



**NATIONAL POWER CORPORATION**

**SUPPLEMENTAL /BID BULLETIN NO. 1**  
to the Bid Documents for the  
**SUPPLY, DELIVERY, INSTALLATION, TEST AND COMMISSIONING OF 2 X 75 KW  
MODULAR DIESEL GENSETS, ASSOCIATED EQUIPMENT AND BALANCE OF PLANT  
FOR GREEN ISLAND UNDER ELECTRIFICATION OF NEW AREAS IN PALAWAN UNDER  
PR NO. HO-PIG22-001/ REF. NO. PB220228-NA**

**21 February 2022**

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

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

Please refer to the attached revised pages:

- pp VI-TDS(MW)-i to VI-TDS(MW)-I (two pages)
- pp. VI-TDS(MW)-1 to VI-TDS(MW)-18 (eighteen pages)

**B. SECTION III – BID DATA SHEET CLAUSE 10.5 AND NPCSD-GOODS-01 (Technical Documents)**

FROM	TO
Drawings & Documents to be submitted with the Proposal as specified in Sections M-1.0, M-2.0, Annexes A.1 to A.2 for Mechanical Works and Sections E-1.0 and E-2.0 for Electrical Works, Section VI – Part II Technical Data Sheets.	Drawings & Documents to be submitted with the Proposal as specified in Sections M-1.0, M-2.0, Annexes A.1 to <b>A.3</b> for Mechanical Works and Sections E-1.0 and E-2.0 for Electrical Works, Section VI – Part II Technical Data Sheets.

**C. SECTION VIII – BIDDING FORMS**

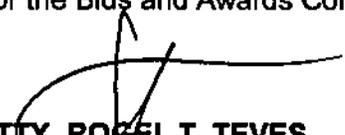
Please refer to the attached revised pages:

- Table of Contents
- NPCSF-GOODS-01 page 2 of 3
- NPCSF-GOODS-05
- NPCSF-GOODS-06c
- NPCSF-GOODS-07

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**

<b>SECTION</b>	<b>DESCRIPTION</b>	<b>PAGE</b>
<b>DOCUMENTS TO BE SUBMITTED DURING BID OPENING</b>		
<b>M-1.0</b>	<b>Diesel Generating Set and Associated Equipment Data Summary</b>	<b>VI-TDS(MW)-2</b>
<b>M-2.0</b>	<b>Fuel Consumption Form for Diesel Generator Sets</b>	<b>VI-TDS(MW)-3</b>
<b>Annex A.1</b>	<b>Letter of Authorization and Guarantee Statement either from: 1) Original Equipment Manufacturer (OEM) or 2) Certification/Agreement from OEM as a Licensee or 3) Authorized Distributor/Dealer (accompanied by a Certificate of Authorized Distributorship/Dealership 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 75 kW Prime Rated Power Diesel Generating Sets.</b>	<b>Attachment As Annex A.1</b>
<b>Annex A.2</b>	<b>"Diesel Generating Set (Engine + AC Generator) Performance Curve" @ Reference Site Conditions issued by the Manufacturer/Assembler/Integrator (duly signed with full name) for each Diesel Generating Set Model/Type being offered.</b>	<b>Attachment As Annex A.2</b>
<b>Annex A.3</b>	<b>"Engine 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</b>	<b>Attachment As Annex A.3</b>
<b>DOCUMENTS TO BE SUBMITTED DURING POST QUALIFICATION BUT NOT LIMITED TO:</b>		
<b>M-3.0</b>	<b>Diesel Engine</b>	<b>VI-TDS(MW)-5</b>
<b>M-4.0</b>	<b>Spare Parts</b>	<b>VI-TDS(MW)-6</b>
<b>M-4.1</b>	<b>Spare Parts per Unit of 75 kW DG Set During the Warranty Period</b>	<b>VI-TDS(MW)-6</b>
<b>M-4.2</b>	<b>Spare Parts for the Total Units of 75 kW DG Set Supplied and to be Delivered at Green Island DPP</b>	<b>VI-TDS(MW)-7</b>
<b>M-5.0</b>	<b>Standard/Special Tools and Miscellaneous Tools</b>	<b>VI-TDS(MW)-8</b>
<b>M-5.1</b>	<b>Standard/Special Tools for the Total Units of 75 kW DG Set Supplied and Delivered at Green Island DPP</b>	<b>VI-TDS(MW)-8</b>
<b>M-5.2</b>	<b>Miscellaneous Tools to be Supplied and Delivered Green Island DPP</b>	<b>VI-TDS(MW)-9</b>

**TABLE OF CONTENTS (Cont'd.....)**

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 the Diesel Generating Set	
M-7.0	<p>Standard Certification of the proposed offered model of Diesel Generating Set from any of the following internationally recognized certifying body/organization:</p> <ul style="list-style-type: none"> <li>a) Canadian Standard Association (CSA)</li> <li>b) Underwriter's Laboratories (UL)</li> <li>c) Japanese Industrial Standards (JIS)</li> <li>d) European Commission (CE)</li> <li>e) Lloyd's Register (LR)</li> <li>f) Germanischer Lloyd (GL)</li> <li>g) Nippon Kaiji Kyokai (NKK)</li> <li>h) American Bureau of Shipping (ABS)</li> </ul>	
M-8.0	Power Derate Curves and Details or Certificate/Statement from Diesel Generating Set's Manufacturer/Assembler/Integrator that the proposed Diesel Engine-Generator Set have no deration at Reference Site Conditions.	
M-9.0	<p>Manufacturer/Assembler/Integrator's General Data, Catalogue and Brochures of model/type of equipment offered and published as standard products for the Diesel Generating Set which contain the following information:</p> <ul style="list-style-type: none"> <li>a) Manufacturer/Assembler</li> <li>b) Model/Type</li> <li>c) Prime Rated Power</li> <li>d) Voltage</li> <li>e) Power Factor</li> <li>f) Frequency</li> <li>g) Rated Speed</li> <li>h) Arrangement &amp; Number of Cylinders</li> </ul>	
M-10.0	Technical Data for Engine and Auxiliaries	See Attached Forms on page VI-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.

Name of Firm

Name &amp; Signature of Representative

Designation

**M-1.0 DIESEL GENERATING (DG) SET AND ASSOCIATED EQUIPMENT DATA SUMMARY**

ITEM	DESCRIPTION	NPC REQUIREMENT	SUPPLIER'S DATA
M-1.1	DG Set (Diesel Engine + AC Generator) (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 (minimum)	
M-1.1.5	DG Set Guaranteed Prime Rated Power at Reference Site Conditions* & 0.8 Power Factor, kW	75 kW (minimum)	
M-1.1.6	DG set Guaranteed Fuel Rate at 75 kW Prime Power Output & Reference Site Conditions, 100 % Rated Load, li/kW-hr	0.32 (maximum)	
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 & 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	

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

Name of Firm

Name & Signature of Representative

Designation



**M-1.0 DIESEL GENERATING (DG) SET AND ASSOCIATED EQUIPMENT DATA SUMMARY (Cont'd.....)**

ITEM	DESCRIPTION	NPC REQUIREMENT	SUPPLIER'S DATA
M-1.1.20	"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 Generating Set Model/Type being offered	To be Submitted/Attachment as Annex A.2	
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	"Engine 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 DG SETS**

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)
75		71.69	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.

Name of Firm

Name & Signature of Representative

Designation

**PART II – TECHNICAL DATA SHEETS**

**MW – MECHANICAL WORKS**

**DOCUMENTS TO BE SUBMITTED DURING POST-QUALIFICATION**  
**(Sections M-3.0 to M-5.2)**

**NOTES**

1. The Bidder shall complete this technical data sheet and submit the filled-up forms during the post-qualification which shall only serve as reference for the review and approval of brochure/drawings during implementation 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 which shall at least be equal or superior to the requirements specified by NPC.
3. The lists of Spares and Tools (Items M-4.1 to M-5.2) are preliminary and subject to changes to conform with the final design and model/brand of the proposed equipment (per manufacturer’s standard).

The Bidder shall indicate "N/A" to the respective items in the said lists (Items M-4.1 to M-5.2) if found not applicable to the brand/model of the proposed equipment. However, NPC reserves the right to request the Supplier to provide the same or its equivalent if it is determined as "deemed necessary or standard tool/inherent part or optional item" during the evaluation, checking and review/approval of the final lists to be submitted by the Supplier during the Contract Stage at no cost to NPC.

4. Non submission of the above documents shall be a ground for disqualification.

Name of Firm	Name & Signature of Representative	Designation
--------------	------------------------------------	-------------



**M-3.0 DIESEL ENGINE**

ITEM	DESCRIPTION	NPC REQUIREMENT	SUPPLIER'S DATA
<b>M-3.1</b>	<b>DIESEL ENGINE</b>		
M-3.1.1	1. Manufacturer/Assembler	By Supplier	
	2. Manufacturer's Experience, Year	10	
M-3.1.2	Place of Manufacture	By Supplier	
M-3.1.3	Model/Type	By Supplier	
M-3.1.4	Engine Prime Rated Brake Power at Reference Site Conditions, kWm or BHP	By Supplier	
M-3.1.5	Number of Cylinders	By Supplier	
M-3.1.6	Bore and Stroke, mm	By Supplier	
M-3.1.7	Piston Displacement, L	By Supplier	
M-3.1.8	Piston Speed, m/s	By Supplier	
M-3.1.9	Engine Mean Effective Pressure, kg/cm <sup>2</sup>	By Supplier	
M-3.1.10	Compression Ratio	By Supplier	
M-3.1.11	Overall Dimension of Complete Unit, L x W x H, m	By Supplier	
M-3.1.12	Maximum Weight of Diesel Engine Generator Set on Skid, kg	By Supplier	
M-3.1.13	Heat Dissipation including (Generating set), kJ/hr	By Supplier	

Name of Firm

Name & Signature of Representative

Designation

SECTION VI – TECHNICAL SPECIFICATIONS

**M-4.0 SPARE PARTS**

**M-4.1 SPARE PARTS PER UNIT OF 75 KW DG SET DURING THE WARRANTY PERIOD** (Minimum Requirements as Specified in the Technical Specifications and Manufacturer’s Standard and Recommended Spare Parts) \*\*\*

ITEM	DESCRIPTION	PART NO.	MINIMUM QUANTITY**	SUPPLIERS DATA
M-4.1a	Air Filter Element		6 pcs/size	
M-4.1b	Lube Oil Filter Element		30 pcs/size	
M-4.1c	Fuel Filter Element		15 pcs/size	
M-4.1d	Water Filter Element		6 pcs/size	
M-4.1e	Fan Belt		3 pcs/size	
M-4.1f	Alternator Belt		3 pcs/size	
M-4.1g	Coolant		4 gallons	
M-4.1h	Expected spares to be consumed during the performance test		1 lot	
M-4.1i	Other spare parts recommended by Manufacturer		1 lot	
M-4.1i.1				
M-4.1i.2				
M-4.1i.3				
M-4.1i.4				
M-4.1i.5				
M-4.1i.6				
M-4.1i.7				
M-4.1i.8				
M-4.1i.9				
M-4.1i.10				

**NOTES:**

- \* *The above list is preliminary which is subject to changes to conform with the final design and model/brand of the proposed equipment (per manufacturer’s standard). NOTE #3 of page VI-TDS (MW)-4.*
- \*\* *Quantities may be increased depending on manufacturer’s required replacement intervals.*

Name of Firm	Name & Signature of Representative	Designation
NATIONAL POWER CORPORATION		VI-TDS(MW)-6

**M-4.2 SPARE PARTS FOR THE TOTAL UNITS OF 75 KW DG SET SUPPLIED AND DELIVERED AT GREEN ISLAND DPP\***

ITEM	DESCRIPTION	PART NO.	MINIMUM QUANTITY**	SUPPLIERS DATA
M-4.2a	Fuel Injector Assembly		2 pcs	
M-4.2b	Top Overhauling Kit		1 set	
M-4.2c	Actuator		1 set	
M-4.2d	Jacket Water Pump Repair Kit		1 set	
M-4.2e	Lube Oil Pump Repair Kit		1 set	
M-4.2f	Fan Adaptor & Accessories including Bearings		2 sets	
M-4.2g	Rocker Gear Cover Gasket		12 pcs	
M-4.2h	Thermostat		1 set	
M-4.2i	Lub Oil Pump Switch		1 set	
M-4.2j	Hot Water Temp. Switch		1 set	
M-4.2k	Turbocharger Repair Kit		1 set	
M-4.2l	Exhaust Manifold Bellow		1 set	
M-4.2m	Magnetic Pick-up		1 pc	
M-4.2n	Other spare parts recommended by Manufacturer		1 Lot	
M-4.2n.1				
M-4.2n.2				
M-4.2n.3				
M-4.2n.4				
M-4.2n.5				

**NOTES:**

\* *The list is preliminary which is subject to changes to conform with the final design and model/brand of the proposed equipment (per manufacturer's standard). NOTE #3 of page VI-TDS(MW)-4.*

\*\* *Quantities may be increased depending on manufacturer's required replacement intervals.*

Name of Firm	Name & Signature of Representative	Designation
NATIONAL POWER CORPORATION		VI-TDS(MW)-7

**M-5.0 STANDARD/SPECIAL TOOLS AND MISCELLANEOUS TOOLS**

**M-5.1 STANDARD/SPECIAL TOOLS FOR THE TOTAL UNITS OF 75 KW DG SET SUPPLIED AND DELIVERED AT GREEN ISLAND DPP (Minimum Requirements as Specified in the Technical Specifications & Manufacturer's Standard/Recommended Tools)<sup>+</sup>**

ITEM	DESCRIPTION	NPC REQUIREMENT	SUPPLIERS DATA
M-5.1a	Portable computer (Minimum of Intel I7 Processor, 16GB RAM, 500GB HDD, 2Ghz, 12"-13.3" screen size & with the latest pre-installed windows operating system compatible with manufacturer's/ Supplier's software) needed in programming the genset control setting (complete with licensed CD-ROM drive dongles of genset control system) and electronic/digital governing system including other digital components that require exclusive programs from the Manufacturer and/or Supplier with free update throughout the operating life of the genset	1 set	
M-5.1b	Puller, Cylinder Liner	1 set	
M-5.1c	Puller, Generator Bearing	1 set	
M-5.1d	Puller, Injector Sleeve	1 set	
M-5.1e	Extractor, Valve Seat	1 set	
M-5.1f	Extractor, Piston Ring	1 set	
M-5.1g	Extractor, Valve Guide	1 set	
M-5.1h	Extractor, Valve Spring	1 set	
M-5.1i	Expander, Injector Sleeve	1 set	
M-5.1j	Reamer, Injector Sleeve	1 set	
M-5.1k	Calibrator, Injector (Range 0-600 bars)	1 set	
M-5.1l	Feeler Gauge	1 set	
M-5.1m	Special tools for overhauling and re-assembly of turbocharger	1 set	
M-5.1n	Cleaning nozzle for cleaning of turbocharger	1 set	
M-5.1o	Special tools for maintenance and cleaning of radiators and fans	1 set	
M-5.1p	Mechanical Torque Wrench with click type or dial type torque measurement indicators for cylinder head, main and guide bearing, connecting rod and all engine components utilizing bolt and nut as locking medium	1 set	
M-5.1q	Injector timing gauge	1 pc.	
M-5.1r	Standard/special tools necessary for overhauling and re-assembly of engine which are not mentioned above	1 set	
M-5.1s	Other tools recommended by the Manufacturer	1 lot	

**NOTES: +** Minimum requirements but the Supplier shall provide/include in the list all the necessary/standard tools required in the performance of normal maintenance and overhaul. The above list is preliminary which is subject to changes to conform with the final design and model/brand of the proposed equipment (per manufacturer's standard). Refer also to NOTE #3 of page VI-TDS(MW)-4.

Name of Firm \_\_\_\_\_ Name & Signature of Representative \_\_\_\_\_ Designation \_\_\_\_\_







**PART II – TECHNICAL DATA SHEETS**

**MW – MECHANICAL WORKS**

**DOCUMENTS TO BE SUBMITTED DURING THE PROJECT IMPLEMENTATION BUT NOT LIMITED TO:**

**(Sections M-6.0 to 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.

<b>DOCUMENTS TO BE SUBMITTED DURING PROJECT IMPLEMENTATION BUT NOT LIMITED TO:</b>		
<b>SECTION</b>	<b>DESCRIPTION</b>	<b>PAGE</b>
M-6.0	ISO 9001 Certificate of the Manufacturer/Assembler/Integrator or equivalent for the Diesel Generating Set	
M-7.0	Standard Certification of the proposed offered model of Diesel Generating 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)	

**Cont'd.....**

<b>DOCUMENTS TO BE SUBMITTED DURING PROJECT IMPLEMENTATION BUT NOT LIMITED TO:</b>		
<b>SECTION</b>	<b>DESCRIPTION</b>	<b>PAGE</b>
<b>M-8.0</b>	<b>Power Derate Curves and Details or Certificate/Statement from Diesel Generating Set's Manufacturer/Assembler/ Integrator that the proposed Diesel Engine-Generator Set have no deration at Reference Site Conditions.</b>	
<b>M-9.0</b>	<b>Manufacturer/Assembler/Integrator's General Data, Catalogue and Brochures of model/type of equipment offered and published as standard products for the Diesel Generating 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	
<b>M-10.0</b>	<b>Technical Data for Engine and Auxiliaries</b>	See Attached Forms on page VI-TDS(MW)-13
<b>M-11.0</b>	<b>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</b>	

Name of Firm

Name & Signature of Representative

Designation



**M-10.0 DIESEL ENGINE**

ITEM	DESCRIPTION	NPC REQUIREMENT	SUPPLIER'S DATA
<b>M-10.1</b>	<b>DIESEL ENGINE</b>		
M-10.1.1	Fuel Rate at Required Prime Power Output & Reference Site Conditions for DG Set		
	75 % Rated Load, Li/kW-hr	By Supplier	
	50 % Rated Load, Li/kW-hr	By Supplier	
	25 % Rated Load, Li/kW-hr	By Supplier	
M-10.1.2	Number of Strokes	4	
M-10.1.3	Rotating Direction (Viewed from Flywheel Side)	By Supplier	
M-10.1.4	Required Time from Starting Signal to Rated Speed, min.	By Supplier	
M-10.1.5	Maximum Time from "Cold Condition" to Rated Speed w/ Load and w/o AC power available for motor-driven auxiliaries, min.	By Supplier	
M-10.1.6	Heaviest part of D/G set for maintenance, kg	By Supplier	
M-10.1.7	Idling Speed Recommended, RPM	By Supplier	
M-10.1.8	Duration of Idling (maximum), min.	By Supplier	
M-10.1.9	Minimum Load @ Normal Speed, kW	By Supplier	
M-10.1.10	Maximum Load @ Normal Speed, kW	By Supplier	
M-10.1.11	Engine Heat Dissipation, kJ/hr	By Supplier	
M-10.1.12	Engine Mechanical Efficiency, $\eta_m$	By Supplier	
M-10.1.13	Numerical Values for Power Adjustment Parameters (Exponents) for high speed per Table 2 of ISO 3046, a, m, n, s	By Supplier	a= m= n= s=
M-10.1.14	Expected Useful Life of Unit @ Prime Rated Power, Year	10	

Name of Firm

Name & Signature of Representative

Designation



**M-10.0 DIESEL ENGINE (Cont'd.....)**

ITEM	DESCRIPTION	NPC REQUIREMENT	SUPPLIER'S DATA
<b>M-10.2</b>	<b>LUBRICATING OIL SYSTEM</b>		
M-10.2.1	Total Lube Oil System Capacity, liters	By Supplier	
M-10.2.2	Lube Oil Consumption of the Engine, g/kwhr	By Supplier	
M-10.2.3	Lube Oil Pump Capacity, m <sup>3</sup> /hr	By Supplier	
M-10.2.4	Lube Oil Filter Mesh, microns	By Supplier	
M-10.2.5	Lube Oil Filter Type & Capacity	Spin-On Full Flow	
M-10.2.6	Lube Oil Priming Pump Capacity, if applicable, m <sup>3</sup> /hr	By Supplier	
<b>M-10.3</b>	<b>STARTING SYSTEM</b>		
M-10.3.1	Battery Capacity, AH	By Supplier	
M-10.3.2	Starting Voltage, V	24 or 12	
M-10.3.3	Starting Motor Rating, HP	By Supplier	
M-10.3.4	Full Load Cranking Current, A	By Supplier	
M-10.3.5	Battery Charging Type	By Supplier	
M-10.3.6	Battery Charger Charging rate	By Supplier	
M-10.3.7	Time of Cranking, sec	30	
<b>M-10.4</b>	<b>EXHAUST SYSTEM</b>		
M-10.4.1	Exhaust Gas Flow, m <sup>3</sup> /hr	By Supplier	
M-10.4.2	Exhaust Gas Temperature, °C	By Supplier	
M-10.4.3	Maximum Allowable Back Pressure, mmH <sub>2</sub> O	By Supplier	
M-10.4.4	Exhaust Pipe (nom. Diameter x length x weight), mm x mm x kg	By Supplier	
M-10.4.5	Silencer (nom. Diameter x length x weight), mm x mm x kg	By Supplier	
M-10.4.6	Exhaust Pipe Material, ASTM	A 106 or as required	
M-10.4.7	Silencer Material, ASTM	A 106 or as required	

Name of Firm

Name & Signature of Representative

Designation



SECTION VI – TECHNICAL SPECIFICATIONS

LuzP2121251Se

**M-10.0 DIESEL ENGINE (Cont'd.....)**

ITEM	DESCRIPTION	NPC REQUIREMENT	SUPPLIER'S DATA
M-10.5	<b>INTAKE AIR SYSTEM</b>		
M-10.5.1	Air Intake Flow (Free Air), m <sup>3</sup> /hr	By Supplier	
M-10.5.2	Air Filter Type	By Supplier	
M-10.5.3	Turbocharger Type	By Supplier	
M-10.5.4	Turbocharger, RPM	By Supplier	
M-10.5.5	Charge Air Cooler Type	By Supplier	
M-10.5.6	Total Air Flow Required for Ventilation & Combustion, m <sup>3</sup> /hr	By Supplier	
M-10.6	<b>COOLING SYSTEM (Coolant for initial filling shall be provided By Supplier per Engine)</b>		
M-10.6.1	Total Cooling Water Capacity, Liters	By Supplier	
M-10.6.2	Cooling Water Pump Capacity, m <sup>3</sup> /hr	By Supplier	
M-10.6.3	Jacket Water Pump Capacity, m <sup>3</sup> /hr	By Supplier	
M-10.6.4	Radiator Fan Air Flow, m <sup>3</sup> /hr	By Supplier	
M-10.6.5	Radiated Heat to Ambient, kw/hr	By Supplier	
M-10.6.6	Expansion Tank Capacity and Elevation, if applicable, liters and m.	By Supplier	
M-10.6.7	Radiator Dimensions (l x w x h), m	By Supplier	
M-10.6.8	Core Material	Aluminum	
M-10.6.9	Recommended cooling water properties such as ph, hardness, TDS, etc., ASTM		
	PH Value, ppm	By Supplier	
	Total Hardness	By Supplier	
	TDS, ppm	By Supplier	
	Chloride	By Supplier	
	Sulfate, ppm	By Supplier	
	Silica, mg/l	By Supplier	
	Iron, ppm	By Supplier	
	Conductivity, uS/cm	By Supplier	

Name of Firm

Name & Signature of Representative

Designation



**M-10.0 DIESEL ENGINE (Cont'd.....)**

ITEM	DESCRIPTION	NPC REQUIREMENT	SUPPLIER'S DATA
M-10.7	<b>FUEL SYSTEM</b>		
M-10.7.1	Fuel Feed Pump Capacity, m <sup>3</sup> /hr	By Supplier	
M-10.7.2	Discharge Head of Feed Pump, m	By Supplier	
M-10.7.3	Fuel Filter Type and Mesh, microns	Spin-On Full Flow	
M-10.7.4	Injection Nozzle Type	By Supplier	
M-10.7.5	Fuel Day Tank Capacity, m <sup>3</sup>	1	
M-10.7.6	Fuel Day Tank Type (Elevated)	Rectangular or Approved Shape	
M-10.7.7	Fuel Tank Dimensions (W x L x H), m	Per Drawings	
M-10.7.8	Fuel Tank Plate Material, ASTM	A 36	
M-10.7.9	Fuel Tank Shell Thickness, mm	5 (minimum)	
M-10.7.10	Structural Steel Supports	Included	

Name of Firm

Name & Signature of Representative

Designation



**M-10.0 DIESEL ENGINE (Cont'd.....)**

ITEM	DESCRIPTION	NPC REQUIREMENT	SUPPLIER'S DATA
<b>M-10.8</b>	<b>ENCLOSURE (Weatherproof &amp; Soundproof)</b>		
M-10.8.1	Manufacturer	By Supplier	
M-10.8.2	Max. Sound Pressure Level @ 1-m distance, dBA	85	
M-10.8.3	Dimensions (L x W x H), m	By Supplier	
M-10.8.4	Enclosure Walls Thickness, mm	2 minimum	
M-10.8.5	Enclosure Roof Thickness, mm	2 minimum	
M-10.8.6	Enclosure Material, ASTM	A 36	
M-10.8.7	Insulation Material	Oil-water resistant and fire retardant insulation and sound attenuating material	
M-10.8.8	Hinges Material	Stainless Steel	
M-10.8.9	Total Weight (Genset, Auxiliaries & Enclosure), kg	By Supplier	
<b>M-10.9</b>	<b>ENGINE METERING AND INDICATION</b>		
M-10.9.1	RPM Meter (RPM) *	Included	
M-10.9.2	Hours Run Counter (hours) *	Included	
M-10.9.3	Oil Pressure (kg/cm <sup>2</sup> ) *	Included	
M-10.9.4	Oil Temperature (°C) *	Included	
M-10.9.5	Cooling Water Temperature (°C) *	Included	
M-10.9.6	Cylinders Exhaust Gas Temperature (°C)	Optional	
M-10.9.7	Battery Voltage, V	Included	
M-10.9.8	Ready to Start	Included	
M-10.9.9	Remote Control Position Indication	Included	

Name of Firm

Name & Signature of Representative

Designation



**M-10.0 DIESEL ENGINE (Cont'd.....)**

ITEM	DESCRIPTION	NPC REQUIREMENT	SUPPLIER'S DATA
<b>M-10.10</b>	<b>ENGINE PROTECTION AND ALARM</b>		
M-10.10.1	Engine Overspeed	Included	
M-10.10.2	Lube Oil Pressure Low	Included	
M-10.10.3	Lube Oil Temperature High	Included	
M-10.10.4	Cooling Water Temp. High	Included	
M-10.10.5	Cooling Water Temp. Low	Optional	
M-10.10.6	Fuel Day Tank Level High	Included	
M-10.10.7	Fuel Day Tank Level Low	Included	
M-10.10.8	Battery Voltage High	Included	
M-10.10.9	Battery Voltage Low	Included	
M-10.10.10	Failure to Crank	Included	
M-10.10.11	Overcrank	Included	
M-10.10.12	Annunciator Window with Common Audio alarm	Included	
<b>M-10.11</b>	<b>HUMAN MACHINE INTERFACE CONTROL</b>		
M-10.11.1	Manual Start/Stop *	Included	
M-10.11.2	Auto/Remote Start	Included	
M-10.11.3	Test Run Auto	Included	
M-10.11.4	Emergency Stop *	Included	
M-10.11.5	Alpha/Numeric Screen	Included	
M-10.11.6	Discrete Status Indicators	Included	
M-10.11.7	Fault Reset	Included	

**NOTE:** \* These monitoring/control points shall also be provided at DG Set Enclosure-mounted panel with viewing window

Name of Firm

Name & Signature of Representative

Designation



## SECTION VIII – BIDDING FORMS

### TABLE OF CONTENTS

NPCSF-GOODS-01	- Checklist of Technical and Financial Envelope Requirements for Bidders
NPCSF-GOODS-02	- List of all Ongoing Government & Private Contracts Including Contracts Awarded but not yet Started
NPCSF-GOODS-03	- Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid
NPCSF-GOODS-04	- Computation of Net Financial Contracting Capacity (NFCC)
NPCSF-GOODS-05	- Joint Venture Agreement
NPCSF-GOODS-06a	- Form of Bid Security : Bank Guarantee
NPCSF-GOODS-06b	- Form of Bid Security : Surety Bond
NPCSF-GOODS-06c	- Bid Securing Declaration Form
NPCSF-GOODS-07	- Omnibus Sworn Statement (Revised)
NPCSF-GOODS-08	- Bid Letter
Sample Form	- Bank Guarantee Form for Advance Payment
Sample Form	- Certification from DTI as Domestic Bidder

## SECTION VIII – BIDDING FORMS

Standard Form No: NPCSF-GOODS-01

- Duly signed computation of its Net Financial Contracting Capacity (NFCC) at least equal to the ABC (NPCSF-GOODS-04) or a Committed Line of Credit (CLC) at least equal to ten percent (10%) of the ABC, issued by a Universal or Commercial Bank; If the Bidder opted to submit a Committed Line of Credit (CLC), the bidder must submit a granted credit line valid/effective at the date of bidding.
- b. **(CLASS B)**
- For Joint Venture (if applicable), any of the following:
  - Valid Joint Venture Agreement (NPCSF-GOODS-05)  
**OR**
  - Notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA, if awarded the contract
- Certification from the relevant government office of their country stating that Filipinos are allowed to participate in their government procurement activities for the same item/product (For foreign bidders claiming eligibility by reason of their country's extension of reciprocal rights to Filipinos)

**2. Technical Documents**

- Bid Security, any one of the following:
  - Bid Securing Declaration (NPCSF-GOODS-06c)  
**OR**
  - Cash or Cashier's/Manager's check issued by a Universal or Commercial Bank – 2% of ABC;  
**OR**
  - Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: (NPCSF-GOODS-06a) - 2% of ABC;  
**OR**
  - Surety Bond callable upon demand issued by a reputable surety or insurance company (NPCSF-GOODS-06b) - 5% of ABC, with
    - Certification from the Insurance Commission as authorized company to issue surety
- Duly signed, completely filled-out and notarized Omnibus Sworn statement (Revised) (NPCSF-GOODS-07), complete with the following attachments:
  - For Sole Proprietorship:
    - Special Power of Attorney
  - For Partnership/Corporation/Cooperative/Joint Venture:
    - Document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable)
- Drawings & Documents to be submitted with the Bid, Sections M-1.0, M-2.0, Annexes A.1 to A.3 for Mechanical Works and Sections E-1.0 and E-2.0 for Electrical Works, Section VI – Part II Technical Data Sheets;

Standard Form Number: NPCSF-GOODS-05

**JOINT VENTURE AGREEMENT**

**KNOW ALL MEN BY THESE PRESENTS:**

That this JOINT VENTURE AGREEMENT is entered into by and between: \_\_\_\_\_, of legal age, (*civil status*) \_\_\_\_\_, authorized representative of \_\_\_\_\_ and a resident of \_\_\_\_\_.

- and -

\_\_\_\_\_ of legal age, (*civil status*) \_\_\_\_\_, authorized representative of \_\_\_\_\_ a resident of \_\_\_\_\_.

That both parties agree to join together their capital, manpower, equipment, and other resources and efforts to enable the Joint Venture to participate in the Bidding and Undertaking of the hereunder stated Contract of the National Power Corporation.

**NAME OF PROJECT**

**CONTRACT AMOUNT**

That the capital contribution of each member firm:

NAME OF FIRM	CAPITAL CONTRIBUTION
1.	P
2.	P

That both parties agree to be jointly and severally liable for their participation in the Bidding and Undertaking of the said contract.

That both parties agree that \_\_\_\_\_ and/or \_\_\_\_\_ shall be the Official Representative/s of the Joint Venture, and are granted full power and authority to do, execute and perform any and all acts necessary and/or to represent the Joint Venture in the Bidding and Undertaking of the said contract, as fully and effectively and the Joint Venture may do and if personally present with full power of substitution and revocation.

That this Joint Venture Agreement shall remain in effect only for the above stated Contract until terminated by both parties.

\_\_\_\_\_  
*Name & Signature of Authorized Representative*

\_\_\_\_\_  
*Official Designation*

\_\_\_\_\_  
*Name of Firm*

\_\_\_\_\_  
*Name & Signature of Authorized Representative*

\_\_\_\_\_  
*Official Designation*

\_\_\_\_\_  
*Name of Firm*

*Witnesses*

1. \_\_\_\_\_
2. \_\_\_\_\_

**[Jurat]**

*[Format shall be based on the latest Rules on Notarial Practice]*

Standard Form No: NPCSF-GOODS-06c

REPUBLIC OF THE PHILIPPINES )  
CITY OF \_\_\_\_\_ ) S.S.

**BID-SECURING DECLARATION**  
**SUPPLY, DELIVERY, INSTALLATION, TEST AND COMMISSIONING OF 2 X 75 KW MODULAR DIESEL GENSETS, ASSOCIATED ELECTRICAL EQUIPMENT AND BALANCE OF PLANT FOR GREEN ISLAND DPP UNDER ELECTRIFICATION OF NEW AREAS IN PALAWAN, LuzP21Z1251Se**

To: **National Power Corporation**  
BIR Road cor. Quezon Ave.  
Diliman, Quezon City

I/We<sup>1</sup>, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid-Securing Declaration.
2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the Procuring Entity for the commission of acts resulting to the enforcement of the Bid Securing Declaration under Sections 23.1 (b), 34.2, 40.1 and 69.1, except 69.1 (f) of the IRR of R.A. 9184; without prejudice to other legal action the government may undertake.
3. I/We understand that this Bid-Securing Declaration shall cease to be valid on the following circumstances:
  - (a) Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
  - (b) I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right;
  - (c) I am/we are declared as the bidder with the Lowest Calculated and Responsive Bid, and I/we have furnished the performance security and signed the Contract.

IN WITNESS WHEREOF, I/we have hereunto set my hand this \_\_\_\_ day of \_\_\_\_ 20\_\_\_\_ at \_\_\_\_\_, Philippines.

\_\_\_\_\_  
[Name and Signature of Bidder's Representative/  
Authorized Signatory] [Signatory's legal capacity]  
Affiant

**[Jurat]**

[Format shall be based on the latest Rules on Notarial Practice]

<sup>1</sup> Select one and delete the other. Adopt same instruction for similar terms throughout the document.

Standard Form No: NPCSF-GOODS-07

### Omnibus Sworn Statement (Revised)

REPUBLIC OF THE PHILIPPINES )  
CITY/MUNICIPALITY OF \_\_\_\_\_ ) S.S.

#### AFFIDAVIT

I, [Name of Affiant], of legal age, [Civil Status], [Nationality], and residing at [Address of Affiant], after having been duly sworn in accordance with law, do hereby depose and state that:

1. *[Select one, delete the other:]*

*[If a sole proprietorship:]* I am the sole proprietor or authorized representative of [Name of Bidder] with office address at [address of Bidder];

*[If a partnership, corporation, cooperative, or joint venture:]* I am the duly authorized and designated representative of [Name of Bidder] with office address at [address of Bidder];

2. *[Select one, delete the other:]*

*[If a sole proprietorship:]* As the owner and sole proprietor, or authorized representative of [Name of Bidder], I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached duly notarized Special Power of Attorney;

*[If a partnership, corporation, cooperative, or joint venture:]* I am granted full power and authority to do, execute and perform any and all acts necessary to participate; submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable)];

3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;

4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;

5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. *[Select one, delete the rest:]*

*[If a sole proprietorship:]* The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

SECTION VIII – BIDDING FORMS

*[If a partnership or cooperative:]* None of the officers and members of *[Name of Bidder]* is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

*[If a corporation or joint venture:]* None of the officers, directors, and controlling stockholders of *[Name of Bidder]* is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

7. *[Name of Bidder]* complies with existing labor laws and standards; and
8. *[Name of Bidder]* is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:
  - a. Carefully examining all of the Bidding Documents;
  - b. Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;
  - c. Making an estimate of the facilities available and needed for the contract to be bid, if any; and
  - d. Inquiring or securing Supplemental/Bid Bulletin(s) issued for the *[Name of the Project]*.
9. *[Name of Bidder]* did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.
10. In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_ day of \_\_\_, 20\_\_ at \_\_\_\_\_, Philippines.

*[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]*

*[Insert signatory's legal capacity]*  
Affiant

**[Jurat]**

*[Format shall be based on the latest Rules on Notarial Practice]*