

LENDERS INDEPENDENT ENGINEERS REPORT



Name of Owner: M/s. Eurja Energy Generation Pvt. Ltd.

Plant Location: - Hindustan Copper Ltd (HCL) Indian Copper Complex (ICC), Near Waste Slag Dumping Area, Moubhandar, Ghatsila, District-Singhbhum, PIN Code-832 303, State-Jharkhand, Country-India.



Report Prepared For

Shivsagar Estate Branch Worli (South)

Devchand House, Ground Floor, Dr. Annie Besant Road, Worli, Mumbai - 400 018,
State - Maharashtra, Country - India

Vastukala Consultants (I) Pvt. Ltd.

B1-001, U/B Floor, Boomerang, Chandivali Farm Road, Powai, Andheri(East), Mumbai - 400 072.

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1. PREAMBLE

M/s. Eurja Energy Generation Private Limited (“The Company” or “EEGPL”) has appointed M/s Vastukala Consultants (I) Pvt. Ltd., Mumbai, (VCIPL) as Lender’s Independent Engineers (LIE) for 1 MW Grid Connected Ground Mounted Solar PV Power Plant in RESCO Mode for 25 Years for Government premises by M/s. Eurja Energy Generation Pvt. Ltd.

The Total Cost incurred for 1000 kW Grid Connected Ground Mounted Solar PV Power Plant in RESCO Mode for 25 Years for Government premises by EEGPL is ₹ 3.29 Crores. EEGPL has appointed VCIPL for the monitoring of 1000 KW Grid Connected Ground Mounted Solar PV Power Plant in RESCO Mode for 25 Years for Government premises.

State Bank of India, Shivsagar Estate Branch, Worli (South), Dr. A.B. Road, Devchand House, Ground Floor, Worli, Mumbai-400 018 has sanctioned the Line of Credit (Term Loan) of Rs. 18.00 Cr under World Bank Scheme for Design, Purchase, Supply, installation, Commissioning, Operations & Maintenance (O&M) of roof top solar projects at various sited with aggregate capacity of 7500 kW_p to be utilized by way of various term loans with a door-to-door tenor of 10 years (including moratorium period of 6 months) from the date of 1st disbursement of each individual Term loan sanctioned for each independent site.

EEGPL has appointed VCIPL for the monitoring of 1000 KW Grid Connected Ground Mounted Solar PV Power Plant in RESCO Mode for 25 Years for Government premises. The Cost of Project for 1000 KW Solar Plant sanctioned by SBI is as under:-

(Rs in Cr)

S. No	Particular	Capacity (kW)	Project Cost
1	Hindustan Copper Ltd (HCL) Indian Copper Complex (ICC)	1,000	3.29
	Total	1,000	3.29



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Regd. Office

BI-001, U/B Floor, BOOMERANG, Chandivali Farm Road, Powai, Andheri East, Mumbai: 400072, (M.S), India

+91 2247495919

mumbai@vastukala.co.in

www.vastukala.co.in



Pursuant to instruction from Relationship Manager (SME), State Bank of India, Shivsagar Estate Branch Worli (South) and subsequent work order from **M/s. Eurja Energy Generation Pvt. Ltd.**, for the appointment of Lender's Independent Engineer, VCIPL's Engineer has visited the project site as on 03.07.2024 with a view to ascertain and certify the quantity and amount of work progressively undertaken/completed by the borrower for Term Loan and LIE is submitting the progress report for the project as under.



2. ASSIGNMENT OVERVIEW

2.1 NATURE OF ASSIGNMENT

To monitor on behalf of lender the progress of the 1 MW Grid Connected Ground Mounted Solar PV Power Plant in RESCO Mode for 25 Years for Government premises by M/s. Eurja Energy Generation Pvt. Ltd.

2.2 SCOPE OF WORK: -

The scope of work is as per work order provided by the company is under: -

- To provide independent recommendations/comments on the quality and performance of project.
- To monitor compliance of applicable Environmental, Health and Safety (EHS) norms post commissioning.
- To submit review of commissioned projects & give its final completion report including its recommendations and observations.
- Projects Vetting. The vetting should cover (i) Project Viability (ii) suitability of technology proposed to be adopted (iii) credentials of technology/equipment supplier and EPC Contractor iv) Review of implementation philosophy/schedule etc.

As per discussion with Bank Official and Company the Project viability is not in the Scope of LIE, therefore the same is not included in LIE Report.

2.3 DATE OF VISIT: -

VC IPL's Engineer has visited the project site as on 03.07.2024 with a view to ascertain and certify the quantity and amount of work progressively undertaken/completed by EEGPL. Mr. Prakash Baraik, Site Engineer of EEGPL (+91 80924 50933) accompanied our Engineer and showed the Solar Plant.

2.4 DOCUMENTS PROVIDED FOR VALUATION: -

The following documents were perused during the said assignment:

- Letter for Sanction of Credit Limit issued by State Bank of India, Shivsagar Estate Branch, Worli (South).
- Company Profile.
- Pan Card, GST Registration Certificate, Udyog Aadhaar, Udyam Registration Certificate, ISO 9001:2015 Certificate.
- List of Work Completed.
- CA Certificate for Cost incurred toward the project certified by M/s. CAGK and Co., Chartered Accountants Mumbai dated 05.06.2024.
- Letter for Commercial Date of Operation submitted by EEGPL to Hindustan Copper Limited dated 21.06.2024.
- Joint Inspection Report.
- Power Purchase Agreement (PPA) made between Hindustan Copper Limited-Indian Copper Complex, Moubhandar, Ghatsila, Jharkhand-832 103 (“Purchaser”) and M/s. SIL Mercury Solar Pvt. Ltd. (Power Producer) for Design, Manufacture, Supply, Erection, Testing and Commissioning including Warranty, Operational & maintenance of 1000 kW_p Grid connected Ground Mounted Solar photovoltaic System at Hindustan Copper Limited-Indian Copper Complex, Moubhandar, Ghatsila, Jharkhand-832 103 dated 03.07.2023 for the period of 25 years from the commercial operation date (COD).
- Minutes of Meeting dated 03.07.2023 between HCI, SIL Mercury Solar and EEGPL.
- Agreement dated 30.06.2023 made between M/s. Eurja Energy Generation Pvt. Ltd. and M/s. SIL Mercury Solar Pvt. Ltd. for the transfer of PPA.
- Novation Agreement dated 03.07.2023 made between Hindustan Copper Limited-Indian Copper Complex (“Power Purchaser”) and M/s. SIL Mercury Solar Pvt. Ltd. (“Transferor”) and M/s. Eurja Energy Generation Pvt. Ltd. (“Transferee”).
- Over all Single Line Diagram dated 29.03.2024.
- String Layout for DC Cables dated 07.06.2024.
- SBI General Bharat Sookshma Udyam Suraksha Policy valid till 17.05.2025 issued by SBI General Insurance Company.

- Overall Plot Plan approved by Electrical Inspector, Energy Department, Jharkhand Electrical Inspectorate, Ranchi vide Certificate No. MAC23112412172 dated 24.11.2023.
- Permission to energize the Solar Power Plant of Capacity 1000 KW_p granted by Senior Electrical Inspector, Energy Department, Jharkhand Electrical Inspectorate, Ranchi vide Certificate No. INS2406058995 dated 04.06.2024.
- 1st Sale Invoice billed to Hindustan Copper Ltd. (HCL) India Copper Complex (ICC) vide Invoice No. EG/TI/24-23/095 dated 02.07.2024.
- Performance Report prepared by EEGPL dated 05.06.2024.

2.5 METHODOLOGY ADOPTED

- ❖ LIE visit to the project site of Grid Connected Ground Mounted Solar PV Power Plant in RESCO Mode for 25 Years for Government premises by EEGPL to inspect the project work undertaken/completed by borrower.
- ❖ Perusal of documents and information provided by the Company.
- ❖ Physical verification of the project site.
- ❖ Explanations and information given by the following executives of the Company,
 - Mr. Prashant Tiwari, Director, EEGPL.
- ❖ Examinations of documents provided by the Company.
- ❖ Selective photographs of the project site are enclosed.
- ❖ Finalization of LIE Report.

3. ABOUT COMPANY & THE PROJECT

3.1. ABOUT COMPANY: -

M/s. Eurja Energy Generation Private Limited (“EEGPL”) is a Private Limited Company incorporated on 16th February 2021. It is classified as non-Govt. Company and is registered at Registrar of Companies, Mumbai. Its authorized share capital is Rs. 1,000,000 and its paid-up capital is Rs. 18,240. Directors of Eurja Energy Generation Private Limited are Mr. Sharad Kumar and Mr. Prashant Kumar Tiwari.

Eurja Energy Generation Private Limited's Corporate Identification Number is (CIN) U40106MH2021PTC355294 and its registration number is 355294. Its registered address is 611, G1-G2, Gold Crest Business Park, L.B.S. Road, Ghatkopar (W) Mumbai- 400 086.

M/s. Eurja Infrastructure (“EI”) is a partnership company based in Mumbai. Mr. Sharad Kumar and Mr. Prashant Kumar Tiwari are partner of Company. EI are system integrators of various solar systems. EI carry out Designing, Engineering, Supply, Installation, Testing & Commissioning. EI are Empanelled Channel Partner of MEDA. EI specialize in Off Grid & On Grid connected system. EI ensure reliability, risk free yields & durability by using quality multi system products complementing each other. EI don't consider Solar PV system as a product rather they treat it as a service that's required in making sure that the client gets the maximum out of the money they invested. EI use components which are BIS & IEC certified. Eurja Infrastructure is driving India's development through clean & low-cost energy systems.

3.2. ORGANISATION STRUCTURE: -

Mr. Sharad Kumar and Mr. Prashant Kumar Tiwari promoters have two organisations with same sharing patten i.e. Organisation 1: **Eurja Infrastructure (EI) (Promoter Company)** & Organization 2 : **Eurja Energy Generation Private Limited (EEGPL) (Applicant Company)**. Prashant Tiwari & Sharad Kumar are Partners & Directors of both the Group company with equal share holding.



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Originally the Power Purchase Agreement (PPA) made between Hindustan Copper Limited-Indian Copper Complex, Moubhandar, Ghatsila, Jharkhand-832 103 (“Purchaser”) and M/s. SIL Mercury Solar Pvt. Ltd. (Power Producer) for Design, Manufacture, Supply, Erection, Testing and Commissioning including Warranty, Operational & maintenance of 1000 kW_p Grid connected Ground Mounted Solar photovoltaic System at Hindustan Copper Limited-Indian Copper Complex, Moubhandar, Ghatsila, Jharkhand-832 103 dated 03.07.2023 for the period of 25 years from the commercial operation date (COD). Later the PPA is transferred through Novation Agreement dated 03.07.2023 made between Hindustan Copper Limited-Indian Copper Complex (“Power Purchaser”) and M/s. SIL Mercury Solar Pvt. Ltd. (“Transferor”) and M/s. Eurja Energy Generation Pvt. Ltd. (“Transferee”).

3.3) ABOUT THE PROJECT

EEGPL has appointed VCIPL for the monitoring of 1 MW Grid Connected Ground Mounted Solar PV Power Plant in RESCO Mode for 25 Years for Government premises located at Hindustan Copper Ltd (HCL) Indian Copper Complex (ICC), Near Waste Slag Dumping Area, Moubhandar, Ghatsila, District-Singhbhum, PIN Code-832 303, State-Jharkhand, Country-India.

S. No	Particular of Project	Project Location	Capacity (kW)
1	Hindustan Copper Ltd (HCL) Indian Copper Complex (ICC)	Near Waste Slag Dumping Area, Moubhandar, Ghatsila, District-Singhbhum, PIN Code-832 303, State-Jharkhand, Country-India	1000
		Total	1000

EEGPL has started the execution of the project. The details execution of the project is mention in the Chapter-4.

3.4) COST OF PROJECT

The Total Cost incurred for 1000 kW Grid Connected Ground Mounted Solar PV Power Plant in RESCO Mode for 25 Years for Government premises by EEGPL is ₹ 3.29 Crores. EEGPL has appointed VCIPL for the monitoring of 1000 KW Grid Connected Ground Mounted Solar PV Power Plant in RESCO Mode for 25 Years for Government premises.

(Rs in Cr)			
S. No	Particular	Capacity (kW)	Project Cost
1	Hindustan Copper Ltd (HCL) Indian Copper Complex (ICC)	1,000	3.29
	Total	1,000	3.29

3.5) APPROVALS AND CLEARANCES

Status of Approvals and clearances is as under: -

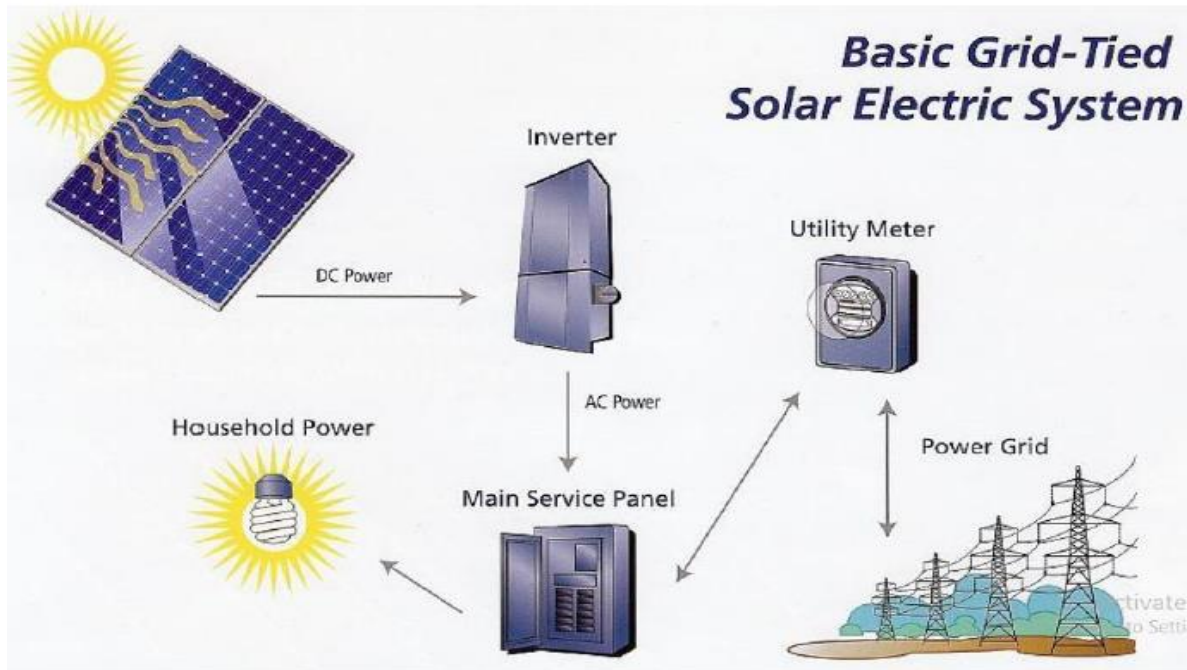
- Overall Plot Plan approved by Electrical Inspector, Energy Department, Jharkhand Electrical Inspectorate, Ranchi vide Certificate No. MAC23112412172 dated 24.11.2023.
- Permission to energize the Solar Power Plant of Capacity 1000 KW_p granted by Senior Electrical Inspector, Energy Department, Jharkhand Electrical Inspectorate, Ranchi vide Certificate No. INS2406058995 dated 04.06.2024.

Company has obtained the necessary approvals and clearances for the commercial operation of project.

3.6) ABOUT TECHNOLOGY ADOPTED: -

EEGPL has adopted Solar Photovoltaic Technology for the 1.00 MW Grid Connected Ground Mounted Solar PV Power Plant in RESCO Mode for 25 Years for Government premises.

The Flow Chart of Basic Grid Connected Solar Electric System is as under: -



Solar Photovoltaic Power Plant consists of solar modules in series and parallel connections; these convert solar radiations into DC electrical power at the pre-determined range of Voltages whenever sufficient solar radiation is available. In order to achieve a higher system voltage, modules are installed in a series arrangement, called a string. These Strings are fed to the Central / String inverters/ Power Control Unit (PCU) to invert solar generated DC power in to conventional 3 phase AC power. AC power from inverters will be linked with the local LT power distribution box for local use or can be exported to the grid.

Solar panels mounted in the field generate DC electric power. The DC electric power generated by the solar panels cannot be used directly. The power is fed to the inverters which invert the direct current into grid compliant AC voltage. The system automatically starts up in the morning when the sun gives sufficient radiation and begins to export power to the grid, provided there is sufficient solar energy and the grid voltage, frequency is within the range. If the grid goes out of range the inverter will be immediately disconnected to avoid islanding and reconnect automatically at a pre-determined time after the grid comes back within range. The basic principle of installation of Solar PV is reduction of utility consumption (Units). The system is so designed that Solar PV generation is given preference over grid supply. The power generated can be directly consumed by interconnecting the same with the existing system.

The capacity of SPV is to be interconnected to the system based on best suited load profile of the system, which can directly reduce the Utility electricity consumption. Solar PV & Grid supply may operate in parallel as per load. However, DG & PV will not operate in parallel. i.e., Whenever grid supply fails and DG is operating at that time PV will be OFF. Or in any case when DG is operating PV will be in OFF mode.

PV Technology and Optimal Capacity: -

In order to maximize the electricity generation, the module placement is very important. As sun travels from east to west due south, modules will get maximum exposure to sun if facing south direction. In addition to this, the panels will be arranged with a uniform profile, so as to reduce shadowing effect. There would be no overlapping of panels in the power plant, and this would reduce any losses that could have occurred due to shadowing. To avoid shadow of adjacent strings of modules optimum distance has been calculated.

Design Classification

The proposed system shall be classified as Grid-connected PV System evacuated at 415 voltage level. The system would consist of fixed-tilt arrays at 15-degree angle from the horizontal plane to maximize insolation capture.

PV Module

The proposed design utilizes poly-crystalline silicon modules. The PV module used for power plant will be TUV, CE certified and conform to IEC 61215, 61701, 61730. The modules would be free from Potential Induced Degradation (PID) phenomenon. All parallel and series connections will be done as per IEC/IS standards. The PV array will be facing south direction to have maximum energy generation throughout the year. PV array will be free from shadows or under tolerating limits.

Module Mounting Structure

The mounting structures on which PV modules are to be placed will be designed as per the IS standards will be tilted at an angle of 15 degrees from the horizontal and will be at a height of 0.3 meters to 0.9 meters on the mounting structures from the ground level, which will ensure proper

ventilation and passage for excess air. Optimum distance is to be ensured in between adjacent PV strings to avoid shadow falling from one string on to the other.

DCDB

A PV array disconnect switch will be required in between PV array and inverter ensuring protection of the PV array in case of any hazard. The cables used for the interconnection of PV modules and strings (combination of the modules) shall conform to IEC 60227 / IS 694, IEC 60502 / IS 1554 (Pt. I & II) taking into account all the de-rating factors like temperature and open circuit voltage and other factors mentioned in the standard. The PV arrays will be placed nearby inverter to minimize the cable losses and associated cost.

All the strings will be paralleled in the junction boxes. The junction box will have IP 65 rating ensuring protection against rain, corrosion and other solid objects.

Inverter

Pure sine wave grid connected solar inverter have been selected for converting DC power into AC.

Each inverter is based on highly efficient IGBT technology with generation voltage of 415 Vac, three phase, 50 Hz. The inverters have a Maximum Power Point Tracker (MPPT). The enclosure of the inverter is dust, vermin and water proof. The inverter meets the all requirements as stipulated in IEC 60529, IEC 62103, IEC 721-3-4, EN 60664-1 and EN 61643-11. The inverter coupled to the PV array is suitable in all aspects for operating with the grid.

The interconnection of the inverters with the AC panel is being done with the help of XLPE cables. All the cables are sized as per IS/IEC standards and as per the fault current, which has to flow in case of any fault. Since the module voltage and current vary considerably, depending upon the weather conditions, the inverter needs to move its working point in order to function optimally. The inverter is using MPPT ensuring maximum power extraction from PV array by tracking the array's maximum power point. The MPPT is based on buck-boost technology ensuring function of inverter in lowest irradiance level too.

Lightning Protection

The PV mounting area considered is sufficiently covered by existing Lightning spikes; additional lightning protection system is not required, hence not considered in present scope.

Monitoring system

The monitoring system shall monitor the electrical and metrological parameters as given below:

- DC voltage for PV arrays
- Global irradiance
- DC current PV
- DC power PV array
- Grid voltage at inverters
- Ambient temperature
- Grid current for inverters
- Status of all the inverters
- Fault of all the inverters
- Frequency
- Grid voltage
- Grid current
- Active grid power
- Reactive grid power
- Energy value from and into the grid
- Daily energy
- Monthly Energy and Annual energy

Cables:-

DC Cables:-

Power cables of adequate rating shall be required for interconnection of:

- Modules/panels within arrays- 1CX4 sq mm CU Solar Cable
- Arrays and inverters - 1CX4sq mm CU Solar Cable

Annealed tinned flexible copper conductor Electron Beam Cross Linked XLPO 120 °C insulated and sheathed Single core 1.8kV DC rated Solar cable as per TUV spec 2Pfg 1169/08.2007 (+ 5 % Tolerance).

AC cable

- Inverters and ACDB – Cu, XLPE , As per IS 1554 , Flexible AC Cable
- AC Distribution Board to Existing - AL, XLPE , As per IS 7098 , Armoured

Circuit breaker

The circuit breaker and accessories will be in general conforming to IEC: 600 56, IS 60947 Part I,II,III , EN 50521 and IS:13118 as applicable. The circuit breaker will be totally re-strike free under all the duty conditions and will be capable of breaking magnetizing current of transformer and capacitive current of unloaded overhead lines without causing over voltages of abnormal magnitudes.

Earthing of Equipment

Earthing is essential for the protection of the equipment and people. Two main grounds used in the power equipment are:

- System earth
- Equipment earth
- LA Earthing

Earth resistance shall not be more than 5 ohms. It shall be ensured that all the earths are bonded together to make them at the same potential. The earthing conductor shall be rated for the maximum short circuit current and shall be 1.56 times the short circuit current. The area of cross-section shall not be less than 1.6 Sq. mm in any case. The array structure of the PV modules shall be grounded properly using adequate numbers of earthing pits. For earthing design IS-3043 is to be referred.

The grounding of the PV array will provide a well-defined low resistance path from selected points of the PV array to the ground.

Civil Works and Array Structures

The structures for mounting PV modules will be made up of GI / Al and designed to withstand wind loads and dead loads as per site conditions according to IS875: Part-3. The foundation design takes into consideration all the loads from solar PV modules with mounting structures and live loads as per the manufacturer's loading data. The design and construction are being done as per provisions laid down in IS Standards. The grade of concrete for the complete foundation shall be at least M-20 as per IS: 456.

Cable trays, Pipes and Conduits

Cable trays, pipes and conduits shall be suitably sized to carry the requisite cables. Necessary embodiments and edge protection angles shall be provided as per functional requirements.

Excess Material Removal

All the materials and equipment employed for construction purpose shall be taken away from the site. All the rubbish and unwanted plant material shall be cleared and dumped away from the site. All areas within and outside the site, which have been used during the construction, shall be cleared and the roof surface shall be left in a safe and aesthetically good condition.

Cable Losses

Power is also lost to resistance in the system wiring. These losses should be kept to a minimum but it is difficult to keep these losses below 3% for the DC system. For this project the total energy loss in the cables has been considered to be 5.0 %.

Boundary Points

Outgoing of Existing Distribution board

Exclusion

- Any modification works on Individual floors other than that required for Solar PV System.
- Electricity Charges & Water charges required during construction.
- Regularization /intimation to statutory agencies unless specifically agreed in Scope
- Dismantling / Removal / Relocation of any tanks, pipes or other structures required for Solar PV installation.

Support form CLIENT

- Storage of Materials
- Water & Electricity required during construction
- Necessary documents required for Approval
- Any other (If required)
- Providing of electrical and civil drawings of the existing systems
- Access for Eurja Infrastructure personnel & the contract workers for carrying out the work.
- The raised structure on the terrace & other temporary structures shall be dismantled at suitable height by client to avoid shadow effect on PV panels.

The advantages of adopting solar photovoltaic technology are:

- No need of arranging, maintaining, and feeding fuel.
- Operating Cost is practically nil, except for manpower for cleaning modules.
- No special manpower necessary for operating and maintaining these systems.
- This is a proven technology and has been used successfully, globally and in India for many decades.
- The components are standardized and reliable.
- No moving parts and hence no wear.
- Main Component, Solar module comes with 25 years of performance warranty.

OBSERVATION: -

Company has selected the best suitable technology for the Project 1 MW Grid Connected Ground Mounted Solar PV Power Plant in RESCO Mode for 25 Years for Government premises.

3.7) ABOUT EPC CONTRACTOR: -

Eurja Energy Generation Pvt. Ltd. has appointed Eurja Infrastructure as an EPC Contractor for the project for Supply, Installation, Testing and Commissioning of the 5 MW Grid Connected Roof Top Power Plant with 25 years of operation & maintenance.

M/s. Eurja Infrastructure (“EI”) is a partnership company based in Mumbai. Mr. Sharad Kumar and Mr. Prashant Kumar Tiwari are partner of Company. EI are system integrators of various solar systems. EI carry out Designing, Engineering, Supply, Installation, Testing &

Commissioning. EI are Empanelled Channel Partner of MEDA. EI specialize in Off Grid & On Grid connected system. EI ensure reliability, risk free yields & durability by using quality multi system products complementing each other. EI do not consider Solar PV system as a product rather they treat it as a service that is required in making sure that the client gets the maximum out of the money they invested. EI use components which are BIS & IEC certified. Eurja Infrastructure is driving India's development through clean & low-cost energy systems.

EI has experience of approx. 8 MW Grid tied Roof top projects of various sizes. EI has worked on RCC , Metal Roof , Ground Mount & Raised Structure Solar PV Mounting. EI has Self-sufficient Engineering, Execution, O & M team.

Services provided by EI is as under: -

- Pre – Bid Consultation
- Project Development
- Roof top Solar
- Ground Mount Solar
- Balance of Plant
- Project Finance
- EPC
- Operation & Maintenance
- Engineering Consultancy
- Undertake Lesioning activities for Net Metering, CEIG, Open Access, Connectivity Approval, Billing issues.
- Preparation & Review of Tender Specification, DPR, Feasibility reports, Detailed Engineering works
- Obtained approval from with Reliance Energy, MSEDCL, TATA Power, Torrent Power & PWD
- Regulation knowledge & guidance
- Expertise in Logistics, Freight forwarding, Warehousing & Distribution, Custom clearance services & Inland Transportation.
- AC Package
- DC package



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THE PROJECT EXECUTED BY EI IS AS UNDER:-

S. No	Name of Agency/ Organization	Capacity (kW)	Purchase Order No., Date & Ordered Qty.	Delivery Schedule	Date of Full Supply	Cost of Project (Rs.)
1	GE, Military Engineering services, Colaba, Mumbai	500	REN/Govt.Build/RESCO Work Order/CR-1/Solar2019-20/2206 dated 2 nd july 2019	60 days	25.03.2021	5,40,00,000
2	GE, Military Engineering services, Kalina, Mumbai	500	REN/Govt.Build/RESCO Work Order/CR-1/Solar2019- 20/2206 dated 2 nd july 2019	60 days	30.03.2021	
3	GE, MES, Ordinance Factory Depot, Kandivali, Mumbai	200	REN/Govt.Build/RESCO/Work Order/CR-1/Solar2019- 20/2206 dated 2 nd july 2019	45 days	13.03.2021	
4	Jharkhand State Cricket Association International Cricket Stadium, H.E.C, Dhurwa, Ranchi-834004	400	JSCA/RNC/134/384-A/2019 dated.05.09.2019	150 days	03.12.2019	1,75,98,712
5	SNDD Womens University & BSNL Administrative Building Juhu, AGE RCC Energy Pvt Ltd, , Mumbai & 100kWp Solar PV Power plant at BSNL , Juhu , Mumbai	600	AGEPL/SECI3MW/SNDD & BSNL/PO, 14/02/2018	45 days	31-03-2018	1,71,48,180
6	CRPF, Nagpur, AGE RCC Energy Pvt Ltd , higna , Nagpur, Maharashtra	1000	AGERCCEPL/SECIL/PROC/ EURJA/CPRF NAGPUR /814,01/06/2018	60 days	26-07-2018	
7	CRPF, Bhandara, AGE, RCC Energy Pvt Ltd, Bhandara, Maharashtra	300	AGEPL/SECI3MW/SNDD & BSNL/PO, 05/08/2018	45 days	10-05-2018	
8	Bharat Sanchar Nigam Limited, Telecom Factory, AGE RCC Energy Pvt Ltd, BSNL Deonar, Mumbai	250	AGERCCEPL/SECIL/PROC/EURJA/BSNL-Deonar/815 dated.01.06.2018	45 days	26-07-2018	
9	Divisional Commissioner Office, Amravati	131	Meda/Amt/Solar//A1- 37/2020-21/355	45 days	19.02.2021	59,94,001
10	Lekhakosh Bhavan & Treasury Office, Amravati	65	Meda/Amt/Solar//A1- 33/2020-21/356 dated 20.10.2020	45 days	18.01.2021	25,58,400
11	SP Office Gondia	70	REN/SOLAR-Gondia/2020- 21/116/2580, dated:24.09.2020	45 days	14.12.2020	27,55,200
12	Serenity CHSL Andheri,Mumbai	25	Eurja/SPV/19/2 dated.07.01.2019	120 days	08-05-2019	14,42,925
13	Ignis Co-operative Housing Society Limited, Thane	30	Eurja/SPV/19/4 dated.15.04.2019	60 days	22-11-2019	1469061

S. No	Name of Agency/ Organization	Capacity (kW)	Purchase Order No., Date & Ordered Qty.	Delivery Schedule	Date of Full Supply	Cost of Project (Rs.)
14	Maharashtra Environmental Engineering Training & Research Academy (MEETRA), Nashik	40	जा. ं. ले. शां /रिनिवदा /२८८/२०१९	180 days	22-12-2019	19,93,938
15	Sanskriti CHS Ltd, Sunrays Infratech, Opposite St. Lawrence High School, Thakur Complex, Kandivali E, Mumbai	29.25	SI / EURJA / SANSKRUTI/ 003 , 8/11/2017	30 days	30-11-2017	15,66,338
16	Railway Station, Roha	10	IES / 18-19 /Eurja/001	45 days	21-01-2019	4,36,650
17	Railway Station, Roha	5	IES / 18-19 /Eurja/001	45 days	21-01-2019	2,71,575
18	Railway Station, Pen	5	IES / 18-19 /Eurja/001	45 days	21-01-2019	2,71,575
19	Railway Station, Apta	5	IES / 18-19 /Eurja/001	60 days	21-01-2019	2,71,575
20	Jai Bharat College of Commerce and Junior College, Mulund Colony, Mulund West, Mumbai	10	SEPL/2018/20 dated.16.03.2018	30 days	28-03-2018	5,98,500
21	Kandivali Education Society's B.K.Shroff College of Arts & M.H. Shroff College of Commerce, Sunrays Infratech, Kandivali W,Mumbai	30	SI / EURJA / 16-17 / 0215 , 18/11/2016	45 days	07-12-2016	19,80,000
22	Bora Agro Foods, Jawaji Buwachi Wadi , Solapur Road , Tal. Daund , Dist . Pune	300	P.O. , 15/06/2017	50 days	30-07-2017	3,45,000
23	Polyrub Extrusions (India) Pvt. Ltd, Behing 3T Logistics, Village Jalisana, Taluka Mandal ,Vithalapur, Road, Dist Ahmedabad, Gujarat	520	PO- SRJ101003 - 1 , 10/10/2017	180 days	20-03-2018	45,32,008
24	Aditya Green Energy Pvt. Ltd, Amberkhane Blood Blank(Indian Redcross Society) , Udgir, Maharashtra	25	AGEPL/PO/Eurja/217 dated.04.11.2017	30 days	15-11-2017	1,90,000
25	J.K Sweets, Sunrays Infrastructure, Malad,Andheri, Mumbai	15	PO- SRJ101058 - 1 ,20/06/2018	30 days	05-07-2018	1,37,377
26	Pratima Ashok Jain, Palghar, Thane	6	Eurja/SPV/19/1 dated.25.11.2018	180 days	25-05-2019	1,68,081
27	Jankalyan Sevashram, Sunrays Infratech, Panvel, Navi Mumbai.	20	SI / EURJA / EXOTIC/ 18-19/008 - Ammedment -1 , 27/02/2019	120 days	19-07-2019	10,56,330

S. No	Name of Agency/ Organization	Capacity (kW)	Purchase Order No., Date & Ordered Qty.	Delivery Schedule	Date of Full Supply	Cost of Project (Rs.)
28	Exotic Palace, Sunrays Infratech , Versova, Andheri, Mumbai	9	SI / EURJA / EXOTIC/ 18-19/008 - Ammedment -1 , 27/02/2019	150 days	19-07-2019	1,82,055
29	Blanche D'souza, Surja Energy, Virar, Thane.	3	Eurja/SPV/19/3 dated.07.01.2019	60 days	25-05-2019	1,83,749
					Total	11,71,51,230

OBSERVATION:-

Eurja Energy Generation Pvt. Ltd. has appointed Eurja Infrastructure as an EPC Contractor for the project. EI has executed more than 25 Solar project of different capacity ranging from 3 kW to 1000 kW. EI has vast experience for the execution of such type of project. 

3.8) ABOUT EQUIPMENT SUPPLIER: -

The major Cost for the Solar Power Plant will be Solar PV Module and Inverter. The Solar PV Module was manufactured & supplied by M/s. Rayzon Solar Pvt. Ltd. and Inverter was manufactured & supplied by Shimato Enterprises Pvt. Ltd.

a. ABOUT RAYZON SOLAR PRIVATE LIMITED: -

Rayzon Solar, India's top solar panel manufacturing company, has achieved a production capacity of 4 GW with the latest TOPCon solar technology. The company operates in 17 countries, including the United States, Europe, and the Middle East, with a strong industrial base in Surat, Gujarat. It is committed to expanding its global presence and plans to inaugurate operations in the USA. Rayzon Solar's success is attributed to its focus on delivering superior products, embracing emerging technologies, and ensuring a greener and more sustainable future.

Rayzon Solar panels are designed to last 25 to 30 years, providing long-term reliability and consistent energy production throughout their validity period. This ensures that investments in solar energy yield returns for decades, making it a sustainable and dependable choice.

b. ABOUT SHIMATO ENTERPRISES PRIVATE LIMITED: -

Shimato Enterprises Private Limited is a Private Limited Company incorporated on 17th January 2011. It is classified as Non-Govt. Company and is registered at Registrar of Companies, Chennai. Shimato Enterprises Private Limited's Corporate Identification Number is (CIN) U74990TN2011PTC078851 and its registration number is 78851. Its registered address is 371 SIDCO Industrial Estate NP Ambattur Chennai-600 098.

Shimato Enterprises Pvt. Ltd. is a flagship company of Evolve Energy Group and is one of the fastest growing Solar EPC (Manufacturing, Procurement and Distribution) company for Rooftop Solar Power Plants with existence in five countries. They service both industrial and domestic requirements, with innovative, affordable solutions.

Evolve has executed 20+ MW of Solar Rooftop Projects for leading MNCs across the world. Highly skilled team, equipped with state of art technology makes Evolve a preferred partner for a host of companies in sector such as Educational Institutions, Port, Airport, Hospitals and many other Industries. Their end-to-end solutions, from Design to maintenance, powered by cost effective and streamlined commissioning processes bring the power of solar within reach.

Evolve is having world class manufacturing unit with in-house testing facilities at Shenzhen, China and Surat, India. Evolve India Solar is the Solar division of SEPL and as a pioneer name in the industry, they are engaged in manufacturing and trading of a wide range of products such as Solar Power Plant, Solar Modules, Solar Inverters and Aluminium Solar Panel Frame.

OBSERVATION:-

The major Cost for the Solar Power Plant will be Solar PV Module and Invertor. The Solar PV Module was manufactured & supplied by M/s. Rayzon Solar Private Limited and Invertor was manufactured & supplied by Shimato Enterprises Pvt. Ltd. The supplier of major Equipments is reputed and well known in the industry.

3.9) INSURANCE

S. No.	Project	Type of Policy	Policy Period	Policy Issuer
1	Complex, Moubhandar,, Hindustan Copper Ltd. Copper, Ghatsila Jharkhand, East Singhbhum, Jharkhand - 832303	SBI General Bharat Sookshma Udyam Suraksha	18.05.2024 to 17.05.2024	SBI General Insurance Company

OBSERVATION:-

Company has taken the insurance policy for Project site.

3.10) IMPLEMENTATION SCHEDULE

Permission to energize the Solar Power Plant of Capacity 1000 KW_p granted by Senior Electrical Inspector, Energy Department, Jharkhand Electrical Inspectorate, Ranchi vide Certificate No. INS2406058995 dated 04.06.2024. and as per Letter for Commercial Date of Operation submitted by EEGPL to Hindustan Copper Limited dated 21.06.2024, COD declared by EEGPL is 21.06.2024.

OBSERVATION:-

During the date and time of our visit, the Plant was in operation and Company has declared the COD on 21.06.2024. Company has also raised 1st Commercial invoice for the month of June-2024. Net meter is not installed. The installation of Net meter is in the scope of HCL.

4. PROJECT EXECUTION

4.1) PROJECT: -

EEGPL has appointed VCIPL for the monitoring of 1 MW Grid Connected Ground Mounted Solar PV Power Plant in RESCO Mode for 25 Years for Government premises located at Hindustan Copper Ltd (HCL) Indian Copper Complex (ICC), Near Waste Slag Dumping Area, Moubhandar, Ghatsila, District-Singhbhum, PIN Code-832 303, State-Jharkhand, Country-India.

S. No	Particular of Project	Project Location	Capacity (kW)
1	Hindustan Copper Ltd (HCL) Indian Copper Complex (ICC)	Near Waste Slag Dumping Area, Moubhandar, Ghatsila, District-Singhbhum, PIN Code-832 303, State-Jharkhand, Country-India	1000
		Total	1000

EEGPL has commissioned 1 MW Grid Connected Ground Mounted Solar PV Power Plant in RESCO Mode for 25 Years for Government premises located at Hindustan Copper Ltd (HCL) Indian Copper Complex (ICC), Near Waste Slag Dumping Area, Moubhandar, Ghatsila, District-Singhbhum, PIN Code-832 303, State-Jharkhand, Country-India. Google Map of the Project Site as under:-



Latitude and Longitude:- 22°36'16.9"N 86°27'08.1"E



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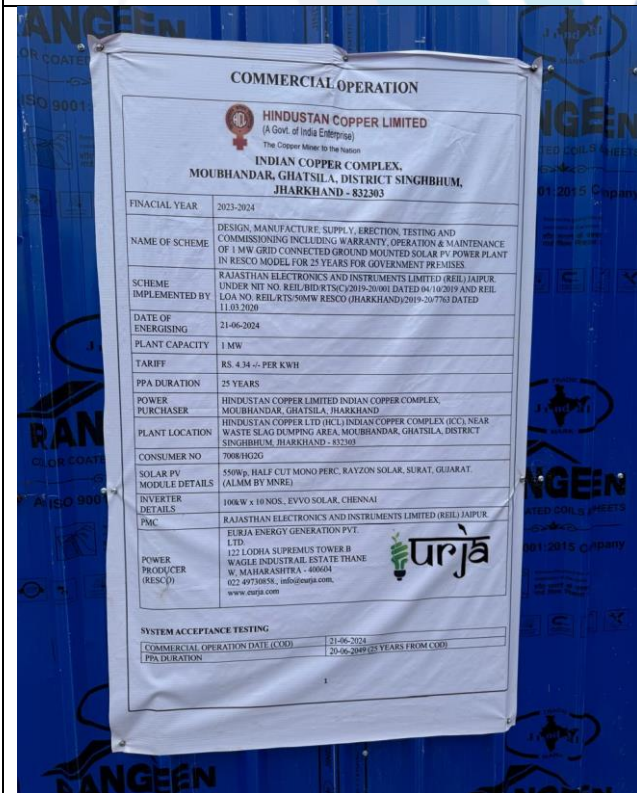


VCIPL's Engineer has visited the project site on 03.07.2024 with a view to ascertain and certify the quantity and amount of work progressively undertaken/completed by EEGPL. Based on the Site Visit and documents provided by the Company, the installation of Solar Plant is completed and the COD was declared on 21.06.2024.

OBSERVATION: -

- 1 MW Grid Connected Ground Mounted Solar PV Power Plant mainly consist of 1,824 Nos. of 550 W_p PV Modules, 10 Nos. of 100 KW_p Inverters, 2 Nos. of Meters, 2 Nos. of ACDB Panels, Structure, etc.
- Installation of all Equipments are completed and the commercial production is going on.
- During the date and time of our visit on 03.07.2024, the Net meter is not installed. The Plant was in operation.
- After our Site Visit the Company Official has informed us that the Solar Plant was commissioned on 31.03.2021 and party has provided the Joint Inspection Report of Meda Official.

The Photographs of 1 MW Grid Connected Ground Mounted Solar PV Power Plant is as under:-



Photographs: -



Photographs: -



Photographs: -



Photographs: -



Photographs: -



Photographs: -



Photographs: -



Photographs: -



Photographs: -



4.2) EXPENDITURE FOR THE PROJECT:-

Company has provided the CA Certificate, as er CA Certificate the cost incurred towards

CAGK & Co
CHARTERED ACCOUNTANTS



To
 The Manager
 State Bank of India
 Shivsagar Estate, Worli
 Mumbai - 400018

Sub: Expenses incurred on Hindustan Copper Limited (HCL) Solar Power Plant Project.

Sir,

We hereby certify that Eurja Energy Generation Private Limited (EEGPL) having CIN: U40106MH2021PTC355294 and registered address at 1st Floor, unit No. 122, Lodha Supremus 2, Road No. 22, Wagle Industrial Estate, Thane West, Thane - 400604 has incurred total expenditure of INR 2,73,01,479 (with self-contribution of INR 80,88,328 and balance from SBI Loan) till date for constructing solar power plant at Hindustan Copper Limited (HCL) Site. Date wise details of expenditure is attached as Annexure to the certificate.

Most of the above expenditure is incurred by Eurja Infrastructure to whom EEGPL has outsourced the construction work.

Above mentioned figures have been verified from books of accounts, documents and records produced before us and we have relied on information and explanation provided by the management of the company for allocation of expenses towards project.

For CAGK And Co.,
 Chartered Accountants.
 FRN: 152566W

Ankit R Chheda.
 Partner.
 M. No. 138182.



Date: 05/06/2024.
 Place: Mumbai.
 UDIN: 24138182BKAFX9391

H.O Add :113, Goldcrest Business Park, Behind Kailash Esplande, Opp Vijay Sales, Ghatkopar (w), Mumbai - 400086.

Mob No. +91 9867123241. Email : ankit@cagkco.com. Branches: Ghatkopar | Mulund | Thane | Bhiwandi.

CA CERTIFICATE

EURJ ENERGY GENERATION PVT LTD TOTAL EXPENDITURE FOR HCL PROJECT

Date	Vendor Name	Amount	Remarks
11-Jul-2023	Sil Mercury Solar Power Pvt Ltd	50,000.00	Self funded by the company
21-Aug-2023	Rajasthan Electronics Limited	10,000.00	Self funded by the company
03-Sep-2023	Bhupindra Singh	10,000.00	Self funded by the company
23-Sep-2023	Bhupindra Singh	21,000.00	Self funded by the company
27-Sep-2023	Shree NM Electrical	1,37,869.00	Self funded by the company
28-Sep-2023	Bhupindra Singh	5,000.00	Self funded by the company
31-Oct-2023	Sunrack Technologies LLP	46,421.00	Self funded by the company
27-Nov-2023	Bhupindra Singh	15,000.00	Self funded by the company
28-Nov-2023	Heliofix Energy Pvt Ltd	2,00,000.00	Self funded by the company
09-Dec-2023	Heliofix Energy Pvt Ltd	5,00,000.00	Self funded by the company
11-Dec-2023	Heliofix Energy Pvt Ltd	2,50,000.00	Self funded by the company
14-Dec-2023	Bhupindra Singh	20,000.00	Self funded by the company
14-Dec-2023	Suman Sinha	20,000.00	Self funded by the company
29-Dec-2023	Bikash Goswami	21,600.00	Self funded by the company
29-Dec-2023	Rajasthan Electronics Limited	5,00,000.00	Self funded by the company
05-Jan-2024	Bhupindra Singh	43,903.00	Self funded by the company
05-Jan-2024	Heliofix Energy Pvt Ltd	5,00,000.00	Self funded by the company
05-Jan-2024	Suman Sinha	25,000.00	Self funded by the company
05-Jan-2024	Suman Sinha	25,000.00	Self funded by the company
14-Jan-2024	Bikash Goswami	18,200.00	Self funded by the company
19-Jan-2024	Bikash Goswami	5,800.00	Self funded by the company
20-Jan-2024	Neutral Publishing House Limited	40,000.00	Self funded by the company
25-Jan-2024	Rajasthan Electronics Limited	10,93,000.00	Self funded by the company
08-Feb-2024	Shree Engineering	11,363.00	Self funded by the company
27-Feb-2024	Amizara Enterprises	2,195.00	Self funded by the company
02-Mar-2024	Sunrack Technologies LLP	28,775.00	Self funded by the company
02-Mar-2024	Heliofix Energy Pvt Ltd	2,63,359.00	Self funded by the company
02-Mar-2024	Suman Sinha	1,00,000.00	Self funded by the company
05-Mar-2024	Bikash Goswami	4,500.00	Self funded by the company
05-Mar-2024	Central Electricals and Electronics Pvt. Ltd.	6,254.00	Self funded by the company
07-Mar-2024	Shree NM Electrical	33,894.00	Self funded by the company
08-Mar-2024	Rayzon Solar Pvt Ltd	5,00,000.00	Self funded by the company
09-Mar-2024	Amizara Enterprises	16,131.00	Self funded by the company
09-Mar-2024	Ramesh Clearing & Forwarding Railway Services	36,680.00	Self funded by the company
11-Mar-2024	Heliofix Energy Pvt Ltd	13,65,480.00	Loan From SBI
11-Mar-2024	Rayzon Solar Pvt Ltd	41,06,012.00	Loan From SBI
11-Mar-2024	Suman Sinha	50,000.00	Self funded by the company
13-Mar-2024	Shree Engineering	2,00,000.00	Self funded by the company
15-Mar-2024	Gaurang Auto Manufacturers	28,000.00	Self funded by the company
15-Mar-2024	Suman Sinha	50,000.00	Self funded by the company
17-Mar-2024	Amulya Enterprises	44,923.00	Self funded by the company
18-Mar-2024	Pattliputra Concrete	24,249.00	Self funded by the company



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18-Mar-2024	Rayzon Solar Pvt Ltd	91,06,944.00	Loan From SBI
19-Mar-2024	Bhadra Services - (Sadanand Bhadra)	2,700.00	Self funded by the company
19-Mar-2024	Bhupindra Singh	13,000.00	Self funded by the company
19-Mar-2024	Waa Cables Pvt Ltd	3,36,300.00	Loan From SBI
20-Mar-2024	Bhupindra Singh	10,000.00	Self funded by the company
21-Mar-2024	Bhupindra Singh	5,000.00	Self funded by the company
22-Mar-2024	BKP4 Technologies	49,560.00	Self funded by the company
22-Mar-2024	Shree Engineering	1,45,740.00	Self funded by the company
23-Mar-2024	Ashish Roy	5,000.00	Self funded by the company
23-Mar-2024	Rakesh Kumar Agarwal	4,000.00	Self funded by the company
24-Mar-2024	Bhadra Services - (Sadanand Bhadra)	44,300.00	Self funded by the company
24-Mar-2024	Bhadra Services - (Sadanand Bhadra)	3,000.00	Self funded by the company
24-Mar-2024	Bhadra Services - (Sadanand Bhadra)	3,000.00	Self funded by the company
24-Mar-2024	Bikash Goswami	5,276.00	Self funded by the company
03-Apr-2024	Suman Sinha	50,000.00	Self funded by the company
04-Apr-2024	Bhupindra Singh	14,500.00	Self funded by the company
15-Apr-2024	Chandresh Cables Pvt Ltd	4,44,730.00	Loan From SBI
15-Apr-2024	Rajasthan Electronics Limited	3,98,250.00	Loan From SBI
15-Apr-2024	Rayzon Solar Pvt Ltd	24,83,712.00	Loan From SBI
15-Apr-2024	Shimato Enterprises Pvt Ltd	9,71,723.00	Loan From SBI
16-Apr-2024	Bhadra Services - (Sadanand Bhadra)	40,000.00	Self funded by the company
19-Apr-2024	Bhadra Services - (Sadanand Bhadra)	56,000.00	Self funded by the company
30-Apr-2024	R R Controls	25,000.00	Self funded by the company
30-Apr-2024	R R Controls	25,000.00	Self funded by the company
30-Apr-2024	Amizara Enterprises	78,232.00	Self funded by the company
30-Apr-2024	National Cement Particle	10,000.00	Self funded by the company
01-May-2024	Bhadra Services - (Sadanand Bhadra)	7,258.00	Self funded by the company
01-May-2024	Bikash Goswami	6,823.00	Self funded by the company
03-May-2024	Vaibhav Logistics	1,58,760.00	Self funded by the company
03-May-2024	TCI Freight	1,51,900.00	Self funded by the company
03-May-2024	Organised Trans Solution	1,09,760.00	Self funded by the company
03-May-2024	Hema Packers and Movers	48,020.00	Self funded by the company
03-May-2024	Ashish Roy	20,000.00	Self funded by the company
03-May-2024	Neutral Publishing House Limited	40,000.00	Self funded by the company
07-May-2024	Dangi Engineering	13,200.00	Self funded by the company
07-May-2024	National Cement Particle	15,000.00	Self funded by the company
11-May-2024	Bhadra Services - (Sadanand Bhadra)	20,600.00	Self funded by the company
11-May-2024	National Cement Particle	25,632.00	Self funded by the company
11-May-2024	Vedika Construction	8,400.00	Self funded by the company
12-May-2024	Vedika Construction	10,000.00	Self funded by the company
13-May-2024	Suman Sinha	30,000.00	Self funded by the company
13-May-2024	Vedika Construction	10,000.00	Self funded by the company
15-May-2024	Bhadra Services - (Sadanand Bhadra)	2,000.00	Self funded by the company
16-May-2024	Vastukala Consultant	53,100.00	Self funded by the company
17-May-2024	Bhadra Services - (Sadanand Bhadra)	2,000.00	Self funded by the company



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22-May-2024	Bikash Goswami	2,400.00	Self funded by the company
22-May-2024	Bhadra Services - (Sadanand Bhadra)	2,000.00	Self funded by the company
24-May-2024	Bhadra Services - (Sadanand Bhadra)	2,100.00	Self funded by the company
27-May-2024	Bhadra Services - (Sadanand Bhadra)	2,000.00	Self funded by the company
27-May-2024	R R Controls	1,00,000.00	Self funded by the company
27-May-2024	Vedika Construction	30,000.00	Self funded by the company
29-May-2024	Bhadra Services - (Sadanand Bhadra)	1,600.00	Self funded by the company
29-May-2024	Bhadra Services - (Sadanand Bhadra)	7,950.00	Self funded by the company
29-May-2024	Bikash Goswami	3,900.00	Self funded by the company
29-May-2024	Bhadra Services - (Sadanand Bhadra)	20,600.00	Self funded by the company
01-Jun-2024	Shree Engineering	11,328.00	Self funded by the company
01-Jun-2024	Dhanbad Electro Power Meters	20,296.00	Self funded by the company
	Shimato Enterprises Pvt Ltd	16,04,277.00	Expense Incurred but Payment is pending
	TOTAL	2,73,01,479.00	



Company has incurred additional cost after the issue of CA Certificate and the details for the same is as under:-

S. No.	Vendor Name	Amount (Rs.)
1	Chandresh Cables Pvt Ltd	18,79,361
2	Hema Packers And Movers	980
3	Organised Trans Solution	2,240
4	R R Controls	1,00,000
5	Rayzon Solar Pvt Ltd	25,74,428
6	TCI Freight	3,100
7	Vaibhav Logistics	3,240
8	Vastukala Consultant	5,900
9	Vedika Construction	1,600
10	Ramesh Clearing	1,600
11	Pramod Kumar Baraik	5,000
12	Dangi Engineering	5,000

S. No.	Vendor Name	Amount (Rs.)
13	Rakesh Kumar Agarwal	6,400
14	Sanjay Pal	5,000
15	Krishna Kumar Dhibar	4,000
16	Krishna Kumar Dhibar	5,000
17	Rakesh Kadam	6,000
18	SBI Insurance	31,483
19	Employee Imprest	1,20,040
20	Eastern Trade	5,664
21	Raj Sales	2,800
22	Dulal Chandra	2,000
23	SK Ashraf	5,000
24	SK Ashraf	5,000
25	Amizara	3,481
26	TCI Freight	1,53,000
27	Gaurang Auto	3,360
28	Employee Imprest	95,315
29	Accelios Solar	2,28,525
30	Nespro	5,457
31	Bhadara Enclosure	5,192
32	Guarang Auto	3,360
33	Amizara	18,412
34	Amizara	1,388
35	Gandhi Electrical	11,226
36	Ravi Earthing	13,128
37	Ravi Earthing	3,186
38	Ashsish Roy	18,850
39	Ashsish Roy	10,000
40	Ashsish Roy	11,500
41	Sudipto Mukherjee	23,600

S. No.	Vendor Name	Amount (Rs.)
42	Ajay Kumar Employee Interest	38,458
43	Mahaveer Electrical	1,687
44	Rr Enterprises	7,316
45	Suraj Ispat	5,830
46	SK Steel	4,150
47	Ganesh Trading	1,251
48	Glolitans	17,100
49	Glolitans	17,100
50	Glolitans	17,100
51	Krishna Kumar Dhibar	17,160
52	Sanjay Pal	15,000
53	Moni Devi	9,900
54	Gupta Fabrication	8,446
55	Mahabeer Das	13,000
56	Shivshakti	24,850
57	Shyam Steel	2,100
58	Shayam Steel	15,525
59	Amizara	1,758
60	Shyam Steel	21,320
61	Amizara	3,481
	Total	56,32,348

OBSERVATION:-

1. As per invoice and CA Certificate provided by the company the total cost incurred for the of 1 MW Grid Connected Ground Mounted Solar PV Power Plant in RESCO Mode is Rs. 2.73 Crores.
2. After the issue of CA Certificate company has also incurred the cost of Rs. 0.56 Crores.
3. Therefore, the total cost incurred toward the project is Rs. 3.29 Crores.
4. Company has purchased addition 528 Nos. of PV Modules to increase the generation of plant on DC side and Company has provided the invoice of Rs. 43,42,391.00/- for the same out of which Company has only considered Rs. 25,74,428.00/- for the Project Cost and balance is borne by Party. During the date and time of our visit, the same was not arrived at HCL Site and the same is in transit.

5. NOTES, LIMITATIONS, DISCLAIMERS & CAVEATS

Notes, Limitations, Disclaimers & Caveats forms important part of the report.

- ❖ The Lender's Independent Engineer report is made to review the progress of project of 1 MW Grid Connected Ground Mounted Solar PV Power Plant in RESCO Mode, outlining the activities completed along with the status.
- ❖ Our Engineer has visited the project site of 1 MW Grid Connected Ground Mounted Solar PV Power Plant in RESCO Mode on 03.07.2024 with a view to ascertain and certify the quantity and amount of work progressively undertaken by the borrower.
- ❖ LIE progress report is based on the physical verification of the site on 03.07.2024, invoices provided, discussions held with the Directors of the Company and information and explanation given & documents provided. Accordingly, the percentage of work of completion of project activities is worked out. The photographs are enclosed.
- ❖ The Company has provided the necessary documents. LIE has referred the same for preparation of report.
- ❖ Company has not executed the EPC Contract with Eurja Infrastructure.
- ❖ Installation of Net Metering is pending.
- ❖ Our report does not cover verification of ownership, title clearance, or legality and subject to adequacy of engineering / structural design. The report is delayed as compared with the visit date because of delay in receipt of documents.
- ❖ It should be noted that VCIPL's project progress assessments are based upon the facts and evidence available at the time of assessment and the documents provided. The lenders should do the progress assessment from time to time.
- ❖ The legal documents pertaining to the ownership of the properties has been referred to on its face value and that is presumed that Bank /financer have got the same verified through its legal counsel. We do not certify the veracity of the documents. This report does not certify valid or legal or marketable title of any of the parties over the property. Our report does not cover verification of ownership, title clearance, or legality and subject to adequacy of engineering / structural design.
- ❖ Our report is only for the use of the party to whom it is addressed, and no responsibility is accepted to any third party for the whole or any part of its contents.

- ❖ It is presumed that the soft copies of documents are taken from the originals duly tested and verified at the party's end.
- ❖ The progress report is made based on our visit, information furnished, discussions, documents made available at the time of visit. We presume optimistically that the project assessed by us will be a top success project. In case on a future date if the project does not come up to an expectation of the lenders and borrowers, due to various factors i.e., socio, economic and political factors in this region and country, any decrease in projections, profits, non-repayment of regular installments of loan and interest thereon, the VCIPL should not be held responsible on a future date. The market scenario in India at particular and the whole world at large is at volatile trend since last many months and future cannot be anticipated as of date.
- ❖ Our report should be read along with disclaimers. We have given our opinion as the percentage of work completion of the project as on date of visit to the project site.

6. SUMMARY



6.1) WORK COMPLETION FOR THE PROJECT: -

Permission to energize the Solar Power Plant of Capacity 1000 KW_p granted by Senior Electrical Inspector, Energy Department, Jharkhand Electrical Inspectorate, Ranchi vide Certificate No. INS2406058995 dated 04.06.2024. and as per Letter for Commercial Date of Operation submitted by EEGPL to Hindustan Copper Limited dated 21.06.2024, COD declared by EEGPL is 21.06.2024.

Company has purchased addition 528 Nos. of PV Modules to increase the generation of plant on DC side and Company has provided the invoice of Rs. 43,42,391.00/- for the same out of which Company has only considered Rs. 25,74,428.00/- for the Project Cost and balance is borne by Party. During the date and time of our visit, the same was not arrived at HCL Site and the same is in transit.

OBSERVATION:-

During the date and time of our visit, the Plant was in operation and Company has declared the COD on 21.06.2024. Company has also raised 1st Commercial invoice for the month of June-2024. Net meter is not installed. The installation of Net meter is in the scope of HCL. The 1st Commercial invoice is enclosed for reference: -

		INVOICE				
		SELLER : EURJA ENERGY GENERATION PVT. LTD. 122, Lodha Supremus 2, Road No. 22, Wagle Industrial Estate, Thane-W, Maharashtra- 400604 GSTIN 27AAGCE3294DIZO				
Invoice No	: EG/TI/24-23/095	As per PPA claus 7.6 late payment surge. This invoice if paid beyond its due date, a late surchrge at the rate of 1.25% per month calculated on the amount of outstanding payment. As per PPA claus 7.6 early payment. Discount will be provided in line with JSERC guidlines define in regulations. As per JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020, claus 10.76, (Prompt Payment Rebate) For payment of bills of retail Tariff by the consumer within 5 days of issue of bill, a rebate of 2% (1% Online Payment Rebate and 1% Prompt Payment Rebate) on the bill amount, excluding the taxes, cess, duties, etc., shall be allowed.				
Invoice Date	:02/07/2024					
Due Date	:03/08/2024					
PPA Sign Receipt No.	:e0d02c5e40b3660098f5 Dated:01-07-2023					
Novation Agreement Receipt No.	:eda57c47f163b180eec5 Dated:01-07-2023					
Bill To		Existing Consumer No.				
Hindustan Copper Ltd. (HCL) Indian Copper Complex (ICC)		7008/HG2G				
Moubhandar, Ghatsila, Dist. Singhbum, Jharkhand-832303		Billing Period:				
		Jun-24				
#	Item & Description	HSN/SAC Code	Qty (kWh)	Rate per kWh	Previous Bill Amt	Amount
A	Solar Electricity Unit Delivered Meter Details: Serial No: X2214593, X2166756 As per sheet attached	2716000	42191.94	4.34		1,83,113.02
	Total			Total		1,83,113.02
					Round Off	-0.02
					Due Amount	1,83,113.00
Online Payment Rebate					1,831.13	1,831.13
Prompt Payment Rebate					1,831.13	1,831.13
Net Payble On/Before 09-07-2024 (through Digital Mode)						1,79,450.74
Net Payble On/Before 09-07-2024 (through Offline Mode)						1,81,281.87
Payment After Due Date 31-07-2024 (1.25% Late Payment)					2,288.91	1,85,401.91
Bank Details:- Name of Company: Eurja Energy Generation Pvt. Ltd. Name of Bank: State Bank Of India Name of Branch: Shivsagar Estate Worli Account No.: 40530035849 IFSC Code (For RTGS/NEFT): SBIN0001154					 Authorised Signatures	
Terms & Conditions					Track Your Payment Summary	

OBSERVATION:-

1. The Project is commissioned and COD for the Project is 21.06.2024.

6.2) LIE SCOPE OF WORK: -

- To provide independent recommendations/comments on the quality and performance of project.

LIE Comments:- EEGPL has selected the best suitable technology for technology for the Project 1 MW Grid Connected Ground Mounted Solar PV Power Plant in RESCO Mode. The EPC Contractor for the project is having huge experience for the implementation and operation of such type of project. The major Cost for the Solar Power Plant will be Solar PV Module and Invertor. The Solar PV Module was manufactured & supplied by M/s. Rayzon Solar Pvt. Ltd. and Invertor was manufactured & supplied by Shimato Enterprises Pvt. Ltd. The supplier of major Equipments is reputed and well known in the industry.

Based on the technology and equipment procured by the EEGPL, we are on the opinion that the performance of the plant will be optimum subjected to proper operation and maintenance.

- To monitor compliance of applicable Environmental, Health and Safety (EHS) norms post commissioning.

LIE Comments:-

The generic environmental and safety concerns likely are given in Table as under:-

Specific Requirements	Level of Concern	Mitigation Measures
Lopping and Pruning of Trees for shadow free areas on roof	Moderate	None required, if there are no trees adjacent to building. In case of trees, which cast shadow on the roof, permissions from competent authorities are to be obtained for periodic lopping and/or pruning of trees through life cycle of facility.
Availability of Water	Moderate	None required, if assured dedicated extension from existing water supply system to the building. If not, services in terms of a new municipal water supply connection or commercial water tankers are to be availed. If commercial water tankers are not viable or not dependable then a new tube well has to be installed to serve the washing/cleaning needs of the panels. Required permissions for a new tube well

Specific Requirements	Level of Concern	Mitigation Measures
		from competent authorities and consents from building owner are to be obtained, as may be required.
Disposal of damaged and/or discarded panels	Moderate	None required, if there are take-back arrangements with manufacturer or supplier(s). If not, damaged/discarded panels can be disposed as per the local laws for disposal of hazardous wastes.
Safety of installers and O&M Personnel	Moderate	Can be managed by taking care of basic safety measures e.g. providing safety gears like boots, hard hats, and safety belts while working at heights.
Safety and Fire Hazards	Moderate	Can be managed by taking care of basic safety measures like providing rubber mats, gloves, first-aid box, fire extinguishers to handle all type of fires and well-lit exit routes while installers and O&M personnel at work, in case of fire or any type of emergencies.

OBSERVATION: -

1. EEGPL has made the necessary provisions for the EHS Cencerns.

- To submit review of commissioned projects & give its final completion report including its recommendations and observations.

LIE Comments:-

Ref:- Chapter:- 6.1

- **Projects Vetting. The vetting should cover**

Scope of Work	LIE Comments
i. Project Viability	As per discussion with Bank Official and Company the Project viability is not in the Scope of LIE, therefore the same is not included in LIE Report.
ii. Suitability of technology proposed to be adopted	Ref:- Chapter-3.6
iii. Credentials of technology/equipment supplier and EPC Contractor	Ref:- Chapter-3.7 & 3.8
iv. Review of implementation philosophy/ schedule etc.	Ref:- Chapter-3.10

7. OPINION

Based on the physical inspection and verification of project site, information and explanation given to us and the documents referred by us; we are of the opinion that the installation and commissioning of 1 MW Grid Connected Ground Mounted Solar PV Power Plant in RESCO Mode for 25 Years for Government premises located at Hindustan Copper Ltd (HCL) Indian Copper Complex (ICC), Near Waste Slag Dumping Area, Moubhandar, Ghatsila, District-Singhbhum, PIN Code-832 303, State-Jharkhand, Country-India by M/s. Eurja Energy Generation Pvt. Ltd. is completed subject to observations made in the main report.

Date:-16.07.2024

Place:- Mumbai

For Vastukala Consultants (I) Pvt. Ltd.

Umang A Patel

Registered Valuer

Chartered Engineer (India)

Reg. No. IBBI/RV/04/2019/10803