Embassy of the United States of America

GSO/Contracting & Procurement
U.S. Embassy, Abuja
Plot 1075 Diplomatic Drive, CBD
Abuja

May 22, 2012

Dear Offeror,

REQUEST FOR QUOTE (RFQ) – PURCHASE OF A 465KVA MINIMUM PRIME RATING GEN SET FOR SAN ANTONIO RESIDENCE, ASOKORO ABUJA

The American Embassy invites you to furnish your quotation for the purchase and installation of a 465KVA minimum prime rating generator at San Antonio Location in Abuja as specified in Block 11 of the attached form and Statement of Requirement (SOR). The Request for Quotation consists of the following:

1. Standard Form SF-18
2. Statement of Requirement
3. Instructions on late quotation rules and evaluation method.

The Embassy plans to award a Purchase Order. You are encouraged to make your quote competitive. You are also cautioned against any collusion with other potential offerors with regard to quotations to be submitted. The RFQ does not commit the American Embassy, Abuja, to make any award. The Government may cancel this RFQ or any part of it at its own discretion.

Please read the RFQ carefully, and if you are interested, submit your quotation. Return the completed forms SF-18 to the address shown in Block 5A of the form by 16.00 on Thursday June 7, 2012. Your quote should be accompanied with your comprehensive company profile and any other information you consider necessary to show your capability to execute this job. Oral quotations will not be accepted.

Thanks for your co-operation.

Sincerely,

Jim Landherr
Contracting Officer

JL:cu

REQUEST FOR QUOTATIONS *(THIS IS NOT AN ORDER)*	THIS RFQ [ ] IS [x] IS NOT A SMALL BUSINESS-SMALL PURCHASE SET-ASIDE (52.219-4)	PAGE 1	OF	PAGES 3

1. REQUEST NO.	2. DATE ISSUED	3. REQUISITION/PURCHASE REQUEST NO.	4. CERT. FOR NAT. DEF. UNDER BDSA REG. 2 AND/OR DMS REG. 1	RATING
	05-22-2012	1801894		

5A. ISSUED BY	6. DELIVER BY *(Date)*
Contracting Officer, General Services Office **U.S. Embassy, Abuja, Plot 1075 Diplomatic Drive, CBD Abuja**	

5B. FOR INFORMATION CALL: *(Name and telephone no.) (No collect calls)*			7. DELIVERY
NAME	TELEPHONE NUMBER		OTHER *(See Schedule)*
	AREA CODE	NUMBER	
Chike Udolisa		**0803 665 0061**	

8. TO:		9. DESTINATION	
a. NAME	b. COMPANY	a. NAME OF CONSIGNEE	**U.S. Embassy, Abuja**
c. STREET ADDRESS		b. STREET ADDRESS	**Plot 1075 Diplomatic Drive CBD**
d. CITY	e. STATE / f. ZIP CODE	c. CITY	**ABUJA**
		d. STATE	**FCT**
		e. ZIP CODE	

10. PLEASE FURNISH QUOTATIONS TO THE ISSUING OFFICE IN BLOCK 5A ON OR BEFORE CLOSE OF BUSINESS *(Date)*	**IMPORTANT:** This is a request for information, and quotations furnished are not offers. If you are unable to quote, please so indicate on this form and return it to the address in Block 5A. This request does not commit the Government to pay any costs incurred in the preparation of the submission of this quotation or to contract for supplies or services. Supplies are of domestic origin unless otherwise indicated by quoter. Any representations and/or certifications attached to this Request for Quotations must be completed by the quoter
Thursday June 7, 2012	

11. SCHEDULE *(Include applicable Federal, State and local taxes)*

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)
1	**To furnish a 465KVA minimum prime rating generator at San Antonio in Abuja as per the attached Statement of Requirement (SOR).** **Please submit a price proposal (in Naira) to the Contracting Officer as specified in block 5a above.** **Quotes submitted to officers other than the Contracting Officer shall be null and void.**	1	each		

12. DISCOUNT FOR PROMPT PAYMENT	a. 10 CALENDAR DAYS %	b. 20 CALENDAR DAYS %	c. 30 CALENDAR DAYS %	d. CALENDAR DAYS NUMBER	%

NOTE: Additional provisions and representations [ ] are [ ] are not attached.

13. NAME AND ADDRESS OF QUOTER			14. SIGNATURE OF PERSON AUTHORIZED TO SIGN QUOTATION	15. DATE OF QUOTATION
a. NAME OF QUOTER				
b. STREET ADDRESS			16. SIGNER	
c. COUNTY			a. NAME (Type or print)	b. TELEPHONE
d. CITY	e. STATE	f. ZIP CODE	c. TITLE (Type or print)	AREA CODE / NUMBER

AUTHORIZED FOR LOCAL REPRODUCTION
Previous edition not usable

STANDARD FORM 18 (Rev. 6-95)

FAR 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This purchase order or BPA incorporates the following clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this address:

http://www.arnet.gov/far or, http://farsite.hill.af.mil/search.htm

FEDERAL ACQUISITION REGULATION (48 CFR Chapter 1) CLAUSES

NUMBER	TITLE AND DATE
52.209-6	Protecting the Government's Interests When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment (JUL 1995) (if order exceeds $25,000)
52.213-2	Invoices (APR 1984) (for subscriptions with advance payments)
52.217-6	Option for Increased Quantity (MAR 1989) (if order contains options where the quantity is expressed as a percentage of the basic order quantity or as an additional quantity of a specific line item)
52.217-8	Option to Extend Services (AUG 1989) (if order is for services and contains options)
52.217-9	Option to Extend the Term of the Contract (MAR 1989) (if order is for services and contains options) Fill-in for paragraph (a): "the performance period of the order or within 30 days after funds for the option become available, whichever is later." Fill-in for paragraph (c): _____ ***[insert time frame]***
52.225-11	Restrictions on Certain Foreign Purchases (AUG 1998)
52.225-14	Inconsistency Between English Version and Translation of Contract (AUG 1989)
52.227-14	Rights in Data – General (JUN 1987) (if order involves the production, furnishing, or acquiring of data)
52.227-18	Rights in Data – Special Works (JUN 1987) (if order is for the compilation or production of data for the Government's own use)
52.232-1	Payments (APR 1984)
52.232-8	Discounts for Prompt Payment (MAY 1997)
52.232-11	Extras (APR 1984)
62.232-24	Prohibition of Assignment of Claims (JAN 1986)
52.232-25	Prompt Payment (JUN 1997)
52.232-33	Mandatory Information for Electronic Funds Transfer (AUG 1996) (if payment will be made by electronic funds transfer)
52.232-34	Optional Information for Electronic Funds Transfer Payment (AUG 1996) (if payment will not be made by electronic funds transfer)
52.233-1	Disputes (OCT 1995) Alternate I (DEC 1991)
52.233-3	Protest After Award (AUG 1996)
52.237-2	Protection of Government Buildings, Equipment, and Vegetation (APR 1984) (for services to be performed on U.S. Government installations)
52.243-1	Changes -- Fixed-Price (AUG 1987) (for supplies) Alternate I (APR 1984) (for services)
52.245-4	Government-Furnished Property (Short Form) (APR 1984) (for services when U.S. Government-furnished property is valued at $100,000 or less)
52.246-2	Inspection of Supplies -- Fixed-Price (AUG 1996) (for supplies)
52.246-4	Inspection of Services -- Fixed-Price (AUG 1996) (for services)
52.247-34	F.o.b. Destination (NOV 1991) (for supplies)
52.247-35	F.o.b. Destination, Within Consignee's Premises (APR 1984) (for supplies requiring inside delivery)
52.249-1	Termination for Convenience of the Government (Fixed-Price) (Short Form) (APR 1984) (for supplies)
52.249-4	Termination for Convenience of the Government (Services) (Short Form) (APR 1984) (for services)
52.249-8	Default (Fixed-Price Supply and Services) (APR 1984)

The following clause is provided in full text:

52.244-6Subcontracts for Commercial Items and Commercial Components (OCT 1995)

(a) *Definitions.*

"Commercial item", as used in this clause, has the meaning contained in the clause at 52.202-1, Definitions.

"Subcontract", as used in this clause, includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or non developmental items as components of items to be supplied under this contract.

(c) Notwithstanding any other clause of this contract, the Contractor is not required to include any FAR provision or clause, other than those listed below to the extent they are applicable and as may be required to establish the reasonableness of prices under Part 15, in a subcontract at any tier for commercial items or commercial components:

(1) 52.222-26, Equal Opportunity (E.O. 11246);

(2) 52.222-25, Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era (38 U.S.C. 4212(a));

(3) 52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C. 793); and

(4) 52.247-64, Preference for Privately-Owned U.S.-Flagged Commercial Vessels (46 U.S.C. 1241)(flow down not required for subcontracts awarded beginning May 1, 1996).

(d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

DEPARTMENT OF STATE ACQUISITION REGULATION (48 CFR Chapter 6) CLAUSES

652.229-70	Excise Tax Exemption Statement for Contractors Within the United States (JUL 1988) (for export of supplies to an overseas post)
652.237-71	Identification/Building Pass (AUG 1999) (for services where frequent and continuing access to Department of State facilities is required)
652.237-72	Observance of Legal Holidays and Administrative Leave (AUG 1999) (for services where performance will be on-site in a Department of State facility)
652.242-71	Notice of Shipments (JUL 1988) (for overseas shipment of supplies)
652-243-70	Notices (AUG 1999)

Award:

As a result of this RFQ, a purchase order will be awarded to the lowest-priced, responsible quote.

Generator Specification
San Antonio Multi Dwelling
S00282
Abuja, Nigeria

1.1. DESCRIPTION—Provide engine generators, per the attached schedule, in the KVA ratings indicated for each generator. Each generator on the schedule shall conform to the specifications contained herein.

1.1.1 The generator shall be a prime power rated engine generator set, including: prime power, directly coupled shaft, engine generator sets. The unit shall be configured to consist of a liquid cooled engine and a conventional alternator and an electronic governor. The unit shall be manufactured complete with system controls and all necessary accessories to make the generator set (genset) fully operational. Generators provided in pairs shall have the capability to alternate per the requirements of this specification. All equipment shall be as specified but shall not be limited to the items specified herein. Each genset shall be delivered to the residences indicated on the attached schedule, American Embassy, Abuja, Nigeria.

1.1.2 Provide for integral automatic and manual operation from the selector switch:

(1) Automatic transfer switch (ATS) for the generator as described elsewhere in this specification. The system shall come on-line fully automatically, and on restoration of utility automatically re-transfers load to normal power, shuts down the generator and returns to readiness for another operating cycle.

(2) Provision shall be made on the switch for a manual operation using the selector switch in the MANUAL position.

(3) Provide for alternation of gensets when generators are provided in pairs as shown in the attached generator schedule. Alternation shall be accomplished both by automatic and manual means. All equipment and controls for alternation shall be included with each pair of generator sets. All equipments and controls to provide alternation shall be provided in NEMA-3R, weatherproof cabinets.

1.1.3 Prime and overload ratings shall meet requirements herein.

1.1.4 Provide a three-position selector switch, as required in 2.3.2.

1.2. REQUIREMENTS

1.2.1 The electric generating system consists of a prime mover, generator, electronic governor, couplings, and all controls, tested as a complete unit.

1.2.2 Conform to NFPA 70 and applicable inspection authorities.

1.2.3 Transfer switches shall be labeled under UL 1008.

1.3 SUMMARY OF EQUIPMENT

1.3.1 Prime Power Rated Engine Generator, See Attached Schedule.

1.3.2 Automatic Transfer Switch (ATS).

1.3.3 Sound-attenuated, weatherproof enclosure.

Generator output power characteristics shall be 415/240 Volts, 50HZ, 3-phase and neutral, (4-Wire) except were otherwise stated.

2.0 ENGINE-GENERATOR SET

2.1 ENGINE

The prime mover shall be a liquid cooled, diesel fuel, naturally aspirated engine of 4-cycle design, with four cylinders (minimum).

2.1.2 The engine shall be cooled with an integral, unit mounted radiator, fan, water pump, and closed coolant recovery system, which provides visual diagnostic means to determine if the system is operating with a normal engine coolant level. The radiator shall be designed for satisfactory operation in 122 Degrees Fahrenheit (50 degrees Celsius) ambient temperature.

2.1.3 The intake air filter (with replaceable element) shall be mounted on the unit. Full pressure lubrication shall be supplied by a positive displacement lube-oil pump. The engine shall have a replaceable oil filter with internal bypass and

replaceable elements. Engine coolant and oil drain extension must be provided to outside the mounting base for cleaner and convenient engine servicing. A fan guard shall be installed for personnel safely.

2.1.4 The engine shall have a battery charging DC alternator with a transistorized voltage regulator. Remote 2-wire electric starting shall be accomplished by a solenoid shift electric starter.

2.1.5 Engine speed electronic governor shall have a frequency control, adjustable from zero to five percent droop, to maintain alternator frequency within five percent (across the range) from no load to full load. Steady state regulation shall be within plus or minus 0.33 percent.

2.1.6 The engine fuel system shall be designed for operation using No. 2 diesel fuel. A secondary fuel filter, water separator with glass bowl, manual fuel printing pump and fuel shut-off solenoid and all piping shall be installed on the unit.

2.1.7 Sensors shall be located on the engine for: low oil pressure shutdown, high coolant temperature shutdown, low coolant level shutdown, over-speed shutdown, and over-crank shutdown. These sensors shall be connected to the control panel using a wiring harness with the following features: wire number labeling on each end of the wire run for ease of identification, a molded rubber boot to over the electrical connection on each sensor to prevent corrosion and all wiring to be run in flexible conduit for mechanical protection and environmental protection.

2.1.8 The electric jacket-coolant heater shall be thermostatically controlled to automatically maintain the coolant within plus or minus 3 degrees of the control temperature. The control temperature shall be the temperature recommended by the manufacturer to optimize the starting time.

2.1.9 Definitions - The following definitions apply for the purpose of this procurement and any resulting contract:

Continuous Load - A load in which maximum current is anticipated for three hours or more in accordance with the continuous duty cycle, as defined by NFPA-70.
Continuous Duty Rating - A duty rating, equivalent to a load equal to one hundred percent of the genset nameplate rating for a duration of more than three hours.

Prime Rating - A duty rating, equivalent to seventy percent of the genset nameplate rating, for a continuous period of 12 hours. A prime rated generator is required to safely support the load, in the absence of city power, for an indefinite period. While it is recognized that over a 24 hour, operational load cycle, period the load variation may be considerable, this rating permits the maximum continuous load and duration to be addressed in the genset selection process.

Overload Rating - This is defined as satisfactory operation at a load of 110 percent of the nameplate rating, for a period of two hours.

2.2 ALTERNATOR

2.2.1 The alternator shall be a multi-pole revolving field type, wired for 415/240V, 3-phase, 50 HZ, 4- wire, with a brushless, static exciter. Generators shall be prime rated. The stator shall be directly connected to the engine flywheel to ensure permanent alignment. The generator shall meet temperature rise standards for class "F" varnish and conform to MIL-I-24092, Type "M" class 155. All leads shall be extended into the AC connected panel. The alternator shall be protected by internal thermal overload protection and an automatic reset field circuit breaker. One step load acceptance shall be 100% of nameplate kW rating and the generator shall return to normal operation within 15 seconds.

2.2.2 The engine-generator set shall be so designed that voltage dip upon application of nameplate full load shall not exceed 30% with recovery to stable operation within 15 seconds.

2.2.3 The solid state voltage regulator shall control output voltage by varying the exciter magnetic field to provide plus or minus 1% regulation during stable load conditions. The regulator shall have a voltage droop characteristic of 4 volts per cycle to maximize motor starting capability in the event an extremely heavy load drops the output frequency. The frequency at which this droop operation begins shall be adjustable allowing the generator set to be properly matched to the load characteristics ensuring optimum system performance.

2.2.4 The voltage regulator shall contain a limiting circuit to prevent output voltage surges in excess of 110% of rated voltage during generator set operation. On a loss of the sensing signal, the voltage regulator shall shutdown to prevent an overvoltage condition from occurring. A voltage regulator that can go into a full field condition is unacceptable. LED indication will be provided on the regulator

to monitor the sensing (yellow), excitation (green), and output circuit (red). A rheostat shall provide a minimum of plus or minus 10% voltage adjustment from the rated value.

2.2.5 The engine generator set shall be mounted with vibration isolators on a welded steel base, which shall permit suitable mounting to any level surface.

2.3 GENERATOR CONTROLS

2.3.1 All engine, alternator controls and instrumentation shall be designed, built, wired, tested and shock mounted in a NEMA 1 enclosure to the engine-generator set by the manufacturer. It shall contain direct current (D.C.) panel lighting and a fused circuit to protect the controls.

2.3.2 The engine-generator set shall contain a complete engine start-stop control, which starts the engine on closing contacts and stops the engine on opening contacts. An automatic preheat circuit that can also be operated in a manual mode shall be provided. A cyclic cranking limiter shall be provided to open the starting circuit, after eight attempts, if the engine has not started. Engine control modules shall be solid state plug-in type for high reliability and easy service. The engine controls shall also include a 3-position selector switch with the following positions: OFF/MANUAL/AUTO. A red annunciator lamp shall be energized when the switch is not in the automatic position.

2.3.3 Safety shutdown monitoring system shall include solid state engine monitor with individual lights and one common external alarm contact indicating the following conditions: Overcrank shutdown, Overspeed shutdown, High Coolant Temperature (Low Coolant Level shutdown), Low Oil Pressure shutdown, and fuel leak. Monitoring system shall included lamp test switch for manual reset of tripped conditions. Engine RPM shall be monitored by an independent permanent magnetic sensor. The engine shall shutdown immediately and energize a LOSS-OF-RPM shutdown light in the event of a failure.

2.3.4 Engine instrumentation shall consist of an oil pressure gauge, coolant temperature gauge, D.C. ammeter and an engine run-hour-meter, located on the unit control panel. Alternator instrumentation shall include analog meters to indicate output voltage per phase; amperage per phase and generator output frequency.

2.3.5 A red light (labeled using silk screened black letters on the control panel), which becomes energized when a low fuel level is sensed in the base mounted tank.

2.3.6 A thermal-magnetic, UL listed, main-line, molded case circuit breaker shall be mounted in the generator terminal panel. Line side connections shall be made at the factory. A system utilizing a manual reset field circuit breaker and current transformers is unacceptable.

2.3.7 A red emergency stop pushbutton shall be provided on the exterior of the enclosure and shall be accessible without the use of a key and without having to open the enclosure.

2.4 MISCELLANEOUS EQUIPMENT

2.4.1 The following miscellaneous equipment shall be provided as a part of this procurement action:

2.4.1.1 A sound-attenuating, weatherproof enclosure: The engine-generator set shall be factory enclosed in a 12 gauge steel enclosure constructed with corner posts, coated with electrostatically applied zinc and finished with baked enamel paint. The installed equipment sound levels shall be no more than that afforded by Hospital muffler standards when the unit is operated at full load, under rated ambient conditions. Muffler and entire installation, including sound-attenuating enclosure, shall be Hospital Rated for sound. The muffler shall be Hospital Rated apart from the enclosure. The enclosure, apart from the muffler, shall be rated no more than 50 dBA sound pressure level when measured at 7 meters. The enclosure shall have large, removable doors to allow complete access to the engine, alternator and control panel. Each door shall be fitted with stainless steel, lockable hardware with two sets of identical keys. The enclosure shall come equipped with a heater for the prevention of condensation within the enclosure. The enclosure shall meet seismic requirements as specified herein.

2.4.1.2 An automatic dual rate battery charger mounted inside the genset enclosure, in its own cabinet, shall be provided. The charger shall have 240 volt, single phase input. The automatic equalizer system shall monitor and limit the charge current to 10 amps. The output voltage is to be determined by the charge current rate. The charger shall have a maximum open circuit voltage of 35 volts and be protected against a reverse polarity connection.

2.4.1.3 A heavy duty, lead acid battery set shall be provided by the generator set manufacturer of adequate voltage and amperage capacity to start and operate the engine. Provide all intercell and connecting battery cables as required for complete installation. The battery shall be shipped in place fully charged with electrolyte.

2.4.1.4 The genset, parts shall be warranted by the offeror in accordance with the terms of this contract.

2.4.1.5 An integral skid type fuel tank shall be provided with the generator set to permit 18-24 hours of operation at full rated load. The fuel tank shall be a dual wall tank with a retention capacity of 110% of the internal tank. The integral fuel tank shall include an interstitial leak detector to provide notification of the presence of fuel in the interstitial space. The leak detector shall be able to be wired to the safety shutdown monitoring system and shall have a dedicated indicator light.

3.0 AUTOMATIC TRANSFER SWITCH (ATS)

3.1 GENERAL

3.1.1 The automatic transfer switch shall be industrial (NOT residential) grade and furnished so as to maintain system compatibility and local service responsibility for the complete emergency power system. It shall be listed by Underwriter's Laboratory, Standard 1008, with circuit breaker protection afforded by the generator breaker. Representative production samples of the transfer switch, which have been demonstrated through tests, shall withstand 10,000 mechanical operation cycles (minimum) without failure. One operation cycle is the electrically operated transfer from normal to emergency and back to normal. Wiring shall comply with NEC table 373-6. The manufacturer shall furnish complete schematic and wiring diagrams for the particular automatic transfer switch and a typical wiring diagram for the entire system showing all components, relays and part numbers. This ATS shall be an integral part of the generator set and be secured to the weather-proof enclosure. All wiring and connections to integrate the ATS into the generator output shall be made by the vendor before acceptance by the Government.

3.2 ATS RATINGS & PERFORMANCE

3.2.1 The automatic transfer switch (ATS) shall be a minimum 4-pole design (3-pole + neutral), rated for full load, continuous operation. The ATS rating shall be ambient temperatures of -15 Degrees Celsius to +50 Degrees Celsius. Main power switch contact shall be rated to operate at 415/240 volts unless otherwise specified herein. The transfer switch shall have a minimum withstand and closing rating of 42,000 amperes. The RMS symmetrical fault current ratings shall be the rating listed in the UL listing or component recognition procedures for the transfer switch.

3.3 ATS CONSTRUCTION

3.3.1 The transfer switch shall be open transition type, positively electrically and mechanically interlocked to prevent simultaneous closing and mechanically held in both normal and emergency positions. Independent break before make action shall be used as protection to prevent dangerous source to source connections. The transfer switch shall be approved for manual operation. The electrical operating means shall be approved for manual operation. The electrical operating means shall be by electric solenoid. Every portion of the contactor is to be positively mechanically connected. No clutch or friction drive mechanism is allowed, and parts are to be kept to a minimum. This transfer switch shall not contain integral overcurrent devices in the main power circuit, including molded case circuit breakers or fuses.

3.3.2 The transfer switch electrical actuator shall have an independent disconnect means to disable the electrical operation during manual switching. Maximum electrical transfer time in either direction shall be 160 milliseconds, exclusive of time delays. Main switch contacts shall be high pressure silver alloy contacts to resist burning and pitting for long life operation.

3.3.3 There shall be one Single Pole Double Throw, 10 ampere, 250 volt auxiliary contact on both normal and emergency sides, operated by the transfer switch. Full rated neutral bar with lugs for normal, emergency and load conductors shall be provided inside the cabinet.

3.4 CONTROL EQUIPMENT

3.4.1 All control equipment shall be mounted on the inside of the cabinet door in a metal lockable enclosure with transparent safety shield to protect all solid state circuit boards. This will allow for ease of service access when main cabinet

lockable door is open, but prevent access by unauthorized personnel. Control boards shall have installed cover plates to avoid shock hazard while making control adjustments. The solid state voltage sensors and time delay modules shall be plug-in circuit boards with silver or gold contacts for ease of service.

3.4.2 A solid state under-voltage sensor shall monitor each phase of the normal source and provide adjustable ranges for field adjustments for specific applications needs. Pick-up and drop-out settings shall be adjustable from a minimum of 70% to a maximum of 95% of nominal voltage. The utility input voltage shall be stepped down to 24VAC for safety and reliability.

3.4.3 Signal the engine-generator set to start in the event of a power interruption. A set of contacts shall close to start the engine and open for engine shutdown. An adjustable, solid state time delay start (1 to 180 seconds) shall delay this signal to avoid nuisance start-ups on momentary voltage dips or power outages.

3.4.4 Transfer the load to the engine-generator set after it reaches proper voltage (80%) and frequency (80%). A solid state time delay (30 seconds) shall delay this transfer to allow the engine-generator to warm-up before application of load. There shall be a switch to bypass this warm-up timer when immediate transfer is required.

3.4.5 Retransfer the load to the line after normal power restoration. A return to utility timer (5-10 minutes) shall delay this transfer to avoid short term normal power restoration.

3.4.6 The operating power for transfer and retransfer shall be obtained from the source to which the load is being transferred. Controls shall provide an automatic retransfer of the load from emergency to normal if the emergency source fails with the normal source available.

3.4.7 Signal the engine-generator to stop after the load re-transfers to normal. An adjustable, solid state engine cool-down timer (3-10 minutes) shall permit the engine to run unloaded to cool-down before shutdown.

3.4.8 Provide an engine minimum run timer (10 minutes) to ensure an adequate engine run period.

3.4.9 Provide a solid state plant exercise clock to set the day and time of generator set exercise period. Clock shall have a seven days, 24 hour programmable clock powered from the load side of the transfer switch. A 150 hour internal battery shall be supplied to maintain the circuit board settings when the load side of the transfer switch is de-energized. Include a switch to select if the load will transfer to the engine-generator set during the exercise period.

3.4.10 The transfer switch shall have a time delay neutral feature to provide a time delay (5 seconds) during the transfer in either direction during which time the load is isolated from both power sources. This allows residual voltage components of motors or other conductive loads (such as transformers) to decay before completing the switching cycle. A switch will be provided to bypass this feature when immediate transfer is required.

3.4.11 Front mounted controls shall include a selector switch to provide for a NORMAL TEST mode with full use of time delays, FAST TEST mode which bypasses all time delays to allow for testing the entire system in less than one minute, or AUTOMATIC mode to set the system for normal operation.

3.4.12 Provide colored indicator lamps to be energized when the transfer switch position is in either UTILITY (white) or EMERGENCY (red). A third lamp shall be provided to indicate STANDBY OPERATING (amber). These lights shall be energized from utility or the engine-generator set.

3.4.13 Provide manual operating handle to allow for manual transfer. This handle shall be mounted inside the lockable enclosure so accessible only by authorized personnel.

3.4.14 Provide a safety disconnect switch to prevent load transfer and automatic engine start while performing maintenance. This switch will also be used for manual transfer switch operation.

3.4.15 Provide LED status lights to give a visual readout of the operating sequence. This shall include: utility on, engine warm up, engine warm up bypass, standby voltage "ready", standby frequency "ready", standby on, transfer to standby, return to utility, engine cool-down, engine minimum run and fast test mode.

3.4.16 Provide for alternation of paired generator sets when indicated in the attached generator schedule and as required elsewhere in this specification.

3.5 MISCELLANEOUS ATS EQUIPMENT

3.5.1 The transfer switch mechanism and controls shall be mounted in a NEMA 4X enclosure for outdoor, weatherproof, dustproof and corrosion resistant installation.

4.0 MISCELLANEOUS

4.1 FACTORY TESTING

4.1.1 Before shipment of the equipment, the engine-generator set shall be tested under rated load and power factor for performance and proper fronting of control and interfacing circuits. Tests shall include:

4.1.1.1 Verifying all safety shutdowns and components are functioning properly.

4.1.1.2 Single step load pick-up per NFPA 110-1985, Paragraph 5-13.2.6.

4.1.1.3 Transient and voltage dip responses and steady state voltage and speed (frequency) checks.

4.1.1.4 The factory test data sheet shall identify all tests (PASSED or FAILED) and accompany each generator set. This will be reviewed by the Department of State Representative (DOSREP) before written acceptance is provided.

4.2 Not Applicable

4.3 OWNERS MANUALS

4.3.1 Two (2) hard copy sets of owner's manuals specific to the genset and products supplied shall be located inside each unit and accompany the equipment. General operating instruction, preventive maintenance, wiring diagrams, schematics and parts exploded views specific to this model shall be included. A PDF version of the owner's manuals shall also be provided on a compact disc and shipped with each generator.

4.4 SUBMITTALS

4.4.1 Provide two complete sets (for each rating of machine) of Engineering Submittal for approval, prior to production release, showing all components, in addition to the engine, generator and automatic transfer switch. Submittals shall include complete system interconnection wiring diagrams and manufacturer's warranty form indicating compliance with these specifications.

4.5 SPARES

General parts: Provide one set of maintenance (spare) parts for each genset ordered under this contract. An order of maintenance parts is defined as all items necessary to perform scheduled maintenance functions for 2000 operating hours plus replacement bulbs for indicators, replacement fuses for each fuse used on the genset and any other like items that the manufacturer deems desirable. Package these maintenance parts in polyethylene bag, and pack inside the genset for which they are intended. Should there be insufficient room inside genset, enclose parts bag in protective package and attach to shipping skid. This group of parts shall include a complete list of all vendors recommended spares, including, but not limited to, the items listed below:

1. Engine lubricating oil filters and filter gaskets, if separate from filter.
2. Fuel filters and filter gaskets, if separate from filter.
3. Engine intake air filters and filter gaskets, if separate from filter.
4. A minimum of five light bulbs of each size light bulb used in the genset.
5. A minimum of five electrical fuses of each size fuse used in the genset.
6. One engine lubrication oil system drain plug.

For the 2000-hour requirement for replacement parts, one replacement cycle for all filters and associated gaskets shall be 250 hours. The offer shall include a complete list of all vendors recommended spares. The offer shall explicitly identify each Table I line item by packaged dimensions, weight and price.

4.6 WARRANTY

The offeror shall provide a one-year warranty on parts, which starts from the date the equipment is commissioned on-site. This requirement shall not modify or change the standard contract warranty agreement.

4.7 DELIVERY

The generator sets, transfer switches, spare parts and trailers are being imported duty free under the diplomatic duty free status of the American Embassy, the goods will be considered delivered once received and inspected by the Receiving Officer at the United States Embassy, Abuja, Nigeria.

GENERATOR SCHEDULE
Abuja, Nigeria

Property#	**Minimum Prime Rating, KVA**
1. San Antonio—S00282	465

Addendum to Generator Specification

Section 2.3.4 is modified to read "Generator is to be fitted with a generator set controller with capabilities of digitally displaying engine and alternator operating parameters as well as fault logging capabilities.

Section 3.4.4 is modified to read "An adjustable solid state time delay the transfer to allow the engine –generator to warm up before application of load"

Udolisa, Chike N

To: 'bishnu saha'; 'spareparts.nigeria@jubailibros.com'; 'vigwe@jhplc.com'; peteronoja@yahoo.com; 'Oluyemi Olukunle'; anand gml; felixchukwurah@yahoo.com; AOkeke@mantracnigeria.com; 'jegbuniwe@cumminswestafricaltd.com'; 'service.north@cumminswestafricaltd.com'; powergen engineering limited [powergensales@gmail.com]
Cc: Abuja, Procurement; Ayalogu, Patrick C; Lamay, William C
Subject: Request for Quote - Generator for San Antonio - PR # 1801894
Attachments: Document.pdf

Hello,

Find attached a Solicitation for 465KVA minimum prime rating generator for one of our residence – San Antonio. It is also advertised on the Embassy webpage. If you are interested, furnish your quote as specified therein.

Thanks

Chike Udolisa
Contracting/Procurement
U.S. Embassy
Abuja, Nigeria
Tel: 234-9-461-4038
Mob: 234-803-665-0061
Fax; 234-9-461-4036
Email: AbujaProcurement@state.gov

This message is unclassified as defined by E.O. 12958

Udolisa, Chike N

From: Udolisa, Chike N
Sent: Tuesday, May 22, 2012 12:51 PM
Cc: Abuja, Procurement; Ayalogu, Patrick C; Lamay, William C
Subject: Request for Quote - Generator for San Antonio - PR # 1801894
Attachments: Document.pdf

Hello,

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