, bidders should account for their monthly delivery charges. Demand charges should only be associated with the NWA dispatch.

For FTM new installations, the cost of interconnection should NOT be included in any bid proposals. Interconnection costs will be borne by the Company and included as a cost in the BCA for FTM solutions.

For BTM resources, bidders should take note of the operational requirements section, 4.2 Eligible Flexibility Solutions, for metering requirements.

Appendix A – Bidder Qualifications

The following items are to be completed by bidders as part of rolling bidder approvals on the Piclo Flex platform (See <http://usa.picloflex.com>). The Company, at its discretion, may request additional supporting information to determine if a bidder is qualified. Fields have been numbered for easy referencing. Field order, copy, and other criteria are subject to change.

Unless otherwise specified, all field types will be standard text entry fields.

An asterisk (*) denotes a mandatory field.

Bidders must answer these pre-qualification questions in the Piclo Flex platform.

Introduction

Complete this form through the Piclo Flex platform with details of the specific legal entity you reasonably expect to sign the legal contract for Flexibility Services.

1.1 Organization introduction*

1.2 Organization website*

Registration Details

1.3 Registered or legal name*

1.4 Previous registered name (if applicable)

1.5 Registered address 1*

1.6 Registered address 2

1.7 Registered address 3

1.8 Registered address ZIP code*

1.9 Organization type*

1.10 What is this organization's Federal Tax ID / EIN? *

1.11 Country of registration *

1.12 Date of Registration (of company)

1.13 Are you a Tier 1 Supplier (diverse supplier)?

Relationship with Assets

1.18 What is the legal relationship with the flexibility assets? *

1.19 Describe the asset management and ownership structure? *

Organization Status

2.1 Is this organization currently, or has it ever been unable to pay its debts as they fall due? *

2.2 Is this organization currently, or has it ever had any petitions for bankruptcy (or their equivalent in the country in which the Applicant is incorporated) within the last three years? *

2.3 Is this organization currently, or has it ever had, in the past 3 years, any similar energy provision contracts terminated prematurely and/or had damages claims or other comparable sanctions brought against the organization for any significant or persistent deficiencies in performance of a substantive requirement of the contract? *

Auditing, Insurance and Legal

Accounts

3.1 Please upload a file of your most recent audited financial accounts (covering at least two years or as much as you have).*

Insurance Details

3.2 Do you have a copy of your company's current Certificate of Insurance (COI)?

3.3 The insurance requirements for your proposal can be viewed on Piclo Flex Platform. Please note those within "if applicable" is dependent on the proposal submitted and will be waived if it does not pertain the work put forward. Please indicate you will adhere to the insurance requirements listed in Piclo Flex Platform. Any questions on this can be directed to Piclo / National Grid for clarification. *

Legal

3.4 Provide a statement of any material non-employment related litigation (pending, threatened or determined) or other legal proceedings against the organization within the last three years that may be relevant to your ability to deliver services. If none, please respond N/A.

Declare and Submit

Contact Information

In case the Company needs to get in touch regarding any of the information provided, please provide a suitable contact email and phone number.

4.1 Key contact name*

4.2 Key contact email*

4.3 Key contact number

Additional Documentation

4.4 List and describe the Bidder's background and experience developing projects of a similar nature and technology. Identify likely technology(ies) to be utilized (if known at this time), and describe prior experience and success utilizing these technologies. Bidders must include all relevant projects that are under construction and operational, including the sizing, use case, and location. Describe your overall approach to procuring, installing, and dispatching these technologies, including completed and commercially operating projects using the proposed technology.

4.5 Submit Three references and key personnel resumes

4.6 Are you able to meet weekend needs?

4.7 Add any other documentation that may support this application.

4.8 Do you aim on bidding in as a NWA Secure or Sustain service? Does the NWA solution have the ability to meet requirements for both Sustain and Secure?

4.9 Bidder must acknowledge that if they must review and submit the following if awarded.

- Review National Grid Payment Methods
- Review Supplier Obligations to National Grid's contract document
- Supplier Code of Conduct and Ethics Acknowledgment

4.10 Does your company have a sustainability plan?

4.11 NDA (includes Data Security Agreement)

4.12 Terms & Conditions for Flexibility Services

Declaration

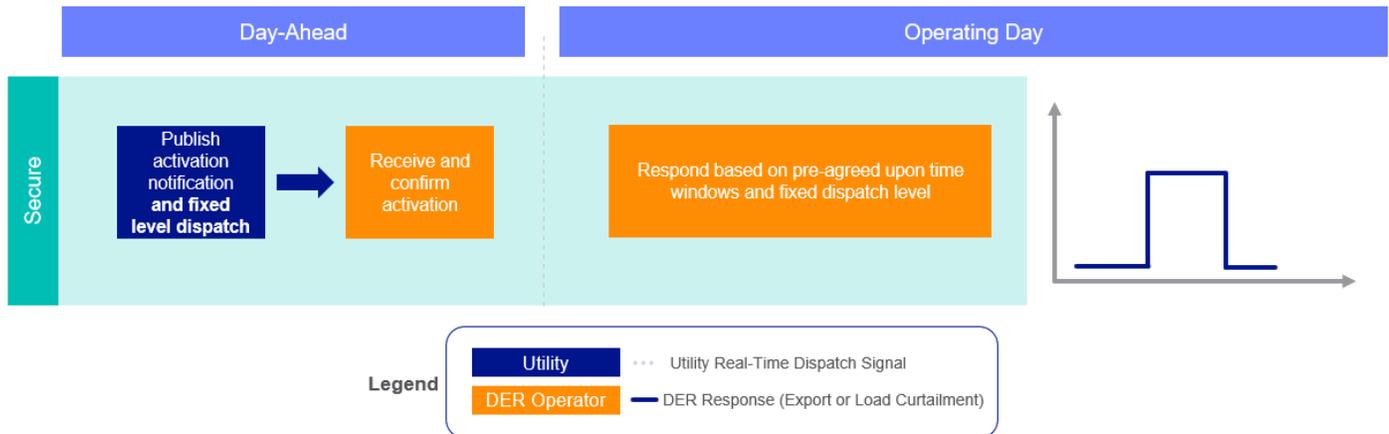
In order to provide flexibility services after a successful competition, the Company's Flexibility Terms and Conditions will need to be signed.

5.0 Do you expect that this organization's Registered name, Trading name, or Parent name will be the entity named in any resulting contracts with the Company? Please explain why and, where possible, provide an example of an expected entity name. *

5.1 Do you declare that you have the authority to submit this application and by confirming you declare that to the best of your knowledge, the information in this form is accurate*

Appendix B- NWA Secure Service Flexibility Service Integration and Operational Requirements

- NWA Secure Services** - services from a DER that is activated at least day-ahead and is able to respond to real-time dispatches from the Company and the dispatch signal is dependent on real-time conditions. DER co-located with load (i.e., BTM) are ineligible to provide this service.



This appendix specifies requirements applicable to NWA Secure Service that bidders can elect to provide to the Company.

NWA Secure Service Requirements

Monitoring and Dispatch Control Requirements for NWA Secure Service

For parallel-connected generation connecting to National Grid’s electric power system (EPS), the proposed solution must be compliant with National Grid’s Electric System Bulletin (ESB) No. 756 – Requirements for Parallel Generation Connected to a National Grid-owned EPS (ESB 756).⁵

In addition to requirements under ESB 756, the proposed solution must also have communication capability to provide telemetry data so National Grid Operations can monitor real-time status of the NWA solution (DER facility or the DER aggregation) and issue real-time dispatch basepoints to the NWA solution. Dispatch basepoint may be telemetered as quickly as 6 second intervals and therefore the bidder’s proposed operation must meet the ability to receive dispatch signals at the same rate. However, the dispatch basepoint is expected to change values at one-minute intervals.

The bidder is expected to support integration of a National Grid-owned and managed DER gateway, real-time automation controller, or other similar equipment that will utilize the DNP3 communication protocol standard for SCADA telemetry unless otherwise specified by National Grid. The DER gateway will be provided and installed by National Grid at the DER facility and the bidder or DER facility owner may be required to install make-ready provisions (e.g., mounting structure, control power) that must meet National Grid’s equipment specifications. For proposed DER aggregations, the bidder will be expected to designate a centralized location within the Company’s service area for the Company DER gateway to be installed that best facilitates integration with the bidder’s aggregation dispatch system.

⁵ National Grid Electric System Bulletins are located on the Company’s website: <https://gridforce.my.site.com/electric/s/article/Electric-Specifications>. ESB 756 is typically applicable to DER interconnecting in parallel with the Company’s electric power system (“EPS”).

Dispatch Coordination Expectations for NWA Secure Service

NWA Secure Service providers will be expected to respond to real-time dispatch basepoints telemetered by National Grid during the Service Window defined in this RFP for each day it has been activated. In this manner, DER providing NWA Secure Service will act similar to 'load-following' grid resources.

Dispatch Notification (day-ahead) Process: The Company will provide activations for NWA Secure Service at least 24 hours (i.e., day-ahead) prior to an NWA dispatch call see Appendix B Service Terms in the Standard Flexibility Contract for more details. Providers are to confirm receipt and availability when notified of activation.

Real-time Dispatch Process: NWA solution providers are to provide at a minimum the required dispatch response based on dispatch basepoints received from the Company. However, Providers' responses may exceed the basepoint within the limits of any interconnection allowances (e.g., if renewable on-site generation can exceed the dispatch response requested). Any response in excess of the dispatch basepoint will not be compensated for grid services procured by this NWA solicitation.

Metering

Metering and associated communications are necessary to ensure that the Company must be able to measure and verify the load relief that was delivered during an NWA event. The NWA Secure Service provider shall be responsible for all metering and communication devices and associated costs.

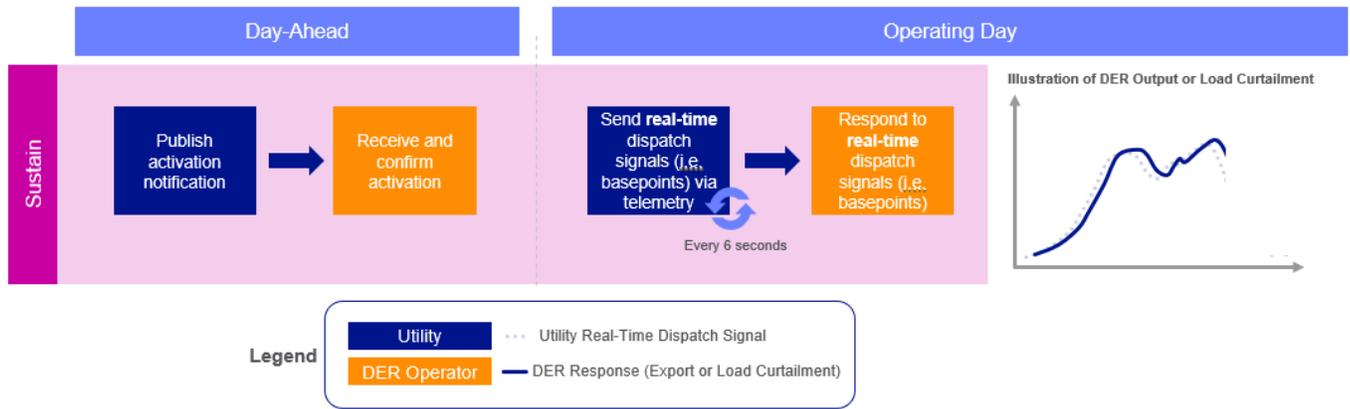
For parallel connected generation connecting to National Grid's EPS, the proposed solution must be compliant with the revenue metering requirements within ESB 756. Revenue metering must be, at a minimum, hourly interval meters to support National Grid's dispatch measurement and verification (M&V) process.

Performance Requirements

The Company requires 95% availability and any solutions that do not meet the 95% availability may be subject to liquidated damages. See Appendix H of the Standard Flexibility Contract for NWA Secure Service. All solutions must have at least 95% guaranteed performance for the MWs contracted. Guaranteed performance is defined by the amount of load reduction the solution provides during a dispatch window as a percentage to the amount requested by the Company. If applicable, bidders must account for system degradation (e.g., battery capacity loss) over time.

Appendix C- NWA Sustain Service: Flexibility Service Integration and Operational Requirements

NWA Sustain Service - services from a single or aggregation of DERs that can operate at a flat level dispatch when called upon a day ahead by the Company, based on pre-agreed output and over fixed time window and a minimum run time defined for the DER and its bid



This appendix specifies requirements applicable to NWA Sustain Service that bidders can elect to provide to the Company.

NWA Sustain Service Requirements

Monitoring and Dispatch Control Requirements for NWA Sustain Service

NWA Sustain Service providers will not require real-time telemetry between National Grid and individual DERs or the DER aggregation.

However, for parallel-connected generation connecting to National Grid’s EPS and seeking to provide NWA Sustain Service, the proposed solution must still be compliant with the ESB 756 .

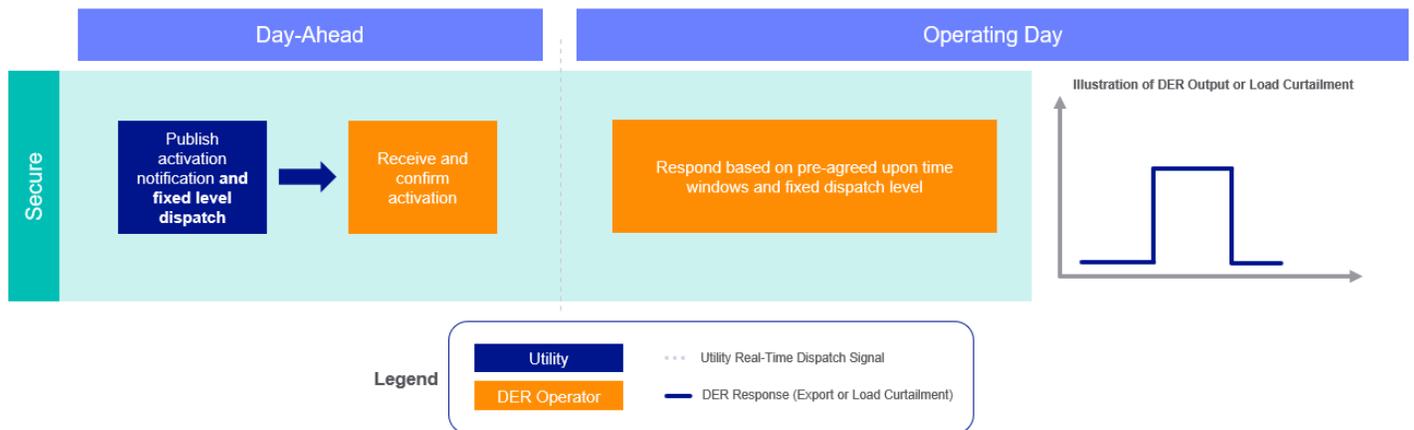
For aggregated DER co-located with retail load and are non-exporting facilities that do not fall under the scope of ESB 756, the third-party aggregator is responsible for installing, commissioning, operating, and maintaining all necessary telemetry equipment that the aggregator needs to maintain visibility and control of DER to third party aggregator. However, no real-time telemetry is required between the aggregator (or its DER) and the Company. In the case of aggregations, only the aggregator will be notified of the NWA event. The aggregator is responsible for notifying resources within its respective aggregation(s).

Dispatch Coordination Expectations for NWA Sustain Service

NWA Sustain Service providers will be expected to provide pre-agreed fixed (flat level) responses during the Service Window for each day activated. In this manner, DERs providing NWA Sustain Service will serve similar to ‘event-based’ grid resources, akin to traditional demand response programs.

Dispatch Notification (day-ahead) Process: The Company will provide activations for NWA Sustain Service at least 24 hours (i.e., day-ahead) prior to a dispatch event. Providers are to confirm receipt and availability when notified of activation. See Standard Flexibility Contract at Appendix B for details.

Real-time Dispatch Process: Providers are to provide at minimum the required dispatch response based on the pre-agreed fixed (flat level) response contracted when selected during the procurement event. However, providers may have responses exceed the basepoints within the limits of any interconnection allowances, such as additional load curtailment. Any responses in excess of the pre-agreed responses will not be compensated for grid services procured by this NWA solicitation.



Metering

Metering and associated communications are necessary to ensure that National Grid must be able to measure and verify the load relief that was delivered during an NWA event. The customer shall be responsible for all metering and communication devices and associated costs.

For NWA solutions that do not have SCADA capabilities or fully dispatchable such as behind the meter assets, participants must have National Grid interval metering in place to participate. All performance will be measured using the Company's interval meter data.

All DER facilities providing NWA Secure Service and NWA Sustain Service must have National Grid-approved revenue grade interval metering requirements regardless of the flexibility service type.

For parallel-connected generation connecting to National Grid's EPS, the proposed solution must be compliant with the revenue metering requirements within ESB 756. Revenue metering must be at minimum hourly interval meters to support National Grid's dispatch M&V process.

Any resource requesting interval metering must submit a request to the Company requesting the installation of a new meter and ensure the interval meter is in place in time by the in-service date. The customer taking electric service from the Company is responsible for the metering and installation costs. The metering and installation costs are available from the Company's representatives. Metering communications are necessary for administration of the NWA solution. Where meter reading communications must be installed, the Company shall provide the necessary communications equipment to the customer's meter which records the electric requirements delivered to the customer's premises. The

customer shall be responsible for all metering and communication devices and associated costs as prescribed above and in accordance with Rule 25 of the Electricity Tariff.⁶ The average meter cost is generally \$700 to \$1,000 per meter.

Performance Requirements

NWA solutions must commit to a specific MW and MWh that can meet this availability requirement with the option to utilize and manage a DER nameplate capacity that is greater than what it is committing in its solution (i.e., overbuild). The customer baseline load (CBL) will be used following the Company's CBL methodology. See Appendix E of the Standard Flexibility Contract for the CBL method and verification.⁷ The CBL method will be used for NWA Sustain Services.

⁶ P.S.C. No. 220 Electricity, Niagara Mohawk Power Corporation d/b/a National Grid Schedule for Electric Service (Electricity Tariff).

⁷ CBL Verification Methodology means the methodology used by the Company to verify the actual load relief provided (kW and kWh) during each hour of each designated load relief period. Actual load levels are compared to the customer baseline loads to verify whether the NWA provider met the kW of contracted load relief; provided, however, that the Company may estimate the data pursuant to the Company's operating procedure if data is not available for all intervals.