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**Bid Receiving Public Works and Government
Services Canada/Réception des soumissions Travaux
publics et Services gouvernementaux Canada**
Room 100,
167 Lombard Ave.
Winnipeg
Manitoba
R3B 0T6
Bid Fax: (204) 983-0338

Revision to a Request for a Standing Offer

Révision à une demande d'offre à commandes

National Master Standing Offer (NMSO)
Offre à commandes principale et nationale (OCPN)

The referenced document is hereby revised; unless
otherwise indicated, all other terms and conditions of the
Offer remain the same.

Ce document est par la présente révisé; sauf indication
contraire, les modalités de l'offre demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address

**Raison sociale et adresse du
fournisseur/de l'entrepreneur**

Issuing Office - Bureau de distribution

Public Works and Government Services Canada -
Western Region
Room 100
167 Lombard Ave.
Winnipeg
Manitoba
R3B 0T6

Title - Sujet Diesel Generator Sets		
Solicitation No. - N° de l'invitation ET959-160116/B		Date 2015-11-30
Client Reference No. - N° de référence du client ET959-160116		Amendment No. - N° modif. 002
File No. - N° de dossier WPG-5-38032 (016)	CCC No./N° CCC - FMS No./N° VME	
GETS Reference No. - N° de référence de SEAG PW-\$WPG-016-9624		
Date of Original Request for Standing Offer		2015-10-13
Date de la demande de l'offre à commandes originale		
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2015-12-14		Time Zone Fuseau horaire Central Standard Time CST
Address Enquiries to: - Adresser toutes questions à: Hall, Marlene		Buyer Id - Id de l'acheteur wpg016
Telephone No. - N° de téléphone (204) 230-0147 ()		FAX No. - N° de FAX (204) 983-7796
Delivery Required - Livraison exigée		
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:		
Security - Sécurité This revision does not change the security requirements of the Offer. Cette révision ne change pas les besoins en matière de sécurité de la présente offre.		

Instructions: See Herein

Instructions: Voir aux présentes

Acknowledgement copy required	Yes - Oui	No - Non
Accusé de réception requis	<input type="checkbox"/>	<input type="checkbox"/>
The Offeror hereby acknowledges this revision to its Offer. Le proposant constate, par la présente, cette révision à son offre.		
Signature	Date	
Name and title of person authorized to sign on behalf of offeror. (type or print) Nom et titre de la personne autorisée à signer au nom du proposant. (taper ou écrire en caractères d'imprimerie)		
For the Minister - Pour le Ministre		

This **amendment # 002** is raised to modify **Solicitation # ET959-160116/A** and to provide Canada's response to Supplier questions as follows:

If your bid has already been forwarded and you wish to revise the same, this revision should be mailed in a sealed envelope and reach the Bid Receiving Unit identified on Page 1 before the closing date. The bid number and closing date are to be shown on the sealed envelope.

Questions and Answers

- Q1)** *Item 5.1* Could the 50degC requirement be lowered to 49degC?
A1) Must be 50degC.
- Q2)** *Item 6.3* Please confirm if there are any voltages/frequency combinations not required on certain kW ratings as 6.3 is currently is to apply to all ratings.
A2) Must supply for all kW ranges up to 1.0MW, for greater size generators 120/208V is not required, but other voltage re-connection capabilities are required
- Q3)** *Item 6.1* Is 105 degree C temperature rise on the alternator required for all sizes?
A3) Yes, we are asking for capability and price value for system rated for 105degC temp rise.
- Q4)** *Item 6.10* Please clarify on what is "control conversion matrices".
A4) Provide evidence that the paralleling control system has a conversion kit that is available for different paralleling mode capabilities, compatible with all kW range sizes and system designs.
- Q5)** *Item 7.2.11* What is meant by this requirement especially the words "full suite"?
A5) "Full Suite" to include metering as per 7.3 & 7.4 and includes metering for engine run time, power factor, kw/h, battery voltage, coolant temperature, oil pressure, fuel level (when generator supplied with belly tank), current fault display, fault history log.

Modification

1. Refer to page 19 of 65, **Annex A – Compliance Matrix**

Delete: Delete the Compliance Matrix in its entirety

Insert: Replace with the following Compliance Matrix:

<p><u>Completion and submission of Mandatory Performance Specification is required to be considered responsive and for your offer to be given further consideration.</u></p> <p>a. Bidders must cross reference where in their technical offer, the performance specification is located.</p> <p>b. Provide the specification being offered which meets or exceeds <u>and cross-reference as to where the supporting documentation is found within your proposal.</u> If there is insufficient space in the table, assign SIR # (Supplementary Information Reference) and provide the appropriate details on a separate page in your offer. Where published supporting documentation is not available in the form of brochures, technical data sheets etc., prepare a written narrative complete with a detailed explanation of how its offer demonstrates compliance.</p>		
<p><u>All work and materials herein specified must meet and maintain minimum Canadian and Provincial certification(s) and approval(s) as applicable by Industry Standards.</u></p>		
Item	Specifications	Bidder Response: indicate how they meet the specifications addressed below/ cross-reference where this technical specification is indicated in their bid documentation
1.0	GENERAL	
1.1	The following generator specification is intended as the minimum and mandatory standard for the supply of diesel generator sets ranging from 10kw to 2.5 Megawatts in size. Generator sets must be CSA certified and will be used in Standby and Prime Power service.	
1.2	The engine, radiator, generator and control section must be mounted on a common steel skid base. All components must be manufactured and supplied by the same single source vendor. The skid base must contain internally mounted vibration isolators, battery rack and openings to secure cables for lifting by crane of hoist.	
1.3	The generator set must be fit, finished and painted to a high quality standard in the manufactures standard color.	

1.4	The system must be labeled for permanent identification with lamicoïd or metal engraved, anodized nameplates, starting both Continuous Rating and Standby Rating.	
1.5	An information warning plate must be secured to the generator set with the warning that the set is automatically controlled and may start at any time.	
1.6	Supplied with the generator set must be two (2) copies, English and French language, of the equipment maintenance manual, parts manual and electrical schematic drawings.	
1.7	Prime Mover, alternator, transfer switches and controls must be manufactured by one entity engaged in manufacturing and support worldwide of said assemblies for a minimum of 25 years.	
1.8	Evidence of parts and service support available globally minimum 25 years from equipment delivery date online 24/7 service and parts support.	
1.9	Engine, alternator, transfer switch and controls specification data sheet required for each offered model and size.	
2.0	WARRANTY & PRODUCT SUPPORT	
2.1	The generator set and all accessories must be warranted for defects in material and workmanship for a 1-year period in Standby and Prime Power service. Warranty to cover all parts, labor and travel. Travel to all sites accessible by public roads is to be included in warranty coverage. Travel coverage to remote sites without public road access, will be covered by Canada.	
2.2	APPLICABLE TO DND ONLY: All commissioning is to be carried out by 86 ASU EGS technicians on site during installation and recognized by the Supplier to be the approving authority.	
2.3	APPLICABLE TO DND ONLY: CFB Trenton, 86 ASI EGS personnel are authorized by supplier to carry out all warranty repairs.	
2.4	The responsibility for performance and warranty for all the equipment supplied cannot be split up among individual suppliers and must be assumed solely by the supplier of the generator set, transfer switch and controls.	
2.5	The manufacturer must be capable of supporting the engine, generator, transfer switch, including all accessories within an extensive network of worldwide dealer support.	

2.6	<p>APPLICABLE TO DND ONLY: The successful Offeror agrees and must be capable of training Electrical Generating Systems (EGS) technician's on all engine controllers, transfer switches, networking systems, and generating units supplied. Offeror must be capable of training EGS tech's on any and all new upgrades to engine controllers, transfer switches, networking systems, and generating units that occur during the full term of any resulting Standing Offer, including potential option period(s). Qualification training certificates and tooling software to be included with training, and software required must be directly from unit manufacturer (engine controller, transfer switch, and networking tooling software to be product specific), including subscriptions for the full term of any contract. Software capability to include the ability to capture and save existing command files, troubleshoot programs, as well as rerate and install updated software as required. Any software provided must have the capability to be easily updated at no cost when updates are made available.</p>	
2.7	<p>APPLICABLE TO DND ONLY: Cost of training for each course must be included in the Standing Offer, and cost must include all materials, and literature. Qualification training for all products must be completed at the manufacturer's training center with factory trainers. All products must be made available for training and shall also include training performed in an energized state. Evidence of training capabilities to be provided.</p>	
2.8	<p>APPLICABLE TO DND ONLY: Engine, generator sets and transfer switch manuals (English and French language) for successful Offeror must be available online for the term of the standing offer, access required for 6 individuals including subscriptions and training on accessing manuals for each. Manuals to include but not limited to detailed service and parts manual for prime movers, alternators, transfer switches and controls on line trouble shooting available through software tool for global access.</p>	
2.9	<p>Provide detailed list of software and hardware offered including details on frequency of software updates.</p>	
3.0	DELIVERY & PACKAGING	
3.1	<p>Generator set(s) are to be delivered FOB destination globally.</p>	
3.2	<p>Generator set(s) must be packaged with wood frame or crate to prevent damage during shipment.</p>	
3.3	<p>Offeror must include proof of distribution centre locations, inventory levels and proximity to FEDEX and UPS hubs. Evidence of logistical capability to ship worldwide 24/365.</p>	
4.0	ENGINE	
4.1	<p>The engine must be a water cooled, four (4) stroke diesel with replaceable wet type cylinder liners. The engine may be turbo-charged. On 350KW and below, a parent bore is acceptable.</p>	

4.2	The fuel system must be of the direct injection type with electronic speed control governor. For sets ordered with the 12-lead generator, the governor must be capable of operating at 50 or 60 Hertz. The fuel system must have primary water separator and secondary filtration.	
4.3	Full flow spin on type oil filter, dip stick with running and stopped oil level indication.	
4.4	Heavy duty type air cleaner restriction indicator.	
4.5	Circulating type engine electric block heater, single phase, and 240 volt of sufficient size. NOTE: Block Heaters utilizing DC controlled Thermostats MUST incorporate a fail-safe to open the AC feed in case of DC power loss.	
4.6	Over 250 kW engines must include bypass and full flow integral to the base engine. Fuel and lubrication oil filters must include synthetic media, cellulose not acceptable.	
4.7	12 or 24 volt starting system complete with heavy/duty battery(s) and battery charging alternator.	
4.8	Engine emissions capability to meet the current EPA Standards Tier 2 and 3, throughout the term of the Standing Offer.	
4.9	Engines must include a standard SAE drive for engine driven options and must include a coolant circulating pump, engine driven for low temperature aftercooler circuit.	
5.0	RADIATOR	
5.1	The radiator must be skid mounted with the engine and the fan direct driven. Fan and radiator must be adequately guarded from damage or accidental injury.	
5.2	Radiator must be rated for operation at 50 deg C (122 deg F).	
6.0	GENERATOR	
6.1	The generator must be of the revolving field, brush-less type with permanent magnet excitation, drip proof enclosure, class H insulation and 105 degree C temperature rise.	
6.2	The generator must be single bearing and direct coupled to the engine by a flexible disk drive.	

6.3	<p>The Generator must be supplied in two optional voltage configurations to be specified at time of order:</p> <ul style="list-style-type: none"> .1 Option 1 – 3 phase, 4 wire, 347/600 volt, 60 Hz non-re-connectable. .2 Option 2 – 3 phase, 4 wire, 12 lead re-connectable capable of supplying the following voltages: <ul style="list-style-type: none"> i) 120/208, 240/416, 277/480 volts, 3 phase at 60 Hz, ii) 120/240 volts, 1 phase at 60 Hz (generator must be capable of supplying full 3 phase kilowatt rating at this voltage), or iii) 220/380 volts, 3 phase at 50 Hz (de-rating of the 60 Hz kilowatt rating is expected). 	
6.4	<p>Automatic electronic voltage regulator to be installed on generator housing and provide no load to full load regulation within +/- 0.5% of its mean value. External mounted regulators must be mechanically protected. On re-connectable generators the regulator must function at all voltages/frequencies specified in para 6.3.2 (i), (ii), (iii).</p>	
6.5	<p>The generator set must be capable of accepting one-step full load as per the kilowatt rating on the unit data plate. The data plate must list both the Standby and Prime Power ratings of the generator set. Provide prototype test results for each generator.</p>	
6.6	<p>Generator to be protected by an installed main circuit breaker incorporating the following:</p> <ul style="list-style-type: none"> .1 over-current trips; .2 DC Shunt Trip connected so as to open the breaker should the engine shut down under fault condition; .3 adjustable current load limit for output amperage ratings under the varying voltage configurations; and .4 ability to add additional mainline circuit breakers to generator set bus for full load testing to include ATS start signal interlock for live system testing. 	
6.7	<p>Generators ordered in the 120/240 volts single phase configuration must have a 3-pole breaker to allow for conversation to three phase.</p>	
6.8	<p>Subs transient Reactance on all models not to exceed 0.15.</p>	
6.9	<p>Motor Starting KVA with 90% sustained voltage must be greater than 3.5 times generator set nameplate of kVA rating for approx. 7 secs.</p>	
6.10	<p>Upgradeable generator mounted paralleling controls capable of sharing unequal nodes (ex 50kW with a 2.5 MW), manufactured and supplied by the generator manufacturer, single sourced and adaptable to existing fleet, isolated and infinite bus including closed transition proportional soft transition. Provide evidence of control conversion matrices.</p>	
7.0	<p>CONTROL PANEL</p>	
7.1	<p>The control panel must have vibration mountings and be of the drip proof design engine controls;</p>	

7.2	<p>The control panel must be manufactured and supplied by the generator manufacturer, ensuring a single source supplier, and incorporate the following engine controls:</p> <ul style="list-style-type: none"> .1 engine control switch, RUN-OFF-REMOTE, with flashing indicator when the engine control switch is in the "OFF" position; .2 over speed shutdown with visual indication; .3 over crank with visual indication; .4 low oil pressure shutdown with visual indication; .5 high coolant temperature shutdown with visual indication; .6 low coolant level shutdown with visual indication; .7 low coolant temperature warning with visual indication; .8 low fuel alarm visual indication (remote dry contact input); .9 fire alarm shutdown with visual indication (remote dry contact input); .10 panel mounted mushroom head emergency stop switch with visual indication; .11 a full suite of analog and digital metering on the generator control. <p>NOTE: Visual Indication means long Live Pilot Lamp or LED</p>	
7.3	<p>The control panel must incorporate the following AC digital metering: Volts and Amps with selector switch to read all phases, Frequency 45 – 65 Hz. Wattmeter on all generator sets.</p>	
7.4	<p>The control panel must contain the following digital engine gauges: oil pressure, water temperature, DC voltmeter, and engine hour meter.</p>	
7.5	<p>Adjustment pots for engine speed and voltage to be mounted on panel face.</p>	
8.0	TRANSFER SWITCHES	
8.1	<p>Transfer switches must be manufactured by the generator set manufacturer.</p>	
8.2	<p>Where specified, the generator set must be supplied with an automatic transfer switch to enable the generator set to function as an automatic backup to the hydro source. Upon a hydro failure, the transfer switch will contain all required circuitry to start the diesel, assume the load, and shutdown the diesel upon hydro return.</p>	
8.3	<p>The transfer switch will be mounted in a minimum Type 1 enclosure, wall mounted or free standing, and be CSA certified.</p>	

8.4	The transfer switch must contain the following features: .1 over/under voltage and frequency protection for the hydro source; .2 over/under voltage and frequency protection for the generator source; .3 adjustable engine start delay (0-15 seconds); .4 adjustable on load transfer delay (0-60 seconds); .5 transfer switch to have neutral position with adjustable neutral position delay timer (0-30 seconds). In-Phase Monitor is not acceptable; .6 adjustable off load retransfer delay (0-30 minutes); .7 adjustable engine stop delay cool-down (0-30 minutes); .8 panel mounted indicator lamps or LED to indicate source connected to the load, and .9 panel mounted remote generator starting and testing capability.	
8.5	The transfer switch will be matched to the generator set voltage, amperage rating and capable of interfacing with the engine-mounted controller.	
8.6	Each transfer switch must include the ability to be converted in the field to inphase or adjustable delayed transition with programming only.	
8.7	Each ATS to include load monitoring on source 1 and 2.	
8.8	GenSet to GenSet option to be available on each offered automatic transfer switch including sequencing capability for closed transition between Gen Sets.	
8.9	ATS's to include a full suite of metering digital and analog on each switch.	
9.0	MILITARIZED COMMERCIAL GENSET (50/60 Hz)	
9.1	Reconnectable 60 Hz 120/208V – 240/416V 50 Hz 120/208V – 240/416V	
9.2	Integral Fuel Tank including Auxiliary Tank Capable includes Level Control Switch	
9.3	Integral Fuel Transfer system 2/24DC Unit Mounted Transfer Pump	
9.4	Multi-fuel (JP-8, DF-1, DF-2, DS-A) Compatible	
9.5	Operate at all environmental extremes -50°C to +55°C.	
9.6	Reliability modeling available	
9.7	Qualified Battlefield mobility	

9.8	<p>Military approved ruggedized packaging</p> <p>Evidence of each of the following required for each node:</p> <ol style="list-style-type: none"> 1. Electromagnetic compatibility to MIL-STD 461; 2. Infrared signature 3. Noise signature 4. Electromagnetic pulse resistance 5. Rated power at altitude 500 thru 3500 meters in 250M increments 	
9.10	24DC Starting and Charging system	
9.11	Nuclear, biological and chemical contamination survivability evidence required	
9.12	Enhanced battlefield survivability evidence required	
10.0	OPTIONS	
10.1	<p>If required for a particular installation, the following options must be supported by the factory and can be priced on an "as required basis". The basis of pricing as defined in Annex "B" will apply if items are included in the Published Price listing:</p> <ol style="list-style-type: none"> .1 weatherproof enclosure, sound attenuated to a minimum 68 dBA at 7 meters. .2 skid or base mounted double walled fuel tank (sized to allow 24-hour generator run time at full load); .3 remote engine radiator c/w electric fan motor, for engines with Low Temperature Aftercooling (LTA) and remote radiator, the circulating pump for the LTA circuit must be mechanically, direct gear driven by the engine. The shell and tube aftercooler(s) must be stainless steel. .4 freestanding transfer switch cabinet complete with built in generator set controls; .5 panel mounted 10 amp battery charger, equalizer float type 12 or 24 volt as applicable to generator set; .6 silencer, exhaust piping, flex, connectors and fire proof blankets; .7 environmentally approved fuel tanks, ranging in the 250-10,000 gallons; .8 no break bypass switch with total isolation and racking out capability; .9 speciality tools, required to maintain specified equipment "this does not include the items covered as detailed in section 2.0. .10 testing and interfacing equipment, i.e.: software, data links, etc. including any training on the interfacing equipment and software. 	

ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME