Request for Quotations

2025 David L. Hardin Emergency Operations Center Uninterruptible Power Supply

HC-2025-2

Houston County, Tennessee

Honorable Joey Brake, Mayor

William Agy, Commissioner
Randall French, Commissioner
Glen Baggett, Commissioner
Darrell Kingsmill, Commissioner
Vickie Reedy, Commissioner
Garett Mathis, Commissioner
Carter Cary, Commissioner
Stephanie Smith, Commissioner
Steve Hall, Commissioner
Johnathan Floyd, Commissioner
Howard Spurgeon, Commissioner
Jean Tolley, Commissioner
Fred Richardson, Commissioner
Robert Earl Parchman, Commissioner

PREPARED BY:

RYE ENGINEERING PLC

July 2025

2025 David L. Hardin Emergency Operations Center
Uninterruptible Power Supply

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REQUESTS FOR QUOTATIONS

HOUSTON COUNTY

2025 DAVID L. HARDIN EMERGENCY OPERATIONS CENTER UNINTERRUPTIBLE POWER SUPPLY

Houston County (Owner) is requesting Quotations for the following Project:

2025 DAVID L. HARDIN EMERGENCY OPERATIONS CENTER UNINTERRUPTIBLE POWER SUPPLY

HC-2025-2

Quotations for the Project will be received at the **Houston County Courthouse** located at **4725 E Main St, Erin, TN 37061,** until **August 21st, 2025** at **2:00 PM** local time. At that time the Quotations received will be publicly opened and read.

The Project includes the following Work:

The project consists of installing a 25 kVA uninterruptible power supply (UPS) for the David L. Hardin Emergency Operations Center in Houston County, Tennessee.

The Issuing Office for the Bidding Documents is:

Rye Engineering PLC
4210 West Main Street
Erin, TN 37061

Prospective Bidders may examine the Bidding Documents online at ryeengineering.com or at the Issuing Office, Monday through Friday between the hours of 8:30 am – 4:00 pm and may obtain copies of the Bidding Documents as described below. Partial sets of Bidding Documents will not be available from the Issuing Office. Neither Owner nor Engineer will be responsible for full or partial sets of Bidding Documents, including addenda, if any, obtained from sources other than the Issuing Office.

Digital copies may be obtained at ryeengineering.com. Printed copies of the Bidding Documents may be obtained from the Issuing Office by request only. Printed Bidding Documents will be sent via USPS or FedEx or can be picked up from the Rye Engineering office.

The bidding documents may be examined at the following:

Rye Engineering

www.ryeengineering.com

For all further requirements regarding quotation submittals, qualifications, procedures, and contract award, refer to the requests for quotations that is included in the RFQ Documents.

This Advertisement is issued by:

Owner: **Houston County**
By: **Mr. Joey Brake**
Title: **Honorable Mayor**
Date: **07/31/2025**

Houston County
Request for Quotations
2025 David L. Hardin Emergency Operations Center Uninterruptible Power Supply
HC-2025-2

I. Request for Quotations

Houston County is requesting quotes from qualified suppliers for materials and labor in connection with the 2025 David L. Hardin Emergency Operations Center Uninterruptible Power Supply. Quotes must be submitted to the Houston County Courthouse no later than **TBD** at **TBD** local time. They must be either mailed or delivered to: Houston County Courthouse, 4725 E Main Street, P.O. Box 366, Erin, TN 37061.

Any submittal should include all costs associated with materials, delivery F.O.B. at David L. Hardin Emergency Operations Center, and all other expenses related to the provision of the necessary services as defined in the Project Description and Scope of Work.

II. Project Description

The project consists of installing a 25 kVA uninterruptable power supply (UPS) for the David L. Hardin Emergency Operations Center in Houston County, Tennessee.

III. Scope of Work

Supplier shall provide a replacement UPS as detailed in the quotation schedule. Supplier shall perform bypass and decommissioning of the existing MGE Galaxy UPS, and furnish and install a new UPS that meets the performance requirements outlined in the technical specifications. Supplier will not be responsible for disposal of the existing UPS. If it results in a cost savings the Owner will provide a county vehicle for the Supplier to load the existing UPS on for removal & recycling. Supplier shall be an authorized representative of the manufacturer for the proposed equipment. All electrical work shall be performed by a licensed electrician and must pass all required inspections prior to job completion. Supplier shall perform all necessary testing to confirm that the installed UPS complies with the requirements set forth in the technical specifications.

IV. Payment to the Supplier

Supplier shall include its payments terms in quotation.

V. Quotation Requirements:

The Supplier shall include the following components in the quotation:

a. **Total Cost of Quotation:** Supplier shall submit the price of hardware and installation and the price of an annual service contract;
b. **Estimated Timeline for Supply and Installation;**
c. **Estimated Amount of Disturbance During Project;**
d. **Company Qualifications;**
e. **Product Submittals:** Proposer must submit product submittals for each quoted product including a manufacturer's technical data sheet and any other pertinent data to allow for full technical review of product.

Quotation Schedule
For
2025 David L. Hardin Emergency Operations Center Uninterruptible Power Supply

Stipulated Price (Lump Sum) 25 kVA UPS System Installation Including: bypass, decommission and disposal of the existing UPS, Complete Installation, Startup, and Testing for the UPS system and Appurtenances	$

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Lump Sum Price Written (Dollars & Cents)

Additive Alternate	Quantity	Unit	Unit Price	Total Price
25 kVA UPS system annual maintenance plan including: per year pricing for a five (5) year maintenance contract for the UPS and appurtenances. *	**5**	**YR**		

**The maintenance contract is strictly for a term of five (5) years, with no provision for extension or reduction*

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Additive Alternate Price Written (Dollars & Cents)

HOUSTON COUNTY

2025 DAVID L. HARDIN EMERGENCY OPERATIONS CENTER UNINTERRUPTIBLE POWER SUPPLY

TECHNICAL SPECIFICATIONS

SECTION 26 33 53

STATIC UNINTERRUPTIBLE POWER SUPPLY (UPS)

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:
   1. General
   2. Product
   3. Execution

1.02 ACTION SUBMITTALS

A. Product Data: For each type of UPS.

   1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for UPS.

   2. Include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.

B. Shop Drawings: For UPS.

   1. Include plans, elevations, sections, and attachment details.

   2. Include details of equipment assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.

   3. Include diagrams for power, signal, and control wiring.

1.03 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For UPS units to include in emergency, operation, and maintenance manuals.

B. Certificate of electrical inspection.

1.04 QUALITY ASSURANCE

A. New UPS unit to be commissioned and tested onsite for initial setup by vendor certified technician.

1.05 WARRANTY

A. Special Battery Warranties: Manufacturer and Installer agree to repair or replace UPS system storage batteries that fail in materials or workmanship within three years of Substantial Completion.

B. Special UPS Warranties: Specified form in which manufacturer and Installer agree to repair or replace components that fail in materials or workmanship within special warranty period.

1. Special Warranty Period: Manufacturer Five years from date of Substantial Completion.

2. Contractor Warranty Period: Standard One year from the date of Substantial Completion.

PART 2 PRODUCTS

2.01 OPERATIONAL REQUIREMENTS

A. This article specifies three-phase, double-conversion-type UPS. Contractors are directed to provide an off the shelf unit with consideration for the following operational requirements.

B. Automatic Operation which includes the following:

1. Double Conversion:

a. Normal Conditions: Load is supplied with power flowing from the normal power input terminals, through the rectifier-charger and inverter, with the battery connected in parallel with the rectifier-charger output. Supplier shall state efficiency when operating at 25% of full load capacity, preference shall be given to solutions offering higher efficiency.

b. Power Failure: If normal power fails, energy supplied by the battery through the inverter continues supply-regulated power to the load without switching or disturbance.

3. When power is restored at the normal supply terminals of the system, the rectifier-charger shall supply power to the load through the inverter and simultaneously recharge the battery.

4. If the battery becomes discharged and normal supply is available, the rectifier-charger shall charge the battery. The rectifier-charger shall automatically shift to float-charge mode on reaching full charge.

5. If any element of the UPS system fails and power is available at the normal supply terminals of the system, the static bypass transfer switch shall switch the load to the normal ac supply circuit without disturbance or interruption.

6. The inverter shall produce up to 300 percent of rated full-load current for a duration of 5 seconds for short-circuit clearing. The inverter shall sustain steady-state overload conditions of up to 150 percent of rated full-load current for 1 minute and 125 percent for 10 minutes in normal operation.

7. Should overloads persist past the time limitations and the normal supply is present, the automatic static transfer switch shall switch the load to the bypass output of the UPS. When the fault has cleared, the static bypass transfer switch shall return the load to the UPS system.

C. Maintenance Bypass/Isolation Switch Operation: Switch is interlocked so it cannot be operated unless the static bypass transfer switch is in the bypass mode. Device provides manual selection among the three conditions described below without interrupting supply to the load during switching:

1. Full Isolation: Load is supplied, bypassing the UPS. Normal UPS ac input circuit, static bypass transfer switch, and UPS load terminals are completely disconnected from external circuits.

2. Maintenance Bypass: Load is supplied, bypassing the UPS. UPS ac supply terminals are energized to permit operational checking, but system load terminals are isolated from the load.

3. Normal: Normal UPS ac supply terminals are energized, and the load is supplied through the static bypass transfer switch and the UPS rectifier-charger and inverter, or the battery and the inverter.

2.02 PERFORMANCE REQUIREMENTS

A. UL Listed.

B. NFPA Compliant

C. The UPS shall perform as specified in this article while supplying rated full-load power of 25KVA, composed of any combination of linear and nonlinear load, up to 100 percent nonlinear load.

D. Minimum Duration of Supply: If battery is sole energy source supplying rated full-load UPS current at 80 percent power factor, duration of supply is 30 minutes.

E. Input Voltage: UPS shall operate from 208V, 3-phase, 4-wire + ground (L-L-L-N-G). System steady-state and transient output performance remains within specified tolerances when steady-state ac input voltage varies ±15% from nominal voltage, input frequency is 60 Hz ±5%.

F. Output Voltage: 208V, 3-phase, 4-wire + ground (L-L-L-N-G), 60 Hz, plus or minus 0.1 percent over the full range of input voltage, load, and battery voltage.

G. Input Power Factor: A minimum of 0.9 lagging when supply voltage and current are at nominal rated values and the UPS is supplying rated full-load current without additional filters.

H. System EMI (radiated & conducted) shall comply with FCC Part 15 Class B or equivalent.

2.03 UPS SYSTEMS

A. Description: Current production product, self-contained, battery backup device and accessories that provides three-phase electrical power in the event of failure or sag in the normal power system.

B. Acceptable Manufacturers

1. ABB
2. Schneider Electric
3. Eaton
4. Leibert (Vertiv)
5. Panasonic
6. Toshiba
7. Tripp Lite

C. Enclosures: Comply with NEMA 250, Type 1

D. Configuration: Field-assembled, multicabinet modular style units.

2.03 SURGE SUPPRESSION

A. Protect internal UPS components from surges that enter at each ac power input connection including main disconnect switch, static bypass transfer switch, and maintenance bypass/isolation switch. Protect rectifier-charger, inverter, controls, and output components.

1. Use factory-installed surge suppressors tested according to IEEE C62.41.1 and IEEE C62.41.2, Category B.

2.04 CONTROLS AND INDICATIONS

A. Description: Group displays, indications, and basic system controls on a common control panel on front of UPS enclosure.

B. User graphical display shall provide sufficient information in clear text to determine systems operating condition and support the detection and diagnoses of fault conditions. Supplier's proposal shall identify the information provided by the user display.

C. Unit shall include basic indicators that show that power is applied, batteries pass internal health check and inverter is operating and that no fault conditions are present. An audible alarm shall be provided to alert of fault conditions.

D. Controls shall include the following:

1. UPS start.
2. Battery test.
3. Alarm silence/reset.

E. Dry-form "C" contacts shall be available for remote indication of the following conditions:

1. UPS on battery.
2. UPS on-line.
3. UPS load-on bypass.
4. UPS in alarm condition.
5. UPS off (maintenance bypass closed).

F. Emergency Power off Switch: Capable of local operation and operation by means of activation by external dry contacts.

2.06 MAINTENANCE BYPASS/ISOLATION SWITCH

A. Description: Manually operated switch or arrangement of switching devices with mechanically actuated contact mechanism arranged to route the flow of power to the load around the rectifier-charger, inverter, and static bypass transfer switch.

1. Switch shall be electrically and mechanically interlocked to prevent interrupting power to the load when switching to bypass mode.

2. Switch shall electrically isolate other UPS components to permit safe servicing.

3. Switch shall electrically isolate the rectifier-charger, inverter, and static bypass transfer switch from the load, but shall allow primary power to the UPS for testing.

B. Comply with NEMA PB 2 and UL 891

C. Switch Rating: Continuous duty at rated full-load UPS current.

D. Key interlock with key that is released only when the rectifier-charger and inverter are bypassed by the static bypass transfer switch. Key shall be required to unlock maintenance bypass/isolation switch before switching from open (normal) position to closed position. Lock shall be designed specifically for mechanical and electrical component interlocking.

2.07 OUTPUT DISTRIBUTION SECTION

A. Panelboards: Existing input & output panel boards are to be reused. System input and output are 208V 3-phase (L,L,L,N,G).

2.08 REMOTE MONITORING

A. Description: Communication module in unit control panel provides capability for remote monitoring of status, parameters, and alarms specified in "Controls and Indications" Article. The remote computer and the connecting signal wiring are not included in this Section. Include the following features:

1. Proposer shall provide details of the network interface requirements to be provided by the Owner

2. Software designed for control and monitoring of UPS functions and to provide on-screen explanations, interpretations, diagnosis, action guidance, and instructions for use of monitoring indications and development of meaningful reports. Permit storage and analysis of power-line transient records. Designs for Windows applications, software, and computer are not included in this Section.

2.09 BATTERY

A. Battery technology, size and supplier to be provided by the proposer.

B. Seismic-Restraint Design: Battery racks, cabinets, assemblies, subassemblies, and components (and fastenings and supports, mounting, and anchorage devices for them) shall be designed and fabricated to withstand static and seismic forces.

2.10 BASIC BATTERY MONITORING

A. Description: Continuous, real-time capture of battery performance data, operational history and fault conditions. The specifics of the proposed battery monitoring and alarm system are to be provided by the proposer.

2.10 NETWORK MAINTENANCE SUPPORT

A. UPS shall have OEM support available for a minimum of 20 years.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine areas and conditions, with Installer present, for compliance with requirements for conditions affecting performance of the UPS. The UPS is located in a dedicated ground level room which is 15’ long by 9’ 8” wide with an access doorway 83” tall by 35” wide, doorway is located on the 9’ 8” wide wall. The UPS room is provided with its own mini-split HVAC system.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

A. Wiring within Enclosures: Bundle, lace, and train conductors to terminal points with no excess and without exceeding manufacturer's limitations on bending radii. Install lacing bars and distribution spools.

B. Maintain minimum clearances and workspace at equipment according to manufacturer's written instructions and NFPA 70.

C. Connections: Interconnect system components. Make connections to supply and load circuits according to manufacturer's wiring diagrams unless otherwise indicated. Apply oxide inhibitor on battery terminals.

D. Provide for temporary jumper of normal power to keep the facility operational during the decommissioning of the old UPS system and the installation of the new UPS system. The Emergency Operations Center shall remain fully operational throughout delivery of the project.

E. Contractor shall provide for decommissioning of the existing UPS system, removal of old equipment, and disposal of used batteries in compliance with regulatory standards for disposal.

3.03 PERFORMANCE TESTING

A. The replacement unit shall be functionally tested on-site after installation by a manufacturer's certified technician prior to turnover to the Owner.

3.04 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain the UPS.

END OF SECTION