



Consolidated Edison Company of New York, Inc.

Request for Proposal

Battery Based Energy Storage Systems for Con Edison Substations

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Battery Based Energy Storage System for Con Edison Substations

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1 General Information & Background

Consolidated Edison Company of New York, Inc. (the “Company” or “Con Edison”) is extending a request for proposal (“RFP”) from qualified and experienced battery energy storage vendors (“Vendors”) with the capability to deliver, install, and commission one or more battery energy storage systems (“BESS”). Each system is expected to be delivered and commissioned by 1-July-2025, and for the 10-year post-commissioning period the vendor is expected to provide a separate performance warranty and maintenance service contract.

Con Edison is requesting a combined proposal for the following projects:

- Fresh Kills 11.6MW / 46.4MWh Energy Storage Project
- Glendale 5.8MW / 23.2MWh Energy Storage Project
- Brownsville 5.8MW / 23.2MWh Energy Storage Project.

The Company may or may not choose to act on the third project, Brownsville.

The BESS will be owned by Con Edison and located at Con Edison’s substation property. Con Edison will use the BESS to support Con Edison’s electric distribution system needs and, when not so needed, Con Edison plans to use the BESS for participation in some or all the available NYISO markets.

1.1 Objective and General Guidance

Except for the limited work Con Edison will undertake, as described in Section 2.2 below (Con Edison Substation Battery Energy Storage System Scope of Work), the Vendor will be responsible for supplying the BESS to Con Edison, obtaining all necessary permits for the BESS, fully integrating the BESS to Con Edison’s SCADA system so that Con Edison can monitor and operate the BESS, and completing all the work to successfully commission the BESS within an agreed upon commissioning deadline and as measured by specified commissioning tests. In addition, the vendor must provide Con Edison with a 10 year post-commissioning operation and performance warranty that meets the minimum requirements as laid out in Section 2.3, Section 2.4, and Exhibit B – Minimum Technical Specifications. After commissioning, the Vendor will be responsible for uninterrupted remote monitoring of the BESS, and performing all warranty work, and preventative and unplanned maintenance work. The Vendor should provide Con Edison with an operational report on a monthly basis. The Vendor should also provide Con Edison with a Decommissioning Plan, which the Company may or may not choose to act on.

1.2 General Guidelines

Contact by Vendor regarding this RFP with any Con Edison employee, contractor, or consultant, other than the individual(s) designated herein, prior to finalization of a contract is prohibited and may constitute grounds for disqualification. Vendor will have adequate opportunity to obtain any reasonably necessary information.

Con Edison 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. Con Edison reserves the right to cancel or withdraw this RFP for any reason or no reason.

Con Edison may ask any or all Vendors 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 responses thereto.

It is the sole responsibility of a responding Vendor to ensure that all pertinent and required information is included in its submission. Failure to adhere to the described format and to include the required information could result in disqualification of responses to the RFP. Con Edison reserves the right to determine at its sole discretion as to whether a submission is incomplete or non-responsive.

If the Vendor makes assumptions about the meaning or accuracy of information contained in this RFP, then they should state their assumptions in its submission. If Vendor does not ask questions or seek to clarify any assumptions, Con Edison will assume that the Vendor agrees with and understands the requirements in the RFP.

While Con Edison has endeavored to provide accurate information to Vendors, Con Edison makes no warranty or representation regarding the accuracy of the information contained in this RFP and all information is provided by Con Edison on an “as is” basis.

Con Edison reserves the right, but does not have the obligation, to verify all information provided by a Vendor firm by any means Con Edison deems reasonable, including direct contact of prior clients of a Vendor firm as well as its past employees. Vendor firms are encouraged to provide and release necessary authorizations for Con Edison to verify any of the Vendor firm’s previous work, except where it is contractually prohibited from doing so pursuant to customer agreements. Misstatements of experience and scope of prior projects may be grounds for disqualification from this RFP process.

Vendor firms will not issue any public statements or otherwise disclose any information concerning this RFP, this RFP process or their participation in the process without the prior written approval of Con Edison.

This RFP shall not be construed in any manner to create an obligation on the part of Con Edison to enter into any contract, or to serve as a basis for any claim whatsoever for reimbursement of costs for efforts expended by Vendor firms.

Furthermore, the scope of this RFP may be revised at the discretion of Con Edison at any time, or this RFP may be withdrawn or canceled by Con Edison at any time. Con Edison shall not be obligated or bound by any responses or by any statements or representations, whether oral or written, that may be made by Con Edison or its employees, principals or agent. Con Edison reserves the unqualified right to reject any or all submissions submitted hereunder for any reason whatsoever or for no reason.

Any exceptions to the terms, conditions, provisions, and requirements herein must be specifically noted and explained by a Vendor in its response to the RFP. Con Edison 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 Vendor in its response to the RFP.

By participating in this RFP, each responding Vendor agrees to keep confidential all information provided by Con Edison to the Vendor in connection with this RFP.

1.3 RFP Schedule

The expected project timeline for all proposals is shown below. Responses that are selected for implementation must be installed and Substantial Completed before June 1st, 2022.

RFP Solicitation Milestones	Completion Date
Issue RFP	15-May-2023
Deadline for Vendors to submit clarification questions	26-May-2023
Con Edison responses to clarification questions due	9-Jun-2023
Qualified Vendors proposals due	7-Jul-2023

It shall be the Vendor’s responsibility to advise Con Edison, before the proposal response deadline, of conflicting requirements or omissions.

Con Edison reserves the right to change any of the above dates.

2 Scope of Work

This section identifies the scope of the battery energy storage system (“BESS”) proposal. The following requirements listed are not intended to be exhaustive but are the major requirements that must be met by any BESS to be interconnected on the Con Edison system.

Additionally, it should be noted that Con Edison is requesting the Vendor to provide all a full battery equipment solution, therefore all bid pricing shall include development, design of the BESS, financing, and permitting of the battery equipment in addition to installation at the site. Con Edison will perform all civil and electrical work on the site, and Vendor will not be responsible for certain work that will be

performed by Con Edison, as specified in Section 2.2, and Vendor should exclude that limited work scope from its pricing proposal. Con Edison also expects the bid to separately describe and include pricing for 10-year post-commissioning monitoring, minimum performance warranty, maintenance, and repair with respect to the selected BESS.

Vendor will be responsible for transferring title to the BESS to Con Edison, free and clear of all liens, claims, and encumbrances upon substantial completion.

It is the responsibility of the Vendor to ensure that the BESS conforms to all applicable federal, state, and local laws, regulations, codes, and orders of AHJ – Authorities Having Jurisdiction at the location of installation. Specifically, the Vendor must have obtained or show a clear path to obtain Certificate of Approval (TM-2) from the Fire Department of New York City (“FDNY”) six months prior to scheduled delivery of the BESS. Vendor must submit UL 9540A (Underwriters Laboratories Standard) test report for their solution as part of approval process.

Vendor must design, construct, install, commission, maintain, and repair the BESS in accordance with all applicable and mandatory standards, criteria, and formal guidelines of FERC, NERC, NYISO, and any other electric system authority, all required permits and codes, all applicable federal, state and local laws and regulations, the standards and requirements set forth in the contracts entered into by Vendor and Con Edison in connection with the project, and prudent industry standards.

2.1 Financial Requirements

Con Edison expects the Vendor to provide proof of financial health to be able to not only deliver the BESS when a contract has been signed between Con Edison and Vendor, but also to support the warranty obligations for the duration of the contract. Furthermore, the Vendor shall provide a plan for how it intends to support the separate Maintenance Contract.

2.2 Con Edison Substation Battery Energy Storage System Scope of Work

Con Edison is pursuing a total of 17.5MW / 69.6MWh battery energy storage equipment to be installed at two of its substations.

Con Edison will perform the civil work on the site including installing concrete pads or other foundation for the energy storage modules and associated switchgear, spill containment systems, conduits, and enclosures based on the specifications provided by the vendor. If the battery equipment has separate inverter and battery enclosures, Con Edison will design and construct the conduits between those enclosures, but battery vendor will supply and pull any cables between these enclosures.

Con Edison will design and provide the 480Vac interconnection between the battery equipment AC/DC inverter and the distribution feeder including switchgears and transformers. 600Vac can be contemplated based on technical and economic reasons, but Con Edison will make the final decision.

External fire protection and fire alarms will be engineered and constructed by Con Edison. If the battery equipment has internal dry pipe deluge system, Con Edison will design and construct the dry pipe connection from the site to the battery equipment

The Vendor is expected to work with Con Edison on the interconnection of the BESS to the substation.

2.3 Functional Requirements

The specifications are summarized in Exhibit B. Below is given the high-level requirements.

2.3.1 Fresh Kills Substation

The power rating of the BESS should be 11.6MWac as measured on the high side of the transformers connecting the BESS with the substation. The energy rating should be at least 46.4MWh for minimum 16,240 MWh of discharge in any 12-month period as measured at the point of common coupling throughout and by the end of the 10 years design life. The actual energy rating will depend on the design of the Vendor's energy storage system and the need to fit in the assigned space, while adhering to all applicable permits and local, state, and federal rules and laws.

The capacity of the system is expected to be verified at least twice annually. The first verification should be part of Substantial Completion acceptance. Capacity test definitions and procedures are provided in Exhibit C – Storage Rating Tests - Company Owned Systems.

2.3.2 Glendale Substation

The power rating of the BESS should be 5.8MWac as measured on the high side of the transformers connecting the BESS with the substation. The energy rating should be at least 23.2MWh for minimum 8,120 MWh of discharge in any 12-month period as measured at the point of common coupling throughout and by the end of the 10 years design life. The actual energy rating will depend on the design of the Vendor's energy storage system and the need to fit in the assigned space, while adhering to all applicable permits and local, state, and federal rules and laws.

The capacity of the system is expected to be verified at least twice annually. The first verification should be part of Substantial Completion acceptance. Capacity test definitions and procedures are provided in Exhibit C – Storage Rating Tests - Company Owned Systems.

2.3.3 Brownsville Substation

The Company may or may not choose to act on this project. The power rating of the BESS should be 5.8MWac as measured on the low side of the transformers connecting the BESS with the substation. The energy rating should be at least 23.2MWh for minimum 8,120 MWh of discharge in any 12-month period as measured at the point of common coupling throughout and by the end of the 10 years design life. The actual energy rating will depend on the design of the Vendor's energy storage system and the need to fit in the assigned space, while adhering to all applicable permits and local, state, and federal rules and laws.

The capacity of the system is expected to be verified at least twice annually. The first verification should be part of Substantial Completion acceptance. Capacity test definitions and procedures are provided in Exhibit C – Storage Rating Tests - Company Owned Systems.

2.3.4 Operational Parameters

The BESS system is expected to provide substation support for the benefit of Con Edison’s electric distribution system. The BESS must also be able to perform in all current and future NYISO markets available to the BESS. The BESS will be charged solely from energy provided by Con Edison from its electric transmission or distribution facilities.

2.3.4.1 Use Cases

Vendor will propose the minimum and maximum operating parameters for the BESS. The operating procedures will allow Con Edison to schedule the BESS for 7 days per week and 24 hours per day (including Holidays) for all available components of the BESS, unless the BESS is incapable of operating due to a force majeure event or a planned outage. Vendor is to propose a planned outage schedule, which cannot include the months of June through September (the “Summer Period”).

Vendor may assume the following usage profile for purposes of system specification, which reflect the probable range of system usage by Con Edison over the Agreement period

- Must be able to perform in all NYISO markets (current and future). This includes Capacity, Energy, Ancillary Services, and any other products or benefits associated with the Project, including, without limitation, Installed Capacity (ICAP), Energy, Operating Reserve Service (including both Non-Synchronized and Spinning Reserves), Voltage Support Service and Regulation Service, each as defined in the NYISO Tariff, products in markets other than NYISO (including any credits or other products associated with environmental, public policy or other attributes) and products associated with uses of the Project for the benefit of Con Edison’ distribution system unrelated to sales into NYISO or any other market.
- Must be able to perform dispatch in terms of charge and discharge within a 6 second interval responding to NYISO signals and market schedules within competitive NYISO markets including, but not exhaustively capacity, energy, ancillary reserves and frequency markets as directed by Con Edison.
- Must maintain greater than 96 percent availability for dispatch in each calendar year excluding planned maintenance outages.
- Must have a minimum Response Rate (or Ramp Rate) of at least 10% of the battery energy storage system’s Dispatchable Capacity per minute over the duration of the Agreement.
- Must provide Voltage and power factor correction as needed for grid or market needs. Minimum 0.9 – 1.1 PF at maximum rated power.
- Must provide VAR Support Service up to 50% of rated capacity.
- Must provide grid support in terms of peak load reduction and local contingency relief.

- The remote dispatch is expected to be facilitated through the Company's SCADA system (see 2.4.8 for more details).
- Must maintain a minimum of 85% Round Trip Efficiency over the duration of the agreement.

2.3.4.2 Operational Parameters

List any restrictions on battery use based on operating and/or warranty conditions, including:

- Maximum daily, monthly, annual, and lifetime Cycles, including any restrictions around depth of discharge, notification time requirements to perform, including expected communications latency and equipment response rate, from the time to dispatch instruction.
- Any required maintenance cycles and planned outages.
- Restrictions on at-rest Usable State of Charge that the energy storage facility must average over a year, month, or 24-hour period.
- Maximum Charge and Discharge Response Rates (ramp rates), and full power swing rate
 - Changes to Charging / Discharging Response Rates (ramp rates) as the system approaches 0% or 100% Usable State of Charge¹

2.3.5 Design Life

The minimum design will be for 120 months from substantial completion.

After the 10-year warranty and maintenance period is over, Con Edison may require the removal of the system at Con Edison's cost, or Con Edison may pursue an arrangement to extend the maintenance contract and/or expand the system. Con Edison may assume maintenance responsibility itself or seek another vendor for extended maintenance services. Vendor should outline their plans for decommission and recycling of their system upon removal.

2.3.6 Codes, Regulations, and Standards

In addition to NYISO market participation, the BESS is intended for grid support use in Con Edison's distribution area. The Vendor shall be responsible for identifying, obtaining, and complying with local agencies and Con Edison codes & standards for the design of the BESS.

The BESS will be designed in accordance with applicable sections of the following codes and standards and any other applicable codes and standards. To the extent any deviation from these codes and standards is legally permissible, Vendor must identify any expected deviations from these codes and standards and such deviations would require prior approval by Con Edison.

- Underwriters Laboratories Standards (specifically UL9540 and UL9540A)
- FDNY Rule 3RCNY 608-01
- NYISO Interconnection Specifications
- National Electric Safety Code (NEC)

¹ Usable State of Charge is based on the total battery rated energy less the energy kept in reserve to compensate for any degradation over the service life.

- Occupational Safety and Health Act (OSHA)
- American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)
- American National Standards Institute (ANSI)
- American Society for Testing and Materials (ASTM)
- American Welding Society (AWS)
- National Fire Protection Association (NFPA, i.e. NFPA 855)
- New York City Building Department (DOB)
- New York City Fire Department (FDNY)
- Institute of Electrical Engineers (IEEE) Std. 1547
- Noise codes for battery in New York City
- All applicable federal, state, and local environmental laws and regulations
- Any other official code or standard that may be applicable including those of municipalities.

Specifically, Vendor must show a thorough understanding of local FD requirements related to battery energy storage systems of the type contemplated for this project and Vendor must demonstrate how they intend to obtain FD approval of their proposed solution.

Third party Engineering certified test reports regarding the tests that are conducted by Underwriters Laboratories Standards UL9540A along with original UL test reports shall be obtained and submitted to Con Edison.

Additional to other specific design standards listed in the following sections of this RFP, the National Electric Code (NEC) will be used as a basis for design requirements. Deviations from NEC requirements must be identified to Con Edison in the Vendor's response to this RFP.

2.4 Technical Requirements

2.4.1 General

All components of the BESS, including storage modules, switching devices, components of monitoring and control systems, and components of auxiliary systems must be commercially available.

Electrochemical cells or modules must be replaceable. Designs employing experimental or otherwise undocumented components are not permitted.

The Vendor shall include in its proposal a summary of all technical requirements pertinent to the BESS design. The summary should include technical requirements such as electrical interconnection, foundation design, and minimum recommended spacing between units. Vendor should provide a draft layout and 1-line diagram with the proposal.

2.4.2 Proposed Location and Ownership

The locations of the BESS will be at Con Edison owned and operated substations in New York City. The sites are zoned for substation use. A draft schematic of the site location is given in Exhibit B – Minimum Technical Specifications. More detailed drawings will be made available as they become available from

the projects. Final layout of the BESS site will be determined by Con Edison in collaboration with the winning bidder. However, Vendor should provide a draft layout with their proposal.

The BESS should be designed to minimize the footprint taking into account the space necessary to install and maintain the system.

2.4.3 Environmental

The BESS shall be designed to perform all its functions in the following outdoor environment:

The equipment shall be suitable for outdoor unsheltered installation in residential areas where the outdoor ambient air temperature may vary from -22 F to 104 F / -30 C to +40 C. The effect of solar irradiation shall be considered in the design.

Humidity: 10% to 95% normal-relative

Altitude: Sea level to 200ft without kVA derating.

2.4.3.1 Environmental Impact Assessment

In its response, the Vendor shall include information pertaining to the environmental impacts of its proposed solution / technology and any measures included to reduce or mitigate impacts to the local environment. Environmental impacts could be those associated with normal operation in addition to use of restricted chemicals (coolants), coolant leakage, cell leakage, fire, explosion, noise levels, etc. The assessment should be included as an appendix to the Vendors submittal as identified in section 5.5 of this RFP. If available, the Vendor should provide the Hazard Mitigation Analysis provided to the FDNY in connection with the Equipment Certificate of Approval process.

2.4.4 Sound & EMI Emission Limits

In all normal operating modes, noise levels of the BESS are recommended to be less than 35 dBA at 33 ft / 10 m away from the system. This is the same as the noise level requirements for a Con Edison unit substation. During any mode of operation, Electromagnetic Interference (EMI) shall not exceed levels established in the FCC Code of Federal Regulations in Sections 15.109 and 15.209. In addition, the ESS shall have the capability to withstand EMI in accordance with IEEE Std. C37.90.2-2004.

The Vendor must state expected noise and EMI levels in its response.

2.4.5 Surge Requirements

All equipment supplied under this RFP shall meet or exceed the surge withstand capability requirements of IEEE C37.90 (latest version).

2.4.6 BESS Interconnection

The BESS will be interconnected with Con Edison's electrical system at the Point of Common Coupling (PCC) between the ESS and utility as defined in IEEE 1547.

The PCC for the purpose of this RFP is considered the common 480Vac common bus on the secondary site of dedicated transformers. 600Vac can be contemplated based on technical and economic reasons.

The BESS must be isolated from the PCC by a rackable breaker and/or switch with a visible break, or other means of dead work isolation must be provided and clearly documented.

The BESS shall consist of voltage transformation to 480V (if required), circuit breakers with visible breaks, auxiliary loads (as necessary for internal use and environmental control), an operating contactor controlled by the BESS, and the energy storage and power conditioning subsystems. The BESS shall include communications and control subsystems typical for utility scale systems including self-monitoring and low maintenance applications and as required by AHJ.

The BESS shall follow IEEE 1547-2018, IEEE Standard for Interconnecting Distributed Energy Resources with Electric Power Systems for protection during discharge mode.

The BESS shall follow IEEE 519, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems for protection during charging mode.

The BESS shall follow the latest revision of Con Edison specification EO-2115 "Handbook of General Requirements for Electrical Service to Dispersed Generation Customers."

The BESS shall include all switch gear, bus work, cable, connectors, transformers, and protective relaying required for connecting the BESS at the PCC. The Vendor shall design all AC interconnection equipment on the BESS side of the PCC.

The Vendor shall provide details about AC characteristics of the BESS including available short circuit current, real and reactive power, harmonics (see section 2.4.7), and related factors.

2.4.7 Harmonic limits

Following are the requirements on current and voltage harmonics of the BESS at the PCC to the utility system:

- Total Demand Distortion (TDD) at 50%-100% of rated power < 5%
- Individual harmonic currents
- During peak shaving (as a source) IEEE Std. 1547-2018
- During charging & standby (as a load) IEEE Std. 519-2014
- Voltage Total Harmonic Distortion (THD) when Islanding IEEE Std. 1547-2018
- Voltage THD (during Islanding) < 5% IEEE Std. 1547-2018

2.4.8 BESS Remote Control / SCADA

Vendor shall design the control and data acquisition systems of the system, including sensors, control actuators, control algorithms, communications channels, etc., to be hardened against willful attack or human negligence.

Vendor will need to comply with Con Edison's cybersecurity requirements and will be asked to submit to a Vendor Security Assessment.

The BESS shall adhere to the following communication protocols:

- Con Edison must have remote control and high-level system status information through Con Edison's SCADA communication system. Con Edison will provide and manage modem and firewall for the SCADA communication system for Energy Control Center. Con Edison may specify the Remote Terminal Unit (RTU), but it will be the responsibility of the Vendor to program their RTU based on the communication protocol developed between Con Edison and Vendor.
 - The SCADA communication between the BESS and Con Edison MUST use DNP3 over a physical serial connection (RS232).
 - DNP 3.0 Serial should be native to the customer Data Concentrator/RTU and the use of an intermediate protocol converter should be avoided. The customer Data Concentrator / RTU must respond to integrity and class polls as a server RTU to the Con Edison client RTU.
 - After installation the connection will be tested and verified to be in compliance with Company protocols.
 - Con Edison requires the Vendor to aggregate all sets of data before passing it back to our SCADA system, as reflected in the required points. A comprehensive list of analog outputs and Digital/Binary/Status Points should be provided to Con Edison before contract negotiations.
 - NYISO market participation will be initiated through the SCADA communication system.
- Vendor should have remote monitoring capability using a private MPLS (Multi-protocol label switching) connection. A VPN over Internet is normally not acceptable.
- The Vendor's proposal should include a description of all applicable software, including specifying whether any third-party software applies, describing any applicable software licensing or subscription terms, and describing the software warranties and/or service level agreements that would apply.

Internet connections, or any routable connections outside of the Electronic Security Perimeter of the LAN, are not allowed to be connected between the Vendor's and Con Edison's SCADA RTUs.

120V AC/DC from an uninterruptible power source (preferably from a critical load panel) or 24V DC from batteries is the preferred supply for the field devices. The uninterruptible power source should be rated for 24 hours.

2.4.9 Grounding

A suitable equipment grounding system shall be designed for the BESS that uses accepted engineering practices and adherence to company standards. This includes two grounding “pads” to connect ground cables and for ground buses consisting of copper or aluminum bars to provide adequate ground current carrying paths. The two locations should have maximum physical separation of the two ground leads. The system also shall be adequate for the detection and clearing of ground faults.

All exposed non-current carrying metal parts shall be solidly grounded. Particular attention shall be given to prevention of corrosion at the connection of dissimilar materials such as aluminum and steel.

The grounding of the microgrid shall not cause over-voltages that exceed the rating of equipment connected to the Con Edison distribution system. The connection of the microgrid shall not cause the neutral to ground voltage to exceed applicable codes or standards on 4-wire multi-grounded distribution system.

2.4.10 Auxiliary Power

Power for the BESS auxiliary loads (fans, lights, controls, thermal management, pumps, motors, etc.) will not be available separately from Con Edison. The BESS shall therefore include auxiliary power circuits, as necessary, derived from the PCC. The point of supply for the auxiliary power system shall be downstream from the PCC. The auxiliary power system shall include all step-down transformers, breakers, fuses, motor starters, relaying, panels, enclosures, junction boxes, conduits, raceways, wiring and similar equipment, as required for BESS operation.

2.4.11 Emergency Shutdown

A master shutdown switch shall be provided and located in a secured/lockable area, accessible at/near the BESS control interface. This switch must shut down all energy storage modules. Furthermore, a lockable emergency shutdown switch must be located on the outside of each BESS module and shall shut down the inverter associated with the specific module. They shall be identified/labeled as emergency shutdown switch with a protective cover to prevent misuse and designed to allow authorized personnel to perform a controlled shutdown during an emergency, such as a flood, fire, vehicle damage, etc.

2.4.12 Enclosures

The equipment including the BESS shall be contained within NEMA 3R enclosures suitable for mounting outdoors in a weatherproof construction on a concrete pad and shall be fitted with a ventilating system designed to provide the proper environment for the BESS components (NESS, PCS-MC, IP).

All enclosures shall be grounded according to Company standards and the finish shall conform to the applicable requirements of ANSI C57.12.28.

2.4.13 Storage Subsystem

The storage subsystem shall be equipped with safety sensors, alarms, and emergency response equipment as necessary based upon the storage technology. For example, if the subsystem had the potential to emit hydrogen gas, then the storage subsystem should be equipped with hydrogen sensors to automatically trip the BESS when hydrogen is detected.

All racks and metallic conductive members of stackable modules shall be grounded to earth. Racks shall meet the seismic load and road vibration requirements and shall include means to restrain cell movement during seismic events and highway transport to site. The Vendor shall furnish analyses and/or other data that show the rack and cell designs are intended to meet all potential seismic and transport vibration requirements.

2.4.14 Maintenance Spares

During the project life, Vendor shall supply any component required for maintenance /replacement and shall not declare the component obsolete and hence warrant replacement of a larger system. Spare parts shall be available from within North America during the life of the project. A complete schedule of all recommended spares, based on the design life of the equipment being supplied, shall be included as part of the Vendor's proposal document submittal package. As a minimum this schedule shall identify each spare part by name, supplier, part number, cost and availability.

Outages due to scheduled maintenance should be planned out annually for the following 36 month period; planned outages cannot take place in the months of June through September.

The Vendor must clearly indicate if and how much space should be allocated for any onsite spare parts storage.

2.5 Inspection, Acceptance Testing, and Commissioning

A detailed design/manufacturing plan identifying each stage of manufacture from BESS design through to final assembly, dispatch and delivery to site shall be submitted by the Vendor within 2 weeks from signed contract. The plan shall also identify any applicable holiday/nonproductive periods.

If applicable, the Vendor shall provide a detailed site testing and commissioning plan identifying each site test, safety requirements, commissioning procedures, requirements for any site facilities and the proposed dates for when this work is to take place, shall be submitted by the Vendor in no less than 4 weeks prior to the commencement of these works. Con Edison retains the option to attend and witness such test.

Throughout the complete provision of the scope of work prior to commissioning, a bi-weekly progress report shall be submitted by the Vendor detailing the progress to date compared to the originally accepted program. Any delays identified in this report shall within 10 days of missing such milestones be supported with both an explanation of the reason for the delay and a statement on how it is intended that this delay shall be overcome to ensure that delivery and commissioning shall remain in accordance with the original agreed delivery and commissioning dates.

2.5.1 Factory Acceptance Testing

If applicable, Vendor shall develop and submit to Con Edison for its review and approval a comprehensive factory acceptance test plan. The plan shall be submitted at least two months prior to the expected test date and must be satisfactory and agreed to by Con Edison. Vendor shall document all aspects of the acceptance and performance testing. Vendor shall submit documentation, analyses and a summary in a test report for Con Edison's records. After Vendor determines that the system is fully

operational, Vendor shall conduct a factory acceptance test, witnessed by Con Edison. The acceptance test shall consist of Vendor demonstrating to Con Edison that the system is fully operational and performs as specified. This includes but is not limited to:

- Verification of sensors, metering and alarms.
- Verification of all control functions, including remote control and monitoring.
- Verification of system performance, at full and partial power and energy ratings.
- Verification of compliance with specifications
- Operation of all control, protective relaying, and instrumentation circuits shall be demonstrated by direct test if feasible or by simulating operating states for all parameters that cannot be directly tested. Automatic, local (control console) and remote operation of the controls shall be demonstrated.
- A capacity test including a full 100% rated charge followed by a 100% discharge at constant maximum rated charge and rated discharge rate. Individual cell or module temperature and voltages will be captured at maximum 10-minute intervals, and system capacity and efficiency will be calculated.

2.5.2 Acceptance, Testing, and Commissioning at Site

Vendor shall develop and perform site acceptance testing procedures to assure that the system will perform as designed and that the system meets the performance criteria specified elsewhere in RFP. Vendor shall determine that the system is fully operational and suitable for acceptance testing witnessed by Con Edison and others. Vendor shall document all acceptance and performance tests performed. Vendor shall submit documentation, analyses, and a summary in a test report for Con Edison's records. After Vendor has determined that the system is fully operational, Vendor shall conduct an acceptance test, witnessed by Con Edison and others (e.g., FDNY). The acceptance test procedure will be developed by Vendor and shall demonstrate to Con Edison that the system is operational and performs as specified. These tests shall include, as a minimum:

- Verification of the sensitivity of the system
- Verification of sensors, metering and alarms
- Verification of all control functions, including automatic, local control, and remote control over Con Edison's SCADA network, and remote dispatch from NYISO.
- Verification of performance criteria including a full storage rating performed according to Exhibit C – Storage Rating Tests - Company Owned Systems
- Documented benchmark data for each battery, each subsystem and overall system that will be monitored after energization.

2.6 Professional Services

2.6.1 Site Design and Layout

It is expected that the Vendor will work with company's engineering team to finalize the site layout, and civil and electrical engineering design.

2.6.2 Drawings and Documentation

Drawings and designs shall conform to industry, local AHJ, and/or local Codes and Standards. All written language is to be supplied in American-English. All drawings and documents shall be submitted in digital form in both .pdf (searchable), .dwg and 3D formats, unless stated otherwise.

The Vendor shall submit three (3) copies of as-built drawings and shall be included within the associated operation and maintenance manuals. In addition to hard copies, all final & as-built 3 drawings shall be provided in electronic format, on CD, utilizing the latest version of AutoCAD and in both .pdf (searchable), dwg formats, and 3D model format.

Approval documentation issued in electronic format shall be presented using the Microsoft Office suite of software programs, or Adobe Acrobat PDF format, unless expressly agreed otherwise.

2.6.3 Operation and Maintenance Manuals

The operation and maintenance manuals shall describe in detail all relevant operational and maintenance procedures required to maintain safe and optimum performance throughout the design life of each item of equipment supplied. Descriptions, procedures, illustrations, drawings included in any manual shall be specific to the system installed at Fox Hills Substation. Generic information or information from a previously built system will not be accepted in any manual. The maintenance procedures shall also include detailed descriptions of the replacement of all recommended spares and replacement parts required during the design life of the equipment supplied.

The operation and maintenance manuals shall contain of the following minimum categories:

- Equipment specifications & descriptions
- Site Specific Commissioning procedures
- Site Specific Operational procedures including alarm response
- Site Specific Maintenance procedures
- Test certification
- As built drawings
- Performance criteria
- Limitations to on site procedures
- Safety sheets
- Any specialized equipment required for testing

A complete schedule of all recommended preventative maintenance procedures and their associated frequency shall be provided.

Vendor shall submit one (1) copy of the operation and maintenance manual to Con Edison for comment/approval no less than 4 weeks prior to the achievement of substantial completion.

Vendor shall submit five (5) copies of the approved operation and maintenance manual to the Con Edison Buyer no less than 1 week prior to the achievement of substantial completion.

2.6.4 Training and Education

It is expected that the Vendor will work with the Con Edison Learning Center to develop a training package for the Company’s union employees and management personnel. In addition to a printed version (pdf and hardcopy), it should include at least one live, hands on, training session to “train the teachers” and recorded video sessions.

1. Generic video
 - a. BESS 101
 - b. How do “Vendor” systems work
2. Emergency Response plan
 - a. FD response
 - b. Substation response
 - c. Vendor response
3. Operation video and Manual customized for Con Edison and project specific
4. Detailed training for Con Edison SME’s for emergency response and day-to-day operation
 - a. Software training
 - b. System training
 - c. Emergency mitigation

Vendor shall be expected to prepare for up to ten 4-hours sessions to train Con Edison employees (up to 25 people per class)

2.7 Project Timeline

The expected project timeline for all ES proposals is shown below. Responses that are selected for implementation must be installed and in service before July 1st, 2025.

Milestone*	Year
RFP Issued	15-May-2023
Contracts executed	3 to 6 months from selection
Installation, testing and commissioning	24 months after RFP
Substantial completion²	1 months after commissioning

² Substantial Completion: Defined as when Con Edison can utilize the system for its intended use, which includes, but is not limited to, unmanned, remote operation, all required permits have been received, and all other requirements have been met, except for minor punch-list items that do not affect or interfere with the commercial

- Con Edison reserves the right to change any of the above dates.

3 Qualifications

3.1 Vendor Requirements

Contract will be awarded to vendor with top-tier capabilities around the specific capabilities required to meet project goals.

3.1.1 Quality Assurance Certification

The Vendor shall be quality assurance certified in accordance with the relevant parts of ISO 9000, or a similar Con Edison approved Quality Management system.

3.1.2 Quality Plan

One electronic copy of the Supplier's Quality Plan (Quality Plan) shall be submitted for comment/approval within **four (4) weeks** after execution of final project contracts. The Quality Plan shall have the provision to allow the Buyer to identify the stages at which the Buyer requires to carry out either an inspection or witnessing of the works in hand.

The Quality Plan shall include all relevant stages of design, supplier selection, manufacture, factory testing, dispatch, installation, site testing & commissioning, etc. as applicable to the specific scope of supply. For each stage, of the scope of supply, the Quality Plan shall identify the relevant quality criteria and standards, along with their associated limits of tolerance, for allowing acceptance.

The Quality Plan shall identify all relevant sub-suppliers by name, component supplied, country of origin and as to whether each sub-supplier is Quality Assurance Certified or not. If the sub-supplier is not Quality Assurance Certified, confirmation will be required that the sub-supplier in question.

3.1.3 Site visit

Con Edison will require the right to access and inspect all work and a right to witness tests, including a right for Con Edison to conduct an in-person visit to the BESS manufacturing facility and to witness a demonstration of a working example of the proposed system as part of the proposal review.

3.1.4 Technical Support and Spare Parts

The Vendor shall maintain a minimum technical support and spare parts within North America to ensure and support the minimum system availability requirements as defined in 2.3.4.2.

The Vendor shall be able to respond to any type of emergency on site due, but not limited to, BESS controller, energy storage system components, inverter and power conversion units, to minimize

operation of the BESS for any of its intended use cases. Vendor will be required to complete punch-list items within 30 days after Substantial Completion.

downtime of equipment. Spare part and technical support shall be readily available to maintain system running.

4 Proposal Evaluation Approach

Solutions proposed in response to this RFP will be reviewed in detail by Con Edison. Con Edison will utilize an evaluation framework to develop the optimal portfolio to address the RFP requirements. Some primary review criteria to be applied to qualified submitted proposals are listed below. The review process is intended to be fair and equitable, with the objective being to achieve the greatest overall value while maintaining the reliability of the electric distribution system.

Vendors should note that although Con Edison will be reviewing the Vendors' proposed solution there is no guarantee that it will be selected even if the submission criteria are met.

Vendors 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; and, 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 include considerations that could allow for the selection of individual measures across multiple proposals.

Projects will be disqualified if the Vendor does not provide the necessary information requested in this RFP and Projects questionnaire.

4.1 Proposal Criteria

Proposals will be evaluated and scored on the basis of the following main evaluation criteria. Other criteria may be considered and the criteria listed below are not necessarily listed in order of significance:

Review Approach	Objective
Proposal Content and Presentation	Information requested has been provided and is comprehensive to allow for evaluation.
Project Cost	Cost of energy storage system, warranty agreement, and maintenance agreement
Site Preparation	Con Edison will assess the needs for site preparation in order to accommodate the proposed energy storage system
Execution Risk	The expected ease of project implementation within the timeframe required (e.g., permitting, construction risks, and operating risks etc.).
Qualifications	The relevant experience and past success of Vendors in providing similar projects to other locations, including as indicated by reference checks and documented results.
Functionality	The extent to which the projects would meet the defined functional requirements.
Timeliness	The ability to meet Con Edison’s schedule and project deployment requirements for the particular project, reflecting that the detailed project schedule from contract execution to implementation and completion of projects is important for determination of feasibility.
Community Impact	The positive or negative impact that the project may have on the community in the identified area (i.e., noise, pollution).

5 Instructions to Vendor

Vendor is instructed to prepare the proposal response in accordance with the instructions outlined in this section. Vendors are required to submit their bid response through Con Edison’s Oracle

procurement system (“Oracle RFQ System”) on or prior to the due date and time. Any limitation regarding the Vendor’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 third-party Vendor to support or perform a particular function or service must be explicitly stated.

5.1 Commercial Qualifications

Con Edison policy requires all potential Vendors to be commercially qualified prior to consideration for a contract award. The Company may make such investigation as the Company deems necessary to determine the qualifications of Vendors and proposed subcontractors to perform the work. A Vendor should promptly furnish any information and data as may be requested by the Company as part of any such investigation. The failure of a Vendor to produce timely information and data requested by the Company may provide a basis for rejection of the proposal.

5.2 Contact Information

All Vendors shall direct questions via email to the Procurement Specialist, Louis Yauri at yauril@coned.com. All questions and answers deemed essential for the viable submission of a bid response will be forwarded to all vendors through the Oracle RFQ. The cutoff time for all Vendor questions shall be indicated in the Oracle RFQ.

5.3 Proposal Response and Submittal Instructions

All proposals must be submitted through the Oracle RFQ System on or prior to the due date and time. Vendors who fail to submit by the due date and time will be locked out of the Oracle RFQ System. Therefore, Vendors are encouraged to upload submissions well in advance of the closing time to avoid any potential issues that may occur, including any unfamiliarity with the Oracle RFQ System.

Vendors who have never participated in Con Edison RFQ must take the following actions to successfully submit a proposal:

1. Download this Fox Hills BESS Vendor RFP
2. Become enabled in the Oracle RFQ System by submitting the below items to the RFP Purchasing Contact, **Louis Yauri at yauril@coned.com.**
 - a. W-9 form
 - b. Supplier Enablement Template (Select CE Sourcing under Oracle responsibility field)
3. Receive Formal RFP response request (will be same information downloaded from Con Edison)
4. Submit response and fully completed Questionnaire to Con Edison Procurement System through the Oracle RFQ System

Please note, if you are already enabled in Con Edison’s Oracle RFQ system, please email the RFP Purchasing Contact indicating your interest in participating. Please only follow steps 3 and 4 after you have emailed the RFP Purchasing Contact. Con Edison shall not be responsible for late submissions.

5.4 Vendor Presentations

Selected Vendors may be expected to demonstrate functional requirements through product presentation / demonstrations. Vendors that are short-listed may be invited to demonstrate their proposed solution to Con Edison either at their 4 Irving Place Headquarters in New York City, or through a virtual meeting. During the presentation, Con Edison technical staff will expect to meet with the Vendor’s technical personnel for any required clarification to the Vendor’s technical response.

5.5 Proposal Response Format

The response shall include a proposal and a separate price proposal.

Note: The Oracle RFQ System is only capable of accepting individual documents no larger than 5MB in size. Vendors may find it necessary to split up large documents into smaller files due to this system constraint.

The technical proposal response for this RFP shall be submitted as a PDF document, and shall be organized as follows:

Proposal Section	Proposal Section Title	RFP Description of Proposal Section Title
N/A	Cover Letter	5.5.1
N/A	Vendor Checklist	5.5.2
N/A	Table of Contents	5.5.3
1	Executive Summary	5.5.4
2	Proposal <ul style="list-style-type: none"> • Project Description • Project Schedule • Detailed costs associated with the Project(s) • Risks, Challenges, and Community Impacts • Professional Background and Experience with the Project(s) 	5.5.5
3	Assumptions and Exceptions	5.5.6
4	Vendor Qualifications & Presentation	5.5.7
5	Glossary of Terms	5.5.8
Appendix	<ul style="list-style-type: none"> • Organizational Chart & Resumes • Vendor Qualifications and References 	5.5.9

	<ul style="list-style-type: none"> • Financial statements for the past three years • Other relevant information 	
Separate Document	Pricing Proposal	5.5.10

5.5.1 Cover Letter

The cover letter shall include the following:

- Vendor’s legal name and address;
- The name, title and telephone number of the individual authorized to negotiate and execute the Agreement;
- The signature of a person authorized to contractually bind Vendor’s organization; and
- A statement that the Vendor has read, understands and agrees to all provisions of the RFP, or, alternately, indicating that exceptions will be taken to the RFP and identifying such exceptions.

5.5.2 Vendor Checklist

Vendor should provide the Company with a properly completed Vendor Checklist (Exhibit A – Vendor Checklist) as part of the proposal.

5.5.3 Table of Contents

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

5.5.4 Executive Summary

This section is for the Vendor to provide an executive overview and summary of the general description of the key features of the Vendor’s proposed solution. In addition, the Vendor should include the following in the Executive Summary:

- The Vendor’s company profile information.
- Highlight where the Vendor has performed industry specific work that is relevant to the scope of work identified in this RFP.
- Any other relevant information that Vendor deems appropriate and noteworthy that warrants why the Vendor should be selected.

5.5.5 Proposal

This section should contain a response to the Requirements in Section 2. The following information addresses major areas that should be included in Vendor’s proposal:

- Project Description/Project Plan;

- Project Schedule;
- Detailed costs associated with the Project;
- Risks, Challenges, and Community Impact;
- Professional Background and Experience with similar project(s)

5.5.6 Assumptions & Exceptions

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

5.5.7 Vendor Qualifications & Presentation

The Vendor should include:

- A general description of the Vendor's qualifications relating to items 3.1 above.
- Resumes of key individuals who will be assigned to the project. Resumes should include experience relative to the long-term strategy development and executive level facilitation roles, including previous clients, roles on those projects and proposed role and time commitment on this project.
- Con Edison reserves the right to request one presentation from the Vendor as part of the RFP review process.

5.5.8 Glossary of Terms

Vendor should provide a glossary of terms that is specific to the Vendor's solution.

5.5.9 Appendix

Vendors should provide information not specifically requested in the body of the proposal in an appendix or as a separate attachment. Such items include:

- Organizational charts and resumes
- Financial statements for the past three years
- List of Vendor's experience in energy storage with focus on activities in the New York City area
- Commissioning and testing procedures
- Full description of Cyber security measures incorporated in remote monitoring and control platform, including standard operating procedures in place to keep security measures up to date.
- Other relevant information

5.5.10 Pricing Proposal

The Vendor's pricing proposal must be separate from the written proposal response.

5.6 Right to Reject

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

Con Edison reserves the right to accept any responsive proposal, to reject any or 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 Vendor from full compliance with all other RFP specifications and contract requirements if the Vendor is awarded the contract. Con Edison shall reject the proposal of any Vendor that is determined not to be a responsible bidder, or whose proposal is determined by the Company to be non-responsive.

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

5.7 Material Contract Terms and Conditions

It is anticipated that the parties will negotiate and enter into a Microgrid Commissioning Agreement (a "MGCA") to cover the work-scope through commissioning of the microgrid, and a Microgrid Operations and Maintenance Agreement ("MG O&M") to cover the equipment warranty, performance warranty, and maintenance work-scope for the 10 year period following BESS commissioning. If the Vendor has a proposed form for either or both agreements, the Vendor may include the form(s) in its RFP response for Con Edison's consideration. However, Con Edison reserves the right, in its sole discretion, to accept or reject a Vendor's proposed form(s), in whole or in part. Con Edison's acceptance of a proposal by respondent shall not be deemed to constitute Con Edison's acceptance of any form legal agreement proposed by a respondent in its response to this RFP and shall not be deemed to constitute Con Edison's acceptance of any of the terms and conditions set forth in such form legal agreement.

The following is a non-exhaustive list of material terms and conditions that Con Edison expects to include in the MGCA and the MG O&M. This list of material terms and conditions is illustrative, is for discussion purposes only, and shall not create any binding obligation or liability on Con Edison, its affiliates, or any RFP respondent or its affiliates. Con Edison and the selected RFP respondent will engage in negotiations to finalize the terms of the BSCA and the BESS O&M and the terms set forth in those final agreements may differ from the terms and conditions set forth below.

By submitting a proposal in response to this RFP, each respondent agrees that if Con Edison selects the respondent's proposal, that respondent is willing and prepared to negotiate, execute, and deliver a final BSCA and BESS O&M consistent with the respondent's proposal and the requirements of this RFP. Con Edison's acceptance of a proposal by a respondent shall not be deemed to constitute Con Edison's acceptance of any comments made by the respondent to the RFP documents, including any comments made to these material terms and conditions.

5.7.1 Term of MGCA

Subject to early termination rights to be agreed to by the parties, the BSCA will be effective after it has been executed and delivered by both parties and will continue until the Vendor has designed, procured, constructed, and commissioned the BESS in accordance with all of the specifications and requirements set forth in the MGCA.

5.7.2 Term of MG O&M

Subject to early termination rights to be agreed to by the parties, the MG O&M will be executed and delivered by the parties simultaneously with the MGCA. The Vendor's warranty, operation and maintenance obligations under the MG O&M, however, will commence at or about the time of MG substantial completion and will continue for approximately 10 years post-substantial completion.

5.7.3 Commissioning Deadlines and Related Delay Liquidated Damages

In the MGCA, the parties will agree upon a project milestone schedule which will include critical path milestones and a guaranteed substantial completion deadline. The Vendor will be required to deliver regular progress reports to Con Edison regarding the project and the Vendor's ability to complete milestones on schedule. The Vendor will also be required to submit a recovery plan within the specified period for any missed critical path milestone. If Vendor fails to achieve substantial completion by the guaranteed substantial completion deadline, the Vendor will pay delay liquidated damages from and after the guaranteed substantial completion deadline until the earlier of (a) the date the MGCA is terminated in accordance with its terms or (b) the date the BESS achieves substantial completion. Con Edison will have the right to terminate the MGCA early for Vendor default if Vendor fails to timely achieve substantial completion. The parties may negotiate and agree to delay liquidated damages for failure to meet other critical milestones (e.g., successful Factory Acceptance Testing).

5.7.4 Minimum Performance Guarantees and Related Liquidated Damages

In the MG O&M, the parties will agree upon guaranteed performance requirements that the microgrid will be required to meet throughout the term of the MG O&M. The parties will agree on liquidated damages that the Vendor will be obligated to pay for any performance requirement failures. The parties will also agree on certain microgrid performance failures that will constitute a Vendor event of default under the MG O&M.

5.7.5 Credit Support.

Under the MGCA, the Vendor will be required to post and maintain a letter of credit, in an amount to be agreed to by the parties, as security for liquidated damages and other damages that Vendor may be

required to pay Con Edison under the MGCA. Under the MG O&M, the Vendor will be required to post and maintain a letter of credit, in an amount to be agreed to by the parties, as security for liquidated damages and other damages that Vendor may be required to pay Con Edison under the MG O&M. The Letter of Credit must be an irrevocable, nontransferable standby letter of credit, provided by Vendor from an issuer acceptable to Con Edison that must meet each of the following criteria: (a) is a U.S. commercial bank or a U.S. branch of a foreign commercial bank, (b) with total assets of at least ten billion dollars (\$10,000,000,000) and (c) a credit rating (based on the entity's unsecured, senior long-term debt or deposit obligations not supported by third party credit enhancements) of at least "A-" from S&P or "A3" from Moody's. If the issuer is rated by more than one ratings agency and the ratings are at different levels, the lower rating shall be deemed the credit rating of the issuer.

5.7.6 Major Equipment Suppliers and Subcontractors

Under both the MGCA and the MG O&M, the Vendor may only use major equipment suppliers and qualified subcontractors that have been pre-approved by Con Edison. Notwithstanding Con Edison's approval of a Vendor supplier or subcontractor, the Vendor will be an independent contractor and shall be at all times solely responsible for itself, as well as its employees, agents, and subcontractors as to their acts and omissions and as to workmanship, accidents, injuries, wages, supervision and control. Should any approved subcontractor fail to perform to the satisfaction of Con Edison, Con Edison shall have the right to rescind its approval and to require the work subcontracted to be performed by Vendor or by another approved subcontractor. Nothing in the MGCA or the MG O&M shall create any contractual rights in any subcontractor against Con Edison. Vendor's contracts with any approved subcontractor shall include appropriate remedies, performance guaranties, warranties (which must be the same warranties as those required of Vendor under the MGCA or the MG O&M, as applicable), subcontractor indemnification obligations, and where appropriate, liquidated damages (collectively, "Subcontractor Protections"). Vendor shall ensure that its contracts with approved subcontractors allow Vendor to assign all Subcontractor Protections to Con Edison. Vendor shall enforce, at its sole expense, for the benefit of Con Edison, all warranties provided by approved subcontractors and all other Subcontractor Protections.

5.7.7 Minimum Warranty Requirements.

The parties will agree upon Vendor's warranties but, at a minimum, they will include:

- The MG and all component parts, including the energy storage modules, power conversion system, communications and control equipment, cooling and climate control equipment, protection equipment including fire protection, and switchgear shall be new and of good quality and workmanship, free from defects or deficiencies in materials, workmanship, design and title; and conform materially to all applicable specifications and contractual requirements in the MGCA and the MG O&M.
- All work and services shall be rendered competently by qualified personnel in accordance with prudent industry standards, shall conform materially with all applicable specifications and

contractual requirements in the MGCA and the MG O&M, and shall be performed in accordance with all applicable laws.

- All work repaired, replaced or refurbished in satisfaction of Vendor's warranty obligations will be re-warranted by Vendor pursuant to the same warranty set forth in the MGCA or the MG O&M, as applicable, with the warranty period commencing upon completion of the repair, replacement, or refurbishment.
- If a defect is not remedied by Vendor promptly after notice from Con Edison or a defect requires prompt remediation as a result of an emergency situation at the MG site, then Con Edison may, at its option and at Vendor's risk and expense, either correct the defect and charge Vendor for the costs and expenses it incurs in so doing or secure an equitable reduction in the contract price based on its retention of the defective Work. Any defective parts removed in connection with repair or replacement shall be disposed of by Vendor at its expense.
- If, during the warranty period, the MG is shut down (other than for the purpose of scheduled or routine maintenance) and such shutdown is caused by a defect or failure covered by warranty, then the warranty period will be extended by a period equal to the duration of the shutdown required to repair such defect or failure.

5.7.8 Title

Under the MGCA, Vendor will transfer title to the microgrid and all ancillary equipment to Con Edison, when substantial completion has been achieved. Risk of loss and damage to the work will remain with the Vendor until substantial completion has been achieved, provided that risk of loss and damage for punch list work shall remain with Vendor until all punch list work is completed. Vendor will be required to execute and deliver to Con Edison a Bill of Sale or other documentation necessary to evidence conveyance of title to the BESS and all ancillary equipment and such Bill of Sale or other documentation shall be acceptable to Con Edison in form and substance. Vendor will be required to pass good legal and equitable title to the BESS and all ancillary equipment to Con Edison, free and clear of liens or any other defects in title upon substantial completion.

5.7.9 Liens

Under the MGCA and the MG O&M, if appropriate, Vendor will defend, save harmless and indemnify Con Edison and its affiliates, from and against all claims, liens or attachments growing out of the demands of subcontractors, mechanics, workmen, materialmen and furnishers of machinery, equipment, tools, or supplies, in connection with the project or the work, including all losses, liabilities, fees, costs and expenses (including attorneys' fees and legal costs) arising out of or in connection with the foregoing. At the time of submission of Vendor's final invoice under the BSCA, Vendor shall furnish Con Edison with a Contractor Affidavit – Final Full Release and Waiver of Lien document and, for each subcontractor, a Subcontractor Affidavit – Final Full Release And Waiver of Lien document, duly

executed and delivered by Vendor and its subcontractors, as applicable (a “Final Lien Release”). At the time of submission of each payment invoice under the BSCA, Vendor shall furnish Con Edison with a Contractor Affidavit – Partial Release and Waiver of Lien document and, for each subcontractor, a Subcontractor Affidavit – Partial Release and Waiver of Lien Document (a “Partial Lien Release”). Such documents shall be in a form reasonably satisfactory to Con Edison and shall in all respects be read and interpreted consistent with Section 34 of the New York Lien Law (or its successor). Any liens arising from Vendor’s subcontractors, mechanics, workmen, materialmen and furnishers of machinery, equipment, tools, or supplies, must be fully bonded or otherwise discharged by Vendor in accordance with applicable law, within five (5) days of the filing of the lien.

5.7.10 Bonds

Con Edison may require the Vendor to furnish Con Edison with payment bonds and/or performance bonds under the BSCA. Any and all such bonds shall be in a form and in an amount, and shall have a surety or sureties, acceptable to Con Edison. The premiums for all such bonds, if required under the BSCA terms agreed to by the parties, shall be deemed to be included in the contract price, and no additional compensation shall be payable to Vendor with respect to such bonds. If a bond is required by Con Edison after the BSCA is executed, Vendor shall be reimbursed for the cost thereof, without any markup, upon submission by Vendor of satisfactory evidence of payment therefor. The Vendor is encouraged to include the estimated costs of both a payment and performance bond in its pricing proposal responding to this RFP.

5.7.11 Insurance

In both the MGCA and the MG O&M, Con Edison and Vendor will agree upon the type and levels of insurance that must be obtained and maintained by Vendor and its subcontractors during the term of the contracts and for any additional period of time set forth in the MGCA and/or the MG O&M. The following is a list of the type of insurance that will or may be required:

- Workers’ Compensation Insurance;
- Employer’s Liability Insurance;
- Commercial General Liability Insurance;
- Commercial Automobile Liability Insurance;
- Pollution Liability Insurance;
- Professional Liability Insurance;
- All Risk Property Insurance;
- Cyber/Network Security and Data Privacy Liability Insurance; and
- Umbrella/Excess Liability Insurance.

Required insurance must be procured and maintained with insurance companies licensed to write insurance in New York State with a minimum A.M. Best financial strength rating of A- or better and financial size category of VIII or better. All insurance policies that permit the naming of additional insureds must name Consolidated Edison Company of New York, Inc. and its parent company, Consolidated Edison, Inc., as additional insureds. All coverage of additional insureds required under the BSCA and the BESS-O&M shall be primary coverage and non-contributory. All required insurance shall contain a waiver of subrogation in favor of the additional insureds. Where applicable based on the type of policy, all required insurance shall be on an “occurrence” and not a “claims-made” basis.

5.7.12 Indemnification

Con Edison and the Vendor will negotiate and agree upon indemnification obligations and procedures in both the BSCA and the BESS-O&M.

5.7.13 Confidentiality

Con Edison and the Vendor will negotiate and agree upon confidentiality obligations in both the MGCA and the MG O&M.

5.7.14 Cybersecurity and Data Security

In both the MGCA and the MG O&M, the Vendor will be required to comply with Con Edison’s cybersecurity and data security requirements.

5.7.15 Change Order; Change of Law

The MGCA will include a change order provision to be mutually agreed upon by the parties. This provision will allow Con Edison to instruct Vendor to make changes to the work and, if the parties cannot agree on adjustments to the contract price and schedule resulting from the changes in the work, Con Edison will have the right to require the Vendor to proceed with the work on a time and materials basis with a not-to-exceed value based upon Vendor’s time and material rates set forth in the MGCA. In the MGCA and/or the MG O&M, the parties will also address how they will apportion additional costs that arise from any changes in law applicable to the microgrid.

5.7.16 Events of Default

Con Edison and the Vendor will negotiate and agree upon Events of Defaults, early termination rights and other remedies in both the BSCA and the MG O&M.

5.7.17 Assignment

Con Edison and the Vendor will negotiate and agree upon Assignment and Change of Control provisions in both the MGCA and the MG O&M.

5.7.18 Dispute Resolution

Con Edison and the Vendor will negotiate and agree upon a non-binding Dispute Resolution procedure in both the MGCA and the MG O&M. If any claim or dispute arises in connection with the MGCA, the MG O&M, or the project, Vendor shall continue, during the pendency of such claim or dispute, to

perform the under the applicable agreement and Con Edison shall not be obligated to make payments with respect to disputed matters until final resolution of the claim or dispute.

5.7.19 Governing Law; Venue; Jury Trial Waiver

Both the MGCA and the MG O&M will be governed by and construed in accordance with the laws of the State of New York. Any controversies will be subject to litigation in the federal or New York State courts located in New York County.

5.7.20 Representations and Warranties

Both the MGCA and the MG O&M will contain representations and warranties customary for projects of this type.

5.7.21 Investigation and Audit

Vendor will be required to cooperate fully with any investigation, audit, or inquiry conducted by Con Edison or any federal, state or local government agency or authority relating to any aspect of the MGCA or the MG O&M or the work performed under those agreements, and the Vendor shall make all of its applicable books, records, and accounts available for inspection and audit in connection with the foregoing. With respect to any work that the parties agree will be done on a cost-reimbursable basis (whether or not a fee has, in addition, been fixed by the parties), time and material basis or similar basis, Vendor shall maintain, and in the event there are subcontracts on any of such bases shall cause the applicable subcontractor(s) to maintain, detailed books, records and accounts covering costs incurred in connection with such work or, as applicable, time spent and materials used. Vendor must make or cause to be made said books, records and accounts available for inspection and audit by Con Edison or the investigating governmental agency or authority and their respective authorized representatives during the term of this MGCA and the MG O&M and for a period of six (6) years after final payment under the applicable agreement.

5.7.22 Con Edison Gift Policy

In both the MGCA and the MG O&M, the Vendor will be required to acknowledge and agree to Con Edison's Gift Policy, a copy of which can be found on the Company's website (<https://apps.coned.com/supplychain/tc/Giftpolicy.pdf>).

5.7.23 Con Edison Appendix A (FAR Provisions).

In both the MGCA and the MG O&M, the Vendor will be required to acknowledge and agree to Appendix A, a copy of which copy of which can be found on the Company's website (<https://apps.coned.com/supplychain/tc/AppendixA2014.pdf>).



Exhibit A – Vendor Checklist

The Vendor 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	Initials
RFP Response Specified for Applicable Project (Please check all that apply) <input type="checkbox"/> Battery Based Energy Storage Systems for Con Edison Substations	
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’s Procurement System	
Price proposal not included in technical proposal and submitted as a separate file	

NOTE: failure to comply with RFP process, complete and submit 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 the requirements, including with regard to each of the documents referenced herein.

VENDOR (SIGNATURE):

VENDOR (PRINT NAME):

DATE:

Exhibit B – Minimum Technical Specifications

Fresh Kills Substation Project

Testing standards are given in Section 2 and in Exhibit C

Environmental

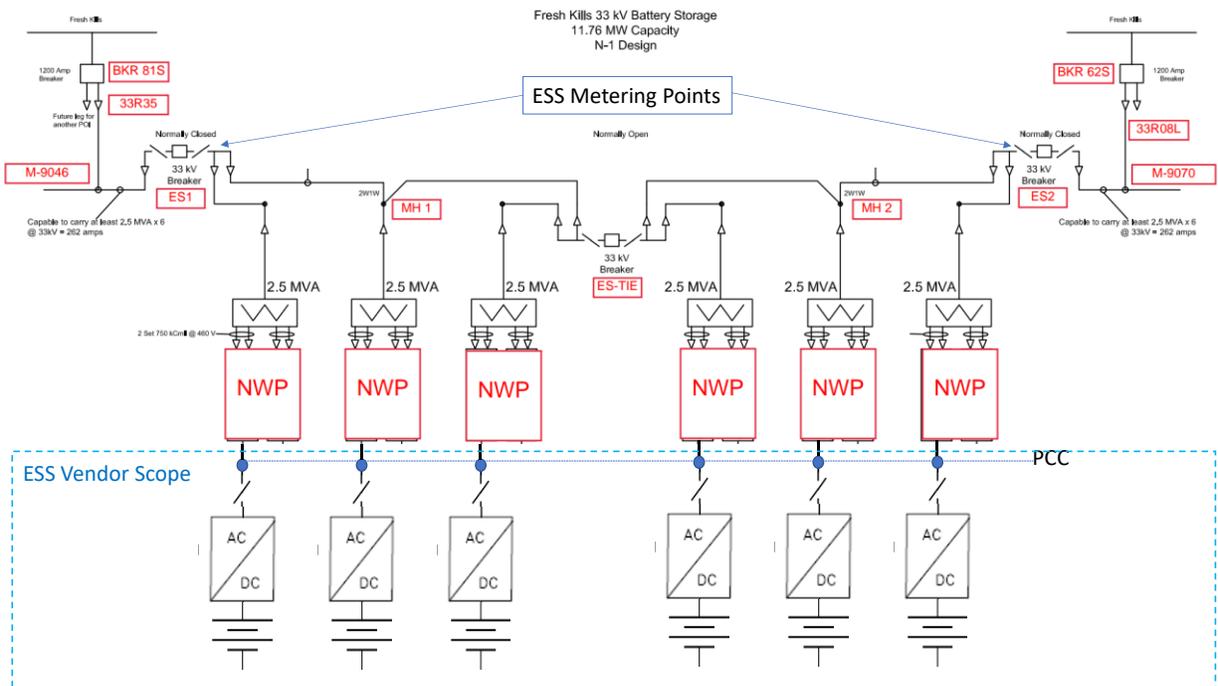
- Temperature: -22 F to 104 F / -30 C to +40 C
- Humidity: 10% to 95% normal-relative
- Altitude: Sea level to 200ft / 60m without kVA derating

Electrical

- Connecting Voltage (PCC): 480 VAC
- Design life: 10 years
- BESS Capacity Rating: 11.6MW at high side of transformer
- Total Demand Distortion (TDD) at 50%-100% of rated power: < 5%
- Inverter Power factor correction: Minimum 0.9 – 1.1 PF at 11.6 MW
- VAR Support Service: Up to 50% of rated capacity
- Round trip efficiency: Minimum 85% for the whole design life
- BESS Discharge Energy @ full capacity: 46.4MWh at end of design life
- BESS 12-month Accumulated Discharge Energy: 16,240 MWh
- BESS Minimum ramp rate: 1.2MW / minute

BESS Site

- Interconnection: Off multiple 2.5MVA transformers fed by two high tension feeders
 - Connection one-line: See below – Notice that the BESS will be metered at two points
- **The BESS must be isolated from the PCC by a rackable breaker and/or switch with a visible break, or other means of dead work isolation must be provided and clearly documented.**
- Site plan: See below - Measurements are approximate.



Glendale Substation Project

Testing standards are given in Section 2 and in Exhibit C

Environmental

- Temperature: -22 F to 104 F / -30 C to +40 C
- Humidity: 10% to 95% normal-relative
- Altitude: Sea level to 200ft / 60m without kVA derating

Electrical

- Connecting Voltage (PCC): 480 VAC
- Design life: 10 years
- BESS Capacity Rating: 5.8MW at high side of transformer
- Total Demand Distortion (TDD) at 50%-100% of rated power: < 5%
- Inverter Power factor correction: Minimum 0.9 – 1.1 PF at 5.8 MW
- VAR Support Service: Up to 50% of rated capacity
- Round trip efficiency: Minimum 85% for the whole design life
- BESS Discharge Energy @ full capacity: 23.2MWh at end of design life
- BESS 12-month Accumulated Discharge Energy: 8,120 MWh
- BESS Minimum ramp rate: 0.6MW / minute

BESS Site

- Interconnection: Off multiple 2.5MVA transformers fed by two high tension feeders
 - Connection one-line: See below – Notice that the BESS will be metered at two points
- **The BESS must be isolated from the PCC by a rackable breaker and/or switch with a visible break, or other means of dead work isolation must be provided and clearly documented.**
- Site plan: See below - Measurements are approximate.

Brownsville Substation Project

Testing standards are given in Section 2 and in Exhibit C

Environmental

- Temperature: -22 F to 104 F / -30 C to +40 C
- Humidity: 10% to 95% normal-relative
- Altitude: Sea level to 200ft / 60m without kVA derating

Electrical

- Connecting Voltage (PCC): 480 VAC
- Design life: 10 years
- BESS Capacity Rating: 5.8MW at low side of step-up transformers
- Total Demand Distortion (TDD) at 50%-100% of rated power: < 5%
- Inverter Power factor correction: Minimum 0.9 – 1.1 PF at 5.8 MW
- VAR Support Service: Up to 50% of rated capacity
- Round trip efficiency: Minimum 85% for the whole design life
- BESS Discharge Energy @ full capacity: 23.2MWh at end of design life
- BESS 12-month Accumulated Discharge Energy: 8,120 MWh
- BESS Minimum ramp rate: 0.6MW / minute

BESS Site

- Interconnection: Three 4000A fused take-off from common 460V bus
 - Connection one-line: See below – Notice that the BESS will be metered as a combination of the three PCC / metering points
- **The BESS must be isolated from the PCC by a rackable breaker and/or switch with a visible break, or other means of dead work isolation must be provided and clearly documented.**
- Site plan: See below - Measurements are approximate. The systems will be distributed onto two lots.

Exhibit C – Storage Rating Tests - Company Owned Systems

See separate document: **Exhibit C - Storage Rating Test - Company Owned Systems.pdf**

