

The Narragansett Bay Commission
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BID NO. 1552

September 17, 2026

**NARRAGANSETT BAY COMMISSION
SPECIFICATIONS TO SUPPLY AND DELIVER AN UNINTERRUPTIBLE POWER SUPPLY**

I. GENERAL SCOPE OF SERVICES

Vendor to supply and deliver one (1) new condition Uninterruptible Power Supply (UPS) to the Narragansett Bay Commission (NBC) Bucklin Point Wastewater Treatment Facility (BPWWTF) 102 Campbell Avenue East Providence, RI 02916.

II. GENERAL REQUIREMENTS

- A. All parts shall be new.
- B. All parts shall be provided with a minimum one (1) year standard warranty.
- C. Vendor shall guarantee its products to be free from defects in materials and workmanship, given normal use and care, over the period of the manufacturer warranty.

III. SUBMITTALS

- A. Vendor must submit with bid, sufficient manufacturer published information in order to receive consideration for bid award.

IV. BID EVALUATION

- A. NBC will make one (1) bid award to the lowest responsive and responsible bidder.

V. DETAILED SPECIFICATIONS

A. General Scope

1. Vendor shall furnish a complete double-conversion, online Uninterruptible Power Supply (UPS) to provide continuous, conditioned power to critical SCADA and control loads.
2. The UPS shall:
 - a. Provide continuous, no-break power to critical loads
 - b. Isolate sensitive equipment from utility disturbances
 - c. Maintain output during power loss using stored energy
 - d. Support orderly shutdown where applicable

B. Products

1. System Description: The UPS shall be a solid-state, modular, double-conversion online system consisting of:
 - a. Rectifier/charger
 - b. DC bus
 - c. Pulse-width modulated (PWM) inverter
 - d. Static bypass switch
 - e. Maintenance bypass provisions
 - f. Battery system
 - g. Digital controls and monitoring interface
2. The system shall continuously convert incoming AC power to DC and then back to AC, supplying the load via the inverter at all times. This topology provides superior voltage regulation and zero transfer time to battery operation.

C. Performance Requirements

1. Continuous Operation
 - a. The UPS shall operate in true online mode, where the inverter continuously supplies the critical load.
 - b. There shall be no interruption of output power during transitions between normal operation and battery operation.
2. Capacity
 - a. UPS shall be sized for 10KVA/10KW, with capability for redundancy using modular power units.
3. Output Characteristics
 - a. Voltage: 120/208 VAC In/Out or 120/240 In/Out, 1-phase, Neutral and ground hardwired in/out
 - b. Voltage regulation: $\pm 1\%$ steady-state
 - c. Frequency: 60 Hz ± 0.1 Hz (free-running)
 - d. Total Harmonic Distortion (THD): $\leq 5\%$ at full load
 - e. Crest factor capability: $\geq 3:1$

4. Overload Capacity
 - a. 125% load for minimum 10 minutes
 - b. 150% load for minimum 1 minute

D. Efficiency

1. Minimum efficiency: $\geq 94\%$ at typical load (double-conversion mode)

E. Input Characteristics

1. Input voltage: 208 VAC nominal
2. Frequency: 45–65 Hz auto-sensing
3. Input power factor: ≥ 0.98 at full load
4. Input current distortion: $\leq 7\%$ THD

F. Battery System

1. Valve-Regulated Lead Acid (VRLA) or Lithium-Ion
2. Battery system shall include:
 - a. Integrated battery monitoring
 - b. Temperature compensation
 - c. Automatic recharge
3. Battery cabinets shall:
 - a. Match UPS aesthetic and form factor where possible
 - b. Be UL listed

G. Bypass System: The UPS shall include:

1. Static Bypass
 - a. Automatic transfer to bypass upon overload or internal fault
 - b. Transfer shall be seamless and without disruption
2. Internal Maintenance Bypass
 - a. Integrated manual bypass for servicing UPS without interrupting load

H. Modular Design

1. The UPS shall employ hot-swappable modular components, including:
 - a. Power modules
 - b. Battery modules
 - c. Control electronics
2. System shall support redundancy for increased reliability
3. Modules shall be replaceable without shutting down critical load

I. Monitoring and Controls- UPS shall include:

1. Microprocessor-based control system

2. Large LCD display providing:
 - a. Input/output voltage and current
 - b. kVA, kW, power factor
 - c. Battery status and runtime
 - d. Alarm conditions
3. Network management capability:
 - a. SNMP / Ethernet interface
 - b. Integration with SCADA or BMS systems
4. Event logging and diagnostics

J. Battery Runtime Requirements- The UPS battery system shall be sized to support the connected load as follows:

1. Minimum Runtime
 - a. The UPS shall supply 100% of the connected design load for a minimum of 22 minutes

NOTES

- A. NBC is a Rhode Island public corporation and is exempt from RI state sales tax.
- B. Vendor must cite any exceptions to NBC specifications on separate attached company letterhead, dated, referencing the NBC bid number and specific bid item number, with an authorized company signature as well as typed name & title of signatory.
- C. A site visit is most strongly recommended, however, a vendor by submission of their bid acknowledges that they understand the requirements of the bid specification and shall be obliged to meet those requirements. Independent site visits may be performed by vendors with forty-eight (48) hours' notice provided to NBC via email at facilities@narrabay.com by no later than September 24, 2026, at 3:00 PM.
- D. Questions regarding these specifications can be directed to Eugene Sorkin via email facilities@narrabay.com by no later than October 1, 2026, at 3:00 PM.
- E. Vendor's price, one (1) total price to include supply and delivery of complete double-conversion, online Uninterruptible Power Supply (UPS).
- F. ***One (1) original and one (1) copy of vendor's bid must be submitted.***