

BULK POWER ENERGY STORAGE PROCUREMENT OF SCHEDULING AND DISPATCH RIGHTS – REQUEST FOR PROPOSAL

National Grid

September 30, 2019

APPENDIX C2 - INTERCONNECTION

Electric interconnection refers to the technical process undertaken by the Winning Bidder, and with support from National Grid and NYISO representatives, to determine required equipment to connect the energy storage project (“Project”) to National Grid’s distribution system. The characteristics of a Project’s interconnection to the electrical grid and the reliability of its deliveries are integral components of National Grid’s Offer evaluation process.

The Winning Bidder is responsible for understanding and meeting all interconnection requirements as required by the NYISO and National Grid. The Winning Bidder is responsible for all activities and costs associated with obtaining interconnection, including, but not limited to, interconnection study costs, Distribution Upgrades, Network Upgrades, and Interconnection Facilities as determined via the relevant interconnection process. However, the interconnection costs will be determined by National Grid and **should not** be provided in the bid price. Also, it is recommended that Bidders do not submit an interconnection request with National Grid until the Winning Bidder is notified.

Following bid evaluation and notification of the Winning Bidder(s), the following major steps will take place:

1. Winning Bidder submits Project interconnection application.
2. Interconnection feasibility study completed with estimated interconnection costs identified.
3. Both National Grid and the Winning Bidder execute the Contract.
4. Winning Bidder commits to final interconnection study work scope and makes associated payments.
5. National Grid, in collaboration with the NYISO, will conduct the final Interconnection study and determine costs to interconnect.
6. Finalize and execute Interconnection Agreement¹
7. Construction of the Project.
8. Witness Testing.
9. Commercial Operation.

Please refer to National Grid’s Electricity Tariff – PSC No. 220 and applicable Electric Service Bulletins² and the NYISO’s interconnection website and tariffs,³ for complete information and the most current effective interconnection tariffs and definitions. The Bidder shall specify in their proposal which of the four (4)

¹ The executed Interconnection Agreement may contain provisions attributable to the Project being under full dispatch control of National Grid. Please see Appendix D1 – Term Sheet.

² https://www9.nationalgridus.com/non_html/ESB756--0618_v4%20complete.pdf

³ <https://www.nyiso.com/interconnections>

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identified locations where the proposed Project(s) will be sited and ensure the proposed Project(s) meets all location-specific system requirements (see Appendix E - Location & Use Cases). Any Winning Bidder for the Old Forge location shall be required to provide a validated software simulation model for the interconnection study. See Appendix E for more details.

A minimum of two revenue grade meters (see example below in [Figure 1](#)) will be required to separate the storage Project’s ancillary load from the energy used to charge the storage Project. The meter locations may change depending whether the storage can self-supply or not⁴.

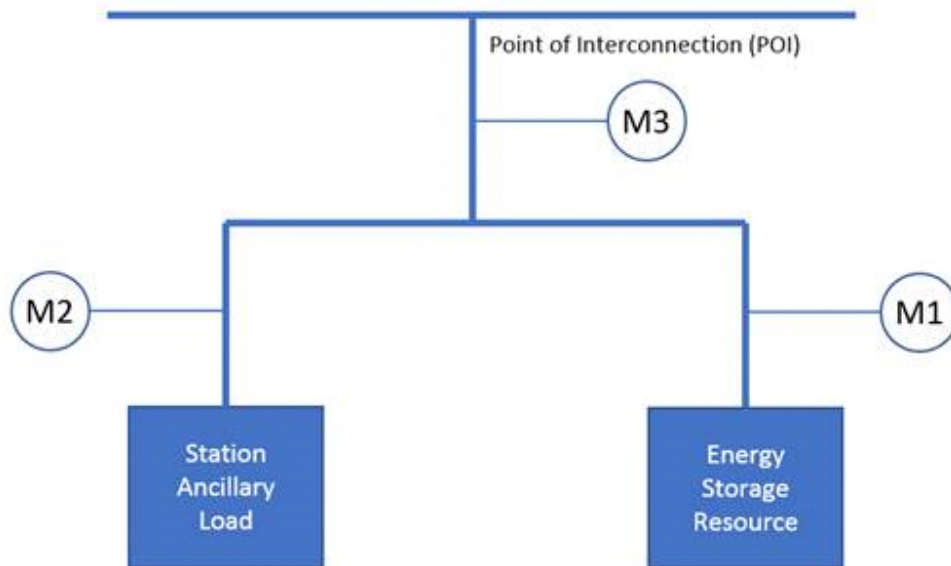


Figure 1. Example Storage Metering Configuration from NYISO

⁴ The Old Forge location is an exception as the station ancillary load must be self-supplied during an outage.

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Please answer every question below for each location the Bidder is proposing for a Project location (if more than one).

APPLICATION STATUS AND DELIVERY POINT

Please provide the required information in the order requested below. Indicate if a question/request is not applicable but do not leave responses blank.

1. Submit information per the applicable interconnection process necessary for National Grid to determine the technical requirements for interconnection and cost estimates.
2. Provide proposed Project drawings and diagrams including the following:
 - a. General equipment arrangement of the Site
 - b. Three-line diagrams showing the POI through to all associated three-phase connections within the Project
 - c. Network communication and control diagrams illustrating how the Project will be integrated with National Grid's EMS/ADMS system
 - d. Compliance with NYISO telemetry and data requirements
 - e. Monitoring and control SCADA points from the Project that will be available to National Grid using DNP3 or ICCC (see Appendix F for more details).
3. Provide a map that shows the tax parcel boundary(ies), the Project boundary, and location of the Project's key facilities such as, energy storage asset, switches, control cabinets, transformer(s), distribution line interconnection, etc.
4. Provide the map of the Project boundary, access roadways, gen-tie route, and the rights-of-way for all interconnecting utilities using a digital map (.pdf, .jpg, tiff, etc.) format with a view of the aerial street or USGS topographical background.
5. Describe the Bidder's ability to post security for cost allocation of upgrades that will be identified by National Grid upon completion of the interconnection study.