dun & bradstreet

Project Cost Vetting Report

Rayzon Energy Private Limited

(A subsidiary of Rayzon Solar Limited)

Table of Contents

Executive Summary

Company Information	
Name of the Company	**Rayzon Energy Private Limited** (hereinafter referred to as **"REPL"** or **"the Company"**)
Date of incorporation	6th January 2025
Constitution	Private Limited Company
Registered Office	Blk 109, Nr Hariya Talav, B/h Aron Pipes Tal Mandvi, Karanj Olpad Surat, Gujarat, 394110 India
Holding Company	Rayzon Solar Limited - Surat
Proposed Nature of Activity	Manufacturing of Solar Cells

Management Team		
1	Mr. Hardik Ashokbhai Kothiya	Director
2	Mr. Chirag Devchandbhai Nakrani	Director

Project Details	
Project Type	Greenfield
Industry / Sector	Renewable Energy
Project Brief	M/s Rayzon Energy Private Limited is a subsidiary of Rayzon Solar Limited. Rayzon Solar Limited's operations - *An operational manufacturing unit of **3000 MW** (MegaWatt) modules, consisting of 600 MW **Mono PERC Line** & 2400 MW **Topcon Line** at Block No. 105, B/H Aron Pipes, B/H Hariya Talav, Kim Mandvi Road, Karanj, Surast, Gujarat – 394110.* - *An operational manufacturing unit to produce Solar PV Modules using **TOPCon cells** with an installed capacity of **3000 MW** as well an upcoming manufacturing unit (projected to be operationalize by October 2025) to*

	*produce Solar PV Modules using **TOPCon cells** with an installed capacity of **2000 MW** at Village: Sava, Taluka: Mangrol, Surat, Gujarat India.* *Accordingly, the Company* will have *a combined Module Manufacturing Facility of **8000 MW.*** **Rayzon Energy Private Limited (REPL)** has proposed to set up the manufacturing facility to produce Solar Cells using **TOPCon** technology which has installed capacity of **3500 MW (MegaWatt)** at RS No. 198, 197, 199/002, 196/002, Village: Kathvada, Taluka: Mangrol, Dist: Surat, Gujarat – 394120 India.
Registered Office	Blk 109, Nr Hariya Talav, B/h Aron Pipes Tal Mandvi, Karanj Olpad Surat, Gujarat, 394110 India.
Unit Address	RS No. 198, 197, 199/002, 196/002, Village: Kathvada, Taluka: Mangrol, Dist: Surat, Gujarat 394120 India.
Current Status / Site Visit Observations	The Company has acquired the land for the project. The Company has received quotations for the proposed plant and machinery for the project. As observed during the site visit, the Company has not initiated any work at the proposed site and the land is currently laying barren. As informed by the Company, currently, the land development work is in progress.

Scope of Work

The report will include a detailed analysis on the below Scope of work.

- Capex Analysis
    - Assessment of land cost
    - Assessment of building and civil cost
    - Assessment of plant & machinery cost
    - Assessment of utilities and miscellaneous fixed assets
    - Assessment of reasonableness of the project cost

Date of Inspection

D&B-India visited the proposed project of the Company on 22nd January 2025 to get first-hand view of proposed site, basic infrastructure facilities such as water, power, approach roads, and manpower etc. available at proposed location, and to review the current status of proposed project.

Team of consultants

The team of consultants who have worked on the project has been mentioned below –

Mr. Pampapathy Anchala – He holds a Bachelor of Engineering (Electrical and Communication Engg) from 1972 batch of Indian Institute of Science, Bangalore. He also holds a Master of Business Administration from 1980 batch of Osmania University, Hyderabad. He has over 40 years of experience in solar industry. He has worked in a public sector, E.C.I.L for 14 years as design engineer/manager and shifted to the private sector. He was initially in the manufacturing sector of Solar PV modules, then in business development and entered into the design engineering, system integration, installation and commissioning of solar power plants for the past 20 years. Presently he is engaged in the project appraisals and technical evaluation of Solar PV cell plants, EVA and back sheet plants, solar glass plants, module plants and power plants.

Mr. Uday Parikh – An MBA-Finance with 10 years of Professional Experience in the field of Finance, having 5 years of experience in Management Consulting and Project Appraisal Services. Experience in Project Appraisal and Project Finance domain covering aspects related to technical feasibility, commercial and financial viability, risk & mitigation mechanism for Greenfield and Brownfield projects. Appraised projects across manufacturing &

service sectors covering industries such as Solar, Steel, Chemicals, Textiles, Steel, Paper, Food Processing, Power, Hotel, Hospital, University, Real Estate, Packaging, Pharmaceuticals project etc.

Project Cost Vetting

M/s Rayzon Energy Private Limited is a subsidiary of Rayzon Solar Limited.

Rayzon Solar Limited's operations

- *An operational manufacturing unit of **3000 MW** (MegaWatt) modules, consisting of 600 MW **Mono PERC Line** & 2400 MW **Topcon Line** at Block No. 105, B/H Aron Pipes, B/H Hariya Talav, Kim Mandvi Road, Karanj, Surast, Gujarat – 394110.*
- *An operational manufacturing unit to produce Solar PV Modules using **TOPCon cells** with an installed capacity of **3000 MW** as well an upcoming manufacturing unit (projected to be operationalize by October 2025) to produce Solar PV Modules using **TOPCon cells** with an installed capacity of **2000 MW** at Village: Sava, Taluka: Mangrol, Surat, Gujarat India.*

*Accordingly, the Company will have a combined Module Manufacturing Facility of **8000 MW.***

Rayzon Energy Private Limited (REPL) has proposed to set up the manufacturing facility to produce Solar Cells using **TOPCon** technology which has installed capacity of **3500 MW (MegaWatt)** at RS No. 198, 197, 199/002, 196/002, Village: Kathvada, Taluka: Mangrol, Dist: Surat, Gujarat – 394120 India.

Manufacturing Capacity

Following assumptions are made for assessing the plant capacity per annum.

1. Working hours per day - 23

2. Number of working days-335

3. Cell size 182X 210 sqmm

4. Cell wattage – 9.62 Wp

Following is the summary of plant capacity considered for the proposed project.

Particular	Installed Capacity
Days Per Year	335
Hours per Day	23
Uptime (Hours/Year)	7705
Cell Size (in MM)	182*210
Cell Power (in Wp)	9.63
No of Cells Per Hour	46740
No of Cells Manufactured	360131700
Capacity in MW	**3468**

Source: Main Line Supplier Quotation & D&B-India Estimate

The installed plant capacity is 3500 MW however the total plant capacity is 3.468 GW with the above assumptions of 9.62 Wp per cell but in practice, the output depends on the effective working hours in the year and the average wattage of the cells which in turn depends on the quality of the wafer and the process.

Site Visit Pictures and Observations

The site pictures taken during the visit as shown below

Proposed Site

Project Cost Details

The break-up of the project cost of INR 16,506.54 million for the proposed project has been provided below:

INR million

Particulars	INR million
Land Cost	172.73
Building & Civil Works	1,954.50
Plant & Machinery & Other Utilities – Excl. GST	12,703.15
Plant & Machinery & Other Utilities – Packing Forwarding Freight and Installation – Excl. GST	6.74
GST on Plant & Machinery & Other Utilities incl. Packing Forwarding Freight and Installation	1026.61
Contingency	313.81
Hard Cost	**16,177.54**
Preliminary & Preoperative Expenses	159.50
Interest during construction	169.50
Soft Cost	**329.00**
Total Project Cost	**16,506.54**

Details of the sub-head of the project cost are discussed in the sub-sections below

Land Cost

The Company has acquired 1,07,149 square meters of land at RS No. 198, 197, 199/002, 196/002, Village: Kathvada, Taluka: Mangrol, Dist: Surat, Gujarat 394120 India as per the copies of sale deed shared with D&B-India. The total cost of land acquisition is considered at INR 172.73 million which is considered as part of project cost.

Following is the summary of the land parcels acquired for the project.

Sr. No.	Particulars	Area (Sq. Mtrs.)	Sale Consideration	Stamp Duty & Other Charges	Amount (INR million)	Sale Deed Date
1	RS No. 198, Village: Kathvada, Taluka: Mangrol, Dist: Surat, Gujarat, India	48,265	48.28	2.85	51.12	As per the Sale deed copy dated 28 Jan 2025
2	RS No. 197, Village: Kathvada, Taluka: Mangrol, Dist: Surat, Gujarat, India	28,003	54.61	3.22	57.83	As per the Sale deed copy dated 30 Jan 2025
3	RS No. 199/002, Village: Kathvada, Taluka: Mangrol, Dist: Surat, Gujarat, India	8,849	17.26	1.02	18.27	As per the Sale deed copy dated 30 Jan 2025
4	RS No. 196/002, Village: Kathvada, Taluka: Mangrol, Dist: Surat, Gujarat, India	22,032	42.96	2.54	45.50	As per the Sale deed copy dated 30 Jan 2025
	Total	**1,07,149**	**163.10**	**9.63**	**172.73**	

Source: Copies of Sale Deeds

The proposed land area seems adequate for the project.

Building & Civil Works Cost

The estimated total building and civil construction works cost is INR 1,954.50 million as per the quotation received from ECR Buildtech Pvt. Ltd. dated 13.5.2025 and Ritutech dated 31.5.2025.

Sr. No.	Particulars	Total Cost (INR Million)
1	Earth Work	170.13
2	Concrete & Form work	360.17
3	Structural Steel & Reinforcement	256.49
4	Water Proofing	33.00
5	Misc. Work -Structural	6.37
6	Road & Storm Water	159.66
7	Masonry, Plaster and Pointing	109.41
8	Flooring, Skirting and DADO	72.40
9	Doors, Windows and Ventilators	5.13
10	Painting	14.14
11	Plumbing	9.52
12	Sanitary Fixtures	6.22
13	Celings and Partitions	8.33
14	Misc. Works	2.30
15	Pile Works	167.55
16	Compound Walls	39.20
	Total Construction Cost	**1420.00**
	Total Construction Cost incl. GST	1491.00
	SUPPLY & ERECTION OF PRE- ENGINEERED BUILDING inclusive of GST	463.50
	Total Cost of Building Incl. Fire & Safety, HVAC, PCW & Wall partition, ceilings and Other Accessories	**1954.50**

Source: REPL

As per D&B-India's assessment of similar projects in the past, the proposed civil and factory building cost for the project seems to be reasonable as the per GW cost of civil for the proposed project comes to INR 558.43 million at installed capacity however as per industry standards it comes in the range of INR 450.00 million to INR 600.00 million per GW of capacity.

Plant & Machinery Cost

The Company has estimated a cost of INR 13,736.49 million for the plant and machinery which also includes utilities and other fixed assets for the project.

Sr. No.	PI No	Date	Company Name	Product	Qty	Basic Value	ing and Forwarding Charges- Imcl.	ht Charges- Imcl.	lation Commisioning and Testing Charges - Imcl.	Total Basic Amount (INR) without GST	GST on Packing & Forwarding, Freight and Installation Charges	GST on P&M	Total	Conversion	Total (INR)	Total (INR Million)	Quotation Expiry date	Quotation Expired/ Not Expired
1	BVT/042/BVT_RAYZON/2024 -25/Rev-1	25-03-2025	Bangalore Vacuum Technology	NW ISO DN 50 SS304 SEAMLESS PIPES THICK :2MM PUMP TO SCRUBBER AND STAND BYSCRUBBER TO RUNNING SCRUBBER	1,859.00	2,600.00	7,08,289.10	7,08,289.10	58,79,586.00	3,00,12,250.00	11,12,974.20	8,70,012.00	57,03,412.00	1.00	4,27,10,619.20	42.71	30.09.2025	Not Expired
				DN 50 SS304 ELBOW 90 DEGREE	2,113.00	820.00						3,11,878.80	20,44,538.80	1.00				
				DN 50 SS304 T-JOINT	452.00	1,840.00						1,49,702.40	9,81,382.40	1.00				
				ALUMINIUM KF 50 COUPLING (CLAMP, O-RINGAND CENTER-RING EACH 1 NO.)	3,204.00	705.00						4,06,587.60	26,65,407.60	1.00				
				ALUMINIUM DN40 COUPLING (CLAMP, O-RINGAND CENTER-RING EACH 1 NO.)	280.00	610.00						30,744.00	2,01,544.00	1.00				
				KF40 TO DN 63 REDUCER SS304	515.00	3,500.00						3,24,450.00	21,26,950.00	1.00				
				DN63 CLAMPING SET (DN 63 CENTRING ORINGCLAW CLAMPS)	515.00	1,190.00						1,10,313.00	7,23,163.00	1.00				
				KF 50 TO 40 REDUCER SS304	185.00	2,700.00						89,910.00	5,89,410.00	1.00				
				DN ISO KF-50 FLEXIBLE BELLOW 250 MM LONG	130.00	3,098.00						72,493.20	4,75,233.20	1.00				
				DN ISO KF-50 FLEXIBLE BELLOW 150MM LONG	669.00	2,700.00						3,25,134.00	21,31,434.00	1.00				
				MANUALLY OPERATED 2 WAY VALVE KF-50	512.00	14,500.00						13,36,320.00	87,60,320.00	1.00				
				SOCKET END BORED KF-50 FLANGE	4,656.00	1,000.00						8,38,080.00	54,94,080.00	1.00				
				GI SUPPORT: GI CHANNEL, L-PLATES,STRAIGHT PLATES, BOLT WITH SPRING NUTS,PIPE CLAMP	1.00	29,81,000.00						5,36,580.00	35,17,580.00	1.00				
2	GnBS/KITPL/Dec-24/005_Rev-1.1	09-05-2025	GnBS Eco Co Ltd, South Korea - (Kiansh International Technologies Pvt. Ltd Exclusive Authorized Sales and Service Representative of GnBS in India)	GnBS Plasma & Wet Gas AbatementSystem – NSPW-KAN-II for TOPConSolar Cell Manufacturing withRedundancy Plan	38.00	85,000.00	-	-	-	27,91,36,600.00	-	-	$ 32,30,000.00	86.42	27,91,36,600.00	279.14	30.09.2025	Not Expired
				Actuator 3way ball valve WS3BNW50-65D-SV-CCW for Redundancymanagement	108.00	1,200.00				1,12,00,032.00	-		$ 1,29,600.00	86.42	1,12,00,032.00	11.20		
3	S2025032101	21-03-2025	Shenzhen S.C New Energy Technology Corporation	3.5 GW TOPCon Production Line Turnkey Solution on G12R (182 x 210 mm) wafer basis	1.00	7,50,00,000.00	-	-	-	6,48,15,00,000.00	-	-	$ 7,50,00,000.00	86.42	6,48,15,00,000.00	6,481.50	30.09.2025	Not Expired
4	RZS/297624 Rev. # 02	03-01-2025	Spectrum PharmaTECH Consultants Pvt. Ltd.	CLEANROOM & MEP PACKAGES +CIVIL, STRUCTURE AND ARCHITECTURE PACKAGES	1.00	2,50,00,000.00	-	-	-	2,50,00,000.00	-	45,00,000.00	2,95,00,000.00	1.00	2,95,00,000.00	29.50	30.09.2025	Not Expired
5	5673138	06-04-2025	Atlas Copco India Ltd	100% Oil Free (Class 0) Screw Compressor	3.00	1,84,56,196.00	6,53,349.34	-	-	5,53,68,588.00	99,663.46	99,66,345.84	6,59,88,283.18	1.00	6,59,88,283.18	65.99	30.09.2025	Not Expired
6	Rayzon-202401	04-01-2025	Shanghai Electronics Engineering Design & Research Institute Co., Ltd. (SEEDRI)	Design for 3.5 GW Cell project	1.00	$3,72,000.00	-	-	-	3,21,48,240.00	-	-	$ 3,72,000.00	86.42	3,21,48,240.00	32.15	30.09.2025	Not Expired
7	Offer/JRF/REP/25-26/O-021 B	07-04-2025	JR Fibreglass Industries Pvt. Ltd.	Fume Scrubbing System	1.00	37,07,92,000.00	-	-	-	37,07,92,000.00	-	6,67,42,560.00	43,75,34,560.00	1.00	43,75,34,560.00	437.53	30.09.2025	Not Expired
8	LP/24-25/111	06-01-2025	Luthra Pneumsys	SITC of compressed air pipeline	1.00	5,13,59,335.00		-	-	5,13,59,335.00	-	92,44,680.30	6,06,04,015.30	1.00	6,06,04,015.30	60.60	30.09.2025	Not Expired
9	UHP/25-26/Ray/155004	19-06-2025	UHP Technologies Pvt Ltd	GDS : Gas Delivery Equipment and Distribution System	1.00	69,66,00,000.00	-	-	-	69,66,00,000.00	-	12,53,88,000.00	82,19,88,000.00	1.00	82,19,88,000.00	821.99	30.09.2025	Not Expired
				CDS : Chemical Delivery Equipments and Distribution System	1.00	48,40,00,000.00	-	-	-	48,40,00,000.00	-	8,71,20,000.00	57,11,20,000.00	1.00	57,11,20,000.00	571.12		
10	4135522	10-05-2025	Atlas Copco India Ltd	Oil Free Air Compressor Model ZR500 VSD	1.00	EUR 6,55,000.00	-	-	-	6,41,44,150.00	-	-	EUR 6,55,000.00	97.93	6,41,44,150.00	64.14	30.09.2025	Not Expired
11	QD1025/KP/R0	09-05-2025	AVANT GARDE CLEANROOM & ENGG. SOLUTIONS PVT. LTD.	Supply & Erection of Items for HVAC & PCW Work for 3.5 GW Solar Cell Manufacturing Plant	1.00	1,70,00,00,000.00	-	-	-	1,70,00,00,000.00	-	30,60,00,000.00	2,00,60,00,000.00	1.00	2,00,60,00,000.00	2,006.00	30.09.2025	Not Expired
12		09-05-2025	Zuvay Technologies Pvt. Ltd.	Offline Tools	1.00	$16,01,436.00	-	-	-	13,83,96,099.12	-	-	$ 16,01,436.00	86.42	13,83,96,099.12	138.40	06.10.2025	Not Expired
13	MG/24-25/264-268/R2	13-05-2025	MEMBRANE GROUP INDIA PVT LTD	UPW, DILUTE ETP & RECYCLING, ABATEMENT ETP AND RECYCLING, CONCENTRATE ETP, AND ZLD SYSTEM (CAPACITY-3.5 GW) INCL. Design, Engineering, Supply, Installation & Commissioning of Intermediate Transfer System	1.00	1,30,52,00,000.00		-	-	1,30,52,00,000.00	-	23,49,36,000.00	1,54,01,36,000.00	1.00	1,54,01,36,000.00	1,540.14	30.09.2025	Not Expired
14	Jyona/ Rayzon /2024-25/1256	19-06-2025	Jyona Power	Electrical	1	500000000				50,00,00,000.00	-	90000000	59,00,00,000.00	1	59,00,00,000.00	590.00	30.09.2025	Not Expired
15	IkyamProposalforS/4HANAImplementation	24-01-2025	IkyamSolutions Pvt. Ltd.	SAP Implementation	1	176000000				17,60,00,000.00	-	31680000	20,76,80,000.00	1	20,76,80,000.00	207.68	30.09.2025	Not Expired
16		21-06-2025	RIYA ADVISORIES & PROJECTS	2 nos of Feeder Bay Suitable for Double Circuit 66KV Cable Line to be erected at 66 KV GETCO Source S/S		14422700				1,44,22,700.00	-	2596086	1,70,18,786.00	1	1,70,18,786.00	17.02		
				66kv ,Double Circuit (6+1) 630 sq.mm XLPE U/G cable, from 66 KV GETCO S/S		49147525				4,91,47,525.00	-	8846554.5	5,79,94,079.50	1	5,79,94,079.50	57.99		
				66KV S/S at Client End- 2 X 30 MVA Double Bay, 66/11 kV S/S		30650650				3,06,50,650.00	-	5517117	3,61,67,767.00	1	3,61,67,767.00	36.17		
				Civil Work at client end		17939925				1,79,39,925.00	-	3229186.5	2,11,69,111.50	1	2,11,69,111.50	21.17		
				Open Access		5240000				52,40,000.00	-	943200	61,83,200.00	1	61,83,200.00	6.18		
				66 KV (E), 630 mm. sq. XLPE Power Cable.- GETCO SS		80850000				8,08,50,000.00	-	14553000	9,54,03,000.00	1	9,54,03,000.00	95.40		
				2X 30 MVA, 66/11 kV Power transformers		80000000				8,00,00,000.00	-	14400000	9,44,00,000.00	1	9,44,00,000.00	94.40		
17		19-06-2025	Krishna Corporation	Fire & Safety	1	24042975				2,40,42,975.00	-	4327735.5	2,83,70,710.50	1	28370710.5	28.37	30.09.2025	Not Expired
			Total							**12,70,31,51,069.12**	**12,12,637.66**	**1,02,53,92,670.64**			**13,73,64,93,253.30**	**13,736.49**		

Source: REPL

DUN & BRADSTREET INFORMATION SERVICES INDIA PVT. LTD. * MUMBAI *

The exchange rate (1 USD= 86.42 and 1 Euro= 97.93) has been considered from 1 Dec. 2024 to 25 Feb. 2025 Source: https://www.x-rates.com/average/?from=USD&to=INR&amount=1&year=2025

The Company has not considered customs duty for import of equipment as they propose to avail benefits under Manufacturing and Other Operations in Warehouse Regulations (MOOWR) / Export Promotion Capital Goods (EPCG) scheme of the Government of India. Therefore, cost of imported components does not include any expenditure towards customs and other import duties.

It is to be noted that quotations are subject to price changes without notice. The quotations are valid till 30.9.2025.

The Company has obtained quotations from reputed suppliers for proposed project. The suppliers are having adequate experience and expertise in providing after sales service for identified equipment's. *As per D&B-India's assessment of similar projects in the past,* ***the proposed P&M cost for the project seems to be on a lower side*** *as the per GW cost of P&M including MFA for the project comes to around INR 3,924.71 million against the industry average of INR 4,750.00 million to INR 5,500.00 million.*

As discussed with the Company the reason for lower P&M cost is that while the majority of market players execute their projects through turnkey contractors who manage the end-to-end design, procurement, and construction processes at a bundled premium the Company follows a more efficient and cost-conscious strategy. Rather than outsourcing the entire scope, the Company breaks down the project into specific packages and deals directly with individual suppliers and vendors. This disaggregated approach enables more granular control over each component of the project, resulting in substantial cost savings. One of the key differentiators is the direct involvement of the promoters in procurement negotiations. This hands-on involvement not only builds stronger relationships with suppliers but also ensures that the Company secures the most competitive prices available in the market.

Key Supplier Credentials:

- **Bangalore Vacuum Technology:** Bangalore Vacuum Technology started in the year 2004, is known for manufacturing, supplying and trading Vacuum Furnaces & Vessels. The product range offered is inclusive of Vacuum Furnaces, Drying Ovens and Helium Gas Leak Detectors. Some of the sectors where the offered products find wide applications are biological and nuclear & atomic research. Few of the customers include BARC Mumbai, BARC Mysore, IIAP Bangalore and ISRO Bangalore,

  They are in the field of manufacturing of below equipment from past 15 years.

  - ✓ High-temperature Vacuum Furnaces
  - ✓ RF/DC Sputtering system
  - ✓ Vacuum Thin Film Coating Systems
  - ✓ Vacuum Glove Boxes, Vacuum Chambers
  - ✓ Industrial Vacuum furnaces
  - ✓ Powder Coating units (using Flash Evaporation method for powder processing for thermal evaporation)
  - ✓ Ultra-high vacuum accessories
  - ✓ All kinds of Vacuum pump (Dry, Oil)
  - ✓ Vacuum valves (Butterfly Valve, Air admittance Valves, Right angle valves, etc.,)
  - ✓ Vacuum measuring Gauges (Digital High Pressure Pirani, Penning Gauge & Analog Pirani , Penning Gauges)
  - ✓ Diffusion Pump & Liquid Nitrogen Trap
  - ✓ KF Clamps & Couplings, Bellow pipelines and
  - ✓ Special purpose systems & fabrication (customer built)

  They also undertake Annual Maintenance Contract (AMC) for all types of vacuum related projects & Servicing of Vacuum Pumps.

- **Shenzhen S.C New Energy Technology Corporation:** Shenzhen S.C New Energy Technology Corporation was founded in 2003, is a national high-tech equipment manufacturer with capabilities into R&D, manufacturing & sales of photovoltaic solar cell manufacturing equipment. S.C has manufacturing bases covering more than 200,000m2 in Shenzhen, Guangdong Province and Changzhou, Jiangsu Province; with a total of over 7,000 employees and an R&D team of over 1,200 personnel in 2023. With focus on solar photovoltaic industry, manufacturing and supply of solar cell manufacturing equipment, S.C provides equipment of many types mainly: wet chemical equipment series, horizontal furnaces series, plate-type/inline equipment series, laser equipment series, metallization equipment series and smart manufacturing

equipment series. Today with ranking 1st in the industry in terms of production and sales volume for 7 consecutive years, S.C has grown into one of the largest solar cell manufacturing equipment suppliers in the world.

- **GnBS Eco Co Ltd**: It was formerly GNBS Engineering Co Ltd, is a Korea-based company primarily engaged in the manufacture and sale of eco-friendly devices. The Company's products include scrubbers, traps and plasma plume removal devices. The scrubber is a harmful gas treatment device that combines plasma and wet cleaning methods. Traps are devices for increasing productivity and extending the lifespan of vacuum pumps in manufacturing processes such as semiconductors and displays using physical and chemical properties. Plasma plume removal device is a device that uses low-temperature, low-power plasma to remove plume.

- **Atlas Copco India Ltd.:** Atlas Copco was founded in 1873, in Stockholm, Sweden. The Atlas Copco Group is a world-leading provider of sustainable productivity solutions. The Group serves customers in more than 180 countries with products and services focused on productivity, energy efficiency, safety and ergonomics. Atlas Copco India, established in 1960, is the country's leading manufacturer of innovative solutions in air compressors and industrial gases, energy efficient vacuum pumps, portable compressors, light towers and generators, ergonomically designed industrial tools and assembly systems. They cater to the segments including general engineering, aerospace, automotive, manufacturing and process industries, oil and gas, construction, food and beverage, entertainment, among others.

- **Luthra Pneumsys:** It is based in Mumbai, Maharashtra has been manufacturing a range of pneumatic & hydraulic components to cater to the needs of automotive, pharmaceutical, food and plastic industries since 1974. The product range includes John Guest Advance Piping Solutions, Compressed Air Fittings, John Guest Plumbing Pipes and Fittings, "Push In" Plumbing Pipes & Fittings, John Guest India Plumbing Catalog, John Guest Pure Water Fitting and LLDPE Tubes and Food Grade Fitting and LLDPE Tubes Grade. These products find applications in several media, such as compressed air, gases, pure water, plumbing and many more.

- **UHP Technologies Pvt Ltd.:** It supports the new age industry like Photovoltaic, Semiconductor, BioPharma etc., in India apart from Oil & Gas, Nuclear, Petrochemical, Pharmaceutical and conventional segments. The business scope includes Engineering Facilities and Safety & Automation solutions for CORT - Corrosive, Oxidizing, Reactive & Toxic Gases & Chemicals. UHPTech provides custom built Gas Cabinets, Chemical Delivery Cabinets, Auto Changeover Racks/Supply Panels, Valve Manifold Boxes and many other

equipments. The company has full-fledged capability to take up Turnkey projects including design, supply, installation, integration and commissioning of all relevant equipments handling gases & chemicals.

- **Avant Garde Clean Room & Engg. Solutions Pvt. Ltd.:** It is designing and building clean indoor climates for critical manufacturing industries like Pharmaceutical, Food, Automotive, Electronics, and others, ACES has been in the business for last 11 years.

Preliminary & Pre-operative Expenses

The preliminary and pre-operative expenses of the project have been estimated at INR 159.50 million which includes following items.

(INR million)

Sr. No.	Particulars	Amount
1	Company Incorporation and Other Legal Charges	20.00
2	Bank Fees	18.00
3	Misc. Other	121.50
	Total	**159.50**

Source: REPL

The Company incorporation charges has been considered on a lump sum basis as the Company has not shared the break of the same with D&B-India. The bank fees are considered at 0.60% on a proposed term loan of INR 3,000.00 million. The other misc. expenses which include key expenses like salary, general admin and other project related expenses during implementation period are considered at 0.67% of total hard cost of the project including land, building, plant and machinery and contingency.

D&B-India notes that-

The Company has acquired 1,07,149 square meters of land at RS No 198, 197, 199/002, 196/002, Village: Kathvada, Taluka: Mangrol, Dist: Surat, Gujarat, India as per the copies of sale deed shared with D&B-India. The total cost of land acquisition is considered at INR 172.73 million which is considered as part of project cost.

The estimated total building and civil construction works cost is INR 1,954.50 million as per the quotation received from ECR Buildtech Pvt. Ltd. dated 13.5.2025 and Ritutech dated 31.5.2025. As per D&B-India's assessment of similar projects in the past, the proposed civil and factory building cost for the project seems to be reasonable as the per GW cost of civil for the proposed project comes to INR 558.43 million at installed capacity however as per industry standards it comes in the range of INR 450.00 million to INR 600.00 million per GW of capacity.

The Company has estimated a cost of INR 13,736.49 million for the plant and machinery which also includes utilities and other fixed assets for the project. The Company has obtained quotations from reputed suppliers for proposed project. The suppliers are having adequate experience and expertise in providing after sales service for identified equipment's. *As per D&B-India's assessment of similar projects in the past,* ***the proposed P&M cost for the project seems to be on a lower side*** *as the per GW cost of P&M including MFA for the project comes to around INR 3,924.71 million against the industry average of INR 4,750.00 million to INR 5,500.00 million.*

The proposed total hard cost (Building and Plant and Machinery cost) for the project comes to INR 4,483.14 million per GW of installed capacity of the project and as per D&B-India's assessment of similar projects in the

past, the proposed total hard cost (Building and Plant and Machinery cost) excluding land for the project **seems to be on a lower side** as the industry average ranges from INR 5,200.00 million to INR 6,100.00 million.

As discussed with the Company the reason for lower P&M cost is that while the majority of market players execute their projects through turnkey contractors who manage the end-to-end design, procurement, and construction processes at a bundled premium the Company follows a more efficient and cost-conscious strategy. Rather than outsourcing the entire scope, the Company breaks down the project into specific packages and deals directly with individual suppliers and vendors. This disaggregated approach enables more granular control over each component of the project, resulting in substantial cost savings. One of the key differentiators is the direct involvement of the promoters in procurement negotiations. This hands-on involvement not only builds stronger relationships with suppliers but also ensures that the Company secures the most competitive prices available in the market.

Status of Statutory Approvals

REPL has identified list of approvals required in for setting up Solar PV Cell manufacturing plant.

S. No	Name of Statutory Approval	Authority	Present Status	Criticality	Remarks
	Approvals needed before Construction				
1	Incorporation of Company	Registrar of companies	Available	Non-Critical	At the time of incorporation of the Company
2	Commercial Taxes and Company-related	PAN, TAN, GST	Available	Non-Critical	At the time of incorporation of the Company
3	NOC for land use as Non Agri	District Collector	Available	Non-Critical	Before commencement of building construction
4	Import Export Code	The Foreign Trade (Development and Regulation) Act, 1992	Available	Non-Critical	At the time of incorporation of the Company
5	Approval for construction activity and building	Town and Country Planning	Available	Critical	Before Commencement of factory building Construction
	Approvals needed during Construction				
6	Factory License	Chief Inspector of Factories	Not Available	Non-Critical	Before Commencement of Trial Operation
7	Electrical HT installation Approval	CEIG of State Electricity board	Not Available	Non-Critical	Needed post Building construction & before completion of electrical work
8	Temporary Power Connection	Local Discom	Available	Non-Critical	Before commencement of building construction
9	Consent to Establishment	Gujarat Pollution Control Board	Available	Critical	Currently it is available for 2.3 GW, applied for additional 1.20 GW
	Approvals needed after Construction/COD				
10	Consent to Operation	Gujarat Pollution Control Board and CI of factories	Not Available	Critical	Needed before Starting of manufacturing operations
11	Petroleum and Explosive Safety Clearance	PESO-Petroleum and Explosives Safety Organization	Available	Critical	Needed before Starting of manufacturing operations
12	Provident Fund Registration	PF authority as per PF act 1952	Not Available	Non-Critical	Will be applicable once company will have 20 or more employee
13	Employee State Insurance Registration	ESIC as per ESIC act 1948	Not Available	Non-Critical	Will be applicable once company will have 10 or more employee
14	Clearance of Electrical Scheme and Installation of electricals	CEIG- Chief Electricals Inspectorate General of the state Govt	Not Available	Critical	Needed before Starting of manufacturing operations
15	Fire Protection NOC	Local Municipal Authority	Not Available	Non-Critical	Needed before Starting of manufacturing operations
16	Product Approvals	Certification agencies for conformity of the product to the IEC/BIS standards	Not Available	Critical	Need to apply after completion of trial runs

Source: REPL

As the Project is at its initial stage, the Company is in process of applying preliminary approvals such as, Consent to Establish and Plant Layout. Further, as informed by the Company, necessary approvals and

clearances will be taken from the competent authorities from time to time. D&B India, advice the Company to complete the process in timely manner to avoid any adverse impact on project.

Implementation Schedule

The implementation schedule of the project has been provided below.

Particulars	Date of Commencement	Expected Date of Completion
Acquisition of Land	Completed	
Land Development Works	Apr- 25	June- 25
Building & Civil Works	July-25	Mar-26
Ordering of Plant and Machinery	Apr-25	Oct.-26
Installation of Plant and Machinery	Mar-26	Oct- 26
Trail Runs and Validations	Oct- 26	Nov- 26
Commercial Production	Dec-26	

Source: REPL & D&B- India Estimates

As indicated in the implementation schedule, the Company has acquired the land for the project. As observed during the site visit, the Company has not initiated any work at the proposed site and the land is currently laying barren. Considering the pending activities, it is estimated that commercial production of the proposed project would commence from 1st December 2026, provided the Company will all necessary / statutory approvals and permissions in time.

D&B India advises the Company to strictly adhere to the implementation schedule, obtain necessary approvals, funds on time to avoid any time over-run.

Subsidy

The Gujarat Electronics Policy 2022–2028, effective from October 28, 2022, to March 31, 2028, aims to establish Gujarat as a national hub for Electronics System Design & Manufacturing (ESDM). The policy offers a comprehensive suite of incentives to attract investments and foster growth in the sector. Solar Photo Voltaic including thin film, polysilicon, is a part of the captioned subsidy scheme

This policy assistance is available to eligible entities who have applied for assistance on or before 31st March 2028 and who have commenced operation on or before 31st March 2031 shall be eligible for incentives.

Hence, subsidy incentive will be received post application is done and post commencement of operation.

Below are key incentives:

A) Related to capital expenditure:
   1) Capital Subsidy: Investors are eligible for a 20% capital expenditure assistance, capped at ₹200 crore, for investments up to ₹1,000 crore. For investments exceeding ₹1,000 crore, an additional 15% subsidy is provided. The capital subsidy is disbursed in annual instalments over five years.

B) Related to Operating expenditure:

1) Interest Subsidy: A 7% interest subsidy on term loans is available for five years, with a maximum of ₹10 crore per annum, totaling up to ₹50 crore.
2) Power Tariff: A subsidy of ₹1 per unit on power tariffs is provided for five years.
3) Electricity Duty: 100% exemption from electricity duty is granted for five years.
4) Logistics Subsidy: A 25% subsidy on freight charges is offered, with a maximum of ₹5 crore per annum, totaling up to ₹25 crore over five years.
5) Employer's EPF Reimbursement: Under the Atmanirbhar Gujarat Rojgar Sahay (AGRS) scheme, the policy reimburses 100% of the employer's EPF contribution for female employees and 75% for male employees, for a period of five years. The reimbursement is subject to a ceiling of 12% of the employee's salary.

C) Others:

1) Stamp Duty & Registration Fees: 100% reimbursement of stamp duty and registration fees is available on a one-time basis.

The Company is estimating tentative amt of Rs 2500.00 as capex subsidy post commercial operation basis below internal working. To ensure commencement of commercial operation which is key criteria for eligibility of subsidy, Parent entity shall infuse corporate loan to Rayzon Energy Pvt Ltd as bridge gap arrangement.

Operating and other subsidies shall be beneficial to reduce overall product cost of the product and ultimate benefit of lower cost will be pass on to end consumer.

The Company working as provided for capex subsidy is as follows:

Particulars of Capex	Amt of Capex In INR Million	Tentative eligible Capex considered by the company	Subsidy eligibility
Land Cost	**172.73**	-	
Building & Civil Works	**1954.50**	1,366.64	
Plant & Machinery & Other Utilities - without GST	**12703.15**	11,966.75	
Plant & Machinery & Other Utilities – Packing Forwarding Freight and Installation - without GST	**6.74**	-	
GST on Plant & Machinery & Other Utilities including Packing Forwarding Freight and Installation	**1026.61**	-	
Contingency	**313.81**	-	
Hard Cost	**16177.54**		
		-	
Preliminary & Preoperative Expenses	**159.50**	-	
Interest during construction	**169.50**	-	
Margin Money for Working Capital	**-**	-	
Soft Cost	**329.00**	-	
Total Project Cost	**16506.54**	13,333.39	
	Bucket 1 @ 20 % of eligible capex	10,000.00	2,000.00
	Bucket 2 @ 15 % of eligible capex	**3,333.39**	**500.00**
	Total Subsidy eligibility considered by the company		**2,500.00**
	Amt Considered		**2,500.00**

Present status: As on date of DRHP, Company has not applied for subsidy however Company has intention to apply for subsidy and company shall apply for subsidy prior to March 2026 and Company shall be eligible to claim subsidy as per the scheme post commercial operation scheduled in Oct 2026.

Limiting Conditions

The cost estimates for the proposed project are given on the basis of estimates, and we have also relied upon the quotations being procured for the purposes of the funding, which is attached as an annexure to the report. The revenue and costs considered are based on the findings from primary survey and secondary research, as detailed in the methodology section. There may be changes in the revenue and cost estimates depending on the market conditions. The revenue and costs are comparable to the industry benchmarks.

It has been assumed that available plant and machinery are complete and balanced along with utilities and auxiliaries.

Basis:

D&B-India's assumptions are based on the information obtained from owners, prevailing rules and regulations of statutory authorities, prevailing site conditions on the date of inspection.

Documentation:

D&B-India does not normally read leases or documents of title. D&B-India assumes, unless informed to the contrary, that each Structure has good and marketable title, that all documentation are satisfactorily drawn and that there are no encumbrances, restrictions, easements or other outgoing of an onerous nature which would have a material effect on the value of interest under consideration, nor material litigation pending. Where D&B-India has been provided with documentation, D&B-India recommends that reliance should not be placed on its interpretation without verification by legal advisors.

Town Planning and Other Statutory Regulations:

D&B-India recommends that verification be obtained from legal advisors or relevant experts to the effect that:

i. The position is correctly stated in the report.

ii. The property is not adversely affected by any other decision made, or conditions prescribed by public authorities.

iii. There are no outstanding statutory notices.

iv. D&B-India's reports are prepared on the basis that the company (Insolation Energy Limited) to comply with all relevant statutory regulations, including enactment relating to fire regulations, safety and environmental considerations and stipulation of respective statutory provisions.

Physical Surveys:

D&B-India has not carried out Physical Survey and levelling exercise of the Structures and advice Owners to carry out actual Physical Survey of the site along with levels if desired. This report is based on documents

forwarded to D&B-India by Owners, Government Records made available to D&B-India and on D&B-India's cursory inspection of site.

Structural Surveys:

D&B-India has not carried out a structural survey, nor has D&B-India tested the services of the Owners and D&B-India therefore does not give any assurance that any Structure or the immoveable assets are free from defects. In D&B-India's general observations, the Structures are erected normally and appear to have been maintained properly. However, no guarantee or opinion can be inferred about the conditions of Structure and Machinery about safe working of the same.

Deleterious Materials:

D&B-India does not normally carry out investigations on site to ascertain whether any Structure was constructed or altered using deleterious materials or techniques (including, by way of example high alumina cement concrete, wood wool as permanent shuttering, calcium chloride or asbestos). Unless D&B-India was otherwise informed, our report is on the basis that no such materials or techniques have been used.

Site Conditions:

D&B-India has not carried out investigations on site in order to determine the suitability of ground conditions and services for the purposes for which they are, or are intended to be put, to use, nor does D&B-India undertake archaeological, ecological or environmental surveys. Unless D&B-India is otherwise informed, D&B-India's report is on the basis that these aspects are satisfactory and that, where development is contemplated, no extraordinary expenses or delays will be incurred during the construction period due to these or any other matters related to site.

Environmental Contamination:

D&B-India has not carried out physical site surveys or environmental assessments, or investigated historical records, to establish whether any land or premises are, or have been, contaminated. Therefore, unless advised to the contrary, D&B-India's report is carried out on the basis that properties are not affected by environmental contamination.

Terms Relating To Use Of This Report

This Project Cost Vetting Report (hereinafter referred to as this "**Report**") has been prepared by ***Dun & Bradstreet Information Services India Private Limited*** (hereinafter referred to as **"D&B-India"**) in respect of the setting-up a solar cell manufacturing project (hereinafter referred to as the "**Transaction**") of M/s. Rayzon Energy Private Limited (hereinafter referred to as the "**Customer**") for the internal use and reference of the Customer's funding entity and any of the intermediaries being appointed for any proposed fund raising by the company (hereinafter referred to as the "**Funding Entity**") subject to what is stated hereinafter and the same forms an integral part of this Report.

The use of this Report or dissemination of contents hereof in part or full, is meant only for the purposes of the Transaction or matters relating thereto as deemed necessary by the Funding Entity, and not by any other party or for any other purpose.

D&B-India follows ethical practices in the discharge of its professional services and amongst others, as part of such ethical practices, it follows the general rules relating to honesty, competence and confidentiality, and attempts to provide the most current, complete, and accurate information as possible within the limitations of available finance, time constraint and other practical difficulties relating thereto and arising as a consequence thereof.

This Report has been prepared keeping in view the scope of work and the methodology as stated in this Report. Sources which form the basis of this Report could be broadly classified into two categories**:** (i) the facts gathered by D&B-India by way of a visit to the site of the project relating to the Transaction, or the Government offices, to the extent possible, having regard to practical constraints, and (ii) documents and information as furnished by the Customer or the Funding Entity. D&B-India has not carried out any independent verification for the accuracy or the truthfulness of such information which is believed to be accurate, updated and complete based on the information as furnished by the Customer, the Funding Entity and partly on its own information as stated hereinabove. Accordingly, the said information is not warranted by D&B-India for its accuracy, completeness, or being up to date, and is subject to further verification.

This Report includes assessment and projections made by D&B-India which are based on the aforesaid sources and the methodology as adopted by D&B-India. A variation in such assessment and projections is possible due to changes in the obtaining facts and circumstances as they existed at the point of time this Report was finalised by D&B-India and the approach or methodology adopted in respect thereof. Differences between projected and actual results are possible as events and circumstances, as anticipated or contemplated, may or may not occur and such differences may be material in nature. Under the circumstances, no assurance can be provided or implied that these projections will actually materialize.

Therefore, such assessment and projections made, and views based thereon included in this Report should not be treated as the sole decisive factor for any decision to be taken by the Funding Entity relating to the

Transaction, and the Funding Entity has to draw its own conclusions on making independent enquiries and verifications and D&B-India cannot be held liable for any financial loss incurred by anyone based on this Report.

No representation is made by D&B-India that the information contained in this Report is exhaustive or includes all such material information which may have a bearing on the future performance of the Customer. In case the Funding Entity needs any such additional information, documents, or analysis, which is not within the scope of work as included in this Report, D&B-India may, on the request of the Funding Entity, consider providing the same, subject to such additional payment for the purpose as may be mutually agreed upon between D&B-India and the Funding Entity.

D&B-India or its associates in any capacity; viz.; directors, employees, advisers, or other, do not make any further express or implied representation or warranty, or assume any responsibility or liability in respect thereof or arising in connection with or as a consequence of, any decision made or action taken, by the Funding Entity or any other party, unless it could be directly attributed to D&B-India or associates for their act or omission.

The Report should be read as a whole so as to avoid any divergence with respect to the inferences on account of a partial reading of this Report where such inferences may be based on the entirety of this Report. Further, notwithstanding anything to the contrary, liability, if any, and the amount of claim by the Funding Entity in relation thereto against D&B-India or its associates for any inaccuracies in this Report or any cause whatsoever, and regardless of the form of the action in relation to this Report, will at all times be limited to the amount paid by the Customer to D&B-India for this Report.

D&B Solutions

Risk Management Solutions

Credibility & Business Insights Group

Sales & Marketing Solutions

Learnings & Economic Insights Group

www.dnb.com

Dun & Bradstreet Information Services India Pvt. Ltd

07th Floor, G – Block, Godrej BKC, Bandra (East),

Mumbai – 400051, Maharashtra, India.

Tel: +91 22 2857 4190/ 92 / 94, 6676 5555 Fax: +91 22 2857 2060