

Orange and Rockland Utilities, Inc.

Request for Proposal (RFP)

West Warwick Non-Wires Alternatives Program to Provide Solutions
for
Distribution System Reliability and Load Relief

ISSUED: 9-30-2019

SUBMISSION DEADLINE: ~~11-22-2019~~ 12-13-2019



Orange & Rockland



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1. Introduction

Orange and Rockland Utilities, Inc. (“O&R” or the “Company”) requests proposals from qualified and experienced respondents (“Respondent”) with the capability to deliver innovative non-wires alternatives (“NWA”) solutions that provide system reliability and load relief to the electric distribution system in the Warwick, New York area.

1.1. Background

O&R is a subsidiary of Consolidated Edison, Inc., one of the nation's largest investor-owned energy companies, and an affiliate of Consolidated Edison Company of New York, Inc. (“Con Edison”). O&R, which provides electric and gas service to Orange County, Rockland County, and parts of Sullivan County, New York, is regulated by the New York Public Service Commission (“NYPSC” or “the Commission”).

O&R will use this NWA program to support the NYPSC’s regulatory Reforming the Energy Vision (“REV”) initiative. REV aims to reorient both the electric industry and the ratemaking paradigm toward a consumer-centered approach that harnesses technology and markets.

1.2. Definitions

Benefit-Cost Analysis (“BCA”): A BCA will be applied to potential NWA solutions. O&R developed a BCA Handbook in collaboration with the New York Joint Utilities to provide consistent and transparent statewide methodologies that calculate the benefits and costs of potential projects and investments. The BCA Handbook can be found as Appendix E of [Orange and Rockland's Distributed System Implementation Plan](#), filed July 31, 2018 with the NYPSC.

Distributed Energy Resource (“DER”): Energy efficiency, demand response, solar, energy storage or other local distributed generation resources that prove to be feasible for the identified area of need.

Non-Wires Alternative (“NWA”): A solution proposed in an identified area as an alternative to a traditional infrastructure resolution for a distribution or transmission constraint. NWAs may be a single or portfolio of multiple DERs.

Respondent: A person and/or entity, or a representative thereof, replying to this RFP.

1.3. Purpose

This RFP solicits responses from Respondents that state an interest and have qualifications to supply O&R with solutions for distribution system load relief for the NWA program described below. To assist Respondents, this RFP provides information on the specific NWA program and also provides requirements that Respondents must comply with when submitting their proposals.

This RFP is open to all DER approaches, or combinations of approaches, that display the potential to provide system reliability and load relief in the area identified. Proposed solutions must meet the need, or a portion of the



need while maintaining system reliability at the lowest reasonable cost possible. O&R may seek to build a portfolio of projects that will also serve to diversify project execution risks and maximize benefits to customers.

In addition to the requirements specified in Section 4, each RFP response should, at a minimum, outline a Respondent's proposed approach, load relief impact, community outreach plan, cost for completing the project, project plan or proposal, and a timeline for implementation. Responses must also include an hourly impact analysis resulting from the proposed DER solution, as well as a fully completed Non-Wires Alternatives Solution Questionnaire (Attachment A). Responses without the Questionnaire will not be considered.

Respondents are expected to be financially and technically capable of developing, constructing, maintaining and operating their proposed projects such that the anticipated benefits can be realized. O&R will evaluate each Respondent's proposed solution against the solutions proposed by other Respondents. If O&R enters into a contract with a Respondent, the Respondent will be subject to defined milestones so that O&R can verify that the Respondent is on track to provide the contracted load relief. With regard to any contract entered into with a Respondent to implement a solution, such contract will provide that O&R may terminate that contract if O&R deems that load relief goals are not likely to be achieved.

1.4. General Guidelines

O&R reserves the right to make changes to this RFP by issuance of an addendum or amendments and to distribute additional clarifying or supporting information relating thereto. O&R may ask any or all Respondents to elaborate or clarify specific points or portions of their submission. Clarification may take the form of written responses to questions or phone calls or in-person meetings for the purpose of discussing the RFP and/or the responses thereto.

It is the sole responsibility of each Respondent to include all pertinent and required information in its submission. O&R reserves the right to determine in its sole discretion whether a submission is incomplete or non-responsive.

Respondents should clearly state all assumptions they make about the meaning or accuracy of information contained in their response to this RFP. If a Respondent does not ask questions or identify its assumptions, O&R will assume that the Respondent agrees with and understands the requirements in this RFP. While O&R has endeavored to provide accurate information to Respondents, O&R makes no warranty or representation regarding the accuracy of the information contained in this RFP.

Respondents are encouraged to provide and release necessary authorizations for O&R to verify any of such respondent's previous work, except where it is contractually prohibited from doing so.

The respondent shall be responsible for identifying, obtaining and complying with local code requirements and permits during both construction and operation of the proposed DER solution. Areas for relevant permits include, but are not limited to, civil, structural, environmental and safety.

The respondent must submit a Memorandum of Understanding ("MOU") or a letter of commitment from the land owner for any piece of property that the respondent plans to leverage in order to install their proposed DER assets. Any proposal without this MOU or letter of commitment will not be considered for this project.



The respondent should also provide a high-level site layout plan that will incorporate all local Authorities Having Jurisdiction (“AHJ”) rules and regulations for siting any proposed DER assets. This RFP shall not be construed to establish an obligation on the part of O&R to enter into any contract, or to serve as a basis for any claim whatsoever for reimbursement of costs for efforts expended by Respondents.

Furthermore, the scope of this RFP may be revised at the option of O&R at any time, or this RFP may be withdrawn or cancelled by O&R at any time. O&R shall not be obligated or bound by any responses or by any statements or representations, whether oral or written, that may be made by the Company or its employees, principals or agents in connection with this RFP.

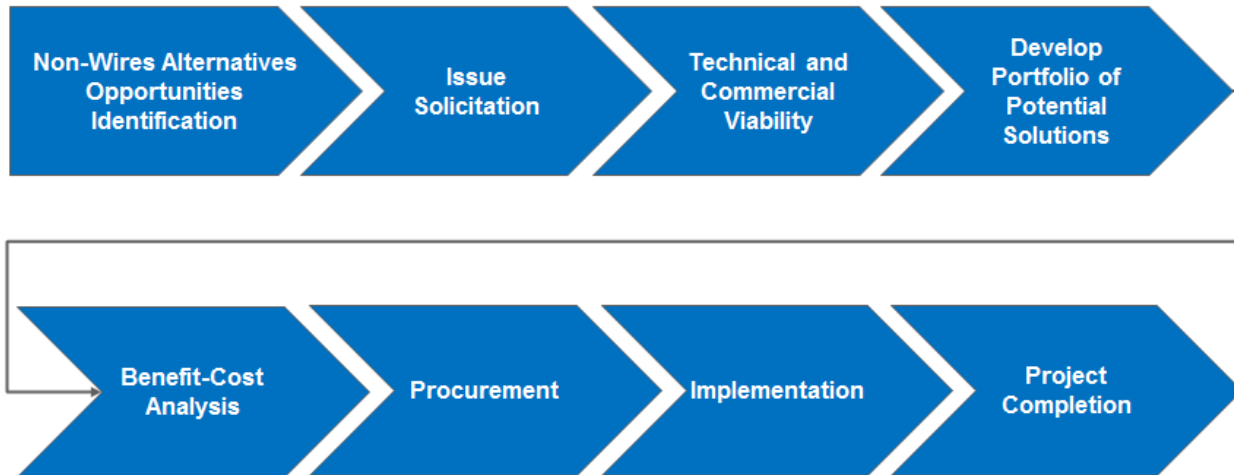
Any exceptions to the terms, conditions, provisions and requirements herein must be specifically noted and explained by a Respondent in its response to this RFP. O&R will assume that any response to this RFP expressly accepts all of this RFP’s terms, conditions, provisions and requirements, except as expressly and specifically stated otherwise by a Respondent in its response to this RFP.

1.5. Non-Wires Alternatives High Level Process

The process shown below is an example of the high-level steps that occur during the identification of NWA solutions, as well as the evaluation, implementation, and verification of the identified solutions. There are multiple actions that take place between each step to move NWA projects forward to implementation and verification of load relief achieved.

The Company identifies potential NWA projects as part of its annual capital planning process. Traditional infrastructure projects are screened via the NWA suitability criteria based on project type (reliability, load relief or both), timeline and cost to gauge their suitability as non-wires alternatives candidates. These alternatives may include DERs such as Energy Efficiency (“EE”), Demand Response (“DR”), clean (i.e., gas fired and solar) Distributed Generation (“DG”), and Energy Storage (“ES”), which may allow the Company to delay the construction of needed infrastructure.

The Company will leverage its existing EE and DR programs to lower the amount of DER that needs to be procured. The Company may entertain proposed EE and DR solutions that have the potential to enhance its existing programs. Figure 1: O&R NWA Process Flow



2. West Warwick Non-Wires Alternatives Project Description

2.1. Project Description

Wisner Substation #80 is a distribution substation located in Warwick, in Orange County, N.Y., and serves the Town and Village of Warwick and Pine Island communities. The station serves the majority of the load west of Ball Road toward the New Jersey State border, Pine Island, Village of Warwick and parts of Florida in New York State. The substation is a two-bank station (Bank 280 and 380) and is fed from two 69kV transmission lines connected to the same 69kV transmission bus.

Bank 280 and 380 are both 25 MVA, 69/13.2kV transformers. However, the emergency rating on Bank 280 is limited by a 1200 amp switch on the low side of the transformer. In addition, due to the older design of the station, there is no-auto transfer scheme for loss of a bank. The 13.2kV bus tie between the two transformers banks has to be manually switched in order to transfer load from one transformer to another. Therefore, for a contingency situation on either bank, both banks must be temporarily de-energized in order for field crews to close the 13.2kV tie before using the remaining bank to pick up the load.

For a loss of Bank 380, the available capacity from Bank 280 is limited due to the low side switch and 13.2kV bus. As a result, the bank relies heavily on distribution ties to restore the interrupted customers.

The station supplies a total of five 13.2kV circuits. Circuits 80-1-13, 80-2-13, and 80-3-13 are connected to Bank 280. Circuits 80-4-13 and 80-5-13 are connected to Bank 380. Currently three of the five distribution circuit feeders served from the substation do not have 100 percent backup and fail the Distribution Design Standard.



Table 1: Customer Breakdown by Circuit

Wisner Distribution Circuit	Customers*		
	Residential	C & I	Total
80-2-13	1,416	195	1,611
80-3-13	1,235	174	1,409
80-5-13	1,307	178	1,485
Total			

* As of [9/25/2019].

2.2. Project Need

This program is to explore the potential for reducing load on the Wisner substation circuits through potential NWA solutions, including DERs. The proposed solutions must be capable of covering all circuit and bank contingencies outlined in this section.

Loss of Bank 280 or 380:

Bank 280 and 380 have a nameplate rating of 25MVA that feeds five distribution circuits. If one of the transformers in the substation trips out, manual switching is needed to transfer load from the de-energized transformer to the energized transformer in the substation. Due to the bus limitation, remaining bank cannot assume the full load of the station. Distribution switching to adjacent substations and circuits is performed to pick up the additional load.

The following table details the MW load that cannot be picked up by the remaining bank and the switchable backup with distribution ties to reduce it to its normal rating of the bank.

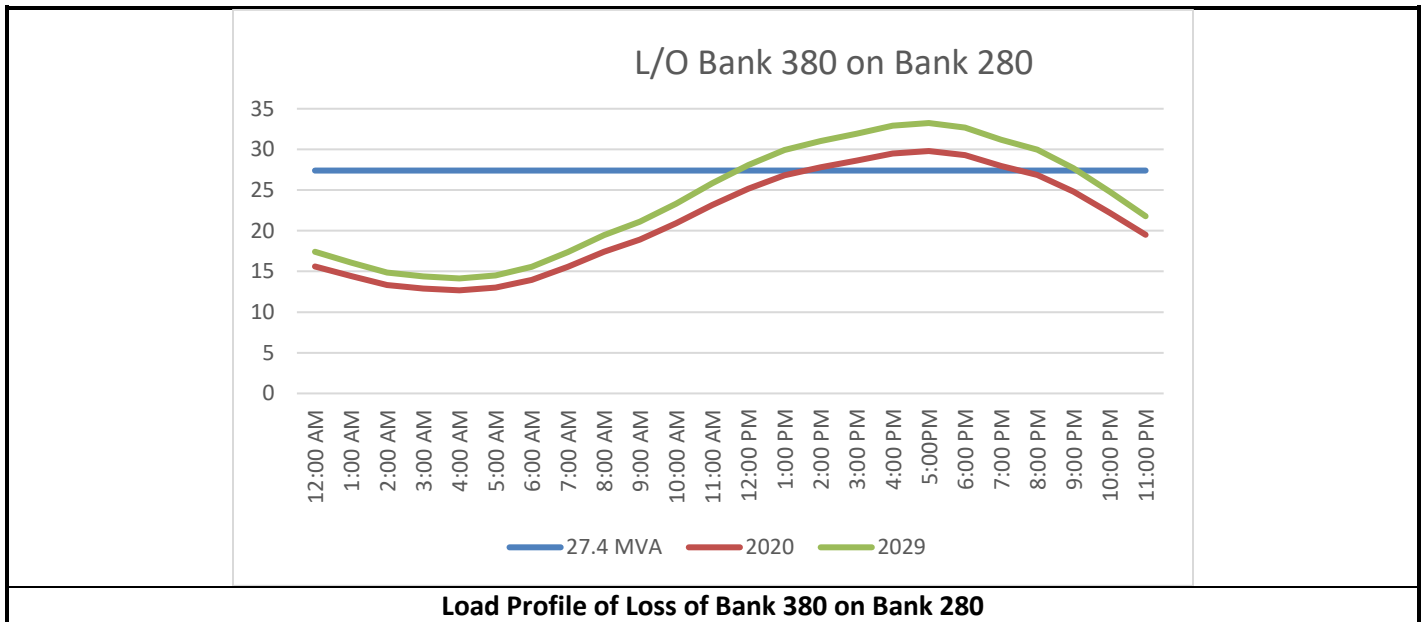
		Bank Contingency									
		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Loss of Bank 280	MW Reduction needed to keep Bank 380 below Normal rating	0.00	0.00	0.37	0.73	1.10	1.47	1.82	2.17	2.56	2.95
	Yearly Hours of Risk when Bank 380 is above Normal rating	0	0	2	4	8	10	15	17	18	29
	Daily hours of risk- hours	-	-	1	2	3	3	5	5	5	7



	Time of risk	-	-	4p.m. to 5p.m.	4p.m. to 6p.m.	3p.m. to 6p.m.	3p.m. to 6p.m.	2p.m. to 7p.m.	2p.m. to 7p.m.	2p.m. to 7p.m.	1p.m. to 8p.m.	
Loss of Bank 380	MW Reduction needed to keep Bank 280 below Bus Rating	2.40	2.82	3.24	3.61	3.98	4.36	4.71	5.06	5.45	5.84	
	Yearly Hours of Risk when bank 380 is above Bus Rating	20	25	36	43	49	60	65	73	84	103	
	Daily hours of risk- hours	5	5	7	7	7	7	7	8	9	9	
	Time of risk	2p.m. to 7p.m.	2p.m. to 7p.m.	1p.m. to 8p.m.	1p.m. to 8p.m.	1p.m. to 8p.m.	1p.m. to 8p.m.	1p.m. to 8p.m.	1p.m. to 8p.m.	12p.m. to 8p.m.	12p.m. to 8p.m.	12p.m. to 9p.m.

The NWA must be capable of covering both contingencies; however, loss of Bank 380 requires the larger MW reduction. The hours of risk overlap and are therefore the same for both.

The MW needed in the respective years and hours of risk are typical for bank events that occur between May to September. The load profile for the larger of the two contingencies (loss of Bank 380) is shown below for a peak day in the figure below:





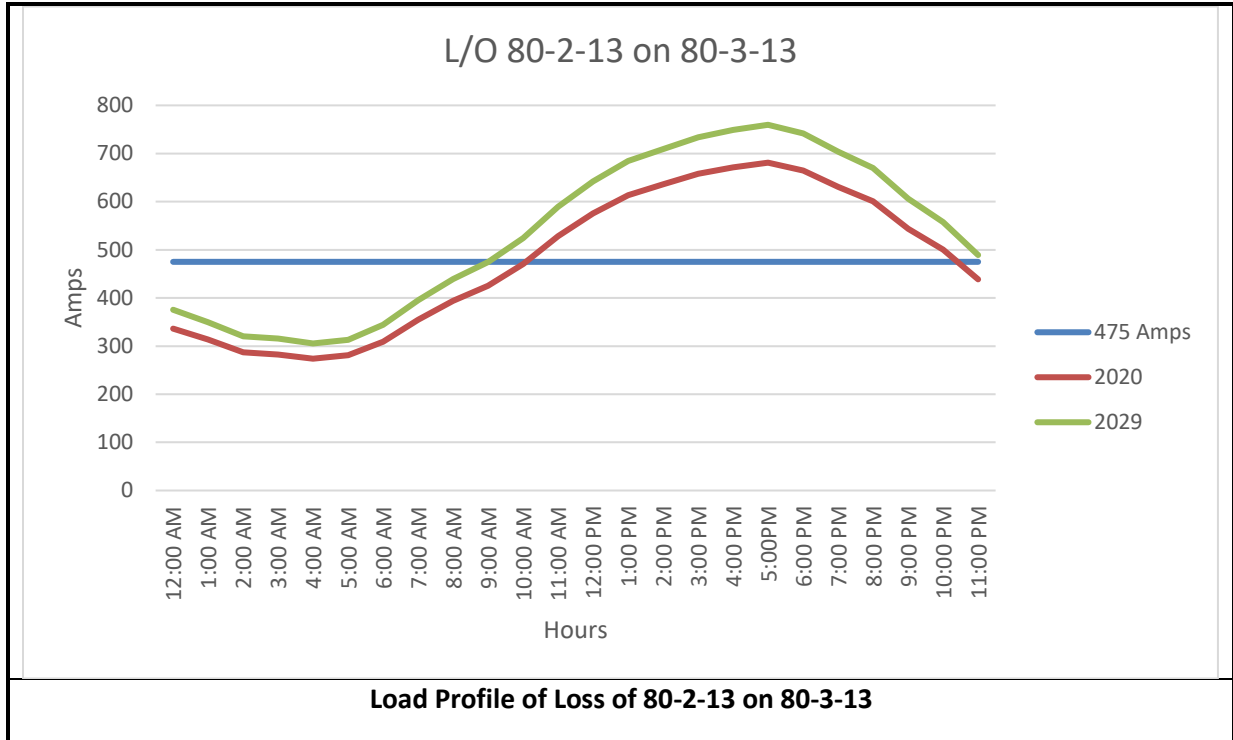
Circuit Contingencies:

The Distribution Design Standard (“DDS”) requires 100 percent backup for loss of a single circuit using a maximum of two switch moves resulting in less than 2,000 total customer hours of interruption. Currently, Wisner circuits 80-2-13, 80-3-13, and 80-5-13 do not meet this design standard due to circuit loading, length, and conductor/equipment limitations. To determine the MW need and duration for each circuit, planned switch moves were considered first to utilize all available tie capacity to minimize the NWA requirement. The excess load in MW on each of these circuits that cannot be backed by the circuit ties as it exceeds the acceptable rating on the conductor has been determined on those circuits. Below are the circuit contingencies and the needed MW reduction.

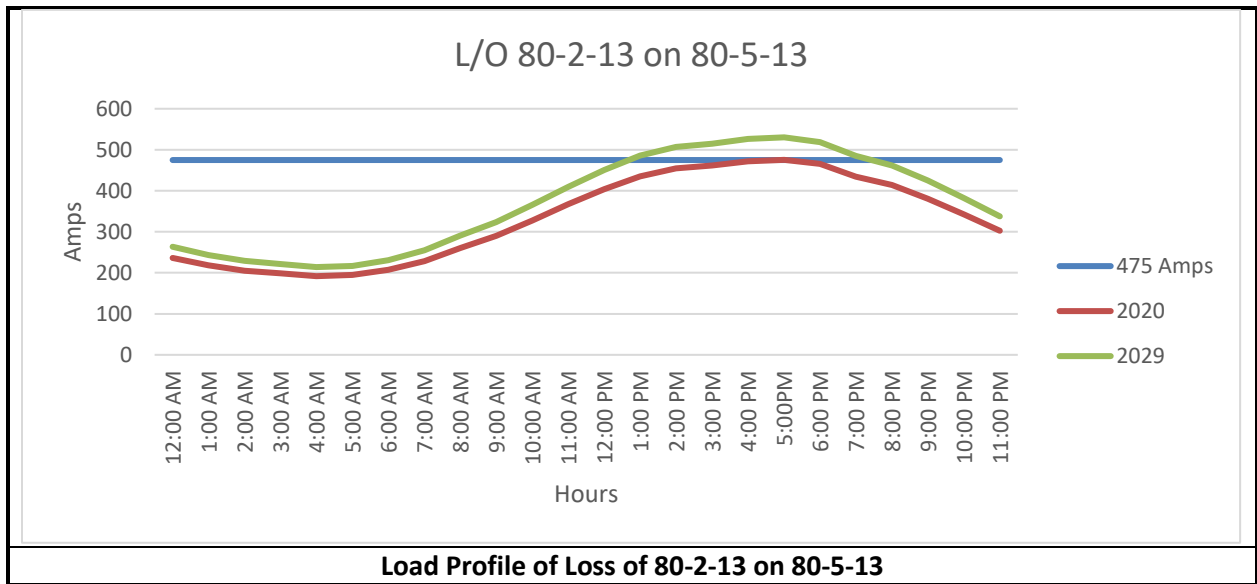
Loss of 80-2-13 Circuit:

MW Reduction Needed for Circuit Contingency										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
MW Reduction needed on Loss of 80-2-13 on 80 -3-13	4.97	5.19	5.41	5.61	5.80	6.00	6.19	6.38	6.58	6.79
Yearly Hours of Risk for Loss of 80-2-13 on 80 -3-13	437	478	504	535	574	611	634	671	718	763
Hours of Need based on load profile	11a.m. to 10p.m. (11 hours)	10a.m. to 10p.m (12 hours)	10a.m. to 10p.m. (12 hours)	10a.m. to 10p.m. (12 hours)	10a.m. to 10p.m. (12 hours)	10a.m. to 10p.m. (12 hours)	10a.m. to 10p.m. (12 hours)	10a.m. to 11p.m. (13 hours)	10a.m. to 11p.m. (13 hours)	10a.m. to 11p.m. (13 hours)
MW Reduction needed on Loss of 80-2-13 on 80-5-13	0.01	0.16	0.32	0.45	0.59	0.72	0.85	0.98	1.12	1.26
Yearly Hours of Risk for on Loss of 80-2-13 on 80-5-13	1	2	3	5	7	8	10	11	14	18
Hours of Need based on load profile	5p.m. (1 hour)	4p.m. to 5p.m. (1 hour)	4p.m. to 6p.m. (2 hours)	3p.m. to 6p.m. (3 hours)	2p.m. to 6p.m (4 hours)	2p.m. to 6p.m (4 hours)	2p.m. to 6p.m (4 hours)	2p.m. to 6p.m (4 hours)	1p.m. to 6p.m (5 hours)	1p.m. to 6p.m (5 hours)

The load profile for the Loss of 80-2-13 on 80-3-13 on a peak day is shown below.



The load profile for the Loss of 80-2-13 on 80-5-13 on a peak day is shown below.

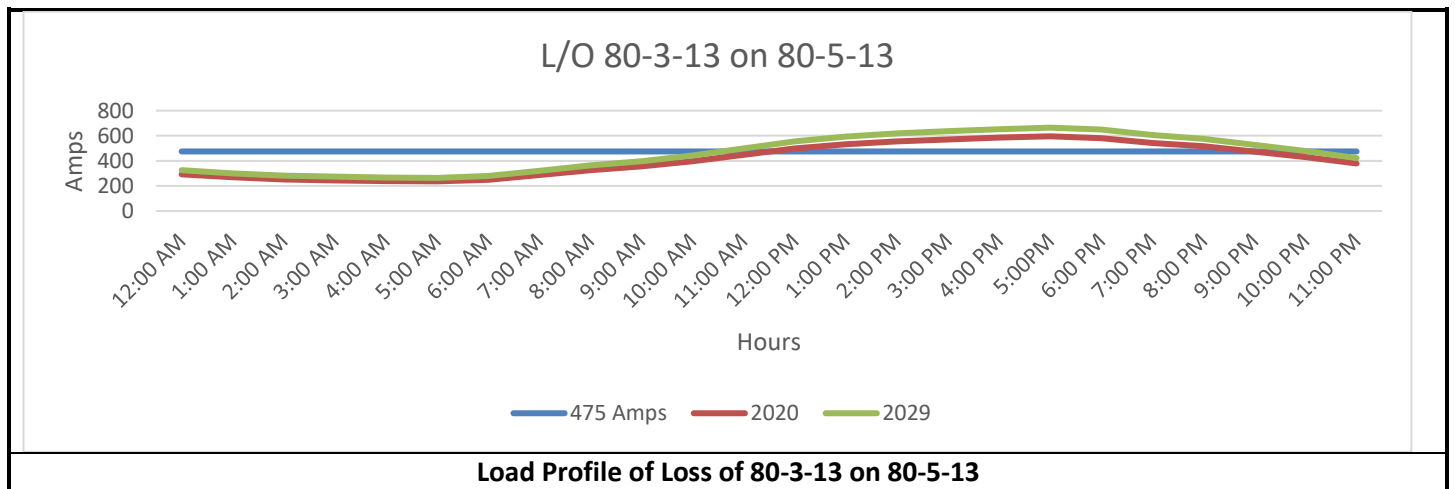




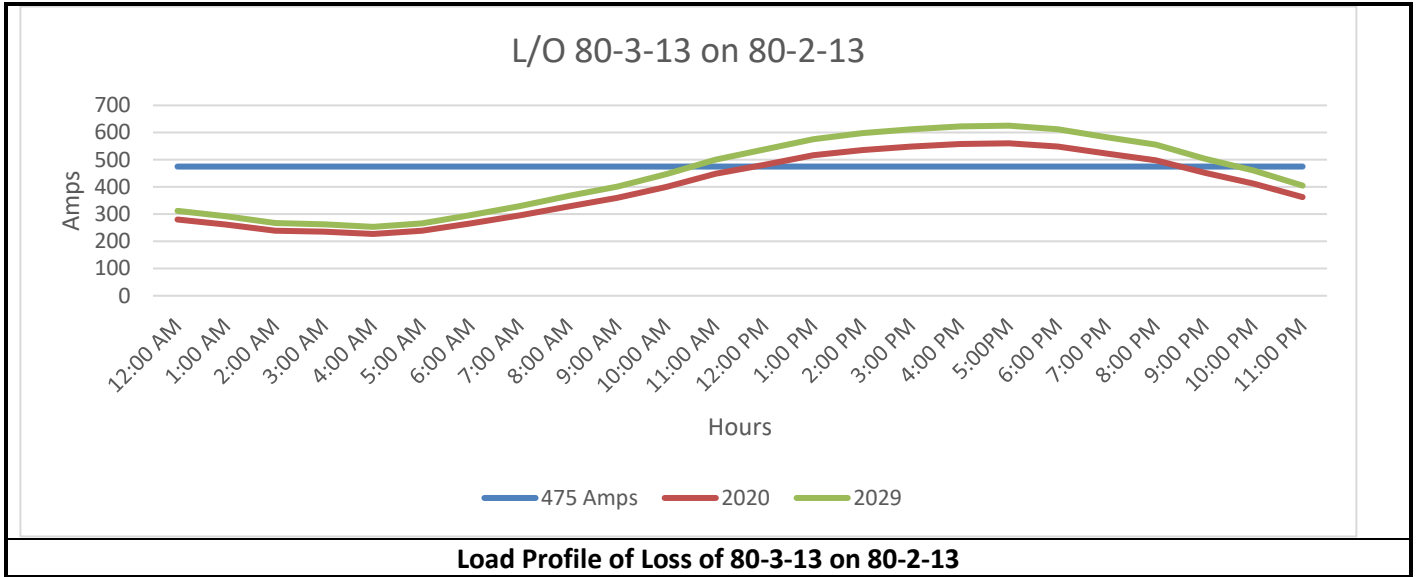
Loss of 80-3-13 Circuit:

MW Reduction Needed for Circuit Contingency										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
MW Reduction needed on Loss 80-3-13 on 80-5-13	2.91	3.10	3.30	3.47	3.64	3.81	3.98	4.14	4.32	4.50
Yearly Hours of Risk for Loss 80-3-13 on 80-5-13	148	163	182	197	211	234	247	269	286	311
Hours of Need based on load profile	12p.m. to 9p.m. (9 hours)	12p.m. to 9p.m. (9 hours)	12p.m. to 9p.m. (9 hours)	12p.m. to 9p.m. (9 hours)	12p.m. to 9p.m. (9 hours)	11a.m. to 9p.m. (10 hours)	11a.m. to 9p.m. (10 hours)	11a.m. to 9p.m. (10 hours)	11a.m. to 9p.m. (10 hours)	11a.m. to 10p.m. (11 hours)
MW Reduction needed on Loss 80-3-13 on 80-2-13	2.06	2.24	2.43	2.59	2.75	2.91	3.06	3.22	3.38	3.55
Yearly Hours of Risk for Loss 80-3-13 on 80-2-13	87	98	121	132	144	161	172	186	208	217
Hours of Need based on load profile	12p.m. to 8p.m. (8 hours)	12p.m. to 8p.m. (8 hours)	12p.m. to 8p.m. (8 hours)	12p.m. to 8p.m. (8 hours)	12p.m. to 9p.m. (9 hours)	11a.m. to 9p.m. (10 hours)	11a.m. to 9p.m. (10 hours)	11a.m. to 9p.m. (10 hours)	11a.m. to 9p.m. (10 hours)	11a.m. to 9p.m. (10 hours)

The load profile for the Loss of 80-3-13 on 80-5-13 on a peak day is shown below.



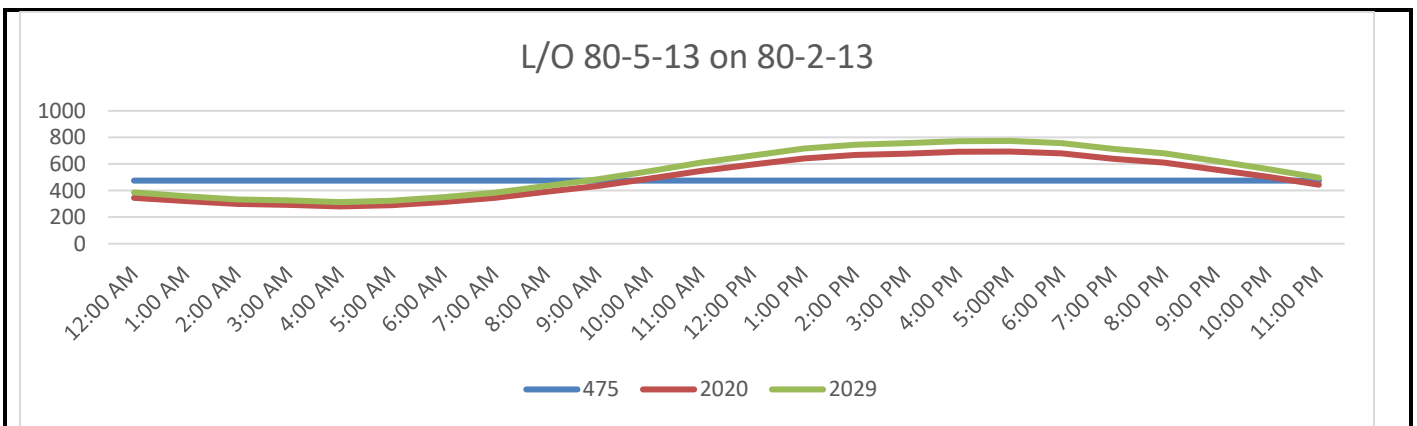
The load profile for the Loss of 80-3-13 on 80-2-13 on a peak day is shown below.



Loss of 80-5-13 Circuit:

MW Reduction Needed for Circuit Contingency										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
MW Reduction needed on Loss of 80-5-13 on 80-2-13	4.99	5.21	5.44	5.63	5.83	6.03	6.22	6.40	6.61	6.82
Yearly Hours of Risk for Loss of 80-5-13 on 80-2-13	309	343	366	400	433	459	482	510	535	570
Hours of Need based on load profile	10a.m. to 10p.m. (12 hours)	10a.m. to 10p.m. (12 hours)	10a.m. to 10p.m. (12 hours)	10a.m. to 10p.m. (12 hours)	10a.m. to 11p.m. (13 hours)	10a.m. to 11p.m. (13 hours)	10a.m. to 11p.m. (13 hours)	10a.m. to 11p.m. (13 hours)	9a.m. to 11p.m. (14 hours)	9a.m. to 11p.m. (14 hours)

The load profile for the Loss of 80-5-13 on 80-2-13 on a peak day is shown below.





2.3. Traditional Solution

O&R’s traditional solution to mitigate the violation, is to construct a new substation. The substation will have larger-sized transformers with two 50 MVA banks, installation of a tie 13.2kV bus with an automatic transfer scheme and additional station circuits to serve the growing load in West Warwick and the Florida area. The traditional solution would solve the load relief, meet station contingency and also meet distribution design standards. Additional benefits of the station include load relief and back up for Westtown Substation, retirement of Pine Island Substation, and provide load relief and backup for South Goshen Bank 189 and improves backup for Chester circuit 69-8-13.

2.4. Non-Wire Alternatives (NWA) Solution Expectation

Prospective proposals for the NWA program must meet the capacity requirements detailed in the provided peak load curves provided earlier. The complete solution may be a portfolio of DER technologies. Potential solutions will be required to operate in parallel with the Company’s facilities, and as such, all proposals must demonstrate that they meet all adequate system protection and controls. The proposal will be used to serve load on three separate distribution feeders. Upon notification the proposed DERs must be operational and be dispatched as per communication between O&R and the winning bidder. The solution shall adhere to all other appropriate and reliable operating requirements and standards, including appropriate system protection for the 13.2kV (Ground-Y) distribution system and feeders.

The O&R 13.2kV distribution system is protected with overcurrent protective devices which include expulsion fuses and field reclosers. The proposed NWA solution must operate in parallel with the O&R system’s protection scheme and the proposed DER output would have to match the load curve to minimize MW hour need.

The RFP will be site specific with detailed specification on the technology, operation and maintenance needed to maintain the safety needed to serve our customers. The proposal should include control systems that are capable of remote monitoring and control and that can be integrated into O&R’s existing Distribution Supervisory Control and Data Acquisition (“DSCADA”) system. Any protection schemes proposed for any DER technologies, must be capable of distinguishing internal from external system disturbances to prevent nuisance tripping to support the resiliency of the O&R system.

3. Proposed Solution Requirements

This section outlines the requirements for responses to the RFP. Respondents should submit their responses to the functional questions included in Attachment A, as part of their proposals. Respondents are encouraged to include, as an attachment (maximum size – 2 MB), any additional information that will clarify how their proposed solution(s) will achieve the required demand reduction. Review priority will be given to the information submitted within the provided format.



3.1. Professional Background and Experience with the Proposed Solution

Respondents must be able to demonstrate experience deploying the proposed solution

In addition, Respondents should provide the following:

- Executive Summary of proposal;
- Description of Respondent’s core business and organizational structure;
- Project organizational chart and project team resumes;
- Financial statements for the past three years, and services offered;
- Examples of prior industry specific work that is similar in nature and relevant to the NWA solution requirements, with particular emphasis on implementation of the solution, such as at other utilities, large municipalities, co-ops, or any other applicable facilities;
- Relevant project experience;
- Contact information of customers where the solutions have been implemented (at least three references);
- Letters of support from customers who plan to implement the solution at their site in the applicable area of need identified (**Note:** O&R will need to verify customer qualifications);
- References which shall include any authorizations necessary for O&R to verify;
- Specific location of successful technology deployment;
- MOU or Letter of Agreement from the landowner of the proposed location to deploy DER assets; and
- Any other relevant information deemed appropriate and noteworthy supporting and validating the proposed solution.

Respondents should address any estimated costs associated with implementing the proposed technology/solution, including customer and utility costs, as well as any other relevant costs. Respondents should also describe in detail non-energy benefits associated with the proposed solutions such as net avoided carbon, SO_x, NO_x per \$/ton.

Respondents should identify and provide contact information for customers who have implemented the technology/solutions. Respondents should note whether O&R could contact these customers for additional information and follow-up questions.

3.2. Proposed Solution Description

Proposals must satisfy meeting the capacity requirements detailed in the provided 24-hour peak day load curves. The complete solution may be a portfolio of DER technologies.



Project proposals must demonstrate how the proposed solution will achieve the demand reductions sought and maximize value to O&R's customers. Detailed project information should include:

- Technology/Solution description (tested and proven or innovative technology);
- Type of contract (e.g., shared savings, performance contract, sale (Utility to Own), lease-purchase, power purchase agreement);
- Performance characteristics of the technology;
- Description of the flexibility and applicability of the technology;
- Hourly electric load reduction impact provided by the solution;
- Community and environmental impacts derived from the solution;
- Potential risks and challenges of deploying the particular DER asset being proposed;
- Proposal to mitigating risks and challenges of deploying the DER asset;
- Specification and details associated with implementing the proposed solution (e.g., permitting requirements);
- Proposed site-layout and one line of the proposed project, taking into account all local AHJ rules and regulations;
- Detailed description of non-energy benefits associated with the proposed solution; and
- Ability of solution to increase or decrease in scale.

The proposal must specify the data (e.g., detailed calculations) and methodology used to determine the estimated demand reduction and annual kWh savings attributable to each DER measure proposed to be installed.

3.3. Proposed Solution Location

O&R anticipates two separate locations for proposed DER solutions as depicted in Figure 1. This will help address the load issues for the three separate circuits mentioned above. Multiple DER technologies can be sited at one location, provided they are able to meet the overall need of the three separate circuits.

Preferred Location 1:

Location 1 is currently owned by O&R. O&R owns a 25-acre parcel located at Co Hwy 1 & St Hwy 1A in Orange County, NY that could potentially be used to site NWA solutions. Respondents may choose to locate their solutions at the property or specify a separate location. O&R will consider leasing this property, subject to our internal review of the respondent's proposal and determination that the proposal is a compatible use of the property, to Respondents at a value to be determined later on in the process. If respondents provide an alternative location to site the proposed solution, the Respondent must be able to demonstrate existing site control as part of their proposal. As mentioned earlier, the respondent should propose an initial site layout that takes into account local permitting laws from the respective AHJ. O&R anticipates this site to provide load relief to at least two of the circuits mentioned above (80-2-13 and 80-3-13)

Preferred Location 2:

The second potential site would be between Maple Ave and Grand Street (Figure 1). Any location within the region depicted in Figure 1, will be able to serve the need of one individual circuit (80-5-13). Properties that do not permit direct connection to the 80-5-13 or that require significant overhead line extensions will not be considered.



All proposed locations should consider local permitting laws and regulations and ensure State Environmental Quality Act (SEQRA) requirements are met.

Geographical Location of NWA Solution:

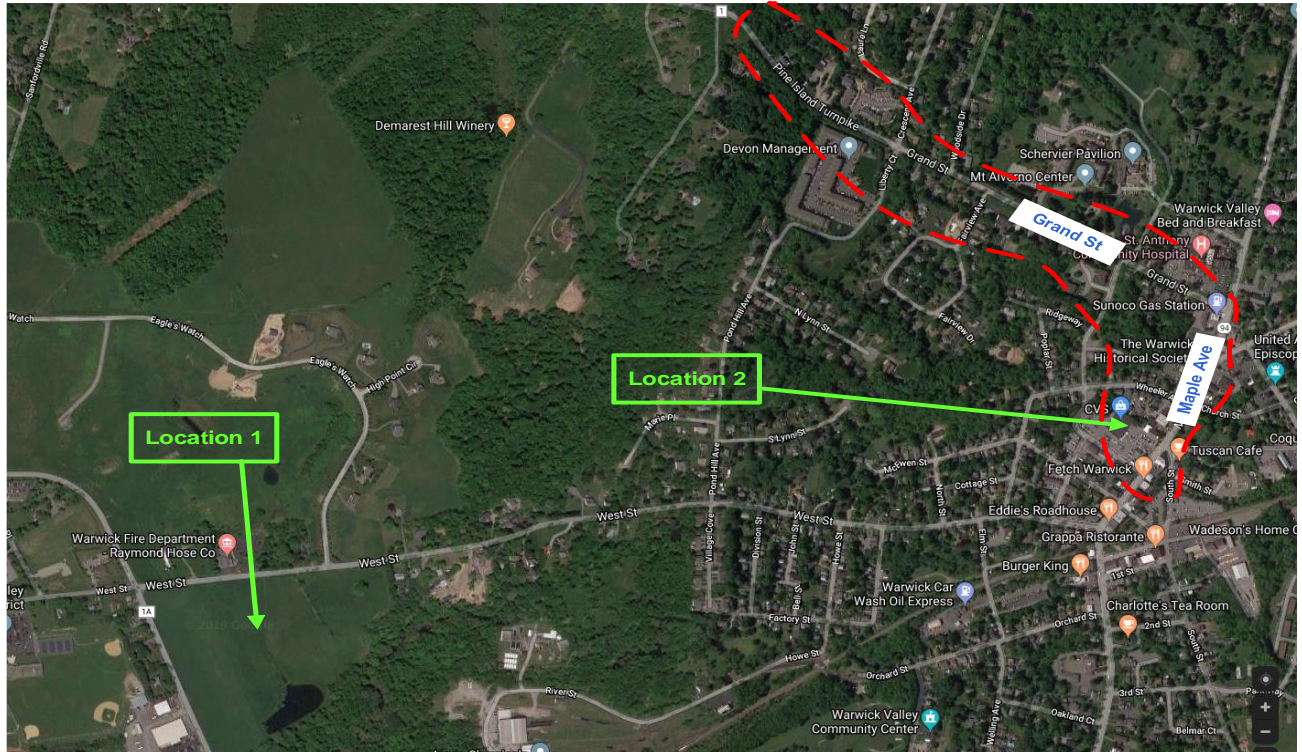


Figure 1: Location 1 is the O&R Company property at the intersection of West St and 1A in Warwick, NY. Location 2 is at the intersection of Maple Ave and Grand St in Warwick, NY (red zone preferred)

3.4. Project Proposal Requirements

Respondents are encouraged to submit alternative, creative proposals for marketing, sales, financing, implementation, and maintenance, or transaction structures and pricing formulas that will achieve the demand reductions sought and maximize value to O&R’s customers.

Selected Respondent or Respondents, if subsequently contracted with to provide their solutions, will be required to provide full facility and equipment access to the Company and its representatives for pre- and post-installation inspections to verify the installations and the demand reductions, and for subsequent inspections (which may be performed at the Company’s discretion), to verify continued operation and maintenance of the DM measures for the applicable term.

The new DER measures must be in service, and the pledged demand reduction must be guaranteed to commence, by the respective need dates for the applicable load area, to address forecasted summer overloads. The type of compensation structure must be included (upfront payment/yearly payment, combination of 50% upfront pay, and 5% payment annually for a 10-year contract period, pay for performance, loan program or other).



Vendors must provide all methods and procedures required to comply with technical, safety and operational requirements for the interconnection and operation of their equipment with the Company's electric delivery system, as well as performance measurement and verification (i.e., are kW actually reduced). For any proposed renewable generation, it is particularly important to verify that any stated demand reduction coincides with the Company's peak loading period. The Company reserves the right to require periodic witness testing on any proposed protective systems and electric system interconnections that could adversely affect the Company's electric delivery system should they fail.

Financial assurances will be required so that the committed amount of demand reduction measures will be installed and the committed in-service date for each measure will be met. Failure to achieve the committed demand reductions or to meet the committed in-service dates will result in liquidated damages and/or other consequences which will be established during the contracting process.

The proposal should specify the data and methodology used to determine the estimated demand reduction, annual kWh savings attributable to each measure/solution proposed to be installed, and methods/proposals to confirm measurement and verification of delivered demand reductions.

Respondents proposing to market the installation of demand management measures to others should include a full and complete assessment of the opportunities. At a minimum, this assessment should include a description of the markets, such as one-to-four family homes, multifamily buildings, small commercial (e.g., retail stores, restaurants), large commercial (e.g., office buildings, industrial) and government or institutional (e.g., hospitals, hotels, schools, colleges), and the applicable demand management measures and technologies to be directed at each selected market or customer segment. In addition, Respondents should illustrate the marketing and sales strategies that they will employ to capture the selected market or customer segment and to deliver the demand reductions included in their proposals. Preference will be given to Respondents which have pre-existing customer agreements to deploy (previously and successfully deployed) the solution.

Respondents may also include proposals that require deployment on utility property or ownership models involving utility ownership, or operation and maintenance, or both, by the Company.

Of key importance to the review of any proposal is consideration of community impact. Proposals must provide information on elements of the proposal that affect the community (both positively and negatively) including, but not limited to, associated greenhouse gas ("GHG") emissions, waste streams and management, job creation potential and community disruption.

The Company is interested in proposals that will take advantage of funding available from other funding streams (e.g., participation in NYISO markets or NYSERDA funding). Respondents should also identify their ability to execute the NWA program by providing reference to successful similar projects that they have completed in other jurisdictions. Respondents are to provide detailed explanations and validation of such funding strategies, including examples that are provable and repeatable.



3.5. Functional Requirements

A detailed Non-Wires Alternatives Solution Questionnaire is included in Attachment A. Please provide your responses in the document and submit with your RFP proposal. Major categories within the Questionnaire include:

- Cost per MW
- Respondents go-to-market strategy;
- Measurement & Verification confidence plan;
- Other Funding Sources Available;
- Environmental and Community Impacts;
- Respondents Market Understanding;
- Proposed Solution Benefits;
- Other Funding Opportunities; and
- Other Additional Information to clarify or further explain the RFP proposal.

3.6. Detailed Project Plan and Timeline to Implement Solution

Proposed DER measures must be in service, and the pledged demand reduction must be guaranteed to commence, by the date(s) specified in the Non-Wires Alternatives Project Description section above.

- Responses must contain a detailed plan to implement the solution including:
 - General scope of work;
 - Customer acquisition and marketing plan;
 - Communications plan to reach out to local AHJs ;
 - Financing, including transaction structures and pricing formulas;
 - Implementation plan and project schedule;
 - Identifying Risks and possible impact to the project timeline; and
 - Operation and Maintenance plan (if, applicable).
- Respondents proposing to market the installation of DER measures to customers should include a full and complete assessment of the DER opportunities. At a minimum, this assessment should include a description of the markets, such as one-to-four family homes, multifamily buildings, small commercial buildings (e.g., retail stores, restaurants), large commercial buildings (e.g., office buildings, industrial) and government or institutional buildings (e.g., hospitals, hotels, schools, colleges), and the applicable DER measures and technologies to be directed at each selected market or customer segment.
- Respondents must illustrate the marketing and sales strategies that will be employed to capture the selected market or customer segment and to deliver the demand reductions included in their proposals. Preference will be given to Respondents with pre-existing customer agreements to deploy the solution upon confirmation by the Company. Marketing and sales plans must be expressly approved by the Company.
- The response must contain a detailed measurement and verification (“M&V”) plan for verifying the solution’s load reduction. The plan must include provisions for access by the Company and/or its representatives for quality control and quality assurance. Independent M&V may be performed at the Company’s discretion. The Company’s M&V will include, but not be limited to, verification of continued operation and maintenance of the DER measures for the applicable term.



- Proposals must provide information on elements of the proposal that affect the community (both positive and negative) including, but not limited to, associated GHG emissions, waste streams and management, job creation potential, and community disruption.
- Proposals must outline a detailed timeline from project planning, contracting, to implementation and completion of the proposed solution.

3.7. Detailed Costs Associated with Proposed Solution

- Respondents must provide a detailed cost breakdown in the format shown below.

DER solution	Size	Material Cost	Labor Cost	Admin Cost	Total O&R cost	Total Cost of the Project
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- Respondent should itemize and identify various items in each of the cost buckets, i.e., material cost components, labor cost components.
- Respondents should identify other funding streams that may be used to mitigate cost impact to the Company’s customers (e.g., City, State, and Federal funding opportunities). Respondents should also identify if private sector funding will be used.
- Please provide the cost structure for both up-front lump-sum payment as well as annual payments over the 10-year contract term and payment structure where the Company will pay 50% of the incentive upfront while providing a 5% incentive annually for a 10 year contract period.
- Estimated interconnection costs will be provided based on proposed solutions or will be borne by O&R and included in the project BCA.

3.8. Proposed Energy Storage Solutions

Respondents proposing energy storage solutions should provide the following information in addition to that required for all proposals:

- In addition to the cost breakdown in Section 3.6, respondents proposing energy storage solutions should also provide the cost of the solution by \$/kw-month, \$/MWh, and \$/MW for the five-month availability period as discussed in section 2.2.
- Please propose costs for different ownership structures, mainly:
 - Utility-ownership: O&R owns the storage system but operation and maintenance is performed by the vendor in the short-term
 - Leasing/Tolling: Vendor owns the storage system and O&R leases or is guaranteed capacity. Vendor performs O&M
- Respondents should address their strategy for maintaining energy storage capacity for the duration of the asset lifetime and provide the cost for doing so, whether it be a higher up-front cost for overbuild or a maintenance cost for the life of the project. Other maintenance strategies will also be accepted.
- The Company is interested in proposals which will take advantage of funding available from other funding streams, e.g., participation in NYISO market to offset costs. Proposals should state the intention of seeking these types of additional funding and whether that funding would be used to reduce the cost of system or be split with the Company in a sharing arrangement.
- The company is interested in projects that will go above and beyond the need of the NWA project to identify cost effective opportunities to reduce customers’ total bill. This may include upsizing the energy storage



beyond the need of the NWA, in order to participate in additional revenue streams that will further reduce the overall cost of the project.

- Provide any end of life considerations and their costs i.e. removing the equipment after the end of its lifecycle, repurposing the equipment, recycling and/or site remediation.

4. Proposal Evaluation Approach

Solutions proposed in response to this RFP will be reviewed in detail by O&R. O&R will use an evaluation framework to develop the optimal portfolio to address the identified need.

Respondents should also note that each measure of any proposal submitted, whether part of a single-measure proposal or a multiple-measure proposal, will be evaluated against other like measures for equal comparison. Thereafter, the Company may evaluate all measures in the aggregate in a manner that considers the overall benefit to the Company based on the criteria set forth in this RFP, and to include considerations that could allow for the selection of individual measures across multiple proposals.

4.1. Evaluation Criteria

O&R will review all solutions proposed in response to this RFP. Some of the main review criteria are listed below. The review process is designed to be fair and equitable, with the objective of identifying potential solutions that provide the greatest overall value to customers.

Evaluation criteria will include but not be limited to:

1. Proposal content – Information requested has been provided and is comprehensive to allow for evaluation;
2. Viability - the extent to which the Respondent’s proposed solution would address the needed solution mentioned in this RFP;
3. Technology – DER maturity, ability to scale, challenges in deploying proposed DER, as depicted in section 3.5;
4. Functionality - the extent to which the proposed solution would provide needed load reductions and reliability requirements in the area, as depicted in sections 3.4 and 3.5;
5. Environmental and community impacts associated with the proposed solution;
6. Unit Cost – total cost, and \$/MW at peak required for the proposed solution; cost inclusivity as outlined in section 3.7;
7. BCA – a BCA of the proposed solution will be performed in accordance with O&R’s BCA Handbook as filed with the NYPSC; a BCA will be applied to the portfolio of solutions to determine feasibility of implementing a NWA solution;
8. Timeliness - the ability to meet O&R’s schedule and project deployment requirements, also with a mind that the detailed project schedule from contract execution to implementation and completion of projects is important for determination of feasibility, as depicted in section 3.6;
9. Price and reliability, particularly as compared to other proposed solutions along with the dependability and benefits that would be provided to the grid;
10. Respondent Qualifications - the Respondent’s relevant experience and success providing these solutions to other locations, including reference checks and documented results;



11. Applicability to REV- supports the goals and objectives outlined in the REV Proceeding;
12. Feasibility - the expected ease of project implementation within the timeframe required for the non-wire alternative solution (e.g., permitting, construction risks, operating risks); siting, customer acquisition and interconnection challenges;
13. Community impact - the positive or negative impact that the proposed solution may have on the community in the identified area (e.g., noise, pollution).
14. Brief Communications Summary: At O&R, Communication and maintaining positive working relationships with our municipalities and the communities we serve is essential. Therefore, it is imperative that potential vendors and contractors when approaching a municipality bare this in mind. Please provide a brief communication summary that demonstrates experience with stakeholder and community engagement methods.

4.2. Proposal Response and Submittal Instructions

Respondents are strongly encouraged to submit a proposal in accordance with the summary instructions outlined in this section, with the proposal also to focus on the requirements of the [Non-Wires Alternative Solutions Requirements](#) section as well as a required submittal of a fully completed **Non-Wires Alternatives Solution Questionnaire (Attachment A)** as a separate attachment, and such other requirements set forth in this RFP.

Respondents are required to submit their bid response through the Company's Procurement System ("Oracle RFQ System"). Any limitation regarding Respondent's ability to supply information requested in this RFP (or to support or perform a particular function or service) should be explicitly stated in the proposal response. Any partnering with other solution providers to perform a particular function or service must be explicitly stated.

All proposals must be submitted through the Oracle RFQ System on or prior to the due date and time.

Respondents who fail to submit by the due date and time will be locked out of the Oracle RFQ System and unable to submit their proposals. Therefore, Respondents are encouraged to upload their proposals well in advance of the closing time to avoid any potential issues that may occur, including due to unfamiliarity with the Oracle RFQ System, or otherwise. Respondents must take the following actions to complete their proposal submission:

1. Download this Non-Wires Alternative RFP, Non-Wires Alternative Questionnaire (Attachment A), and Supplier Enablement Template.
2. Become enabled in the Oracle RFQ System by submitting the below items to Michael Heaton at heatonm@coned.com (note that if respondent has previously been enabled in the Oracle RFQ System as part of a separate bid event then they do not have to do it again, but should email Mike Heaton to notify him of participation interest for this RFP):
 - a. W-9 form (version last updated); and
 - b. Supplier Enablement Template (Select 'Sourcing' under Oracle responsibility field).
3. Receive Formal RFQ response request (will be same information downloaded from non-wires alternative website).
4. Submit response and fully completed questionnaire to Oracle RFQ System.

Responses delivered by hand or fax, regular mail, or any other method will not be accepted. O&R will not be responsible for late, lost, illegible or misdirected submissions.



Review of responses submitted to this RFP will be coordinated through the O&R Utility of the Future organization and other Company departments as necessary. O&R, at its option, may contact Respondents with additional questions or information requests. Additional action by O&R related to this RFP is solely at the Company’s option. As such, the Company has no obligation to address questions, comments, or information requests related to this RFP after receipt of Respondents responses.

Contact Information and Questions

All Respondents should direct questions during the clarification question timeframe via email to Michael Heaton, heatonm@coned.com, of O&R’s/Con Edison’s Supply Chain Department. All questions and answers deemed essential for the viable submission of a bid response will be publicly posted at www.oru.com/nonwires

Respondent’s identities will be kept confidential.

The Company will have no obligation to evaluate late submissions, nor be responsible in any way for any consequences associated with late submissions.

4.2.1. RFP Schedule

Below is the expected schedule to be followed for this solicitation:

RFP Solicitation Milestones	Completion Date*
RFP Issued	September 30, 2019
Pre-bid conference call (see details below)	October 16, 2019
Deadline to submit clarification questions	October 30, 2019
Responses to clarification questions due	November 20 , 2019
Deadline to become enabled in O&R/Con Edison procurement system	November 15, 2019
Qualified respondents proposals due	November 22 December 13, 2019

*O&R reserves the right to change any of the above dates.

Pre-bid conference call details:

Date: 10/16/2019

Time: 1PM -2 PM



Join by phone

Dial-in Number: **(646) 679-1825**

Meeting ID: **775773342**

Smartphone link: [\(646\) 679-1825,,775773342#](tel:(646)679-1825,,775773342#)

Join by web browser

[Follow this link](#) for video conference and screen sharing.

Can't join the meeting? [Contact support.](#)

4.3. Proposal Response Format

Note: The Oracle RFQ System is only capable of accepting individual documents no larger than 5 MB in size. Respondents may find it necessary to split up large documents into smaller files due to these system constraints. The written proposal response for the NWA solution should be organized as follows:

Proposal Section	Proposal Section Title
N/A	Cover Letter
N/A	Respondent Checklist (Appendix)
N/A	Table of Contents
1	Professional Background, Financials and Experience with the Proposed Solution (as described in section 3)
2	Proposed Solution Response & Project Plan (as described in Section 3)
3	Cost Associated with Proposed Solution (as described in Section 3)
4	Assumptions and Expectations
Appendix	Glossary of Terms
Attachment	Non-Wires Alternatives Solutions Questionnaire Response

4.3.1. Cover Letter and Checklist

The cover letter shall include the following:

- The legal name and address of Respondent;
- The name, title and telephone number of the individual authorized to submit information and execute the Agreement;



- The signature of a person authorized to contractually bind Respondent’s organization; and
- Statement that the Respondent has read, understands, and agrees to all provisions of the RFP or alternatively, indicating that exceptions will be taken to the RFP and identifying such exceptions.

4.3.2. Respondent Checklist

Respondent checklist: Respondent should provide to the Company the properly completed Respondent Checklist (Appendix) as part of the proposal.

4.3.3. Table of Contents

Include a clear identification of the proposal by section and by page number as identified above.

4.3.4. Professional Background and Experience with the Proposed Solution

This section is for the Respondent to provide an executive overview and summary of your company and general description of the key features of Respondent’s proposed solution. It should include the items outlined in Section 2.1 of the RFP. Respondent shall also identify all subcontractors that it will employ to complete the proposed solution.

4.3.5. Proposed Solution and Project Plan

This is a response to the solution requirements as outlined in this document. Respondents should also provide a proposed project plan for the solution.

4.3.6. Costs Associated with the Proposed Solution

Respondents should provide a detailed breakdown of the costs associated with implementing the proposed solution.

4.3.7. Assumptions and Exceptions

Respondent should provide a list of assumptions made in developing the response to this RFP that should be considered when evaluating the response. Respondent should provide a stand-alone section listing any exceptions to the RFP (i.e., indicate which deliverables of the RFP Respondent cannot meet).

4.3.8. Glossary of Terms

Respondent should provide a glossary of terms that is specific to the Respondent’s solution.

4.3.9. Non-Wires Alternative Solution Questionnaire

Respondents should attach the responses to the **Non-Wires Alternative Solution Questionnaire (Attachment A)**, including as much detail possible, with the RFP submittal.



5. RFP Terms and Conditions

Each Respondent is solely responsible for including all pertinent and required information in its submission. O&R reserves the right to determine, at its sole discretion, whether a submission is incomplete or non-responsive.

Respondents should state clearly all assumptions made with respect to this RFP. In the absence of an explicit statement to the contrary, each Respondent shall be deemed to have agreed with and understood the requirements of this RFP. While O&R has endeavored to provide accurate information, O&R makes no warranty or representation of accuracy.

Any exceptions to the terms, conditions, provisions, and requirements herein must be specifically noted and explained by Respondent in Respondent's response to this RFP. O&R will assume that any response to this RFP expressly accepts all the RFP terms, conditions, provisions and requirements, except as expressly and specifically stated by a Respondent in Respondent's response to this RFP.

Respondents agree to keep confidential all information provided by O&R in connection with this RFP.

5.1. Qualifications of Respondents

The Company may make such investigation as the Company deems necessary to determine the qualifications of Respondent and proposed subcontractors to perform the work. A Respondent should promptly furnish any information and data for this purpose as may be requested by the Company. The failure of a Respondent to produce timely information and data requested by the Company may provide a basis for rejection of the proposal.

5.2. Proprietary Information

If a proposal includes any proprietary data or information that a Respondent does not want disclosed to the public, Respondent must specifically designate such data or information on each page on which it is found. O&R shall be held harmless from any claim arising from the release of proprietary information not clearly identified as such by a Respondent. Because of the need for public accountability, the following information regarding the proposal shall not be considered proprietary, even if such information is designated as such: pricing terms and non-financial information concerning compliance with RFP specifications.

5.3. Cost of Proposal Preparation

The cost of preparing a proposal in response to this RFP, including, but not limited to, the cost associated with site visits and preliminary engineering analysis, is solely Respondent's responsibility and will not be reimbursed by O&R.

5.4. Right to Reject

This RFP shall not be construed to establish an obligation on the part of O&R to enter into any contract, or to serve as a basis for any claim whatsoever for reimbursement of costs for efforts expended by Respondent. Furthermore, the scope of this RFP may be revised at the option of O&R at any time, or this RFP may be withdrawn or cancelled



by O&R at any time. O&R shall not be obligated by any statements or representations, whether oral or written, that may be made by the Company, its employees, principals, or agents in connection with this RFP.

O&R reserves the right to accept any responsive proposal, to reject any and all proposals, and to waive irregularities or formalities if deemed to be in the best interests of the Company. Any such waiver shall not modify any remaining RFP requirements nor excuse any Respondent from full compliance with all other RFP specifications and contract requirements if the Respondent is awarded the contract. O&R shall reject the proposal of any Respondent that the Company determines not to be a responsible bidder, or whose proposal the Company determines to be non-responsive.

O&R reserves the right to withdraw this RFP at any time and for any reason, and to issue such clarifications, modifications, and/or amendments as it may deem appropriate. Receipt by the Company of a response to this RFP confers no rights upon a Respondent, nor any obligations upon the Company.

5.5. Revision to the RFP

O&R reserves the right to make changes to this RFP by issuance of one or more addenda or amendments and to distribute additional clarifying or supporting information relating thereto. O&R may ask any or all Respondents to elaborate or clarify specific points or portions of their submission. Clarification may take the form of written responses to questions or phone calls or in-person meetings for the purpose of discussing the RFP, the responses thereto, or both.

If it becomes necessary to clarify or revise this RFP, such clarification or addendum shall be issued by the Company by letter, email or written addendum to the RFP. Any RFP addendum shall be delivered by hand, certified mail, facsimile, e-mail or delivery by courier service which certifies delivery. Only those respondents that have already received the proposal documentation directly from the Company will be provided the clarification. Any addendum to, and/or clarification or revision of this RFP shall become part of this RFP and, if appropriate, part of the Agreement that derives from the RFP.

5.6. Basis of Contract Award

Any contract award(s) that may be made by the Company shall be made to the most responsive and responsible respondent meeting the specifications, price and other factors considered, as determined by the Company, in its sole discretion. The proposal evaluation criteria are set forth within this RFP.

5.7. Duration of the Contract

The duration of the Agreement will be for a term agreed to by O&R and the Respondent during contract negotiations and will depend on the parameters of the proposed solution(s) (e.g., the ability to defer traditional capital investments for as long as possible while meeting BCA criteria). Agreements will typically commence upon the completion of construction and commencement of operation of the solution unless otherwise provided herein. In the event that the Company determines not to proceed with the project, the successful Respondent will be paid in accordance with the amounts as agreed by the Respondent and the Company.



5.8. Underperformance

Respondents should note that failure to deliver load relief committed to as part of any solution may result in liquidated damages and/or other consequences provided for by the contract between Respondent and O&R.

5.9. Security

Respondents are put on notice that if a Respondent's solution is selected, then Respondent will be required to furnish security to O&R that demonstrates, among other things, financial capability to pay liquidated damages in the event that the Respondent fails to satisfy its Load Reduction Guaranty during the period required.

5.10. Subcontracting and Assignment

No portion of the work associated with any project resulting from a successful response to this RFP by a Respondent may be delegated, subcontracted, assigned, or otherwise transferred without the prior written approval of the Company in each case.



Appendix A: Respondent Checklist

The Respondent must provide the following checklist which must be properly completed with the proposal and submitted to the Company as part of the proposal.

Checklist Item	Initial
REVIEWED ALL RFP DOCUMENTS AND LAWS AND REGULATIONS THAT IN ANY MANNER MAY AFFECT COST, PROGRESS, OR PERFORMANCE	
FULLY COMPLETED PROPOSAL ADHERING TO THE FORMAT PROVIDED WITHIN THIS RFP	
ENABLED IN CON EDISON PROCUREMENT SYSTEM	
FULLY COMPLETED NON-WIRES ALTERNATIVE SOLUTION QUESTIONNAIRE (ATTACHMENT A)	
<ul style="list-style-type: none"> • Summary 	
<ul style="list-style-type: none"> • Energy 	
<ul style="list-style-type: none"> • Financials 	
<ul style="list-style-type: none"> • Additional Review Criteria 	

NOTE: FAILURE TO COMPLY WITH RFP PROCESS, COMPLETION AND SUBMITTAL OF ALL THE ABOVE DOCUMENTS ON THE FORMS PROVIDED HEREIN, WILL RESULT IN A REJECTION OF YOUR BID.

By placing my initials in the boxes provided above, I acknowledge having read and that I understand fully all of the requirements of this RFP, including with regard to each of the documents referenced herein.

RESPONDENT (SIGNATURE):

RESPONDENT (PRINT NAME):

DATE: