# NTPC Limited

( A Government of India Enterprise )

**Tender Enquiry No.** 9900214854 **Tender Enquiry** 09.01.2021 **Bid Opening Date:** 29.01.2021

## Bill of Materials

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**Delivery Address:**
Mouda Super Thermal Power
Mouda -Ramtek Road ,Mouda
Mouda
Maharashtra
441104
India
Tel : 07115-281176/281223 Fax: 07115-281223

| Item | Material Code | Description | UoM* | Total Quantity | Delivery Date |
|---|---|---|---|---|---|
| 00010 | M9264003200 | SPV:30 KW:WITH ACCESSORIES | NO | 25.000 | 28.02.2021 |

**( UOM Legends :- NO** - Number **)**

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**TECHNICAL DATA SHEET**

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**00010 - M9264003200**

**Specification**

TECHNICAL SPECIFICATIONS:
One Number Quantity includes the following 4 items
# 30W (Minimum capacity)/12V solar PV module under STC - 1 Number
# 98Wh/12.8V Lithium Ferro Phosphate battery- 1 Number
# 3W/12V W-LED Lamps with minimum 300 Lumen (UV free) # 4 Numbers
# MPPT Solar charge controller of suitable rating # 1 Number

Solar PV Module:
1) The PV module should have crystalline silicon solar cells and must have a certificate of testing conforming to IEC 61215 Edition II / BIS 14286 from an NABL or IECQ accredited Laboratory.
2) The module efficiency should not be less than 14 %.
3) The terminal box on the module should have a provision for opening it for replacing the cable, if required.

Battery:
1) Minimum 12.8V, 30 AH capacity Lithium Ferro Phosphate Battery.
2) Battery pack should have proper 'Battery management System' (BMS) for cell balancing, over charge and over temperature protection.
3) Battery should conform to the latest BIS/ International standards.
4) Suitable light indications should be provided for battery charging, battery fully charged and load cut off condition.

Light Source:
1.The light source will be a white LED type.
2.The colour temperature of white LED used in the system should be in the range of 5500 K#6500 K.
3.W-LEDs should not emit ultraviolet light.
4.The light output from the white LED light source should be constant throughout the duty cycle.
5.The lamps should be housed in an assembly suitable for outdoor use.

Electronics and Protections :
1.The system should have protection against battery overcharge and deep discharge conditions.
2.The total electronic efficiency should be at least 90 %.
3.Charge controller should be MPPT Type.
4.Electronics should operate at an appropriate voltage suitable for proper charging of the battery.
5.No Load current consumption should be less than 20 mA.
6.Necessary lengths of wires/cables, switches suitable for DC use and fuses should be
Provided
7.The System should have protection against short circuit conditions.
8.Protection for reverse flow of current through the PV module(s) should be provided.

GENERAL TERMS & CONDITIONS:

1) The warranty/Guarantee period shall be for a period of minimum 2 years on the whole installation. The PV module(s) will be warranted for a minimum period of 25 years from the date of supply. The PV modules must be warranted for their output peak watt capacity, which should not be less than 90% at the end of Ten (10) years and 80% at the end of Twenty five (25) years.

2) Apart from Material supply, the cost is inclusive of installation and Commissioning charges.
Non Compliance to Installation and Commissioning shall attract a penalty of 20% of awarded value which shall be distributed equally among the indented 25 Quantity

3) The bidder has to provide Test certificates of supplied items
4) An operation, Instruction and Maintenance manual should be provided.