BEP - Backup Power Capabilities

This document is for review only, to submit your response please use the submission form provided here.

1.1 Company Background

ComEd is a unit of Chicago-based Exelon Corporation (NASDAQ: EXC), a Fortune 250 energy company with approximately 10 million electricity and natural gas customers. ComEd powers the lives of more than four million customers across northern Illinois, or 70 percent of the state's population.

1.2 RFI Background

ComEd is soliciting ideas from interested parties to inform the implementation of the eight BE pilots approved in the Final Order in ComEd's Beneficial Electrification Plan ("BE Plan") proceeding. These pilots aim to test new technologies in new communities and ComEd is using the request for information ("RFI") process to understand the benefits and risks associated with these technologies from a diverse set of viewpoints.

Several electric vehicle (EV) models, both currently available and those on the horizon, are marketed with bi-directional charging capability. The bi-directional charging capability enables the use of the EV's battery as a backup power source as a solution in several scenarios. As EVs with this capability become more widely available, ComEd aims to gain an understanding of how these features will be beneficial to its customers, communities, and the grid.

Utilizing EVs as a backup power source offers several advantages to the customer such as 1) providing a backup power source during outages, 2) operational cost savings compared to conventional generators, and 3) clean, noise-free power source. In addition to these, Vehicle-to-Home (V2H) integration of EVs may also be leveraged to offset customer's energy costs during peak hours and reduce the peak load demand on the grid, opening the potential for EVs to be considered as a Non-Wires Alternative (NWA) to reduce distribution system constraints during peak hours.

1.3 RFI Objectives

As part of the current BE Plan, ComEd is developing a portfolio of BE pilots to increase the positive impact of increased electrification, especially transportation electrification, that may help inform its next BE Plan. ComEd will continue to develop a forward-looking electrification strategy, and for these guided BE pilots, that begins with the information collected through RFI responses.

ComEd's intent for Backup Power Capabilities RFI is to better understand and explore technologies related to supplying back-up power and the practicalities of NWA applications from using the bi-directional charging capability available on several current EV models. While ComEd's primary interest is in residential backup power, ComEd is also open to studying other suitable use cases.

ComEd is looking to gain insight into the implementation, advantages, and potential challenges of using EVs as a backup power source. Specifically, ComEd intends to understand the following:

- Additional hardware and software infrastructure required to enable backup power using an EV's bi-directional charging capability.
- Current and upcoming standards for vehicle-to-home interconnection.
- Requirements to leverage V2H capability to implement demand response and other potential applications.
- The potential to extend the backup power system's capabilities to provide Vehicle-to-grid services.

This RFI does not commit ComEd to award a contract, pay any costs incurred in the preparation of a response to this RFI, or procure or contract for services. ComEd reserves the right to accept or reject any or all proposals received as a result of this RFI, to negotiate with any qualified submitting entities, or to cancel this RFI in part or in its entirety.

ComEd may launch a Request for Proposals (RFP) in 2024-2025, with the pilot contract in 2024-2025. Details on timing release will be shared as a follow-up to the RFI. ComEd reserves the right to cancel or change the proposed RFP release dates and details.

2.1 RFI Schedule

This RFI will be launched on November 3, 2023. Responses will be accepted until December 1, 2023 at 5:00 p.m.CST. It is the sole responsibility of the responding firms to

ensure their submission is received through Qualtrics on or before the due date and time.

2.2 Schedule of Events

RFI issued – November 3, 2023

Response to RFI deadline – 5:00 p.m. CST December 1, 2023

Submitting participants will be notified of next steps after ComEd has reviewed responses – No later than March 1, 2024

2.3 Documentation and point of contact

Participants should respond with the information listed in the questions below (and found in the submission form). For questions or concerns regarding this solicitation, please reach out to BEPilots@comed.com.

SUBMISSION QUESTIONS

1. Describe, in sufficient detail, what concept(s) could support and meet the objectives of this pilot and to enable the implementation of a scalable and successful pilot.
2. Please rank the following benefits that could be achieved by this pilot in order from most important to least important:
    a. Advances beneficial electrification
    b. Increases grid resilience, reliability, or power quality
    c. Economic benefits to customers
    d. Energy savings to customers
    e. Decreases in greenhouse gas emissions or local air pollution
    f. Addresses an existing equity gap, either with regard to technology access, program benefits, or community stakeholder inclusion
3. Are there any benefits not included in the list above that ComEd should consider? If so, how would you rank it in the list above?
4. Cite or provide links to any studies, references, or benchmarking data that support aspects of this pilot.

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5. Provide a list of current manufacturers or suggested suppliers who produce products/technologies that can be used in this pilot. If known, please detail product readiness and any known deployments.
6. Identify or propose geographical regions where this pilot can best provide benefit and/or experience successful deployment.
7. Describe how this pilot can be designed to maximize customer benefits including energy savings, cost savings, and non-energy benefits.
8. Describe how this pilot can be designed to benefit income-eligible customers or Equity Investment Eligible Communities
9. Provide a list of any community groups or other relevant stakeholders that may be beneficial to engage in the development or implementation of this pilot.
10. Describe what considerations should be made for the overall potential grid impact of the pilot and how that can be measured.
11. Describe the potential operational and safety risks that should be considered and addressed in the development of this pilot. What technologies or measures can be put in place to mitigate these risks?
12. Please provide any additional information that could contribute to the successful implementation of this pilot.