

File No.: VIS(2023-24)-PL755-654-1011

Dated: 06-03-2024

LENDER'S INDEPENDENT ENGINEER'S REPORT

OF

6.221 ($\pm 5\%$) MWp GRID CONNECTED ROOF- TOP SOLAR POWER PLANT

PROPOSED TO BE SET-UP AT

M/S CAVENDISH INDUSTRIES LIMITED (A UNIT OF JK TYRE), DABKI KALAN,
LAKSAR, HARIDWAR

DEVELOPER:

M/S TRUERE UP 2 PRIVATE LIMITED

REPORT PREPARED FOR

STATE BANK OF INDIA, SME BRANCH, ASAF ALI ROAD, DELHI

- Corporate Valuers
- Business/ Enterprise/ Equity Valuations
- Lender's Independent Engineers (LIE)
- Techno Economic Viability Consultants (TEV)
- Agency for Specialized Account Monitoring (ASM)
- Project Techno-Financial Advisors
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- NPA Management
- Panel Valuer & Techno Economic Consultants for PSU Banks

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A circular red stamp with the text "R.K. Associates Valuers & Techno Engineering Consultants Pvt. Ltd." around the perimeter. A handwritten signature in blue ink is written over the stamp.

LIE REPORT

6.221 (± 5%) MWp GRID CONNECTED
SOLAR ROOFTOP POWER PLANT

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LIE REPORT

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PART A

REPORT SUMMARY

1.	Name of the Project	6.221 (±5%) MWp Grid Connected Solar Rooftop Power Plant
2.	Project Location	M/s Cavendish Industries Limited (A Unit of JK Tyre), Dabki Kalan, Laksar, Haridwar
3.	Seller Company	M/s Truere UP 2 Private Limited
4.	Prepared for Organization	State Bank Of India, Sme Branch, Asaf Ali Road, Delhi
5.	LIE Consultant Firm	M/s. R.K. Associates Valuers & Techno Engineering Consultants (P) Ltd.
6.	Work Oder Details	Via mail dated 29-02-2024
7.	Date of Survey	27-02-2024
8.	Date of Report	06-03-2024
9.	Details & documents provided by	Mr. Monu Prajapati (Manager Finance)
10.	Report Type	Lender's Independent Engineering Report
11.	Purpose of the Report	Review of Project cost, CUF and Irradiation Data, current status for lender's requirement
12.	Scope of the Report	To review Project cost, CUF and Irradiation Data, current status
13.	Documents produced for Perusal	a. Copy of Power Purchase Agreements (PPAs) b. Copy of Plant Layout c. Copy of PVSyst report dated 05-03-2024 d. Techno commercial offer
14.	Annexure with the Report	• Benchmark Cost by MNRE • Market Comparables • Global Solar Atlas by World Bank Group



PART B**INTRODUCTION**

- 1. NAME OF THE PROJECT:** 6.221 ($\pm 5\%$) MWp Grid Connected Solar Rooftop Power Plant in RESCO Model to be installed at M/s Cavendish Industries Limited (A Unit of JK Tyre) by M/s Truere UP 2 Private Limited.
- 2. PROJECT OVERVIEW:** M/s Truere UP 2 Private Limited is an private incorporated which is into Manufacturing, supplying, installing and distribution of electric power generation using solar energy.

M/s Cavendish Industries Limited had signed 01 nos. of Power Purchase Agreement (PPA) with M/s Truere UP 2 Private Limited for Design, Finance, Build and Operate of roof-top solar power plant at its location having a total DC capacity of 6.221 ($\pm 5\%$) MWp for 15 years of plant operation/ PPA tenure.

As per Detailed Project Report shared by the company, the estimated project cost is Rs.27.50 Cr. including duties and taxes.

M/s M/s Truere UP 2 Private Limited has State Bank of India, SME Branch, Asaf Ali Road, Delhi 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.

As on date of site visit, presently physical work has not started yet. Thus, our scope of work includes only review & comment on total Project cost, CUF and Irradiation Data.



RESCO Model: -

MNRE had introduced the PPP/RESCO model policy setting tariff rates for solar to be arrived on transparent competitive bidding model through PPP route.

*The RESCO model is one of the methods of implementing rooftop solar installations. Under the RESCO model, a renewable energy service company ("**RESCO**"), (i.e., an energy service company that provides energy to consumers from renewable energy sources), develops, installs, finances, operates and owns the rooftop solar power project ("**Project**"), and supplies power generated from the Project to the consumer on whose premises the Project is set up ("**Customer**") or to the grid through net-metering.*

*'Build, Own, Operate and Transfer' (BOOT) is a special kind of RESCO model in which the RESCO constructs, owns, operates, and transfers the ownership of the Project to the Customer after the expiry of a predefined period. The RESCO and the Customer enter into a long-term power purchase agreement ("**PPA**") for an agreed tenure, which sets out, among others, the terms at which the power generated from the Project will be sold to the Customer and the tariff at which the power will be sold. Excess power from the Project (if any) could be sold by the Customer to the distribution utility through net metering system – the net metering regulations differ from state to state.*

Under the PPA, the RESCO owns the Project and is responsible for its installation as well as its operation and maintenance of the Project throughout the tenure of the Project, and at the end of the PPA term, the ownership of the Project is transferred to the Customer. Thereafter, the Customer may either choose to retain the RESCO for operation and maintenance services or engage a third-party operator.

If the entity on whose premises the Project is located does not intend to buy the power generated from the Project and does not entered into a PPA with the RESCO, that entity can either lease the rooftop premises to the RESCO by means of a lease agreement or enter into a license agreement granting the RESCO the right to use the premises for the limited purpose of setting up and operating the Project. The RESCO then operates the Project and exports the energy generated to the local distribution utility at a predetermined feed-intariff (FiT) approved by the State Electricity Regulator under relevant schemes issued by the relevant state.



3. SCOPE OF THE REPORT: To verify and review the Project cost, CUF and Irradiation Data of the Solar Power Plants set-up/ being set-up by M/s Truere UP 2 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.*
- *Location feasibility is ascertained based on the PVSyst Report provided by the client.*
- *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 to us and various other discussions with the Project proponents and thus forming an opinion out of it.

Project assessment is done in totality and not component wise unless otherwise mentioned..

4. PURPOSE OF THE REPORT: To provide fair detailed analysis report to the Bank based on the "in-scope points" mentioned above.

5. METHODOLOGY ADOPTED:

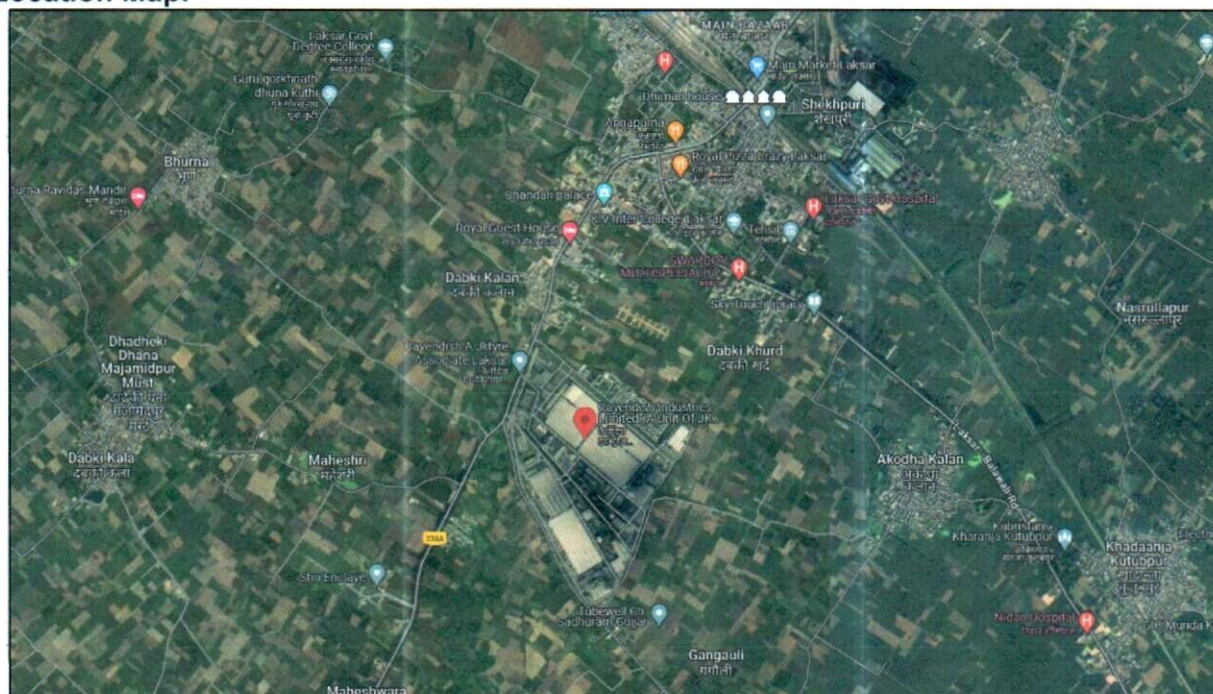
- To gather relevant data/ information/ documents related to Project planning, execution, current status.
- Study of relevant data/ information provided by the company.
- Site inspection.
- To conduct research if required about the Project/ sector from the sources in the public domain.
- Correlation of the provided information, site inspection report against Industry/ sector benchmarks/ trend.
- Information compilation, analysis and reporting.



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

As per DPR shared by the management of the company, details of the subject plants has been tabulated below:

S. No.	Offtaker	DC Power (kWp)	AC Power (kWp)
1	Cavendish Industries Limited	~6.00	~5.00
Total		~6.00	~5.00

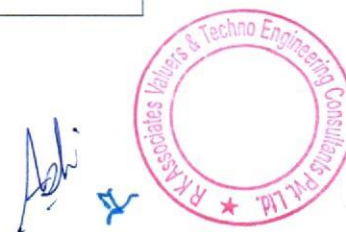
Location Map: -

Location: Cavendish Industries Limited, Laksar

GPS: 29°44'13.9"N 78°00'49.9"E

Technical parameters/specifications of solar plant to be installed are as follow:-

S. No.	Particulars	Plant-1
1	No. of modules	10,914 Modules
2	Modules capacity	Jinko/JA/Trina/Adani/Equivalent Mono-Crystalline (570Wp)
3	Inverter make	Goodwe
4	Inverter AC Voltage	415V AC
5	DC capacity	6221kWp
6	AC capacity	5000 kW
7	Roof Tilt	As per Roof



PART D**ENERGY YIELD ASSESSMENT**

Company has used PVSyst V7.4.5 to assess energy yield calculation which is the standard Industry practice. The yearly average of main results of irradiation and energy yield from the provided PVSyst is as under:

Annual production probability (kWh/kWp/Year):

S. No.	Plant	As per PVSyst (In kWh/kWp/Year)		Performance Ratio (%)	CUF (%)
		P50	P90		
1	CIL Plant	1,334	1,299	84.98%	15.23%

Estimated Annual production (kWh/Year):

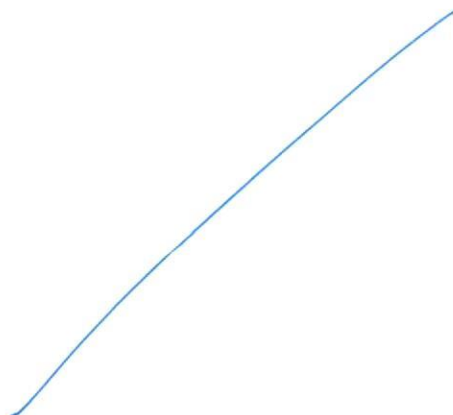
S. No.	Plant	As per PPA (kWh/Year)	As per PVSyst (kWh/Year)	As per Global Solar Atlas (kWh/Year)
1	CIL Plant	76,31,301	83,00,599	93,20,924

Estimated Specific Production (kWh/kWp/Year):

S. No.	Plant	As per PPA (In kWh/kWp/Year)		As per PVSyst (In kWh/kWp/Year)	As per Global Solar Atlas (In kWh/kWp/Year)
		Estimated	Guaranteed		
1	CIL Plant	1,363	1,227	1,334	1,498

Observations and Remarks:

1. Estimated annual production as found in PVSyst report & Global Solar Atlas is more than as specified in PPA.
2. Estimated specific production (Guaranteed) as found in PVSyst report and Global Solar Atlas Report is more than as specified in PPA. But estimated specific production as per PPA is less than that as specified in PVSyst report, however less than Global Solar Atlas Report.




Analysis of Irridiation & PV Output data: In respect to Irridiation & PV Output data, company has provided to us PVSyst Report V7.4.5 in which key Irridiation components and PV Output data is given as enumerated in table below. We have analysed and compared it with other data source points also such as Solar Resource by Global Solar Atlas of World Bank and ISRO Solar Calculator to confirm its legitimacy as mentioned in table below:

Particulars	Cavendish Industries Limited	
	As per Global Solar Atlas	As per PVSyst
Global horizontal Irradiation (kWh/m ²)	1735.3	1566.1
Diffuse horizontal Irradiation (kWh/m ²)	897.3	881.0
Direct Normal Irradiation (kWh/m ²)	1260.8	-
Specific Photovoltaic Power Output per year (kWh/kWp/year)	1498.3	1334.0
Annual Global Insolation (ISRO Solar Calculator) (kWh/m ² /year)	1441	
Capacity utilization factor (CUF)	17.10%	15.23%

Observations and Remarks:

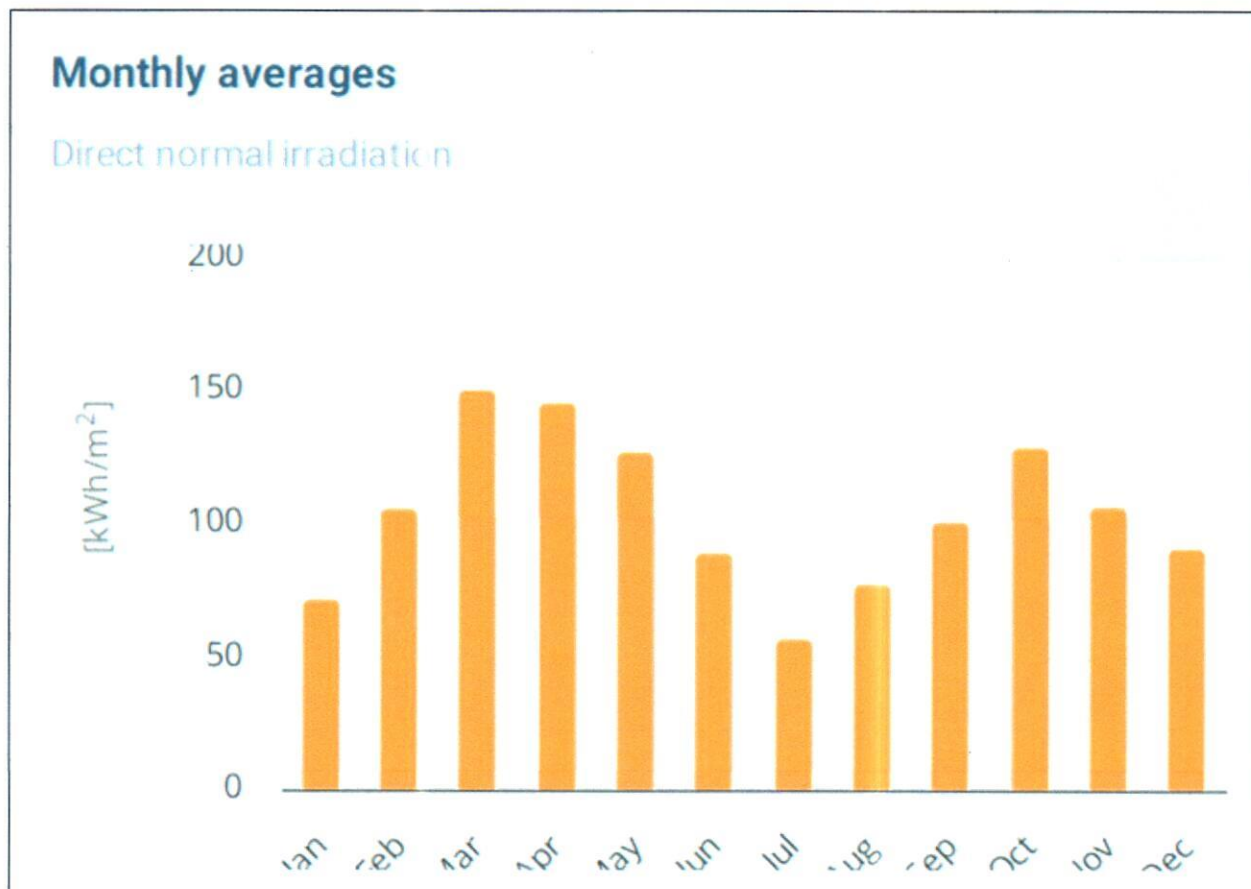
1. As per comparative analysis, PVSyst Irridiation and PV Output data is almost in line to our analysis from Global Solar Atlas of World Bank and ISRO Solar Calculator.
2. The Specific PV Power Output as per Global Solar Atlas is 1498.3 kWh/kWp/year which is more than as per PVSyst report having PV output of 1334.0 kWh/kWp/year.
3. As mentioned above, the Capapcity Utilization Factor (CUF) for the propsed solar plant, as per Global Solar Atlas & PVSyst is 17.10% & 15.23% respectively.
4. However data from Global Solar Atlas may not consider the specific module factors which are covered in PVSyst report as its limitation.



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6.221 ($\pm 5\%$) MW_p GRID CONNECTED
SOLAR ROOFTOP POWER PLANT

Monthly averages- Direct Normal Irradiation (kWh/m²)

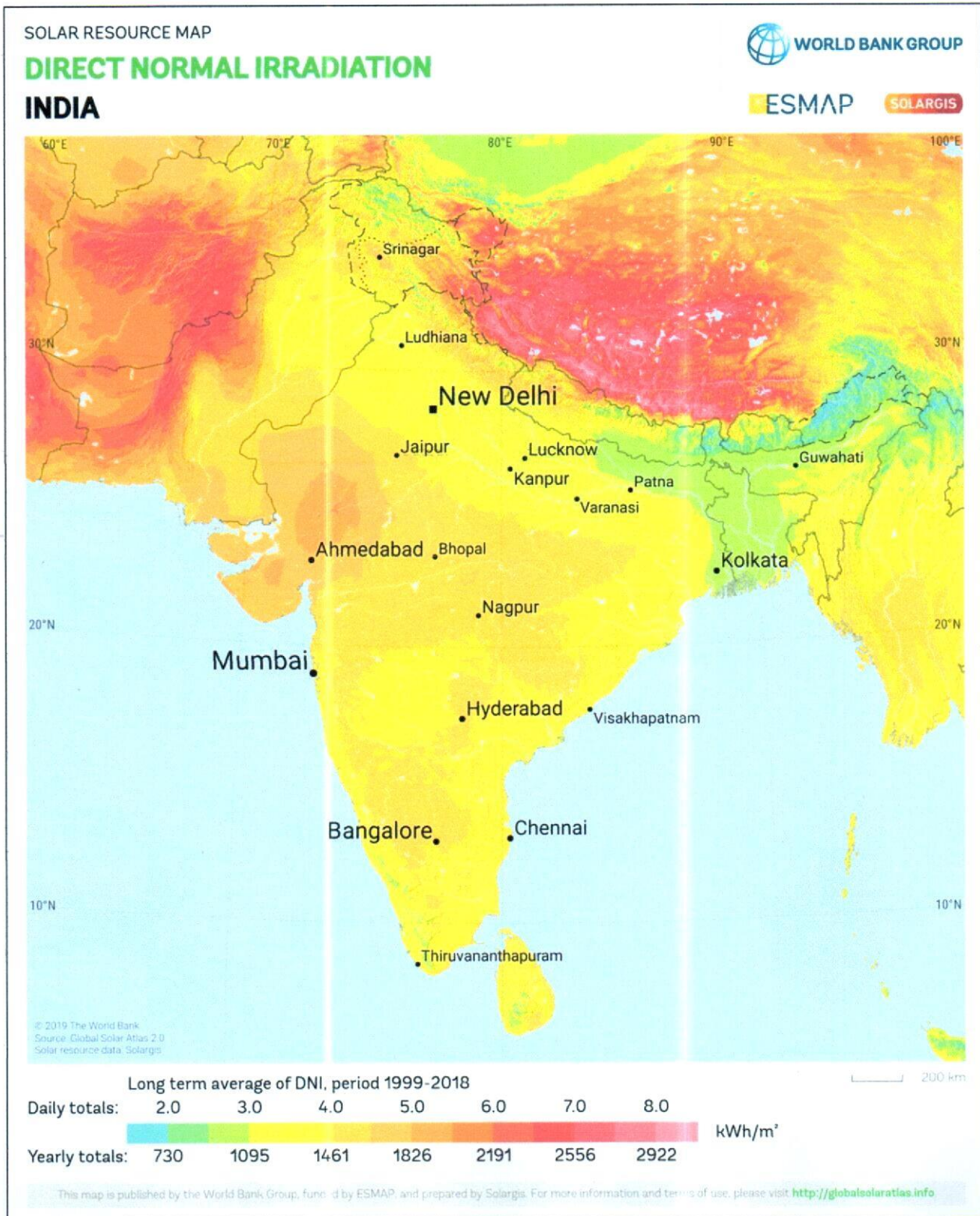


Source: Global Solar Atlas



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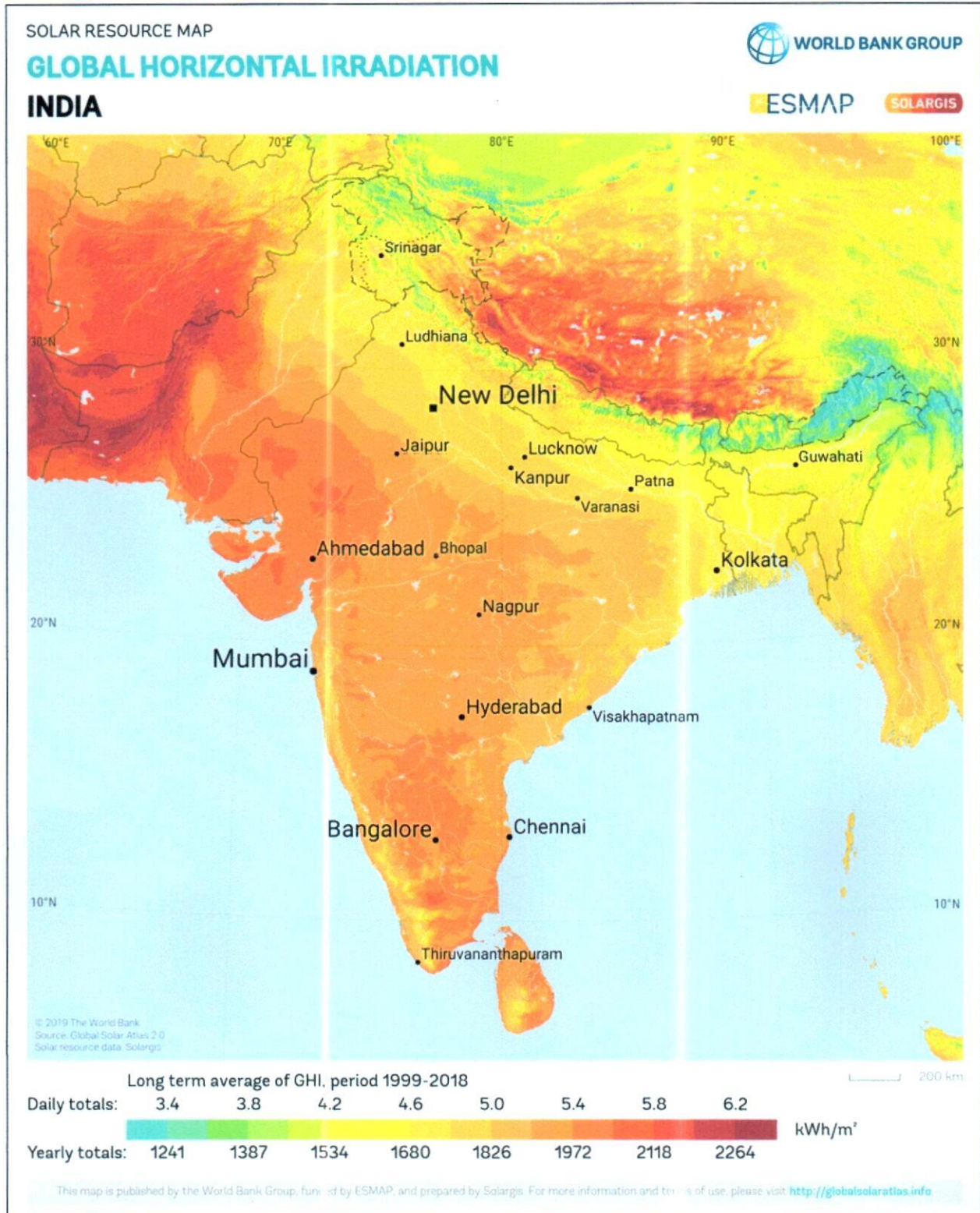
Cavendish Industries Limited Plant lies above 3.0 daily (1095 annually) Kwh/m².

[Signature]

[Circular Stamp: R K Associates Valuers & Techno Engineering Consultants Pvt. Ltd.]

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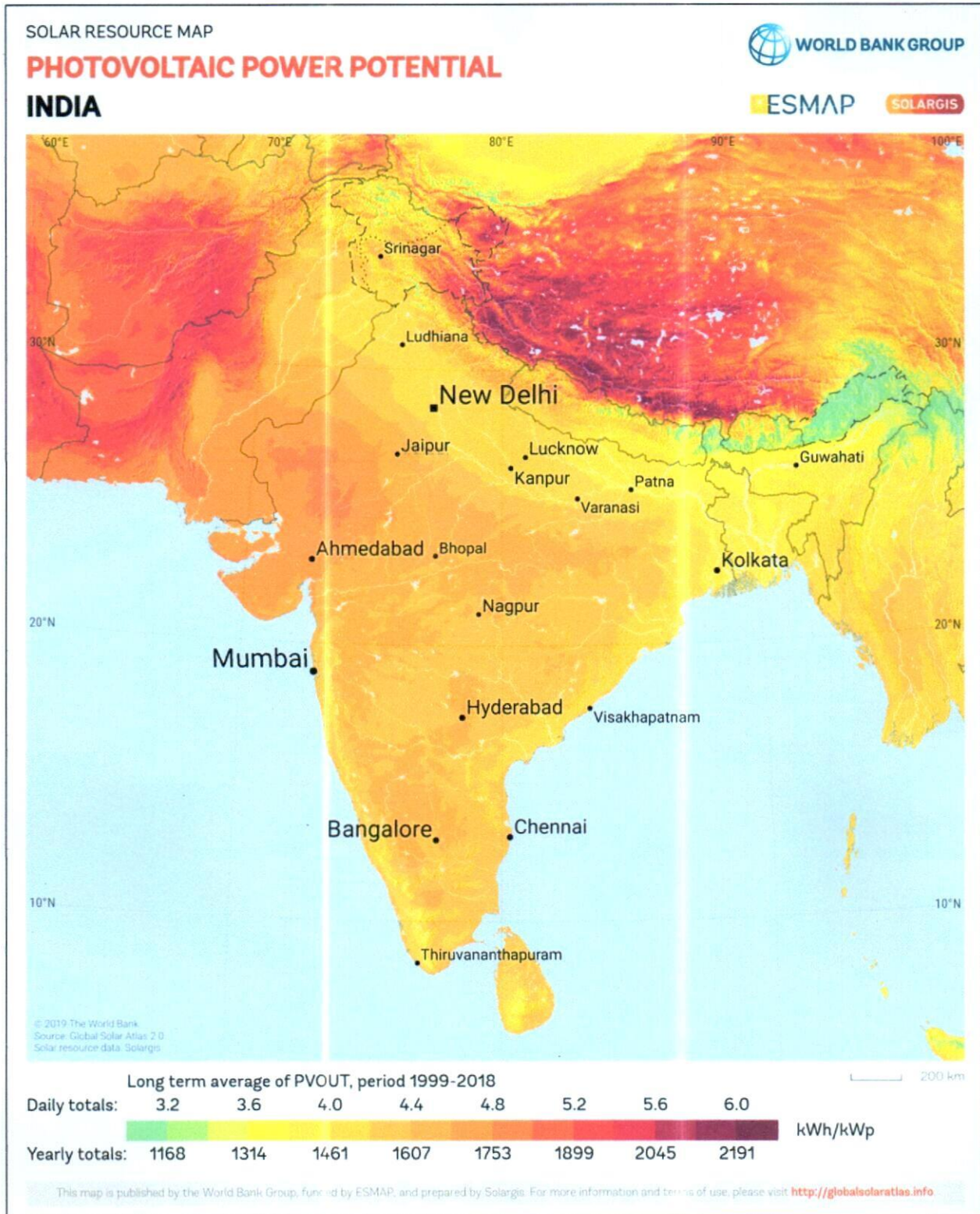


Cavendish Industries Limited Plant lies below 4.5 daily (1680 annually) Kwh/m².



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6.221 ($\pm 5\%$) MWp GRID CONNECTED
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Cavendish Industries Limited Plant lies below 4.0 daily (1461 annually) Kwh/m².

PART E**POWER PURCHASE AGREEMENT TERMS**

As per copy copy of PPA dated 30th January 2024, the total proposed capacity of the solar power plant is 6.221 MWp (± 5%). As on date, company has signed PPA to install the power plant and supply power. The PPA had been signed between **M/s Cavendish Industries Limited** and **M/s Truere UP 2 Private Limited**. Details as mentioned in PPA are tabulated below:

S. No.	Offtaker	DC Capacity (kWp)	Tariff (Rs./kWh)	PPA Date	PPA Tenure
1	Cavendish Industries Limited	~5000	4.79	30-01-2024	15 Years
	Total	~5000			

Buy out Value for 15 Years as per PPA		Estimated Generation and Guaranteed generation as per PPA		
Year	Purchase Price (In Rs.)	Year	Estimated Generation (kWh/Year)	Guaranteed Units (kWh/Year)
At Start of 1 st Contract Year	31,05,52,320	1 st	84,79,223	76,31,301
At End of 1 st Contract Year	28,98,48,832	2 nd	82,67,242	74,40,518
At End of 2 nd Contract Year	26,91,45,344	3 rd	82,07,888	73,87,099
At End of 3 rd Contract Year	24,84,41,856	4 th	81,48,533	73,33,680
At End of 4 th Contract Year	22,77,38,368	5 th	80,89,179	72,80,261
At End of 5 th Contract Year	20,70,34,880	6 th	80,29,824	72,26,842
At End of 6 th Contract Year	18,63,31,392	7 th	79,70,470	71,73,423
At End of 7 th Contract Year	16,56,27,904	8 th	79,11,115	71,20,003
At End of 8 th Contract Year	14,49,24,416	9 th	78,51,760	70,66,584
At End of 9 th Contract Year	14,42,20,928	10 th	77,92,406	70,13,165
At End of 10 th Contract Year	10,35,17,440	11 th	77,33,051	69,59,746
At End of 11 th Contract Year	8,28,13,952	12 th	76,73,697	69,26,327
At End of 12 th Contract Year	6,21,10,464	13 th	76,14,342	68,52,908
At End of 13 th Contract Year	4,14,06,976	14 th	75,54,988	67,99,489
At End of 14 th Contract Year	2,07,03,488	15 th	74,95,633	67,46,070
At End of 15 th Contract Year	1			

Note:- Only relevant terms are mentioned above which are important in report in respect to pricing & energy generation only for illustration purpose.



PART F**CURRENT STATUS OF WORK**

As on date of site visit, Solar Panel Installation work has not started yet. As per analysis made during site inspection, our surveyor did not find any shadow/obstruction on shed where solar panels are proposed to be installed.

As per google satellite measurement tools, total shed roof area is about 1,00,000 sqm. The approximate size of 570Wp Solar Panel is 2278 x 1134 x 30 (mm). As per DPR, total quantity of solar panels to be installed is 10,914 nos. Thus, 28,194 sqm are is sufficient to install 6.21 MW solar plant.

Please refer to the image attached below:-



PART G

PROJECT COST & EXPENDITURE

1. **PROJECT COST:** As per technical commercial offer from M/s OPPL TGS Pvt. Ltd. shared by the company, the total project cost for installation of 6.221 MW solar project is Rs. 27.50 Cr. including GST. Component-wise cost break-up shared by the company is as follows:-

S.No.	Item	Cost/kW (In Rs. Cr.)
1	EPC Cost + GST	24.88
	Pre-Operational Expenses	0.12
2	IDC	2.49
Total Cost of the project (In Rs. Crore)		27.50
Total Cost In Rs. per kW		44,205

Observations and Remarks:

- a. Project cost calculated on the basis of the Benchmark Cost provided by the MNRE has been tabulated below:

S. No.	Particulars	Benchmark Cost (In Rs./kW)	Project Capacity (In MW)	Total Project Cost (Excluding GST) (In Rs.)	Total Project Cost (Including ~14% GST) (In Rs.)
1	As per Ministry of New & Renewable Energy	35,886*	6.221	22,32,46,806	25,45,01,359
			6.221 MWp		~Rs. 25.45 Cr.

*Benchmark cost for 2021-22 Excludes GST



b. Project cost calculated on the basis of market comparable:

S. No.	Particulars	Excluding GST Per KW Cost (In Rs.)	Including GST Per KW Cost (In Rs.)	Remark
1	Subject project installation cost	--	44,205	As per Company
Market Research Details				
2	MNRE Benchmark Cost	35,886	-	Refer Annexure-1
Market Research				
3	Quotation-1 (250 KW)	37,740	42,500	Refer Annexure-2
4	Quotation-2 (150 KW)	39,037	44,000	
5	Quotation-3 (150 KW)	-	55,000	
6	Quotation-4 (150 KW)	50,000	56,900	
7	Quotation-5 (243 KW)	-	46,480	

c. As per our analysis and market research, the installation cost of Solar Power Plant varies from **Rs. 42,500/- per KW to Rs. 56,900/- per KW**. For the smaller setups the price is higher and for large set-up, price is less.

d. The project cost solely depends upon the project location, contractors profit, type of module and its supporting structures, make, etc.

e. Based upon the above mentioned details, the project cost amounting to Rs. 27.45 Cr. which is Rs. 44,205/- per kW inclusive of GST for the installation of subject solar power plant seems to be reasonable as this is falling within the expected market price range of Rs. 42,500/- per KW to Rs. 56,900/- per KW.

Note:

- Project cost is analyzed based on lump sum cost only and not item wise.
- Project cost is assessed for the date of this report only and due to price fluctuations it may vary from time to time.

2. EXPENDITURE: As per observation made during site visit and information provided by the company management, solar plant installation work has not started yet and company has not incurred any expenses.



PART H

PHOTOGRAPHS

Proposed Rooftop where solar panels to be installed



PART I**OTHER DOCUMENTS & REFERENCES****Annexure-1: Benchmark Cost by MNRE:**

No. 32/24/2020-SPV Division
 Government of India
 Ministry of New & Renewable Energy

Block No. 14, CGO Complex, Lodhi Road,
 New Delhi, Dated 27th October 2021

ORDER

Subject: Amendment in Benchmark costs for Grid-connected Rooftop Solar PV systems for the financial year 2021-22 -reg.

Vide Order no.318/38/2018-GCRT dated 18.08.2021 dated 18.08.2021, benchmark costs including taxes, were issued for FY 2021-22 by the Ministry. Subsequently, applicable Goods & Services Tax (GST) rates have been revised by GST Council for identified renewable energy equipment. In order to address the recent changes in GST rates and also any further changes in GST rates in future, it has been decided to issue benchmark costs excluding GST. For the purpose of calculating CFA available under MNRE Scheme, applicable GST rates may be added to these benchmark costs. Accordingly, undersigned is directed to convey the approval of competent authority for issuing the benchmark costs, excluding GST, for Grid-connected Rooftop Solar PV systems applicable for MNRE Scheme for the year 2021-22. Rooftop solar system capacity-wise benchmark costs are given below:

(A) For General Category States/ UTs:

RTS System Capacity range	Up to 1 kW	> 1 kW upto 2 kW	>2kW Upto 3kW	> 3kW upto 10 kW	>10 kW upto 100 kW	>100 kW upto 500 kW
Benchmark cost (Rs./kW) excluding GST	46923	43140	42020	40991	38236	35886



Market Comparables:**Annexure-2****Project Cost (Mono-Crystalline) included GST**

S. No.	Description	On Tin Roof
1.	Turnkey EPC prices for Design, Supply, Erection, Testing & Commissioning of 250 KW Solar Power Generating System	94,35,000
2.	GST	11,90,000
Total (GST Included)		1,06,25,000 /-

➤ Discom Legal & Liasioning Fees included above.

Project Cost (Mono-Crystalline) included GST

S. No.	Description	On Tin Roof
1.	Turnkey EPC prices for Design, Supply, Erection, Testing & Commissioning of 150 KW Solar Power Generating System	58,55,520
2.	GST On Project	7,44,480
Total (GST Included)		66,00,000 /-

TATA POWER SOLAR**3. Commercial Offer:****3.1 Price for design, supply, installation, testing and commissioning**

Commercial Proposal for Design, Engineering, Supply, Transportation, Installation, Testing & Commissioning of various Solar Rooftop Power Plants as per bill of material above:

Commercials for 150 KWp Solar Rooftop Project

Description	Total
Basic Project Cost for Design, Supply, Installation, Transportation, Testing and Commissioning of equipment for 150 KWp Rooftop Solar Power Plant	55,000/- Rs.
Total Project Cost for Design, Supply, Installation, Transportation, Testing and Commissioning of equipment for 150 kWp Rooftop Solar Power Plant (Including GST of the Project Cost)	82,50,000/- Rs.

Note:-

- Discom legal Charges will be extra as per actual.
- Cleaning Pipes if required by customer will be charged extra.

3.2 General Terms & Conditions

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SOLAR ROOFTOP POWER PLANT

Sno.	Description	HSN CODE	RATE	QTY	Amount	TAX RATE	Tax	Total
1.	SOLAR POWER PLANT (ITEMS)	85414090	52,50,000.00	150 KW	52,50,000	12%	6,30,000	58,80,000
2.	SOLAR POWER PLANT (ERECTION AND COMMISSIONING)	995441	22,50,000.00		22,50,000	18%	4,05,000	26,55,000
					75,00,000		10,35,000	85,35,000
TERMS & CONDITIONS:-								

SR. NO.	PARTICULARS	RATE
1	COMPLETE EPC OF 243 KW SOLAR PV POWER PLANT	89,42,400 /-
2	TOTAL COST OF 70% UP 12% GST IS INCLUDE. AND THE REST 30% UP 18% GST IS INCLUDE	12,34,051/-
3	METER & CONNECTIVITY CHARGE - SOLAR GENERATION METER, BI- DIRECTIONAL METER, CT-PT COST, MODERN & MCB COST IF EXTRA DEMANDED BY DISCOMS	INCLUDED
4	TOTAL PAYABLE (W/O STRUCTURE)	1,01,76,451/-
5	FEBRICATION (WITH SUPPORT)	9,47,700+1,70,586(GST)= 11,18,286/-
6	TOTAL FINAL COST	1,12,94,737/-



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Data by Global Solar Atlas by World Bank Group

GLOBAL SOLAR ATLAS BY WORLD BANK GROUP

Laksar

29.737194°, 078.013861°
NH334A, Laksar, Uttarakhand, India
Time zone: UTC+05:30, Asia/Kolkata [IST]

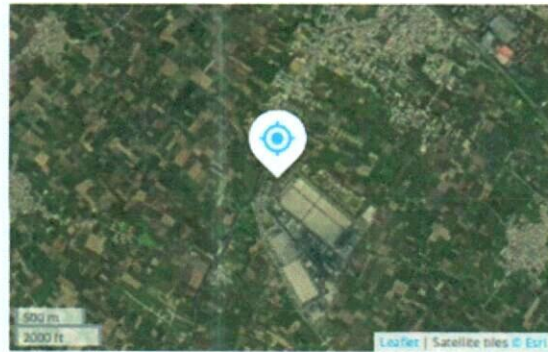
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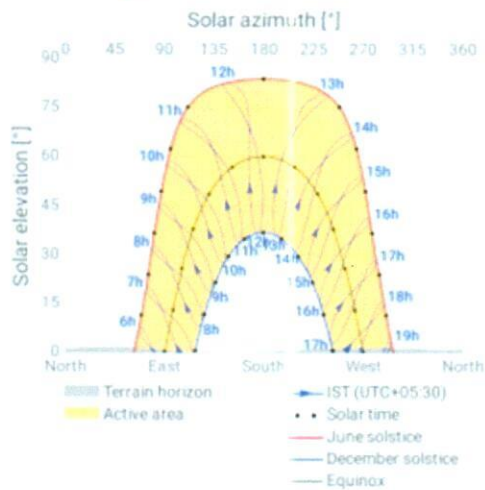
Map data

		Per year
Specific photovoltaic power output	PVOUT specific	1498.3 kWh/kWp
Direct normal irradiation	DNI	1260.8 kWh/m ²
Global horizontal irradiation	GHI	1735.3 kWh/m ²
Diffuse horizontal irradiation	DIF	897.3 kWh/m ²
Global tilted irradiation at optimum angle	GHI opta	1903.3 kWh/m ²
Optimum tilt of PV modules	OPTA	27 / 180
Air temperature	TEMP	24.0 °C
Terrain elevation	ELE	236 m

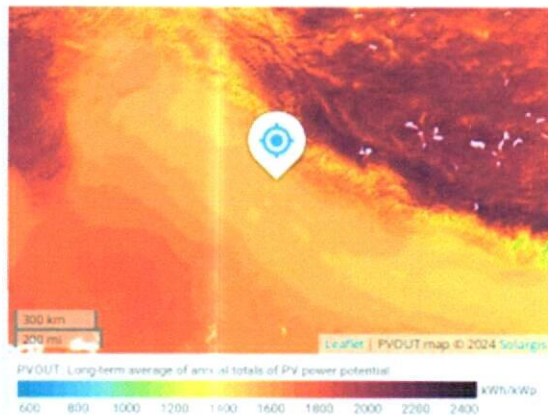
Map



Horizon and sunpath



PVOUT map



LIE REPORT

6.221 ($\pm 5\%$) MWp GRID CONNECTED
SOLAR ROOFTOP POWER PLANT

PV ELECTRICITY AND SOLAR RADIATION

Annual averages

Direct normal irradiation

1260.3

kWh/m² per year

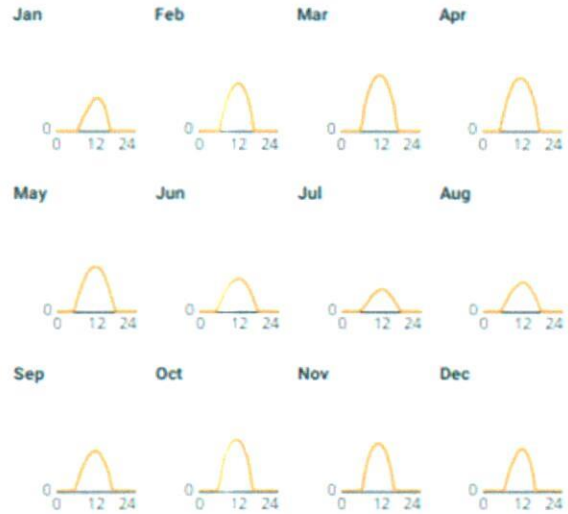
Monthly averages

Direct normal irradiation



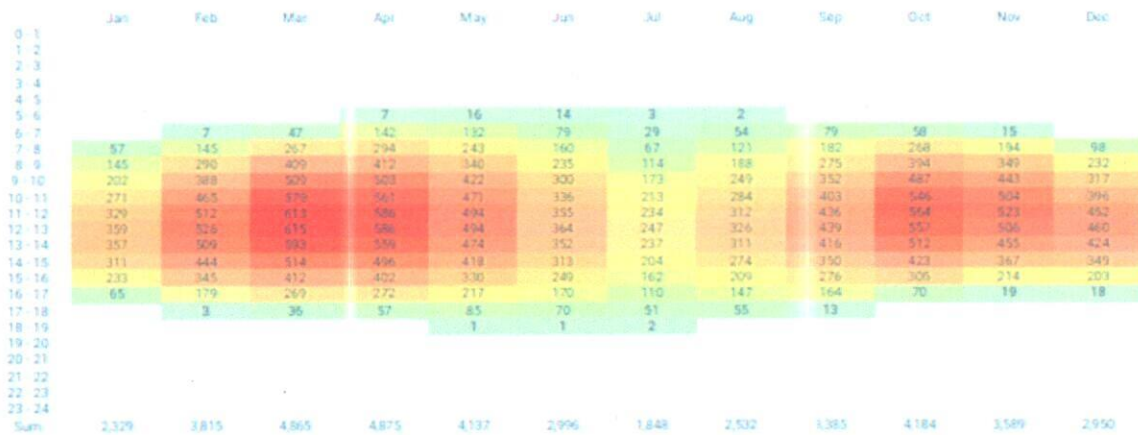
Average hourly profiles

Direct normal irradiation (kWh/m²)

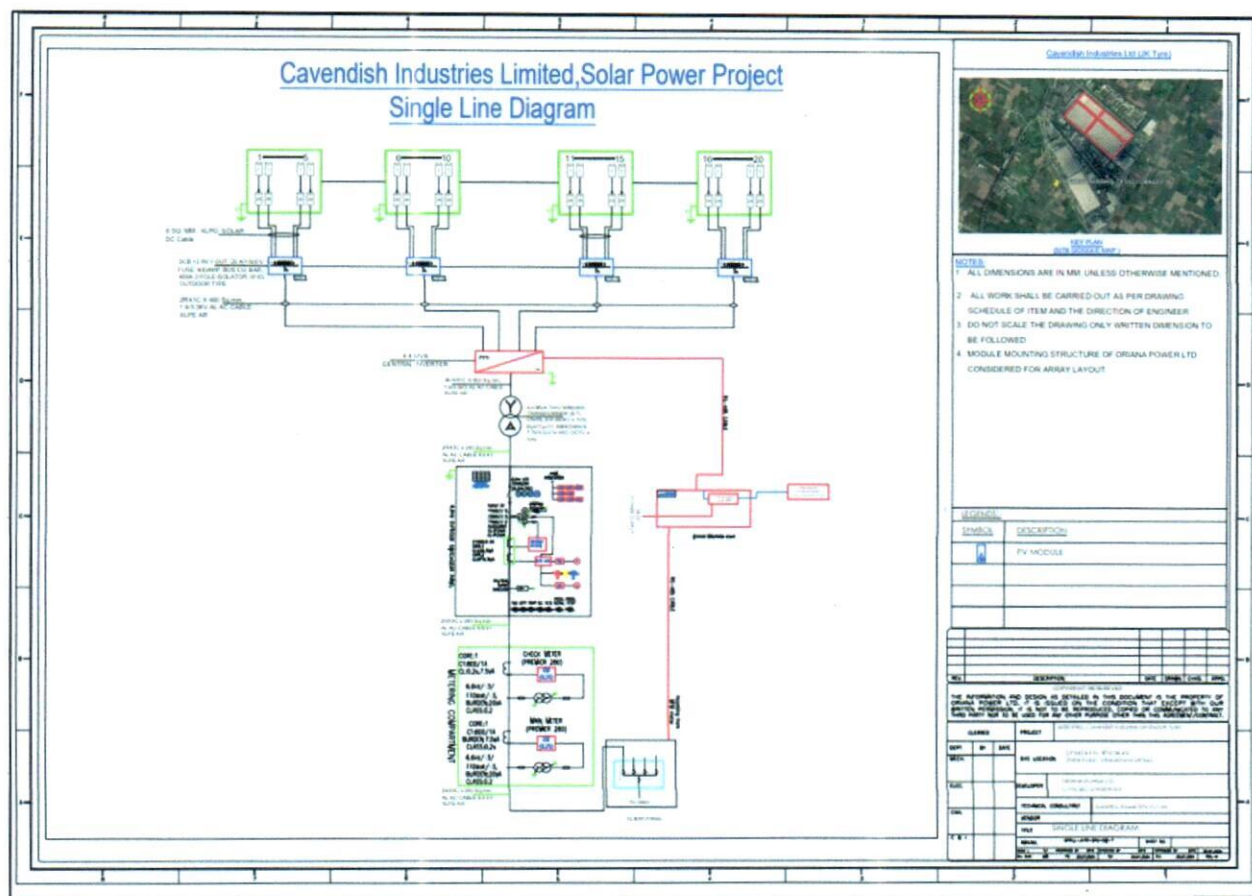


Average hourly profiles

Direct normal irradiation (kWh/m²)



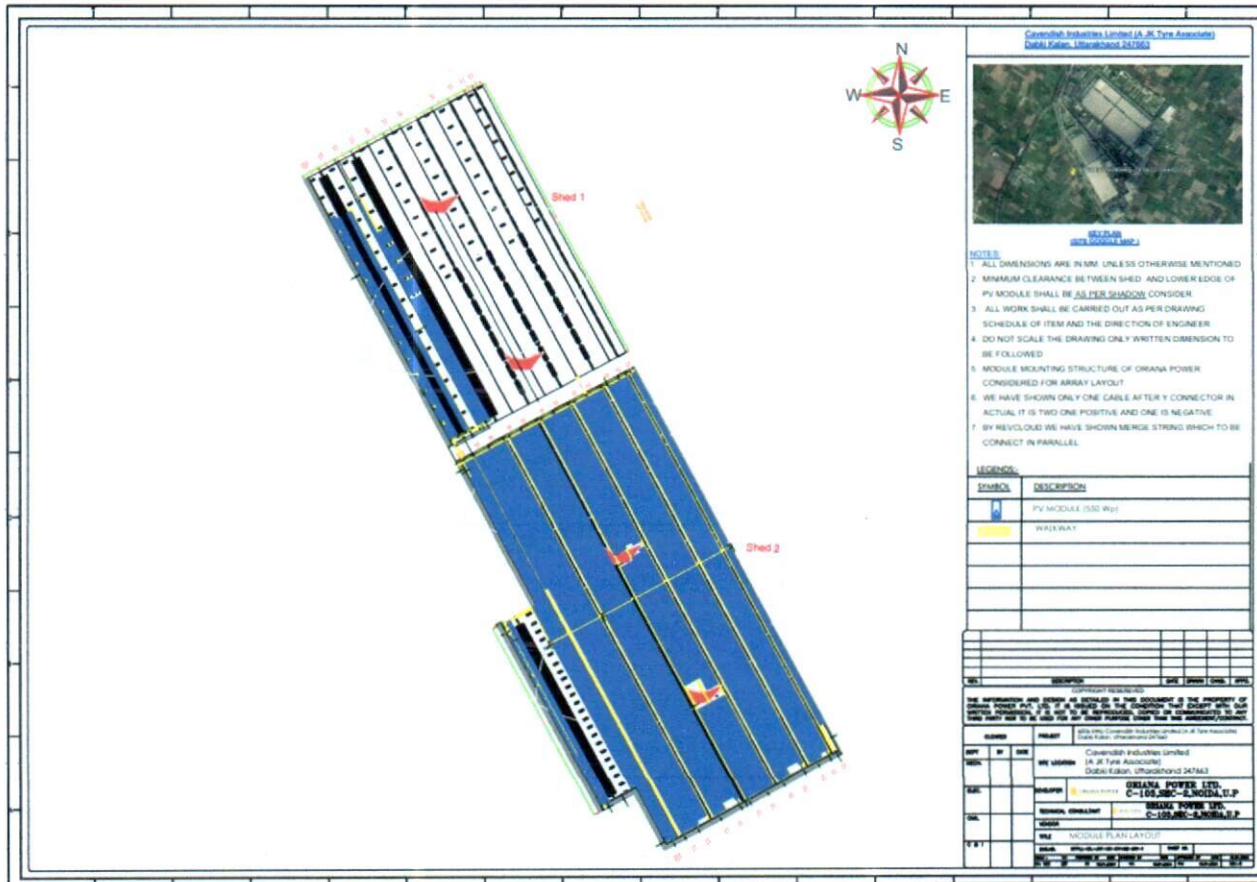
SLD Diagram



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SOLAR ROOFTOP POWER PLANT

Layout



Copy of PPA**POWER DELIVERY AGREEMENT**

This agreement (hereinafter referred to as "Agreement") dated this, the 30th January 2024 (hereinafter referred to as "Execution Date"), is executed at New Delhi.

BY AND BETWEEN

CAVENDISH INDUSTRIES LTD., a company within the meaning of the Companies Act, 2013 having its registered office at 7, Council House Street, Kolkata, West Bengal - 700001, India, and having one of its tyre manufacturing facilities at Laksar, Haridwar, Uttarakhand - 247663, India (hereinafter referred to as "CIL" which expression shall unless repugnant to the context or meaning thereof include its successors and permitted assigns) of the First Part;

AND

TRUERE UP 2 Private Limited, a company within the meaning of the Companies Act, 2013, having its registered office at 202-203, Udyog Kendra Extension-II, Greater Noida, Gautam Buddha Nagar, Uttar Pradesh - 201306, India (hereinafter referred to as "TUPL" which expression shall unless repugnant to the context or meaning thereof include its successors and permitted assigns) of the Second Part.

"CIL" and "TUPL" are individually referred to as the "Party" and collectively, referred to as the "Parties".

WHEREAS

- A. CIL has an existing connection from the local distribution licensee, UPCL, from which it sources electricity for its tyre manufacturing facility at Laksar, Haridwar, and Uttarakhand (hereinafter referred to as "Facility". CIL now wishes to procure a certain portion of its electricity requirement by setting up a solar power plant within the Facility;
- B. TUPL has represented to CIL that it shall design, finance, build and operate a 6.221 MWp (mega-watt peak) solar power plant mounted on the pre-engineered building at the Facility (hereinafter referred to as "Power Plant"), and shall deliver the entire electricity generated from the Power Plant to CIL for consumption at the Facility;
- C. TUPL has further represented to CIL that the Power Plant shall qualify as a 'Captive Power Plant' as envisaged under the Electricity Rules 2005 promulgated under the Electricity Act 2003, subject to compliance by both the Parties with the terms of the Transaction Documents. However, it shall be a continuous responsibility of both the Parties to keep the Power Plant always qualified as 'Captive Power Plant' as required under the Applicable Law to ensure availability of electricity and benefits of 'Captive Power Plant' to CIL continues;
- D. TUPL unconditionally and categorically declares and represents to CIL that it has complied or shall comply, with and conform to Applicable Law for delivery of electricity pursuant to this Agreement under captive mechanism, and should any further requirement of any other Clearances becomes necessary in future for whatever reason, TUPL



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4.8 Consequences on Failure of Maintaining "Captive" Status

In case TUPL fails to maintain the captive status of the Power Plant, for reasons solely attributable to TUPL, it shall compensate CIL for any additional duties, taxes and / or penalties, if become applicable, on CIL in lieu of losing such status of the Power Plant. However, in case of loss of such captive status of the Power Plant is due to reasons attributable to CIL, CIL shall bear any additional duties, taxes and / or penalties, if become applicable.

5. VALIDITY AND TENURE

5.1 This Agreement shall be valid and effective from the Effective Date and shall remain in force till the completion of 15 (fifteen) years from COD (hereinafter referred to as "Term of the Agreement").

5.2 The Parties shall mutually decide on the renewal and the terms and conditions of renewal of this Agreement at least 3 (three) months prior to the expiry of this Agreement.

5.3 Upon the expiry of Term of the Agreement, TUPL shall transfer the Power Plant to CIL at a value of Rs. 1

5.4 During the Term of the Agreement, CIL may also opt to buyback the Power Plant at predefined buyback value as mentioned in Schedule C

5.5 The Parties may discuss, before the expiry or termination of this Agreement, entering into an operation and maintenance agreement under which TUPL shall perform all the operation and maintenance activities of the Power Plant, at mutually agreed price, terms and conditions.

6. TARIFF, RIGHTS TO BENEFITS, MINIMUM GUARANTEE

6.1 TUPL shall bill CIL for the Billable Units on a monthly basis at INR 4.79 per Unit (hereinafter referred to as "Tariff"). The Tariff shall, remain fixed for the Term of the Agreement.

6.2 TUPL represents to CIL that currently there are no charges, losses, duties, cross subsidy surcharge, additional surcharge, taxes, cess and any other nature of cost / expense / overhead being levied to supply of electricity from an on-site solar power plant.

6.3 During the term of the Agreement, all taxes / cess / levies / surcharge / duties etc. on account of delivery or consumption of electricity from the Power Plant (hereinafter referred to as "Overheads"), shall be borne by CIL, subject to Minimum Differential of Tariff. Currently, electricity duty, green cess and parallel operation charges are applicable as per the Applicable Law but not being levied.

6.4 In the event of introduction of any new / unforeseen Overheads, which are currently not mentioned as per Applicable Law, during the term of the Agreement, the same shall be borne by CIL, subject to Minimum Differential of Tariff.



PVSyst Report**PVSyst V7.4.5**

VCO, Simulation date:
03/05/24 19:54
with v7.4.5

Project: Cavendish Industries Limited Laksar, Haridwar,
Uttarakhand 6.2 MWp

Variant: New simulation variant

Oriana power private limited (India)

Project summary**Geographical Site**

CAVENDISH JK TYRE 6.2MWp

India

Situation

Latitude 29.73 °N

Longitude 78.02 °E

Altitude 231 m

Time zone UTC+5.5

Project settings

Albedo 0.20

Meteo data

CAVENDISH JK TYRE 6.2MWp

Meteonorm 8.1 (1996-2015), Sat=100% - Synthetic

System summary**Grid-Connected System**

Simulation for year no 1

No 3D scene defined, no shadings

PV Field Orientation

Fixed planes 2 orientations

Tilts/azimuths 5 / 42 °

5 / 138 °

Near Shadings

No Shadings

User's needs

Unlimited load (grid)

System information**PV Array**

Nb. of modules

11312 units

Pnom total

6222 kWp

Inverters

Nb. of units

1 unit

Pnom total

4400 kWac

Pnom ratio

1.414

Results summary

Produced Energy 8300599 kWh/year

Specific production

1334 kWh/kWp/year

Perf. Ratio PR

84.98 %

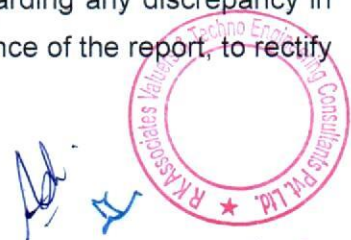
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P50 - P90 evaluation	8



PART J**DISCLAIMER**

1. No employee or member of R.K Associates has any direct/ indirect interest in the Project.
2. This report is prepared based on the standard checklist of documents sought from them and further based on our assumptions and limiting conditions. All such information provided to us has been relied upon in good faith and we have assumed that it is true and correct in all respect.
3. Although we have taken adequate care as much as professionally possible but shall not be liable in future for the incomplete, fabricated, false or distorted information / data provided for the purpose of this assignment.
4. This report offers a General analysis of the project within the specified scope, focusing on total project cost, CUF, and irradiation data. For the sake of clarity it does not encompass any other analysis such as audit, design, DPR, TEV study which is not in scope of work.
5. Structural stability certificate and load stress analysis in respect to the building on which solar panels are required to be installed is not taken separately considering that the implementing agency will take care of all such curcial points during Project implementation.
6. Project implementation, execution, operation is the sole responsibility of the project proponent and for the non-functioning, defaults, defraud of the company & its promoters, R.K Associates shall not be held responsible.
7. This report reflects our opinion based on our knowledge and technical expertise. However, other expert opinions may vary. Therefore, it should not be regarded as the sole opinion.
8. All Pages of the report including annexures are signed and stamped from our office. In case any paper in the report is without stamp & signature then this should not be considered a valid paper issued from this office.
9. Though adequate care has been taken while preparing this report as per its scope, but still we can't rule out typing, human errors, over sightedness of any information or any other mistakes. Therefore, the concerned organization is advised to satisfy themselves that the report is complete & satisfactory in all respect and intimation regarding any discrepancy in the report within 15 (Fifteen) days in writing from the date of issuance of the report, to rectify these timely.



10. R.K Associates encourages its customers to give feedback or inform concerns over its services through proper channel at le@rkassociates.org in writing within 30 days of report delivery. After this period no concern/ complaint/ proceedings in connection with the Lender's Independent Engineering Services will be entertained due to possible change in situation and condition of the subject Project.
11. Our Data retention policy is of THREE YEAR. After this period, we remove all the concerned records related to the assignment from our repository. No clarification or query can be answered after this period due to unavailability of the data.
12. This Lender's Independent Engineering report is governed by our (1) Internal Policies, Processes & Standard Operating Procedures, (2) Information/ Data/ Inputs given to us by the client and (3) Information/ Data/ Facts given to us by our field/ office technical team. Management of R.K Associates never gives acceptance to any unethical or unprofessional practice which may affect fair, correct & impartial assessment and which is against any prevailing law. In case of any indication of any negligence, default, incorrect, misleading, misrepresentation or distortion of facts in the report then please bring all such act into notice of R.K Associates management so that corrective measures can be taken instantly.
13. R.K Associates never releases any report doing alterations or modifications from pen. In case any information/ figure of this report is found altered with pen then this report will automatically become null & void.



LIE REPORT

6.221 ($\pm 5\%$) MWp GRID CONNECTED
SOLAR ROOFTOP POWER PLANT

FOR INTERNAL USE

Place : Noida

SURVEYED BY: Deepak Joshi

Date : 06.03.2024

PREPARED BY: Abhinav Chaturvedi

Note : This report contains 31 pages

REVIEWED BY: Sr. V.P. Projects



For R.K Associates Valuers & Techno Engineering Consultants (P) Ltd.