



# **THE DURGAPUR PROJECTS LIMITED**

## **NOTICE INVITING TENDER (NIT)**

### **e-Procurement**

NIT No: WBDPL/PP/T/PP-435/2021/21-22/E-209 , Dtd:-03/02/2022

### **National Competitive Bidding**

For

E-tender cum Reverse Auction for “Design & Engineering, Manufacture/ Procurement, Supply, Erection, Testing and Commissioning of 7 MW Phase-I Grid Connected Ground Mounted Solar Photovoltaic Power Plants at Durgapur Projects Limited(DPL), Durgapur, West Bengal on Turnkey basis with 05 (Five) years comprehensive Operation and Maintenance”.

**THE DURGAPUR PROJECTS LIMITED**

**(A Govt. of West Bengal Enterprise)**

**CIN: “U40102WB1961SGC025250”**

**Dr Bidhan Chandra Roy Avenue, Industrial Area, Durgapur, West Bengal-713201**

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## **IMPORTANT DATES**

| #  | NIT NO. & Date                              | : | WBDPL/PP/T/PP-435/2021/21-22/E-209, Dated: 03.02.2022 |
|----|---|---|---|
| 1  | Publishing Date                             | : | 03.02.2022 at 12:00 Hrs.                              |
| 2  | Document Download start date                | : | 03.02.2022 at 17:00 Hrs                               |
| 3  | Pre-bid queries submission end date         | : | 08.02.2022 at 17:00 Hrs                               |
| 4  | Pre-Bid Meeting                             | : | 09.02.2022 at 11:30 Hrs                               |
| 5  | Bid submission start date                   | : | 12.02.2022 from 10:00 Hrs                             |
| 6  | Bid submission end date                     | : | 22.02.2022 till 15:00 Hrs                             |
| 7  | EMD Submission End Date                     | : | 23.02.2022 till 15:00 Hrs                             |
| 8  | Technical Bid opening date                  | : | 25.02.2021 at 11:00 Hrs                               |
| 9  | Uploading of Technical Bid Evaluation sheet | : | To be notified through system generated message       |
| 10 | Financial Bid opening date                  | : | To be notified through system generated message       |
| 11 | Uploading of Financial Bid evaluation sheet | : | To be notified through system generated message       |

# SECTION-I

## BID SUMMARY

### 1.01 GENERAL

In this section brief summary of the tender has been discussed, this is only for quick overview of the Tender documents. This information is also not sufficient to clarify all the terms and condition, supply and service scope of the tender. Bidders are requested to go through these tender documents thoroughly before participating the Tender. Purchaser will not be responsible for any type of negligence of the bidder

### 1.02 SECTION-II: INSTRUCTION TO BIDDER

| SN | Subject  | Remarks   |
|----|--|---|
| 1. | <b>For any Bid quarry contact Person</b>   | Mr. Sudito Pal, DGM(PTC), Ph-9434735849<br>Mr. Partha De, Sr.Mgr(CC), Ph-9434713057   |
| 2. | <b>Tender Inviting Authority</b>   | Sr. Mgr (Contract Cell), DPL, e-mail-<br>contractcelldpl@gmail.com  |
| 3. | <b>Tender Cost</b>   | Nil   |
| 4. | <b>Bid Security/EMD</b>  | Rs. 71.0 Lakh   |
| 5. | <b>Contract Performance BG(CPBG)</b>   | 3% of the Contract Value, EMD may convert to CPBG, additional 10% of the Contract value of CPBG is required if bid price less than Rs. 28.25Cr. |
| 6. | <b>QUALIFICATION REQUIREMENT</b>   |   |
| A  | <b>Technical</b>   |   |
|    | <b>Job Experience</b>  |   |
|    | a) At least <b>one (01) number 7(Seven ) MW</b> capacity or <b>two(2) number Four(4) MW</b> Capacity or higher capacity Solar PV project installation at a single location during preceding 07 (Seven) years.<br><br>b) Minimum <b>01 (one) number 7 (Seven) MW</b> or or <b>two(2) number Four(4) MW</b> or <b>higher</b> capacity Solar PV Power Plant Operation and Maintenance (O&M) |   |

## Section-I: Bid Summary

|            |   |                                       |
|------------|---|---------------------------------------|
|            | experience  |                                       |
|            | <b>c) If Consortium:</b>  |                                       |
|            | i. Maximum three(3) member  |                                       |
|            | ii. Each of the other Member(s) shall meet at least 30% of the required Technical Capacity and <b>20%</b> of the required <b>Financial Capacity</b> |                                       |
| <b>B</b>   | <b>Financial</b>  |                                       |
|            | Minimum Average Annual Turnover (MAAT)  | Rs.12 Cr.                             |
|            | Net worth for last 3 years ending 31st March 2021   | Positive                              |
| <b>7.</b>  | <b>PRICE SCHEDULE</b>   | 1. Supply Cost and<br>2. Service Cost |
| <b>8.</b>  | <b>TYPE OF BID PROPOSAL</b>   | 1. Technical and<br>2. Financial      |
| <b>9.</b>  | Period of validity of Bid   | 180 days                              |
| <b>10.</b> | Bidding Process   | Reverse Bidding/ Auction              |

### 1.03 SECTION-IV: SPECIAL CONDITION OF CONTRACT(SCC)

| SN | Subject                      | Remarks  |
|----|------------------------------|--|
| 1. | <b>Mobilisation Advance</b>  | 20 % of the Contract Price (Supply & Erection Contract excluding cost of Mandatory Spares) with 110% BG  |
| 2. | <b>CPBG</b>                  | To be given with 15 days of LOA placement  |
| 3. | <b>Performance Guarantee</b> | Net Minimum Guaranteed Generation (NMGG) of solar energy at rate of 1.54 MU/MW AC annually with a degradation of 0.7% for any reason, from second year onwards   |
| 4. | <b>Liquidated Damages</b>    | Time Delay: 0.5% of the value of delayed job for <b>each week</b> of delay and part thereof subject to a maximum of 10% of the Project cost plus GST.<br>Milestone Delay: 5% (Five Percent) of the Contract price.<br>Total LD: Shall not exceed 10% of total Contract Price plus GST. |

## Section-I: Bid Summary

|     |                                |   |
|-----|--------------------------------|---|
| 5.  | <b>Payment Terms</b>           |   |
| A   | Supply                         | 70% after delivery (Mobilization Advance paid as per Clause 4.04.02 will be recovered proportionately from bills under this phase of payment).  |
|     |                                | 15% after Erection  |
|     |                                | 5% after commissioning  |
|     |                                | 5% after PG Test  |
|     |                                | 5% will be retained for performance securities  |
| B   | Service                        | 65% of the contract value will be given pro rata basis after erection of the material (Mobilization Advance paid as per Clause 4.04.02 will be recovered proportionately from bills under this phase of payment). |
|     |                                | 20% after Testing & Commissioning   |
|     |                                | 5% after PG Test  |
|     |                                | 5% after successful completion  |
|     |                                | 5% will be retained for performance securities  |
| 6.  | Mandatory Spare                | 70% of the Supply price production of MDCC  |
|     |                                | 30% of the Supply price production of MRC   |
| 7.  | <b>O&amp;M</b>                 | Contract Price: O&M contract value for the project is pre-defined. Cost for <b>the 5 years O&amp;M will be 7.5% of the awarded Basic Project Cost</b> (excluding GST) .   |
| 8.  | <b>Insurance</b>               | Contractor's All Risk (CAR) policy, Workmen compensation, Material Transit Insurance, Equipment Asset insurance.  |
| 9.  | <b>Defect Liability Period</b> | 60 Month after commissioning  |
| 10. | <b>Project duration</b>        | 12 Months   |

### 1.04 SECTION-V: TECHNICAL SPECIFICATION

#### 1.04.01 MAIN OBJECTIVES:

Installation of 7 MW AC Ground Mounted Solar PV Plant

#### 1.04.02 CIVIL ENGINEERING

| SN | Subject           | Remarks    |
|----|-------------------|------------|
| 1  | Approx Area       | 24 Acre    |
| 2  | Topography Survey | To be done |

## Section-I: Bid Summary

|   |                           |   |
|---|---------------------------|---|
|   | & Contour                 |   |
| 3 | Site Leveling and Grading | To be done  |
| 4 | Paving the Site           |   |
| 5 | PEB                       | For Inverter Room and Dry Type Transformer Room   |
| 6 | RCC Building              | Main control room with other room like SCADA room, Battery UPS room, Security, Store room |
| 7 | RCC/PVC Water Tank        | Of required storage capacity for Back-up purposes for cleaning of modules.                |
| 8 | CLSM Paving               | Not required  |
| 9 | Draining System           | All draining system should be connected with the three water storage tank                 |

### 1.04.03 ELECTRICAL ENGINEERING

| SN | Subject                 | Remarks  |
|----|-------------------------|--|
| 1  | Module                  | Monofacial/Bifacial, Minimum capacity is 500Wp and 10% of the DC Margin to be given. The PV modules must be enlisted in the latest ALMM of MNRE, GoI at the time of delivery.  |
|    | Inverter                | Min. 2 Nos. of Inverters to be supplied. Capacity will be finalized during detail engineering.   |
|    | 415V LT Switchgear      | 2 Incomer(VCB), 1 Bus coupler, 2 spare feeder, 2-outgoing feeder   |
|    | 6.6kV MV Switchgear     | Incoming feeder (VCB)- No. to be fixed during detail engineering<br>Outgoing feeders- 4Nos. (one for Aux. Transformers, 3-for power evacuation to Unit #6 )- Spare Feeders- 02Nos.<br>Space for future feeders-02Nos.<br>Refurbishment of 03Nos. existing old breakers |
|    | Cable Laying            | 2Run x3C, 400 sq.mm of approx. length 750 Mtr. Cable (through Underground laying) from newly constructed indoor switchgear to existing 6.6 KV switchgear of U #6 Reserves building.  |
|    | Invert duty Transformer | Min. 2 Nos. of Dry type ANAN cooled Transformer to be supplied. Capacity will be finalized during detail engineering.  |
|    | Station Auxiliary       | One number 250kVA(6.6/.415kV)dry type  |



## Section-I: Bid Summary

|  |             |  |
|--|-------------|--|
|  | Transformer | transformer to be supplied, <b>Note:**</b> |
|  | SCADA       | To be provided                             |
|  | WMS         | To be provided                             |
|  |             |  |

\*\*Another LT source will be provided from the existing Transformer located near Administrative Building, DPL. Requisite cable, breaker etc. to be supplied by the Bidder.



## **SECTION-II**

### **INSTRUCTION TO THE BIDDER**

#### **A. SCOPE & QUALIFICATION:**

##### **2.01.00 INTRODUCTION**

**2.01.01** The Durgapur Projects Limited, (hereinafter called “DPL” or “Purchaser”), wishes to receive bids for the Package named mentioned in the clause no.2.02.00.

**2.01.02** Throughout these Bidding Documents, the term “Bid” and “Tender” and their derivatives (Bidder/Tenderer, Bidding/Tendering, Bidding Document/Tender Document, etc.); Bill of Quantity/ Schedule of Quantity / Schedule of Quantities/ Bill of Quantities; Purchaser / DPL; Bid Security / Earnest Money Deposit; Security Deposit / Performance Security/ Performance Guarantee; Engineer-in-Charge / Engineer; Amendment/Corrigendum; Schedule of Quantity/Bill of Quantity (BOQ), appearing anywhere in the Bidding Documents shall have the same meaning and are synonymous to each other.

##### **2.02.00 NAME OF THE WORK**

E-tender cum Reverse Auction for “Design & Engineering, Manufacture/ Procurement, Supply, Erection, Testing and Commissioning of 7 MW Phase-I Grid Connected Ground Mounted Solar Photovoltaic Power Plants at Durgapur Projects Limited(DPL), Durgapur, West Bengal on Turnkey basis with 05 (Five) years comprehensive Operation and Maintenance”.



### **2.03.00 SOURCE OF FUND**

The Durgapur Projects Ltd (hereinafter referred to as DPL or “Purchaser”) intends to finance the Work covered under these Bidding Documents. The Source of the fund is grant from Govt. of West Bengal.

### **2.04.00 SCOPE OF WORK**

The brief scope of work covered under this tender shall be included but not limited to the following:-

**2.04.01** The scope of work for this project shall be on the single source responsibility basis, completely covering all the Equipment/Material specified under the Technical Specifications. The work is to be executed on **turnkey** basis. The brief scope of work are as follows:

#### **2.04.02 SUPPLY SCOPE:**

**The Supply scope includes the following but not limited to:**

Brief scope of Manufacture, Supply and delivery of the following Materials:

- i) PV Module (Monocrystalline Solar PV Modules, Monofacial having capacity minimum 500 Wp and MNRE approved ),
- ii) Module Mounting Structure
- iii) Grid Connected Inverters
- iv) Station Aux Transformer
- v) Station Aux Transformer
- vi) String Monitoring Boxes/ Array Junction Box,
- vii) HT Switch Gear
- viii) LT Switchgear
- ix) DC DB, AC DB
- x) other LT boards
- xi) Web based monitoring systems
- xii) SCADA and its accessories
- xiii) All type of MC4 connectors



- xiv) UPS
- xv) Control Room Monitoring Desk
- xvi) Weather Monitoring Systems
- xvii) PLC/ DCS
- xviii) CCTV
- xix) Street Light
- xx) Supply for Module cleaning System
- xxi) All type of Cables and its accessories
- xxii) Safety items
- xxiii) Supply of all type of O&M supply and consumable
- xxiv) All type of Civil Construction Materials
- xxv) All other items which are not mentioned above but required for successful Installations & commissioning of 7 MW AC Grid Connected Ground Mounted Solar PV Power Plants on turnkey basis at DPL.
- xxvi) **Mandatory Spare:** As per the list mentioned in this tender documents.

**2.04.03 SERVICE SCOPE( Erection & Commissioning and Other Service)**

**The scope of type of Services to complete the Erection and Commissioning includes the following but not limited to:**

- a. Detailed Site Survey of the proposed solar plant area of DPL for Designing and Engineering.
- b. Submission of Detailed Design Report indicating Technical suitability of site for installation of the Power Plant with layout plan.
- c. Detailed design calculation report for achieving Net Minimum Guaranteed Generation (NMGG) target stipulated in the NIT for 7MW AC Solar PV Plant.
- d. Detailed Design of the Equipment/ Materials and Submission of Billing Breakup (BBU) with matching the quoted project cost.
- e. Obtaining approval of engineering drawing, sizing calculation, layout technical data, BBU, operational manual etc and necessary inspection from the Purchaser.