



## NATIONAL POWER CORPORATION

### SUPPLEMENTAL /BID BULLETIN NO. 1

to the Bid Documents for the

**SUPPLY, DELIVERY, INSTALLATION, TEST AND COMMISSIONING OF 2X50 MW MODULAR DIESEL GENSETS, ASSOCIATED ELECTRICAL EQUIPMENT & BALANCE OF PLANT FOR THE ELECTRIFICATION OF 3 BARANGAYS AT SIBANAG ISLAND, BASILISA, PROVINCE OF DINAGAT ISLAND UNDER THE OFF-GRID ELECTRIFICATION PROJECT UNDER PR NO. S4-PIC21-065/ REF NO. PB220215-NA**

**08 February 2022**

All prospective bidders and authorized copyholders of the bid documents are hereby informed of the change in:

#### **SECTION VI – TECHNICAL SPECIFICATIONS PART II - TECHNICAL DATA SHEETS, MW-MECHANICAL WORKS**

Please refer to the attached revised pages:

- p. VI-TDS(MW)-i
- p. VI-TDS(MW)-ii
- p. VI-TDS(MW)-1
- p. VI-TDS(MW)-2
- p. VI-TDS(MW)-3
- p. VI-TDS(MW)-11
- p. VI-TDS(MW)-12

All other terms and conditions shall remain the same.

For the information and guidance of all authorized copyholders of the Terms of Reference (TOR) and prospective bidders.

For the Bids and Awards Committee:

**ATTY. ROGEL T. TEVES**

Vice President, Power Engineering Services and  
Chairman, Bids and Awards Committee



**PART II – TECHNICAL DATA SHEETS****MW – MECHANICAL WORKS****TABLE OF CONTENTS**

SECTION	DESCRIPTION	PAGE
<b>DOCUMENTS TO BE SUBMITTED DURING BID OPENING</b>		
M-1.0	Diesel Engine-Generator Set and Associated Equipment Data Summary	III-TDS(MW)-2
M-2.0	Fuel Consumption Form for Diesel Generator Sets	III-TDS(MW)-4
Annex A.1	<b>Letter of Authorization and Guarantee Statement either from:</b> 1) Original Equipment Manufacturer (OEM); or 2) Certification/Agreement from the OEM as a Licensee; or 3) Authorized Distributor (accompanied by a Certificate of Authorized Distributorship from the OEM/Licensee of the OEM). If from the Licensee, a Certification from the OEM as a Licensee or the Licensee agreement must also be submitted), for the Diesel Engine-Generator Sets	Attachment As Annex A.1
Annex A.2	<b>"Diesel Engine-Generator Set/Diesel Generating Set (Engine + AC Generator) Performance Curve" @ Reference Site Conditions</b> issued by the Manufacturer/Assembler/Integrator (duly signed with full name) of the Diesel-Generator Set Model/Type being offered	Attachment As Annex A.2
Annex A.3	Performance Curve @ Reference Site Conditions issued by the Diesel Engine Manufacturer or Diesel Generating Set Manufacturer/Assembler/Integrator (duly signed with full name) for the Diesel Engine Model/Type being offered	Attachment As Annex A.3
<b>DOCUMENTS TO BE SUBMITTED DURING POST QUALIFICATION BUT NOT LIMITED TO:</b>		
M-3.0	<b>Diesel Engine</b>	III-TDS(MW)-5
M-4.0	<b>Spare Parts</b>	III-TDS(MW)-6
M-4.1	Spare Parts per Unit of 50 kW Diesel Generating Set During the Warranty Period	III-TDS(MW)-6
M-4.2	Spare Parts per Total Units of 50 kW Generating Sets Supplied and to be Delivered at Sibanag DPP	III-TDS(MW)-7
M-5.0	<b>Standard/Special Tools</b>	III-TDS(MW)-8
M-5.1	Standard/Special Tools per Total Units of 50 kW Generating Set Supplied and Delivered at Sibanag DPP	III-TDS(MW)-8
M-5.2	Miscellaneous Tools to be Supplied and Delivered at Sibanag DPP	III-TDS(MW)-9

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SECTION	DESCRIPTION	PAGE
<b>DOCUMENTS TO BE SUBMITTED DURING PROJECT IMPLEMENTATION BUT NOT LIMITED TO:</b>		
M-6.0	ISO 9001 Certificate of the Manufacturer/Assembler/Integrator or equivalent for each of the Diesel Engine-Generator Set	
M-7.0	Standard Certification of the proposed offered model Diesel Engine-Generator Set from any of the following internationally recognized certifying body/organization: a) Canadian Standard Association (CSA) b) Underwriter's Laboratories (UL) c) Japanese Industrial Standards (JIS) d) European Commission (CE) e) Lloyd's Register (LR) f) Germanischer Lloyd (GL) g) Nippon Kaiji Kyokai (NKK) h) American Bureau of Shipping (ABS)	
M-8.0	Power Derate Curves and Details or Certificate/Statement from Diesel Engine-Generator Set Manufacturer/Assembler/Integrator that the proposed Diesel Engine-Generator Set have no deration at Reference Site Conditions.	
M-9.0	Manufacturer's/Assembler/Integrator's General Data, Catalogue and Brochures of model/type of equipment offered and published as standard products for the Diesel Engine-Generator Set which contain the following information: a) Manufacturer/Assembler b) Model/Type c) Prime Rated Power d) Voltage e) Power Factor f) Frequency g) Rated Speed h) Arrangement & Number of Cylinders	
M-10.0	Technical Data for Engine and Auxiliaries (See Attached Forms)	III-TDS(MW)-13
M-11.0	Supplier/Manufacturer/Assembler Drawings, Brochures, Instruction Manuals and other Documents as specified in Clause GW-6.3 and other relevant Clauses of the Technical Specifications	

**PART II – TECHNICAL DATA SHEETS****MW – MECHANICAL WORKS****DOCUMENTS TO BE SUBMITTED DURING THE BID OPENING**  
**(Sections M-1.0, M-2.0, Annexes A.1, A.2 and A.3)****NOTES**

1. The Bidder shall complete this technical data sheet and submit the filled-up forms with the technical proposal. The Bidder shall use additional sheets as necessary for any other additional information following the format shown herein or by reproducing the same.
2. The data required are technical features and characteristics of the Equipment to be provided by the bidder. Bidder's proposal shall at least be equal or superior to the requirements specified by NPC.
3. Deviation from the requirements indicated in the technical data sheets M-1.0, M-2.0 and non-submission of the required documents listed as Annexes A.1, A.2 and A.3 shall be ground for disqualification.
4. All data and information shall be in English language.

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Name of Firm

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Name & Signature of Representative

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Designation

**M-1.0 DIESEL ENGINE-GENERATOR SET AND ASSOCIATED EQUIPMENT  
DATA SUMMARY**

ITEM	DESCRIPTION	NPC REQUIREMENT	SUPPLIER'S DATA
M-1.1	Diesel Engine-Generator Set/Diesel Generating Set (DG Set) -Prime Duty *	Designed, manufactured and tested in compliance with the latest version of the standards* listed below, mounted on heavy duty steel base frame with anti-vibration pads contained in a sound attenuated & weatherproof enclosure	
M-1.1.1	Manufacturer/Assembler/Integrator of DG Set being offered	By Supplier	
M-1.1.2	Brand Name of DG Set being offered	By Supplier	
M-1.1.3	Model of DG Set being offered	By Supplier	
M-1.1.4	DG Set Manufacturer/Assembler/Integrator Experience, Year	5	
M-1.1.5	DG set <b>Guaranteed Prime Rated Power</b> at Reference Site Conditions & 0.8 Power Factor, kW	50 minimum	
M-1.1.6	DG set <b>Guaranteed Fuel Rate</b> at Required <b>50 kW Prime Power Output</b> at Reference Site Conditions @ 100 % Rated Load, l/kW-hr,	0.34 (max)	
M-1.1.7	Voltage, V	480 (± 5%)	
M-1.1.8	Power factor	0.80 (minimum)	
M-1.1.9	Frequency, Hz	60	
M-1.1.10	No. of Phases, Ø	3	
M-1.1.11	Rated Speed, RPM	1800	
M-1.1.12	Governor	electronic	
M-1.1.13	Arrangement & Number of Cylinders	In-line and Multi-cylinder	
M-1.1.14	Maximum Sound Pressure Level @ 1-meter distance, dBA	85	
M-1.1.15	Maximum Permissible NOx, mg/Nm <sup>3</sup>	2000 as NO <sub>2</sub>	
M-1.1.16	Maximum Permissible SOx, mg/Nm <sup>3</sup>	700 as SO <sub>2</sub>	
M-1.1.17	Maximum Permissible CO, mg/Nm <sup>3</sup>	500 as CO	
M-1.1.18	Particulates, mg/Nm <sup>3</sup>	200	
M-1.1.19	Factory Acceptance test	Yes	
M-1.1.20	"Diesel Engine-Generator Set/Diesel Generating Set (Engine + AC Generator) Performance Curve" @ Reference Site Conditions issued by the Manufacturer/Assembler/Integrator (duly signed with full name) of the Diesel-Generator Set Model/Type being offered	To be Submitted/Attachment as Annex A.2	

NOTES: 1. \* IEC 60034, IEC 60085, IEC60529, ISO 9001, ISO 3046 and ISO 8528

2. *Guaranteed Fuel Consumption which is more than the specified maximum value will be ground for rejection of the equipment being offered.*3. *Experience less than what is required will be ground for rejection of the equipment being offered.*

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**M-1.0 DIESEL ENGINE-GENERATOR SET AND ASSOCIATED EQUIPMENT  
DATA SUMMARY Cont'd...**

ITEM	DESCRIPTION	NPC REQUIREMENT	SUPPLIER'S DATA
M-1.2	Diesel Engine		
M-1.2.1	Manufacturer	By Supplier	
M-1.2.2	Manufacturer's Experience, years	10	
M-1.2.3	Place of Manufacture	By Supplier	
M-1.2.4	Brand Name of Diesel Engine being offered	By Supplier	
M-1.2.5	Model/Type	By Supplier	
M-1.2.6	Engine Prime Brake Power Output at Reference Site Conditions, kWm or BHP	By Supplier	
M-1.2.7	Performance Curve @ Reference Site Conditions issued by the Diesel Engine Manufacturer or Diesel Generating Set Manufacturer/Assembler/Integrator (duly signed with full name) for the Diesel Engine Model/Type being offered	To be Submitted/Attachment as Annex A.3	

**M-2.0 – FUEL CONSUMPTION FOR DIESEL ENGINE-GENERATOR SET**

A	B**	C	D*	E
DG Set Guaranteed Prime Rated Power at Reference Site Conditions (Minimum KW)	DG Set Guaranteed Fuel Rate at Required Prime Rated Power & at Reference Site Conditions (liters/kilowatt-hour)	Cost of Fuel (PhP/ltr)	No. of operating hours per year (hrs)	1-Year Cost of Fuel Consumption, (A x B x C x D) (PhP)
50		40.40	3,427	

**NOTES:** \* For evaluation Purposes: The estimated number of operating hours per year is based on 16 hrs/day operation, 25 days PMS, 10% Outages and assumed 70% Utilization Factor.

\*\* Write the Guaranteed Fuel Rate in three decimal places, i.e. 0.270 L/kW-hr. If Fuel Rate is indicated in more than three decimal places, only the first three decimal numbers will be considered regardless of any number written in the fourth decimal number.

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**PART II – TECHNICAL DATA SHEETS****MW – MECHANICAL WORKS****DOCUMENTS TO BE SUBMITTED DURING THE PROJECT  
IMPLEMENTATION****(Sections M-6.0, M-7.0, M-8.0, M-9.0, M-10.0 & M-11.0)****NOTES**

1. The Bidder shall complete this technical data sheet/documents and submit the filled-up forms during the project implementation (during contract stage). The Bidder shall use additional sheets as necessary for any other additional information following the format shown herein or by reproducing the same.
2. The data required are technical features and characteristics of the Equipment to be provided by the bidder. Bidder's proposal shall at least be equal or superior to the requirements specified by NPC. The data provided shall be used as basis for evaluation of brochures, drawings and other documents to be submitted for review and approval during the project implementation.
3. All data and information shall be in English language.

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M-8.0	Power Derate Curves and Details or Certificate/Statement from Diesel Engine-Generator Set /Genset Manufacturer/Assembler/Integrator that the proposed Diesel Engine-Generator Set have no deration at Reference Site Conditions.	

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M-9.0	<b>Manufacturer/Assembler/Integrator's General Data, Catalogue and Brochures of model/type of equipment offered and published as standard products for the Diesel Engine-Generator Set which contain the following information:</b> a) Manufacturer/Assembler b) Model/Type c) Prime Rated Power d) Voltage e) Power Factor f) Frequency g) Rated Speed h) Arrangement & Number of Cylinders	
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