

**SCOPE OF WORK  
FOR  
FEMS ENGINE HOUSES – VARIOUS GENERATOR REPLACEMENT PROJECTS  
CONSTRUCTION SERVICES**

**I. INTRODUCTION**

The District of Columbia Department of General Services (“DGS”, “District” or “Department”), on behalf of the District of Columbia Fire and Emergency Medical Services (“FEMS”), is seeking a General Contractor (GC or Contractor) with an Architect/Engineer firm licensed to perform work in the District of Columbia to develop any and all necessary Permit drawings and Cost Estimates and to provide the Furnish & Installation of a Generator system and Automatic Transfer Switch (ATS) system at the following Engine Houses in Washington, DC:

Station/Facility	Address	Square Footage	Built
Engine 2	500 F Street N.W.	35,241	1979
Engine 4	2531 Sherman Avenue N.W.	19,315	1976
Engine 12	2225 5th Street N.E.	15,913	1987
Engine 16	1018 13th Street N.W.	25,634	1932
Engine 18	414 8th Street S.E.	13,224	1965
Engine 19	2813 Pennsylvania Avenue S.E.	9,062	1911
Engine 26	1340 Rhode Island Avenue N.E.	8,936	1937
Engine 33	101 Atlantic Street S.E.	14,519	1987

The selected GC will be required to perform numerous activities in order to create the DC Department of Buildings (DOB), DDOT and DOEE permit approved design and construction documents. The completed design and construction documents will be utilized for purchasing and installing Generators and Automatic Transfer Switch systems.

**II. PROJECT REQUIREMENTS**

DGS and FEMS have identified the following requirements for the generator replacement of these Engine Houses:

- GC shall develop and provide Permit-ready drawings, specifications and any other documents that comply with the latest IBC, NFPA or other related building codes to obtain any necessary DOB Permit approvals for Building, Trade (Plumbing, Electrical, etc.), as well as, DDOT Permit approvals for Public Space and Occupancy Permits.
- GC to provide 100% Construction Documents including drawings, specifications and costs for Permit Applications and Permit Expeditor, if needed.
- GC to provide Electrical Assessment including any related Site Utilities, Sewer, Plumbing, Gas, Civil and Architectural assessments needed.

This Scope of Work is being provided to the General Contractor as preliminary or conceptual in nature that needs to be further developed into DOB, DDOT and DOEE Permit-approved Construction Drawings and Specifications that are in compliance and approved by DOB, DDOT, DOEE, DC DGS and DC FEMS. It is the responsibility

for the GC and its Architect/Engineer's licensed professionals to visit each of the sites to verify this preliminary information and to confirm availability of natural gas for a future generator system.

### III. SCOPE OF WORK

#### A. PRE-PERMIT PHASE

##### i. PERMIT PACKAGE DEVELOPMENT

The Contractor shall be responsible for conducting stakeholder meeting with DGS and FEMS to collect detailed information for the project requirements. The Contractor with its A/E shall each be licensed in the District and shall perform existing condition assessments of each Engine House's systems identified in the Project requirements to be included in the permit-approved documents. Existing condition assessments shall include at a minimum all testing, measurement, and documentation of the area identified, accessory apparatus, and any infrastructure necessary to complete the final construction documents package for all permit reviews and approvals by DOB, DDOT, DOEE, Pepco, and Washington Gas. The Contractor shall review and field verify the existing conditions of the Generator, ATS, BAS, and Fire Alarm Annunciator systems to ensure these systems have the capability to properly communicate and interface with each other. The Contractor shall confirm if the existing Fire Alarm Annunciator panel can indicate the operational status (Generator Run or Generator Fault) of the generator system. The Contractor shall confirm if any of these existing systems need to be upgraded for a fully functioning and code compliant Generator/ATS system. The following information will need to be obtained and inputted into attached Data Summary Form for each Engine House by the Contractor:

Location;

- a. Existing Washington Gas Service Size on the Supply Side;
- b. Current PSI/Water Column (Customer Side);
- c. PSI needed for Natural Gas (NG) Generator (Customer Side);
- d. Existing Pepco Service Size;
- e. Recommended KW Generator Size;
- f. Transfer Switch Size;
- g. Fire Alarm Annunciator Panel;
- h. Cost for Generator using Natural Gas only.

The awarded Contractor shall complete and submit to Washington Gas the Added Load/Split Meter Request Form and any related documents to confirm existing gas pressure relative to the 2 PSI operating pressure needed for new generator system at each Engine House.

The Contractor with its A/E shall review and verify all existing conditions assessment reports. Once the Contractor has gathered all pertinent information, the Contractor shall develop design and construction documents in CAD and a detailed written scope to in CSI format to submit to DOB, DDOT, DOEE, DGS, and FEMS for review and approval.

The Contractor with its A/E shall comply with latest noise criteria requirements as mandated by the District of Columbia Noise Control Act and all other applicable codes.

##### ii. PERMIT DRAWINGS & SPECIFICATIONS

The Goal of this phase is the preparation of all permit documents ("Permit Documents") per this scope



of work. During this phase, the Contractor shall finalize the permit drawings and prepare a complete specification document to be issued as part of the Contractor's work. The Contractor shall develop and provide Permit-approved construction documents and specifications that are certified with A/E stamped drawings by each discipline including the Electrical Engineer and Mechanical Engineer.

The Contractor shall be responsible for submitting and paying for all necessary building, construction or occupancy permits. The Contractor is responsible for obtaining all DOB, DDOT, and DOEE plan approvals for the building including, but not limited to, civil, structural, electrical, fire protection, mechanical, and final permits. Contractor shall be responsible and include for all permit fees in their proposal.

Deliverables within 6 weeks after Notice-To-Proceed ("NTP"):

- 100% Construction Documents;
- Permit-approved Construction Documents; and
- Natural Gas only cost estimate for each Engine House in accordance with the Contractor's bid in response to this IFB (**Attachment J.2**); and

iii. COST ESTIMATE

The Contractor shall develop a detailed cost estimate for the approved design and construction installation. The cost estimate shall be in the CSI format or another format as approved by DGS and shall not deviate from the Contractor's bid submitted in response to this IFB (**Attachment J.2**).

B. CONSTRUCTION PHASE

The Contractor shall furnish and install the DGS and FEMS approved Generator and ATS at the above referenced Engine Houses in accordance with Standard Work Requirements ("SWR") and Specific Requirements ("SR"). The Contractor will be provided a 12-hour window to complete final electrical connections between the existing Pepco service and the Main Distribution Panel for the facility.

**Standard Work Requirements ("SWR")**

The Contractor shall complete the following Standard Work Requirements ("SWR") for all areas where construction activities are noted to occur:

- (a) Obtain all DOB, DDOT, DOEE, Pepco, and Washington Gas inspection and permits of installed work. Coordinate, schedule, and submit all necessary power outage requests to Pepco, Washington Gas, and any other utility companies or relevant parties.
- (b) All work is to be done during normal business hours.
- (c) Load Bank Testing and Third-Party Commissioning – All new work will be required to have a third-party manufacturer's representative to confirm and warrant installation/ testing/commissioning of the installed equipment. All load bank testing shall comply with the latest NFPA 110: Standard for Emergency Standby Power Systems including Section 8.4.2.4 for Natural Gas generator systems. The Contractor shall have qualified electricians, fire alarm technicians, and related staff to inspect the Generator/ATS system and Fire

Alarm Annunciator panel, properly land generator wiring, ensure the ATS is working properly, and that there is a successful transfer test.

(d) Deliver comprehensive operations and maintenance report at completion of generator installation process. Each completed Generator and ATS system shall be BAC Net card enabled to communicate with existing BAS.

(e) Contractor is responsible for saving/obtaining any equipment/appliance literature (i.e. manuals, warranty cards, etc.), and specifically confirming the warranty card(s) or other documents include the model, serial number, and the in-service date of the equipment installed. Contractor to provide to the DGS Project Manager, at the completion of the job, such information in an organized/bounded format (i.e. notebook, folder, etc.).

(f) Train the responsible DGS, FEMS, and Engine House Fire Department officers on operation, preventative maintenance, and seasonal start-up and break-down of equipment.

(g) Provide final clean of all contractor-installed equipment and workspaces.

(h) Provide any necessary weekly and monthly Load Bank tests in accordance with NFPA 110, DGS, and FEMS.

### Specific Requirements (“SR”)

The following Specific Requirements (“SR”) section outlines more detailed scope and/or unique scope descriptions that is not included in SWR section above. Conflicts between SWR and SR information shall be clarified by DGS’ Project Manager (“PM”), but greater quality and quantity rules shall apply in all cases and shall be included in the Base Bid.

A. Contractor is responsible for removal, disposal and transportation of the existing Generator and ATS system including any associated equipment with delivery to 3170 V Street NE, Washington, DC 20018 (DC FEMS-Logistics Warehouse: 202-673-4406). The Contractor is responsible for making any modifications to physical workspace for demolition of required equipment as well as installation of required equipment.

B. The Contractor shall furnish & install Generator system including ATS (service-rated) system and associated equipment including any Disconnect Switches for each Engine House. The Generator system shall provide 24-hours of uninterrupted electrical power service to support 100% of the electrical load for each Engine House and shall match existing electrical service.

C. Rig the generator and set on existing or new concrete pad. The Contractor is responsible for properly sizing and providing a new concrete pad per the manufacturer and engineer of record.

D. Furnish & install all new connections per manufacturer’s instructions for a fully operating system. Contractor to utilize the “Equal or greater than Intesis INBACMBM\*\*\*0000 Gateway” system to properly communicate with the Engine House’s BACnet system.

E. Start-up the generator and check all operations in strict compliance with the manufacturer's specifications

and local codes. Furnish, install and test all required safety devices.

#### F. MISCELLANEOUS

1. Review existing Natural Gas conditions at site and determine if adequate to handle intended installation. If not, provide any missing components or upgrades required for complete and operational Scope of Work (“SOW”) installation in the end.
2. Provide any additional work not listed above but required to have a complete and functioning system in the end. Contractor shall provide all coordination and scheduling with Pepco on power outages and Washington Gas on any installation of Gas Regulators as it relates to existing meter.
3. **WARRANTY:** Five-year EQUIPMENT/MATERIAL warranty and one-year workmanship warranty.
4. Provide laminated “QUICK TIPS” sheet installed directly adjacent to the engine house Electrical Panel located in the electrical/mechanical room. Provide any necessary Trouble Shooting.
5. Provide (2) TWO thirty-minute training sessions on equipment to the Officer on Duty at this engine house; training must cover minimum two engine house shifts/rotations.

#### PROJECT MANAGEMENT

The Contractor shall be responsible for utilizing “ProjectTeam” platform for the management of the Project. All Project documents, meeting minutes for all types of meetings, and all principal correspondence/memoranda for inclusion in the Design must be preserved on ProjectTeam. Contractor shall be responsible for adding all information to DGS’ ProjectTeam platform. The Contractor shall utilize Primavera P6 or Microsoft Project for scheduling or DGS approved software.

See Attachment “A”

-Existing Generators Survey (Existing generators survey is for bidding purposes only, and to be field verified on-site by GC; GC is to comply with requirements in the above referenced SOW, SWR and SR and to further develop Design and Construction Drawings/Specifications and Permit-approved documents).