

Date: 10.10.2023

#### <u>AMENDMENT – I</u>

NIT, No. PNMM/PC-183/E-4022/NCB Dated 06.09.2023

Sub.: EMERGENCY DIESEL GENERATOR PACKAGE FOR TALCHER FERTILIZERS LTD. (TFL)

This is for information of Bidders that Amendment-I date 10.10.2023 is being issued and shall be read in conjunction with the original NIT issued and all subsequent amendment.

\*All other terms & conditions of NIT shall remain unchanged.

For & on behalf of Talcher Fertilizers Limited

10/10/2023

Anjali Thakur Deputy General Manager (M.M) Projects & Development India Ltd.



# Tålčher Fertilizers

| SL. | REFERENCE OF BIDDING DOCUMENT                    |          |            |                    | AMENDMENT  |   |
|-----|--|----------|------------|--------------------|------------|---|
| NO. | Part/Sec.  | Page No. | Clause No. | NIT<br>Descriptior | TYPE M/D/A | MODIFICATION  |
| 1.  | PC183/E/4022/SecVI-2.0<br>Bidder's Scope of Work | 3 of 8   | 1.2 e      |                    | М          | <ul> <li>Fuel oil system complete with fuel oil day tank, engine driven fuel oil feed pump, supply pump, necessary piping &amp; fittings, duplex strainers, valves, filters, instruments, and control as required between day tank and engine.</li> <li><i>To be read as</i></li> <li>Fuel oil system comprising of fuel oil tank, engine driven fuel oil feed pump, supply pump, necessary piping &amp; fittings, strainers, valves, filters, instruments, and control as required between fuel tank and engine.</li> </ul>  |
| 2.  | PC183/E/4022/SecVI-2.0<br>Bidder's Scope of Work | 3 of 8   | 1.2 g      |                    | М          | Lubricating oil system complete with lube oil sump, engine driven lube oil pump, One AC motor driven pre-lube oil pump, standby pre-lub oil pump (if the pre lube oil pump is required to be operated continuously), lube oil cooler, lube oil pre-heater, necessary piping, fittings, valves, filters, instruments and control hardware as required. One portable pump for transferring lube oil form drum/barrel to diesel engine lube oil sump.<br><b>To be read as</b> Lubrication oil system comprising of lube oil sump, lube oil pump, filter, cooler, piping, valves, fittings, instruments etc.  |
| 3.  | PC183/E/4022/SecVI-2.0<br>Bidder's Scope of Work | 4 of 8   | 1.2 p      |                    | М          | Engine exhaust gas system complete with turbocharger, exhaust manifold, silencer, exhaust piping up to discharge, insulation, asbestos lagging, expansion bellows, necessary pipe supports, adopters etc. as required. The exhaust muffler shall provide insertion loss of 25 dB (A). Exhaust chimney as per the requirements of State Pollution Control Board for each DG Set.<br><b>To be read as</b> Engine exhaust gas system complete with turbocharger, exhaust manifold, silencer, exhaust piping up to discharge, insulation, expansion bellows, necessary pipe supports, adopters etc. as required. The exhaust muffler shall provide insertion loss of 25 dB (A). Exhaust gas system complete with turbocharger, exhaust manifold, silencer, exhaust piping up to discharge, insulation, expansion bellows, necessary pipe supports, adopters etc. as required. The exhaust muffler shall provide insertion loss of 25 dB (A). Exhaust chimney as per the requirements of State Pollution Control Board for each DG Set |
| 4.  | PC183/E/4022/SecVI-2.0<br>Bidder's Scope of Work | 4 of 8   | 1.2 w      |                    | М          | Power Cables from PMCC at OUSS to Contractor 415 V PMCC/MCC and Power/Control Cables from Contractor PMCC/MCC to all DGs auxiliaries.   |





| SL. | REFERENCE OF  | BIDDING D                 | OCUMENT                | AMENDMENT<br>TYPE M/D/A | MODIFICATION   |
|-----|---|---------------------------|------------------------|-------------------------|--|
| NO. | Part/Sec.   | Page No.                  | Clause No. Description |                         |  |
|     |   |                           |                        |                         | <ul> <li>To be read as</li> <li>Bidder shall provided load details of their 415 V PMCC/MCC and Cable size in the Bid itself.<br/>Cables from PMCC at OUSS to Contractor's 415 V PMCC/MCC shall be in Owner's scope.</li> <li>Power/Control Cables from Contractor PMCC/MCC to all DGs auxiliaries as well as all cables<br/>(supply, laying, termination &amp; testing etc.) within Battery limit of Emergency Diesel Generator<br/>Package shall be in Bidder's scope</li> <li>Remaining part of clause shall remain unchanged.</li> </ul>                      |
| 5.  | PC183/E/4022/SecVI-3.1<br>Design Philosophy –<br>Electrical | 2 of 68<br>to 68 of<br>68 |                        | М                       | Heading shall be read as Design Philosophy – Electrical in place of Technical Specification – Electrical   |
| 6.  | PC183/E/4022/SecVI-3.1<br>Design Philosophy –<br>Electrical | 11 of 68                  | 2.1.4 i                | A                       | Following has been addedFor DG Sets, the Total Load shall be calculated as follows:<br>(100% of sum of all continuous load) + (40% of sum of all intermittent loads or largest<br>intermittent load, whichever is higher) + 20% of sum of all standby loads or largest standby<br>load, whichever is higher).Base Load : Total Load - Largest Motor of 180 KW . This 180 KW (Starting P.F 0.30,<br>Starting Current 550% of rated current). 180 KW Motor shall be started while DGs are<br>running in parallel.25% for future margin is added to the Total Load. |
| 7.  | PC183/E/4022/SecVI-3.1<br>Design Philosophy –<br>Electrical | 18 of 68                  | 5.2                    | M                       | <ul> <li>There shall be Emergency Power Distribution Board (as per SLD) feeding 11kV Switchboard at OUSS.</li> <li><i>To be read as</i></li> <li>There shall be Emergency Power Distribution Board (as per SLD) feeding 11 kV Switchboard at Coal Gasification Plant and 11kV Switchboard at OUSS.</li> <li>Outgoing feeder of Emergency Power Distribution Board and Emergency Power incomers on</li> </ul>   |





| SL. | REFERENCE OF   | BIDDING D | OCUMENT    |                    | AMENDMENT<br>TYPE M/D/A | MODIFICATION   |
|-----|--|-----------|------------|--------------------|-------------------------|--|
| NO. | Part/Sec.  | Page No.  | Clause No. | NIT<br>Descriptior |                         |  |
|     |  |           |            |                    |                         | <ul> <li>11 kV Switchboard of OUSS shall be closed, so that the essential loads can be switched on in a staggered manner.</li> <li><i>To be read as</i></li> <li>Outgoing feeders of Emergency Power Distribution Board and Emergency Power incomers on 11 kV Switchboard at Coal Gasification Plant and 11 kV Switchboard of OUSS shall be closed, so that the essential loads can be switched on in a staggered manner.</li> </ul> |
|     |  |           |            |                    |                         | Remaining part of clause shall remain unchanged.   |
| 8.  | PC183/E/4022/SecVI-3.1<br>Design Philosophy –<br>Electrical                                  | 19 of 68  | 5.4        |                    | М                       | Tapping of power supply from PMCC at OUSS (including supply of all required material), structural supports for cable tray, cable trays, cables, cable termination etc. shall be in Contractor's scope. Further distribution to equipment at 415/240 V, 115 V (UPS) AC, 240 V (UPS) AC, 110 V DC etc. through proper type and size of cables, their supply, erection, testing and commissioning etc. shall be in Contractor's scope.  |
|     |  |           |            |                    |                         | To be read as  |
|     |  |           |            |                    |                         | Cables from PMCC at OUSS to Contractor's 415 V PMCC/MCC shall be in Owner's scope.<br>Further distribution to equipment at 415/240 V, 240 V (UPS) AC, 110 V DC, 24 V DC etc.<br>through proper type and size of cables, their supply, erection, testing and commissioning etc.<br>shall be in Contractor's scope.  |
| 9.  | PC183/E/4022/SecVI-3.1<br>PC183-TS-0839<br>Technical Specification -<br>Diesel Generator Set | 4 of 45   | 1.5 aa     |                    | М                       | These DGs shall feed to Main DG Power Supply Board. Emergency Power Distribution<br>Switchboard shall have 2 Nos. incomers from Main DG Power Supply Board and shall feed<br>emergency load of Coal Gasification Plant and other Offsite & Utilities of entire fertiliser<br>complex.  |
|     |  |           |            |                    |                         | To be read as  |
|     |  |           |            |                    |                         | These DGs shall feed to Emergency Power Distribution Board which shall have 3 Nos. incomer Feeders from DGs, 2 Nos. Bus-couplers and 3 Nos. Outgoing Feeders connected to Coal Gasification Plant and Emergency Bus of 11 kV Switchboard at OUSS. (Refer SLD attached with NIT)  |
| 10. | PC183/E/4022/SecVI-3.1<br>PC183-TS-0839  | 12 of 45  | 11.3       |                    | М                       | Exhaust piping shall be painted with special heat resistant paint. A condensate drain plug shall be provided in the system. All system exhaust piping, silencer and bellows shall be   |





| SL. | REFERENCE OF BIDDING DOCUMENT  |          |            |                    | AMENDMENT  |   |
|-----|--|----------|------------|--------------------|------------|---|
| NO. | Part/Sec.  | Page No. | Clause No. | NIT<br>Descriptior | TYPE M/D/A | MODIFICATION  |
|     | Technical Specification -<br>Diesel Generator Set  |          |            |                    |            | provided by the bidder with lagging/ cladding materials, so that the cold surface temperature shall not be more than 200 Deg C during engine operation in hazardous Area.   |
|     |  |          |            |                    |            | To be read as   |
|     |  |          |            |                    |            | Exhaust piping shall be painted with special heat resistant paint. A condensate drain plug shall be provided in the system. All system exhaust piping, silencer and bellows shall be provided by the bidder with lagging/ cladding materials, so that the cold surface temperature shall not be more than 200 Deg C during engine operation in hazardous Area.  |
|     |  |          |            |                    |            | Exhaust Piping as per OEM Standards design may be accepted subject to Owner/PMC Approval.   |
| 11. | PC183/E/4022/SecVI-3.1<br>PC183-TS-0839<br>Technical Specification -<br>Diesel Generator Set | 12 of 45 | 11.9       |                    | М          | The silencers shall be straight through type with drain plug at lowest point and one accessible clean port. The silencers shall be finished with rust preventive primer & heat resistant paint. Flexible sections shall be connected between the exhaust pipe and the engine exhaust manifold. The flexible exhaust pipe shall be of carbon or stainless steel, smoke tight and the inner diameter same as of exhaust pipe. |
|     |  |          |            |                    |            | To be read as   |
|     |  |          |            |                    |            | The silencers shall be straight through type with drain plug at lowest point and one accessible clean port. The silencers shall be finished with rust preventive primer & heat resistant paint. Flexible sections shall be connected between the exhaust pipe and the engine exhaust manifold. The flexible exhaust pipe shall be of carbon or stainless steel, smoke tight and the inner diameter same as of exhaust pipe. |
|     |  |          |            |                    |            | Exhaust Pipe as per OEM Standards design may be accepted subject to Owner/PMC Approval.   |
| 12. | PC183/E/4022/SecVI-3.1<br>PC183-TS-0839<br>Technical Specification -<br>Diesel Generator Set | 14 of 45 | 14.1.3     |                    | М          | The generator shall be synchronous A.C. Generator; star connected and shall have specified output at 0.8 lag p. f. at 11 kV, 3 Phase, 4 wire system, 50 Hz.   |
|     |  |          |            |                    |            | To be read as   |
|     |  |          |            |                    |            | The generator shall be synchronous A.C. Generator; star connected and shall have specified output at 0.8 lag p. f. at 11 kV, 3 Phase, 3 wire system, 50 Hz.   |



#### EMERGENCY DIESEL GENERATOR PACKAGE FOR TALCHER FERTILIZERS LTD. (TFL)



| SL.<br>NO. | REFERENCE OF   | BIDDING D | DOCUMENT   |                    | AMENDMENT<br>TYPE M/D/A | MODIFICATION  |
|------------|--|-----------|------------|--------------------|-------------------------|---|
|            | Part/Sec.  | Page No.  | Clause No. | NIT<br>Description |                         |   |
| 13.        | PC183/E/4022/SecVI-3.1<br>PC183-TS-0839<br>Technical Specification -<br>Diesel Generator Set | 17 of 45  | 16.12.2    |                    | М                       | The ETDs (Duplex Type) shall be of platinum having 100 ohm resistance at 0 C and temperature coefficient as 3.85 x 10-5. The ETD's shall be 3 lead type having power frequency insulation level of 2 KV.<br><b>To be read as</b><br>The ETDs (Duplex / Simplex Type) shall be of platinum having 100 ohm resistance at 0 C and temperature coefficient as 3.85 x 10-5. The ETD's shall be 3 lead type having power frequency insulation level of 2 KV.  |
| 14.        | PC183/E/4022/SecVI-3.1<br>PC183-TS-0839<br>Technical Specification -<br>Diesel Generator Set | 19 of 45  | 17.22      |                    | A                       | Following has been added at end of clause :<br>OEM Standards design may be accepted subject to Owner/PMC Approval.  |
| 15.        | PC183/E/4022/SecVI-3.1<br>PC183-TS-0839<br>Technical Specification -<br>Diesel Generator Set | 35 of 45  | 30.2       |                    | М                       | The equipment shall be wrapped in polythene to make it water proof. Bags of silica gel shall be kept inside to absorb moisture present during transport and storage. An additional wrapping with bitumen paper shall also be provided before the equipment is packed in wooden crates.<br><b>To be read as</b> The equipment shall be wrapped in polythene to make it water proof. Bags of silica gel shall be kept inside to absorb moisture present during transport and storage. An additional wrapping with bitumen paper shall also be provided before the equipment is packed in be kept inside to absorb moisture present during transport and storage. An additional wrapping with bitumen paper shall also be provided before the equipment is packed in wooden crates (Electrical Panels/Boards). |
|            |  |           |            |                    |                         |   |

#### M: MODIFICATION, A: ADDITION, D: DELETION

Note: - The clauses in Amendment shall take precedence/superseded over all other pre bid replies against the respective clause.