



लुम्बिनी प्रदेश सरकार
प्रदेश पूर्वाधार विकास प्राधिकरण
राप्ती उपत्यका विकास प्राधिकरण

क्याटलग सपिंगबिधि बाट जेनेरेटर खरिद सम्बन्धी सिलबन्दी प्रस्ताव आव्हानको सुचना

(प्रथम पटक प्रकाशित मिति: २०८२/०२/०३)

यस प्रदेश पूर्वाधार विकास प्राधिकरणको आ.व. २०८१/०८२ को स्वीकृत कार्यक्रम अनुसार जेनेरेटर खरिद गर्नुपर्ने भएकाले सार्वजनिक खरिद ऐन, २०६३ को दफा ८ को उपदफा १ खण्ड (क) को ८ तथा सार्वजनिक खरिद नियमावली, २०६४ को नियम ३१ (ख) बमोजिम उत्पादक तथा अधिकृत बिक्रेताद्वारा निर्धारित दरमा (क्याटलग सपिंग) विधिबाट खरिद गर्नुपर्ने भएकाले इच्छुक इजाजत प्राप्त उत्पादन कम्पनि वा त्यसको आधिकारिक बिक्रेताहरूले, आ-आफ्नो फर्म दर्ताको प्रमाणपत्र, एजेन्सी दर्ता प्रमाण पत्र, Letter of Authorization, आ.व. २०८०/०८१ सम्मको आयकर चुक्ता र स्वघोसणा समावेस गरि उत्पादकको आधिकारिक स्पेसिफिकेसन गुणस्तर, मूल्य र सुविधा सहितको विवरण (क्याटलग) संलग्न राखी यो सुचना प्रकाशित भएको ७ (सातौँ) दिन बेलुका ५ बजे भित्र यस कार्यालयमा प्रस्ताव पेश गर्नुहुन उत्पादक वा आधिकारिक बिक्रेताहरूको जानकारीको लागि यो सुचना प्रकाशित गरिएको छ ।



क्र.सं	सामानको विवरण	स्पेसिफिकेशन	कैफियत
१.	Supply installation testing and commissioning of 62.5 KVA/3 phase/415v, 50Hz Fully Automatic Silent Diesel Generator Set Including all Accessories as per Detailed Specification	As per Detailed Specification	प्रस्ताव खोल्ने मिति २०८२/०२/०९ गते बेलुका ०५:१५ बजे प्रदेश पूर्वाधार विकास प्राधिकरणमा

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ई.छविराज पोख्रेल
प्रमुख कार्यकारी अधिकृत
(प्रमुख कार्यकारी अधिकृत)

Technical Specification of 62.5KVA Silent, Diesel Generator with ATS/AMF facility

Project Site: Provincial Infrastructure Development Authority, Rapti- 8, Bijauri Dang

Supply, Installation, testing and commissioning of 62.5 KVA /3phase/415v, 50Hz fully Automatic Silent DG set including all accessories as per the detailed Specification :

S.No.	Criteria	Buyer's Requirement	Bidder Offer
1	General	<p>The prime power rating silent Generator shall comply with the specified International Standards, comprise of a Diesel Engine of specified capacity-directly coupled to an specified capacity of Alternator, mounted over a common base frame with Anti-vibro-mounts The DG Unit shall be a complete pre-integrated & pre-assembled unit, internationally reputed make from original company and locally assembled units are not acceptable</p> <p>The Diesel Generator Units shall consist of the following composition:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Diesel Engine <input type="checkbox"/> Alternator <input type="checkbox"/> Fuel tank <input type="checkbox"/> Exhaust System <input type="checkbox"/> AMF Control Panel <input type="checkbox"/> Battery <input type="checkbox"/> Outdoor weather Protective & Sound Attenuating Enclosure <input type="checkbox"/> Automatic Transfer switch <input type="checkbox"/> All other Accessories for automation operation 	<ul style="list-style-type: none"> <input type="checkbox"/> Manufacturer <input type="checkbox"/> Brand <input type="checkbox"/> Type/Model <input type="checkbox"/> Gen Set <input type="checkbox"/> Engine <input type="checkbox"/> Alternator <input type="checkbox"/> Country of Origin
2	Conformance Standards	<ul style="list-style-type: none"> <input type="checkbox"/> Engine: BS 5514, ISO 3046 <input type="checkbox"/> Alternator: IS 4722, BS 5000, IEC60034 <input type="checkbox"/> Engine & Gen. Set: ISO8528 <input type="checkbox"/> ISO 9001:2008 Quality Assurance <input type="checkbox"/> ISO 14001:2004 Environmental Management 	
3	Ratings & Performance	DG Set shall be supplying continuous electrical power (at variable load) in the event of a utility power failure. The rating shall be atleast 62.5KVA/3 Phase/415V AC, 50Hz 0.8pf, within $\pm 1.0\%$ Voltage Regulation and random Frequency variation with any steady load from no load to full load shall not exceed $\pm 0.5\%$	
4	Engine	The Diesel engine shall be of 4 cylinder, water cooled, cold start, direct fuel injection, compression ignition and preferably turbo charged type-developing min. 82 BHP or more @ 1500 rpm & over load capacity of 110% for one hour in any specified 12 hrs of continuous operation. The Diesel Engine shall be fitted with a Mechanical/Electric governor class A1 or later. The cooling system shall be fitted a vertical fan cooled sectional radiator, rated for the tropical site conditions shall be mounted at the end of the combined under base and driven from the diesel engine.	
5	Alternator	The Alternator shall be self-excited and self regulated brushless 62.5KVA prime@125°C, 1500 RPM, 3 Phase, 415/230Volts/50Hz, 0.8 pf (leg) 4 wire system. The Stator winding shall be star connected & shall be brought out together with the neutral point to terminals. The insulation of the winding shall be class H and IP-23. The Alternator shall be capable of maintaining its continuous maximum rated output within $\pm 5\%$ of rated voltage & at rated power factor with 10% Engine overload at any PF between utility and rated PF for a maximum period of one hour in any 12 hrs period.	
6	Automatic Transfer Switch	The ATS shall comply with IEC 60947 or equivalent, having 3 attempt type & capable of sensing single & three phase failure of main supply or any variation in main supply voltage. The main supply and generator supply contactors or solenoid/motor operated change over switch shall be of fool proof design with mechanical & electrical interlock. A 4 pole circuit breaker and auto transfer switch should be provided rated for full load of the current $\pm 10\%$ overload.	
	Fuel Tank	A built-in fuel tank design shall be capable of preventing accidental spilling of fuel & hand pump feeding on emergencies and minimum capacity of not less than 8-10 hours continuously run at the rated capacity.	
8	Generator Monitoring & Diagnostic Features	<p>The Control unit shall be environmentally sealed; solid state and microprocessor based and shall have minimum following features:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Master Engine control switch for OFF/AUTO/MANUAL/TEST <input type="checkbox"/> Emergency Shutdown feature <input type="checkbox"/> Engine Monitoring (Lube oil pressure, Engine Temp., RPM, Run Hrs., Fuel Level etc) <input type="checkbox"/> Generator Set KVA, KW, KVAR, KWH, Power Factor, Canopy Temperature etc <input type="checkbox"/> Alternator Monitoring (Phase voltage, currents, frequency & reverse power etc.) <input type="checkbox"/> Battery Monitoring <input type="checkbox"/> Fuel Level Indicator <input type="checkbox"/> Digital Alarm and Status message display <input type="checkbox"/> Modbus Communication, Remote Monitoring etc. <p>The Gen.Set. Shall be automatically shut down under following condition:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Low fuel level <input type="checkbox"/> Low lube oil pressure <input type="checkbox"/> Over Current <input type="checkbox"/> Over/Under Voltage <input type="checkbox"/> Over/Under Speed <input type="checkbox"/> Earth Fault Trip <input type="checkbox"/> Low/High Battery voltage <input type="checkbox"/> High Engine Temperature <input type="checkbox"/> Routine Maintenance Indicator 	 <p>इ. प्रवि. राज पोखरेल प्रमुख कार्यकारी अधिकृत</p> 
9	Starting System	The Gen.Set Shall be supplied with a completely self-contained starting system consisting of an engine driven dynamo, a lead acid battery and battery charger etc.	

10	Acoustic Enclosure	<p>► The Generator set shall be provided with a sound attenuated housing/enclosure to reduce the sound level of the generator set while operating at full rated load to below 95dBA at 1 mtr. from the Gen set</p> <p>► The enclosure shall include hinged doors for access to both sides of the Engine and Alternator & control equipment. A panel viewing window and key locking door latches shall be provided.</p> <p>► The enclosure shall be provided with an exhaust silencer, which is mounted outside of the enclosure, and allows the Generator set package to meet specified sound level requirements. Silencer & exhaust shall include a rain cap and rain shield.</p>	
11	Installation & commissioning	<p>The Bidder must arrange the equipment & spares to be installed as mentioned below and commissioned by qualified/certified personnel, if any prerequisites for installation to be communicated to the purchaser in advance and in detail.</p> <p>① Power cables, Multi strain copper wires, MCCBs, cable shoes and other related accessories</p> <p>① Earthing set, complete (Alternator and Body) or as per manufacturer guideline.</p> <p>① Installation & commissioning all complete work at site</p>	
12	Others	<p>② Warranty: Comprehensive warranty for 2 Years after acceptance.</p> <p>② Service facility: Suppliers must ensure planned preventive maintenance (PPM) and corrective/ breakdown maintenance whenever required.</p> <p>② User Training: Supplier must provide user training by qualified/certified trainer including proper handling of equipment and maintenance.</p> <p>② Literature: Installation Guidelines, Foundation Drawings etc.</p> <p>② Delivery Terms & condition</p>	
13	Documentation	<p>② User Operating Manual in English</p> <p>② Service (Technical/Maintenance) Manual in English</p> <p>② List of important spare parts and accessories with their part number and costing</p> <p>② Calibration Certificates and Inspection reports from factory.</p>	

Note: Bidder must mention/full filled all the offered items Specification & duly signed, otherwise their tender will not be accepted.

Prepared by:

Electrical Engineer,
(Energy Division)

Ministry of Energy, Water Resources & Irrigation



ई. छवि राज पोखरेल
प्रमुख कार्यकारी अधिकृत