West Warwick Non-Wires Alternatives Pre-Bid Webinar

October 16, 2019

Agenda

- Purpose
- O&R NWA Process
- West Warwick NWA Overview
- Description of Need*****
- Potential Solutions
- Information to Include in Bid
- Evaluation Criteria
- Proposal Response and Submittal Process
- RFP Schedule
- Next Steps: Clarification Questions

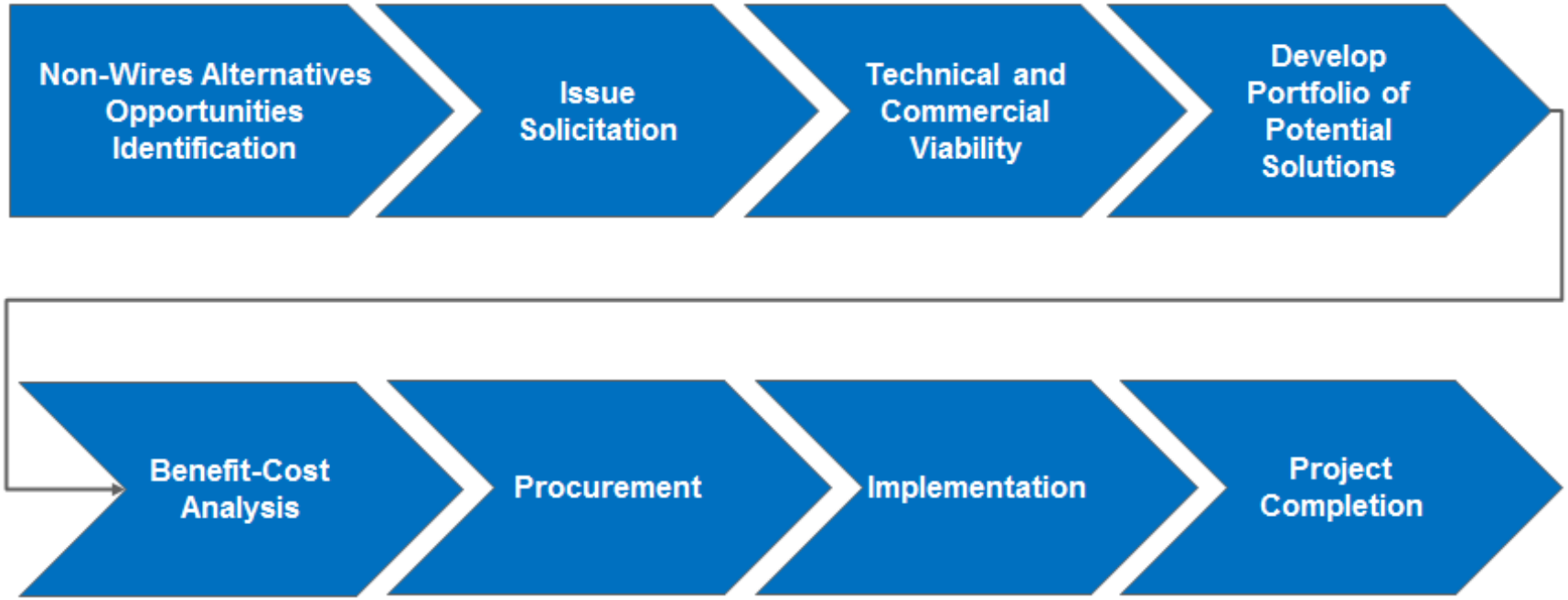
*Revision made to slide 11- Description of Need (6 of 6)

Purpose

- Through this webinar, O&R intends to:
  - Describe the O&R Non-Wires Alternatives (“NWA”) process
  - Provide an overview of the West Warwick NWA RFP
  - Discuss the evaluation criteria and process
  - Review next steps
- This webinar is not intended to:
  - Discuss potential solutions in detail

O&R NWA Process

- The process shown below is an example of the high-level steps that occur during the NWA process, which includes the evaluation, procurement, and implementation of potential solutions.



West Warwick NWA Overview

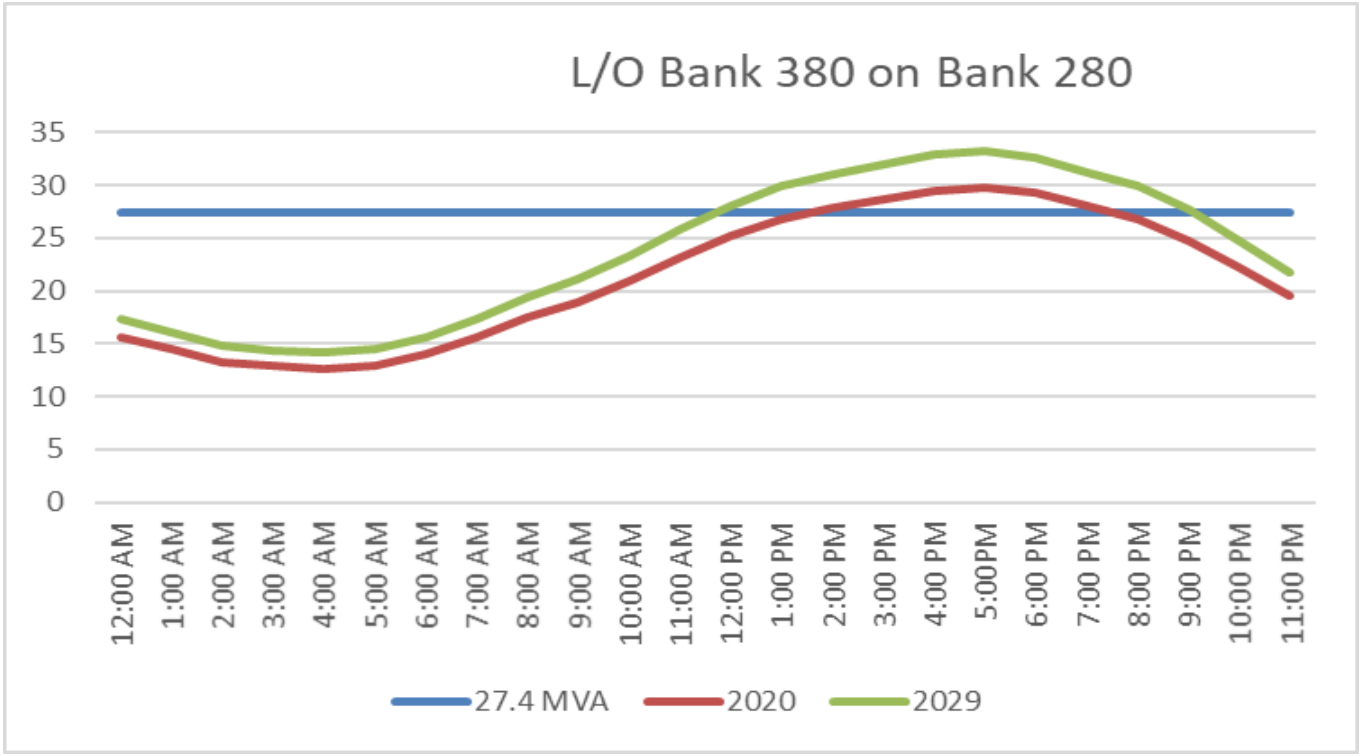
- The Objective
  - O&R proposes to implement the West Warwick (“WW”) NWA project to defer a capital infrastructure investment to meet short-term and long-term energy needs.
- The Need
  - The scope of the WW NWA will be to provide capacity on the portion of the local electric delivery system that does not have backup during the worst contingency scenario on banks 280 and 380 at the Wisner Substation.
- The Traditional Solution
  - O&R’s traditional solution is to construct a new substation with a larger capacity with two 50 MVA banks, installation of tie 13.2kV bus with a flip flop scheme and additional station circuits to serve the growing load in West Warwick and Florida area.

Description of Need (1 of 6)

- The Wisner 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.
- In the event of a bank contingency, the 13.2 kV bus tie between the two transformers needs to be switched manually to transfer load from one transformer to another. Therefore, both banks must be temporarily de-energized for field crews to safety close the 13.2kV tie.
- 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

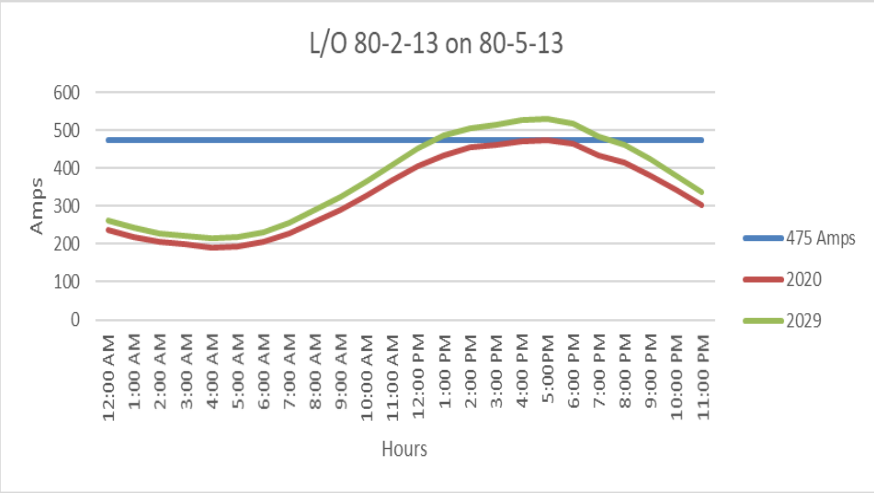
Description of Need (2 of 6)

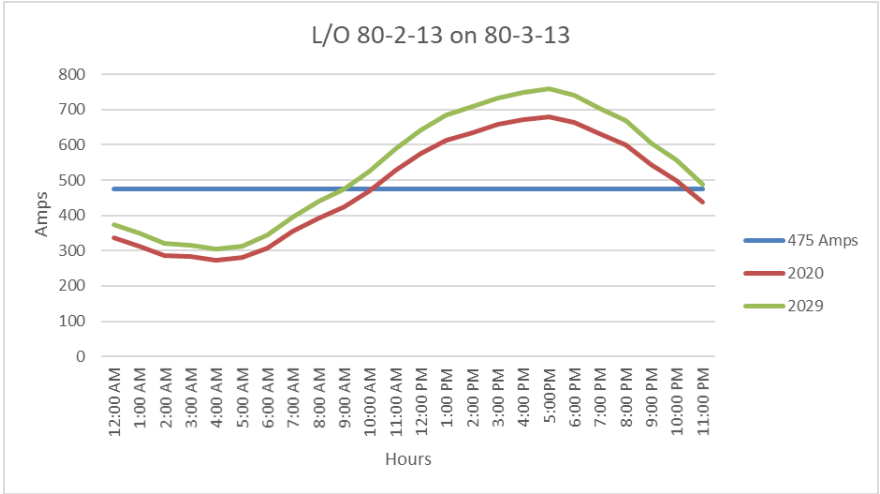
- Loss of Bank 280 or 380



Description of Need (3 of 6)

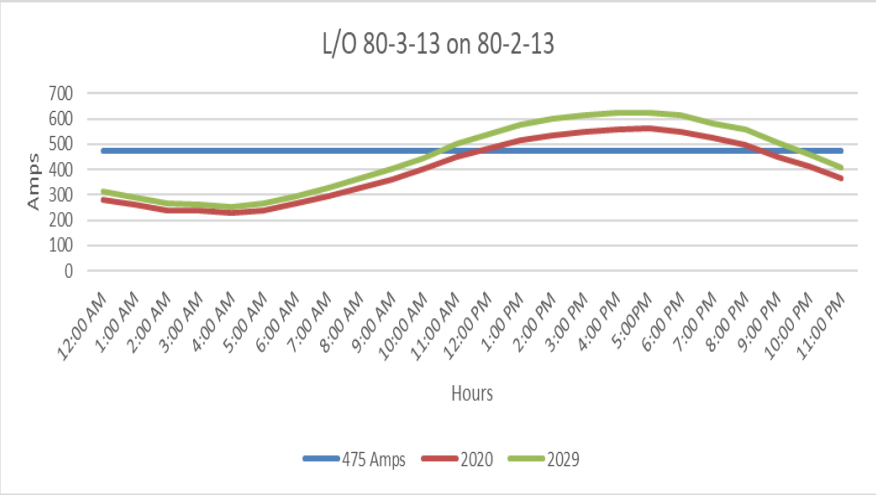
- Loss of 80-2-13 Circuit

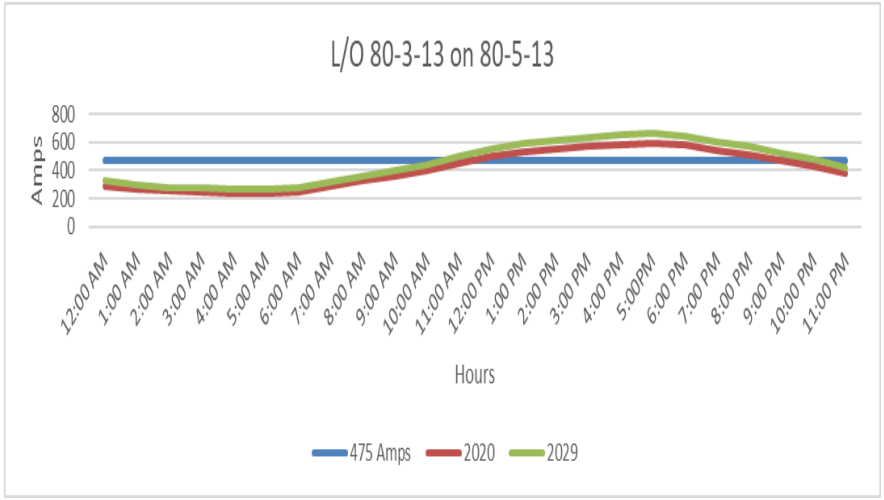




Description of Need (4 of 6)

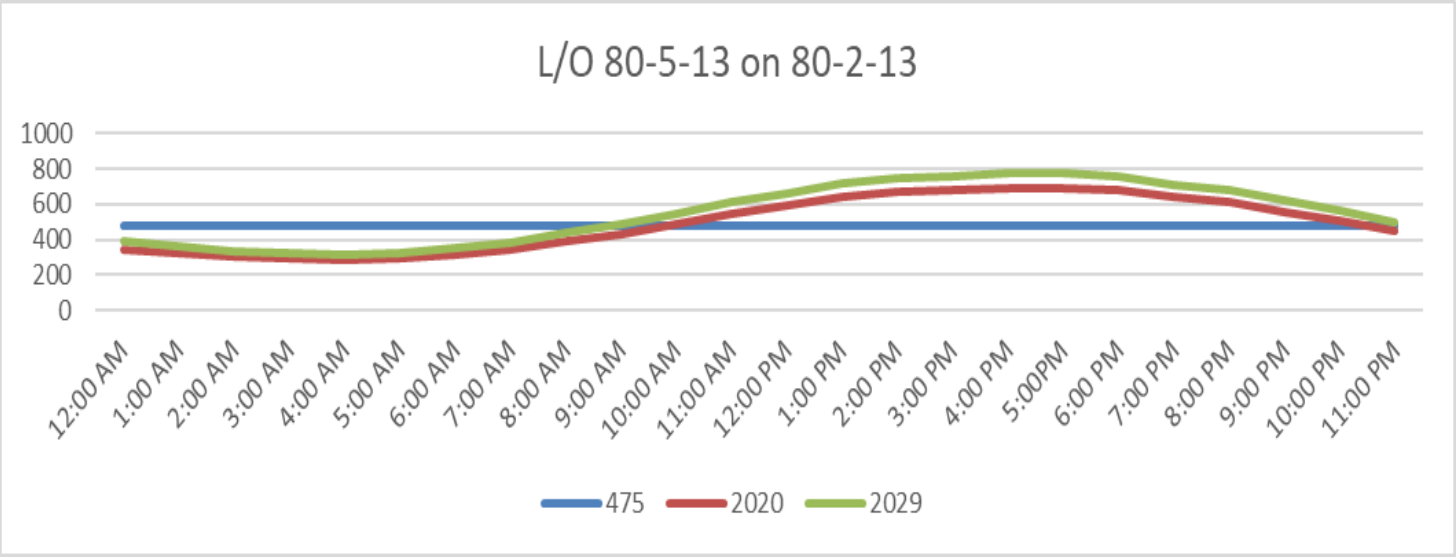
- Loss of 80-3-13 Circuit





Description of Need (5 of 6)

- Loss of 80-5-13 Circuit



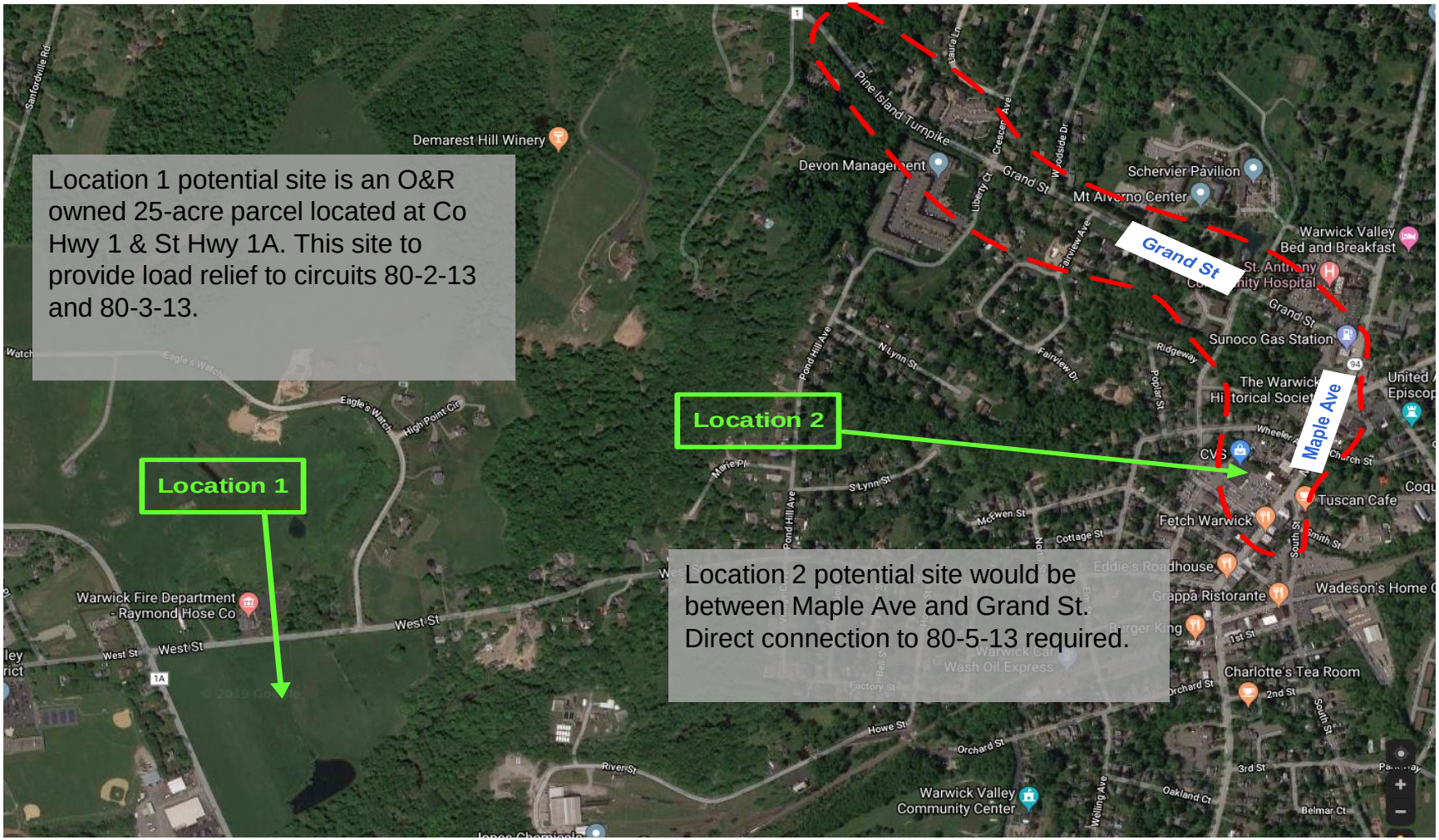
Description of Need (6 of 6)

- Customer Breakdown
  - The Wisner substation serves approximately 4,500 customers, the majority of which are residential.

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	**3,958**	**547**	**4,505**

Circuit	MW	MWh
80-3-13	4 MW	29MWH
80-5-13	3 MW	22MWH
80-2-13	3 MW	24MWH

West Warwick NWA Proposed Locations



Potential Solutions (1 of 2)

- The RFP seeks an **alternative solution** which will solve a **contingency need**, in an area where a capital investment is needed to improve system **reliability** and **resiliency**.
- Alternatives may include the following DER: (a) Energy efficiency ("**EE**"), (b) Demand response ("**DR**"), (c) clean (i.e., gas fired and/or solar) distributed generation ("**DG**"), (d) energy storage ("**ES**"), and/or (e) **any combination** which may allow the Company to meet the stated need.
- 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.

Respondents are encouraged to submit innovative, creative proposals for marketing, sales, financing, implementation, maintenance, contracting and pricing structures, and funding sources which will solve the contingency need, and maximize value to O&R's customers

Potential Solutions (2 of 2)

- Potential solutions 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:
  - Consist of group of interconnected loads and DER within a clearly defined electrical boundary,
  - Act as a single controllable entity with respect to the grid – isolated by automatic switching devices to be installed by O&R,
  - Connect and disconnect from the grid to enable operations in parallel with the existing system, or as an island.
- Vendor proposals **should demonstrate** :
  - The 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.

Information to Include in Bids

- Responses should include:
  - **Methods** and **procedures** required to comply with technical, safety, and operational requirements for the interconnection and operation of equipment with O&R's electric delivery system,
  - For proposed renewable generation, verification that stated **demand reduction coincides with the Company's peak loading period**,
  - For demand reduction services, assurances that the **committed amount of measures will be installed**, and that the **committed in-service date for each measure will be met**,
  - **Data and methodologies** used to estimate demand reduction, annual kWh savings attributable to each measure/solution proposed, and methods/proposals to confirm measurement and verification of delivered demand reductions
  - Proposals which require deployment on **utility property or ownership models** involving utility ownership, or operation and maintenance, or both, by the Company
  - **Information which 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

Evaluation Criteria (1 of 2)

- Evaluation criteria will include but not be limited to:
  - **Proposal content:** comprehensive proposal which addresses the need.
  - **Viability:** extent to which the proposed solution would address the need.
  - **Functionality**: the extent to which the proposed solution would provide the needed load reductions
  - **Proposed NWA technology:** the maturity of DER technology being proposed, ability to scale that technology, and any potential risks in deploying the proposed technology, and planned mitigations for those risks.
  - **Project Timeline and Implementation Plan:** the ability to meet O&R's schedule and project deployment requirements,
  - **Respondent Qualifications:** Respondent's relevant experience and success providing these solutions to other locations, including references and documentation of results

Evaluation Criteria (2 of 2)

- Evaluation criteria will include but not be limited to:
  - **Price and reliability:** respondents should provide the pricing for the project broken down as follows:

DER solution	Size	Material Cost	Labor Cost	Admin Cost	Total O&R cost	Total Cost of the Project

    - Respondent should itemize and identify various items in each of the cost buckets, i.e., material cost components, labor cost components
  - **Applicability to REV:** supports the goals and objectives outlined in the REV proceedings
  - **Execution risk:** the expected ease of project implementation within the timeframe required (e.g., permitting, construction risks, operating risks)

Proposal Response and Submittal Process

- The following process should be used to submit proposals:
  - 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 unable to submit their proposals. Respondents are encouraged to upload their proposals well in advance of the closing time to avoid any potential issues.
  - Respondents must take the following actions to ensure acceptance of a proposal submission:
    1. Download the West Warwick NWA RFP, Non-Wires Alternative Questionnaire, and Supplier Enablement Template.
    2. Become enabled in the Oracle RFQ System* by submitting the following items to Michael Heaton (heatonm@coned.com) (a) W-9 form (version last updated), and (b) Supplier Enablement Template (Select 'Sourcing' under Oracle responsibility field). Please note: if a 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
    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 prior to the deadline.

RFP Schedule

RFP Solicitation Milestones	Completion Date
RFP Issued	**September 30, 2019**
Pre-bid conference call	**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, 2019**

Clarification Questions

- In order to ensure equal access to RFP information, O&R will accept, answer and respond to vendor questions according the following process:
- During the clarification period, Respondents should direct clarification questions via email to O&R's Utility of the Future team, heatonm@coned.com, of O&R's/Con Edison's Supply Chain Department.
- The deadline for submitting clarification questions is on Wednesday, October, 30 2019.
  - O&R will have no obligation to evaluate late submissions, nor be responsible in any way for any consequences associated with late submissions
- All questions and answers deemed essential for the viable submission of a bid response will be publicly posted at **https://www.oru.com/en/business-partners/non-wires-alternatives**
  - Respondent's identities will be kept confidential.

Thank you.