**File No.: VIS (2024-25)-PL627-563-797 Dated: 13-01-2025**

**LENDER’S INDEPENDENT ENGINEER’s REPORT**

**OF**

**3.16 (± 10%) MWp GRID CONNECTED ROOF-TOP SOLAR POWER PLANT**

**SET-UP AT**

**CARRARO INDIA PRIVATE LIMITED IN RANJANGAON MIDC, MAHARASHTRA**

**DEVELOPER:**

**M/S MPRNP ENERGY UDYOG PRIVATE LIMITED**

**REPORT PREPARED FOR**

**STATE BANK OF INDIA, SME UDYOG SADAN,**

**PATPARGANJ INDUSTRIAL AREA, NEW DELHI**

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| **PART A** | **REPORT SUMMARY** |

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|  | **Name of the Project** | 3.16 (±10%) MWp Grid Connected Solar Power Plant |
|  | **Project Location** | Carraro India Private Limited located at B 2/2, Ranjangaon MIDC, Maharashtra |
|  | **Seller Company** | M/s MPRNP Energy Udyog Private Limited |
|  | **Prepared for Organization** | State Bank Of India, SME Udyog Sadan, Patparganj Industrial Area, New Delhi |
|  | **LIE Consultant Firm** | M/s. R.K. Associates Valuers & Techno Engineering Consultants (P) Ltd |
|  | **Work Oder Details** | Via E-mail dated 24-07-2024 |
|  | **Date of Survey** | 18-12-2024 |
|  | **Date of Report** | 13-01-2025 |
|  | **Details & documents provided by** | Mr. Ankit Malhotra Sr. Vice President |
|  | **Report Type** | Lender’sIndependent Engineering Report |
|  | **Purpose of the Report** | To comment upon physical progress of the solar porjects |
|  | **Scope of the Report** | To verify and review the physical progress of the Solar Power Plants set-up/ being set-up by M/s Samaritan Solar Energy Private Limited |
|  | **Documents produced for Perusal** | 1. Copy of Power Purchase Agreements (PPAs) 2. Copy of Plant Layout 3. Copy of PV Syst reports |
|  | **Annexure with the Report** | * Layout Plans * Copy of Invoices * Copy of Joint Metering Reading |

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| **PART B** | **INTRODUCTION** |

1. **NAME OF THE PROJECT:** 3.16 (± 10%) MWp Grid Connected Solar Power Plant in RESCO Model installed at Carraro India Private Limited located at B 2/2, Ranjangaon MIDC, Maharashtra by M/s MPRNP Energy Udyog Private Limited.
2. **PROJECT OVERVIEW:** M/s MPRNP Energy Udyog Private Limited is an private incorporated which is into Manufacturing, supplying, installing and distribution of electric power generation using solar energy.

M/s Carraro India Private Limited had signed 02 nos. of Power Purchase Agreement (PPAs) with M/s Kirloskar Solar Technologies Private Limited for Design, Manufacture, Supply, Erection, Testing and Commissioning including Warranty, Operation & Maintenance of 02 roof-top solar power plants at their respective locations having a total DC capacity of 3.16 (± 10%) MWp for 15 years of plant operation/ PPA tenure.

Further, 02 nos. of Novation and Assignment Agreement dated 26th Novmber 2023 was signed between **M/s Kirloskar Solar Technologies Private Limited** (KSTPL) and **M/s Carraro India Private Limited** and **MPRNP Energy Udyog Private Limited,** in which wishes to be released and discharged from it’s obligations, duties, liabilities and wishes to transfer and assign it’s rights and benefits under the Original Agreement in favour of Boond - who wishes to take up all the rights, benefits and obligations, duties of KSTPL as per the Original Agreement whether arising on or before or after the date hereof.

As per details dated 02nd March 2024 shared by the company, the total project cost is estimated at a price of Rs.14.77 Cr. including duties and taxes.

M/s MPRNP Energy Udyog Private Limited has approached SBI for credit facility to construct these plants who have in turned appointed M/s R.K Associates Valuers & Techno Engineering Consultants Pvt. Ltd. as Lenders Independent Engineer for a specific scope of work.

***Since, technical & financial feasibility report has been shared previously. Thus, this report is only constitute about physical progress of the projects observed during site survey.***

1. **SCOPE OF THE REPORT:** To verify the physical progress of the Solar Power Plants being set-up by M/s MPRNP Energy Udyog Private Limited:-

* *Industry/ sector research and demand & supply trend is out of scope of the report.*
* *Financial feasibility study of the Project is out of scope of the report.*
* *Providing any kind of design report or map is out-of-scope of the report.*
* *Scrutiny of contracts, Agreements and arrangement between the parties from legal perspective is out-of-scope of this report.*
* *Any kind of technical & economic feasibility of the Project is out-of-scope of this Report.*

*All the assessment carried out for the Project is done based on the documents and information provided & physical observation made during site survey. Component wise verification is not carried out.*

1. **PURPOSE OF THE REPORT:**  To provide fair detailed physical progress/analysis report to the Bank based on the “in-scope points” mentioned above.

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| **PART C** | **PROJECT DETAILS AND KEY TECHNICAL PARAMETERS** |

1. **SOLAR PLANT PROJECT LOCATION:** As per the information and copy of documents shared by the management of the company, details of the subject solar plant locations has been tabulated below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.**  **No.** | **Purchaser** | **Capcity (kWp)** | | **Address** |
| **DC Power** | **AC Power** |
| 1 | Carraro India Private Limited | 3,150 | 2,370 | Ranjangaon, Maharashtra  GPS Coordinates– 18°46'27.0"N 74°15'36.6"E |
| **Total** | | **3,150** | **2,370** |  |

1. **LOCATION WISE KEY TECHNICAL PARAMETERS:** As per the copy of module layout plans of both the sites, Key Technical Parameters & Configuration of the projects like Modules, Inverter, tilt angle, capacity, etc. are tabulated below:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S. No.** | **Location** | **Proposed capacity (in KWp)** | **No. of PV Module (in nos.)** | **PV Module Capacity (in Wp)** | **PV Module Mounting Orientation** | **Module Mounting Structure Angle** |
| 1 | Carraro India Private Limited | 3,150 | 5,709 | 550 | ---- | As per building |

1. **LOCATION MAP: -**



***The solar panels were installed recently, so they are not yet visible in Google Satellite Imagery.***

|  |  |
| --- | --- |
| **PART D** | **CURRENT STATUS OF WORK** |

**Plant-1**

|  |  |  |
| --- | --- | --- |
| **S. No.** | **Particulars** | **Remarks/Status** |
|  | Module Structure | Work related to modules structure is Completed. |
|  | Modules | 3,942 No. of modules have been installed. |
|  | Invertors | Installed |
|  | Wiring | Completed |
|  | Metering Panels | Installed |
|  | Operational Status | Operational |

**Plant-2**

|  |  |  |
| --- | --- | --- |
| **S. No.** | **Particulars** | **Remarks/Status** |
|  | Module Structure | Work related to modules structure is Completed. |
|  | Modules | 1,767 No. of modules have been installed. |
|  | Invertors | Installed |
|  | Wiring | Completed |
|  | Metering Panels | Installed |
|  | Operational Status | Operational |

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| ***X:\In Progress Files\Deepak Singh\Jan-Mar 2025\VIS(2024-25)-PL627-563-797 MPRNP\Site images\TimePhoto_20241218_151112.jpg*** | ***X:\In Progress Files\Deepak Singh\Jan-Mar 2025\VIS(2024-25)-PL627-563-797 MPRNP\Site images\TimePhoto_20241218_151145.jpg*** |
| ***X:\In Progress Files\Deepak Singh\Jan-Mar 2025\VIS(2024-25)-PL627-563-797 MPRNP\Site images\TimePhoto_20241218_152623.jpg*** | ***X:\In Progress Files\Deepak Singh\Jan-Mar 2025\VIS(2024-25)-PL627-563-797 MPRNP\Site images\TimePhoto_20241218_162438.jpg*** |

**Photographs Shared By Client**

|  |  |
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| X:\In Progress Files\Deepak Singh\Jan-Mar 2025\VIS(2024-25)-PL627-563-797 MPRNP\Latest documents\WhatsApp Image 2025-04-23 at 16.35.12_403b7ecf.jpg | X:\In Progress Files\Deepak Singh\Jan-Mar 2025\VIS(2024-25)-PL627-563-797 MPRNP\Latest documents\WhatsApp Image 2025-04-23 at 16.35.13_160179d3.jpg |

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| **PART E** | **PROJECT COST & EXPENDITURE** |

1. **PROJECT COST:** As per details shared by the company, the total project cost for installation of 3.16MW solar project is Rs. 14.77 Cr. including GST. Component-wise cost break-up shared by the company is as follows:-

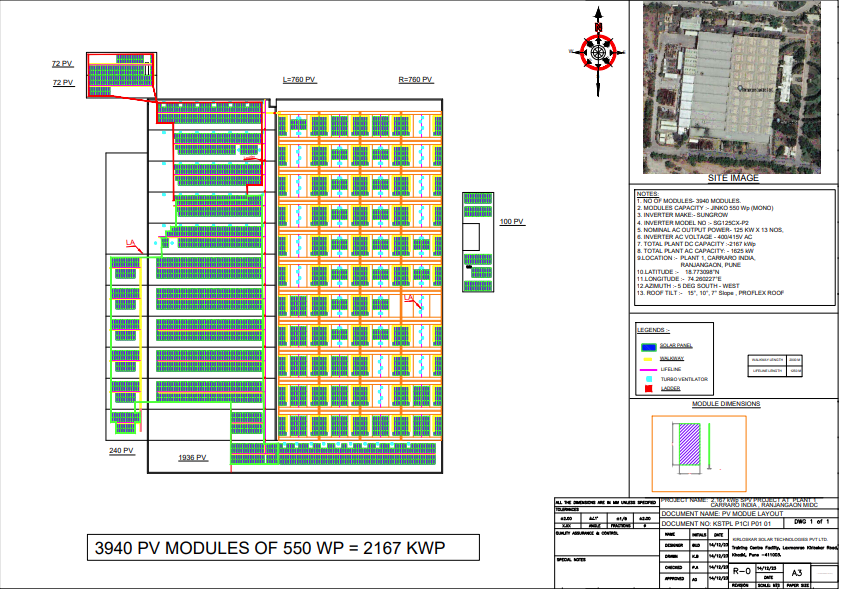
|  |  |  |  |
| --- | --- | --- | --- |
| **S.No.** | **Item** | **Cost/KW**  **(In Rs.)**  **(Including GST)** | **Vendor** |
| 1 | Solar Panel | 8,55,03,040 | JINKO Solar |
|  | Panel import- sea freight , import duty, clearance, transport |
| 2 | Solar Inverter | 1,00,10,487 | Sungrow/Kirloskar |
|  | Accessiories & Design | 18,38,440 | MPRNP |
| 3 | Structure | 91,92,200 | Sunrack/Kirloskar |
|  | Accessiories & Design | 18,38,440 | MPRNP |
| 4 | Cables | 55,15,320 | Paradise/Kirloskar |
|  | Accessiories & Design | 18,38,440 | MPRNP |
| 5 | LT Panel/ACDB | 55,15,320 | LS Power/Kirloskar |
|  | Accessiories & Design | 18,38,440 | MPRNP |
| 6 | Miscelleneous | 91,92,200 | MPRNP/Kirloskar |
|  | Lifeline,walkway,LA &Earthing, Data logger, MCS, Cable tray, DWC pipe |  |  |
| 7 | Installation & Commissioning | 73,53,760 | MPRNP/Kirloskar |
| 8 | Govt Approval & Liasoning | 80,89,136 | MPRNP/Kirloskar |
| **Total Cost of the project(In Rs.)** | | **14,77,25,223** |  |

1. **EXPENDITURE INCURRED:** The break-up of the amount of cost that has been spent in the project as per the data and invoices provided by the client are as mentioned below:-

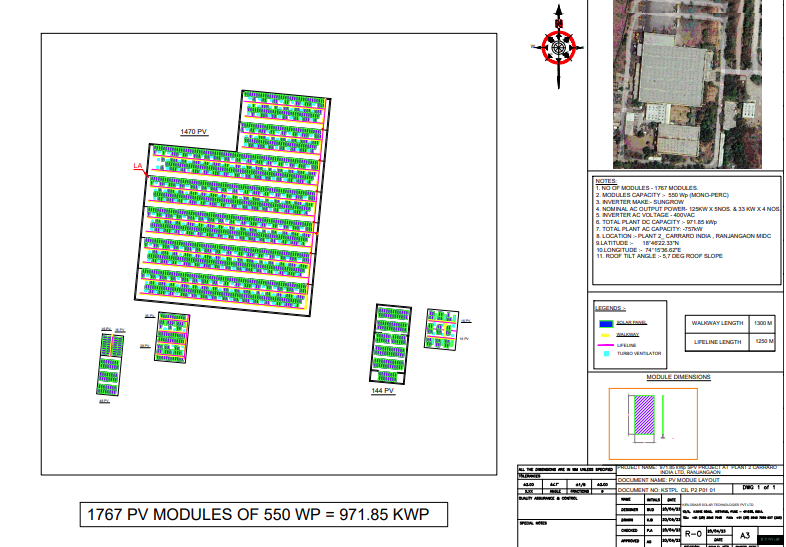
|  |  |  |  |
| --- | --- | --- | --- |
| **Description** | **Invoice No.** | **Invoice Date** | **Amount in Rs (Including GST)** |
| Solar System Supply & Installation (BOS Materials) | DEL/23-24/093 | 30-03-2024 | 10,74,27,200 |
| Solar System Supply & Installation (Cost of material & Installation) | DEL/24-25/089 | 19-12-2024 | 4,02,72,800 |
| **TOTAL** | | | **14,77,00,000** |

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| **PART F** | **OTHER DOCUMENTS & REFERENCES** |

**Layout-1**

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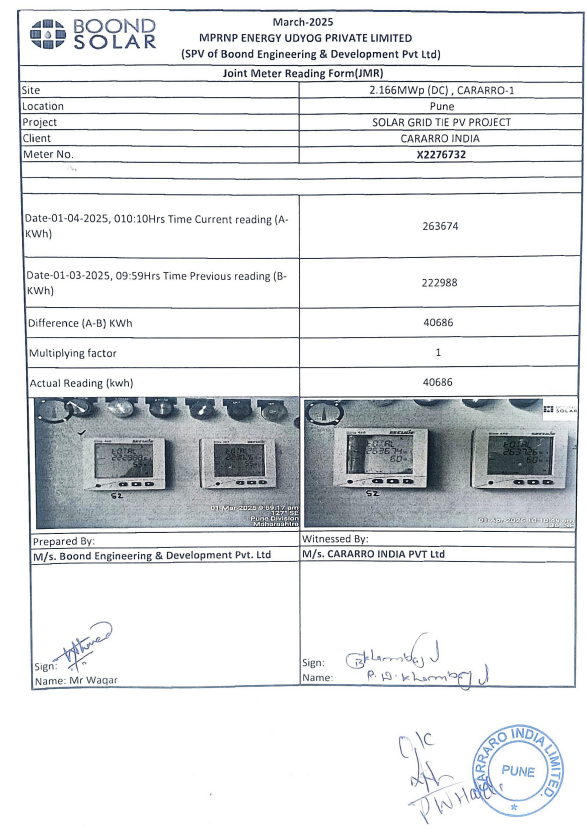
**Layout-2**

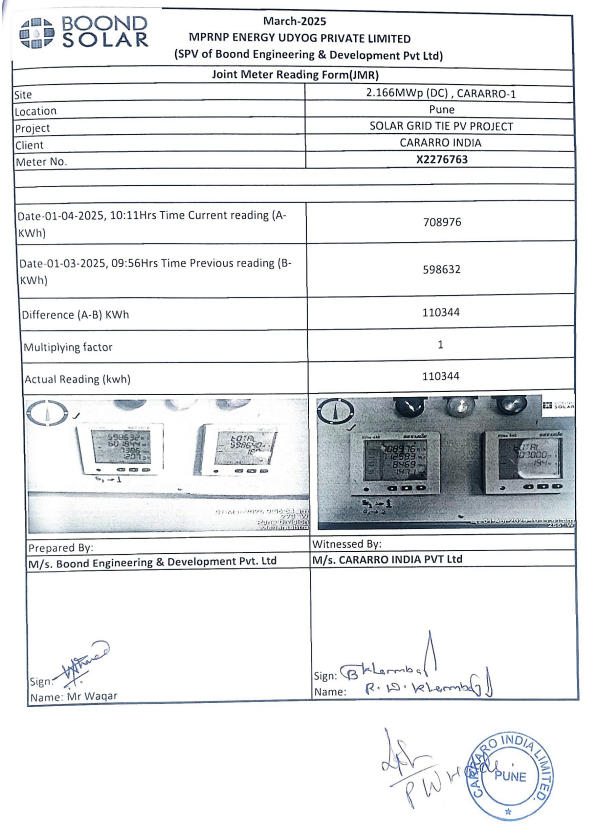
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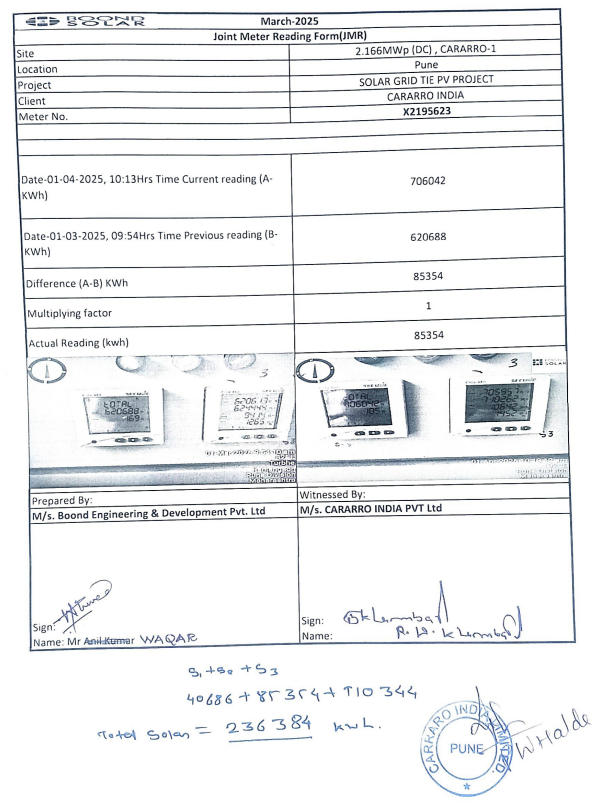
**Copy of Invoices**

|  |  |
| --- | --- |
|  |  |
|  |  |

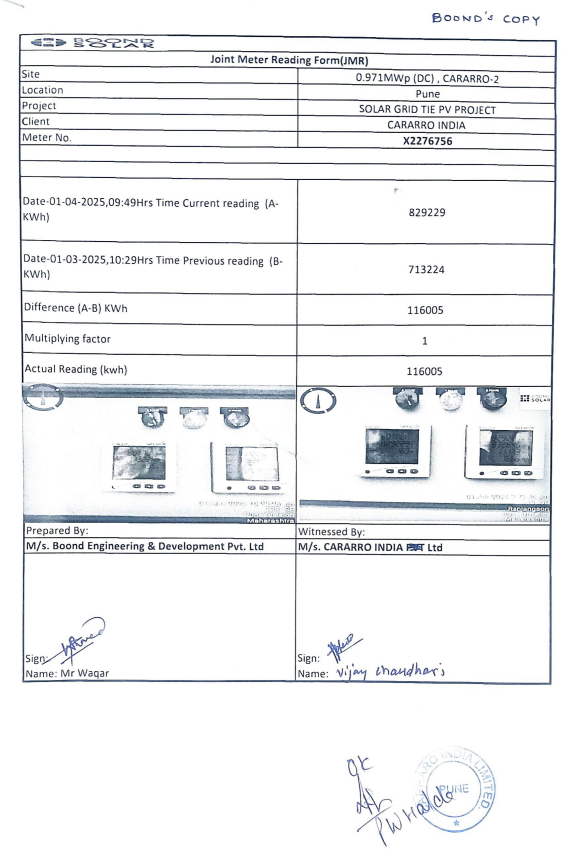
**Joint Meter Reading 2.166 MWp (DC)**

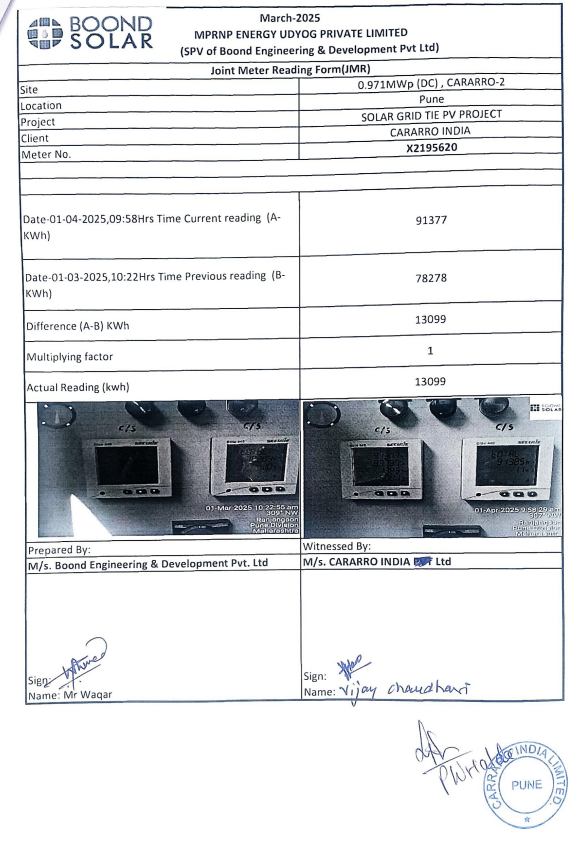
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**Joint Meter Reading 0.971 MWp (DC)**

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