

**TECHNO-ECONOMIC VIABILITY
STUDY REPORT
OF
66.20 MW WIND-SOLAR HYBRID POWER PLANT
(41 MW DC Solar + 25.20 MW Wind)**

**SETUP BY
M/S SAI BANDHAN INFINIUM LIMITED**

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VALUERS & TECHNO ENGINEERING CONSULTANTS (P) LTD.

VALUATION CENTER OF EXCELLENCE
& RESEARCH CENTRE

REPORT PREPARED FOR

M/S SAI BANDHAN INFINIUM LIMITED

**3RD FLOOR, 2137, BANSAL HOUSE, NR. GOLDEN ARC, ATABHAI
CHOWK, BHAVNAGAR, GUJARAT, INDIA, 364002**

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PART A

REPORT SUMMARY

S. No.	PARTICULAR	DESCRIPTION
1.	Name of the Company:	M/s Sai Bandhan Infinium Limited
2.	Registered Address:	3 rd Floor, 2137, Bansal House, NR. Golden ARC, Atabhai Chowk, Bhavnagar, Gujarat, India, 364002
3.	Project Name	66.20 MW Wind - Solar Hybrid Power Plant (Captive & Open Access)
4.	Project Location:	Village: Vichiyad, Taluka: Vagra, District: Bharuch, Gujarat, 392140
5.	Project Type:	66.20 MW Wind-Solar Hybrid Power Plant (Captive and Open Access)
6.	Project Industry:	Renewable Energy
7.	Product Type / Deliverables:	Power Generation
8.	Report Prepared for Organization:	M/s. Sai Bandhan Infinium Limited
9.	TEV Consultant Firm:	M/s. R.K Associates Valuers & Techno Engineering Consultants (P) Ltd.
10.	Report type:	Techno-Economic Viability Report
11.	Purpose of the Report:	To assess Technical & Economic Viability for the purpose of seeking external financial assistance to setup captive Solar Power Plant.
12.	Scope of the Report:	To assess, evaluate & comment on Technical, Economical & Commercial Viability of the Project as per data information provided by the client, independent Industry research and data/ information available on public domain.

13.	Date of Report:	4 th November, 2024													
14.	Documents referred for the Project:	<p>A. PROJECT INITIATION DOCUMENTS:</p> <ul style="list-style-type: none">1. Detailed Project Report2. Financial Projections of the Project3. Project proposed Schedule4. Statutory Approval Details5. Layout and Master Plan <p>B. PROCUREMENT DOCUMENTS:</p> <ul style="list-style-type: none">1. EPC Agreement2. List of Plant & Machinery along with acquisition costs for the same3. Details of Expected Supplier of Plant & Machinery4. Process Flow Chart5. Sanction/proposed map of the sites6. Lease/Sale deeds of the Land <p>C. STATUTORY APPROVALS, LICENCES & NOCs</p> <ul style="list-style-type: none">a. MSME UDYAM Registration Certificateb. GETCO, GERC, GEDA Approvalsc. NOC/Application for Ground waterd. Consent to establish approval													
15.	Means of Finance:	Equity & Debt (D/E Ratio 3.00 TPC)													
16.	Key Financial Indicators:	<table><tr><th>Key Indicators</th><th>Value</th></tr><tr><td>Average DSCR</td><td>2.18</td></tr><tr><td>Average EBITDA Margin</td><td>84.44%</td></tr><tr><td>Avg. PAT Margin</td><td>42.49%</td></tr><tr><td>NPV & IRR</td><td>INR 250 Cr. & 15.76%</td></tr><tr><td>Payback Period</td><td>8.96 years</td></tr></table>		Key Indicators	Value	Average DSCR	2.18	Average EBITDA Margin	84.44%	Avg. PAT Margin	42.49%	NPV & IRR	INR 250 Cr. & 15.76%	Payback Period	8.96 years
Key Indicators	Value														
Average DSCR	2.18														
Average EBITDA Margin	84.44%														
Avg. PAT Margin	42.49%														
NPV & IRR	INR 250 Cr. & 15.76%														
Payback Period	8.96 years														

Note: Above financial indicators are based on the financial projections of the proposed project provided by the firm and assessment and analysis of the same done by us.

PART B

INTRODUCTION

1. ABOUT THE REPORT:

This is a Techno-Economic Viability Study Report of the proposed 66.20 MW Hybrid power project [41 MW DC Solar + 25.20 MW Wind] at Village: Vichhiyad, Taluka: Vagra, Dist: Bharuch, Gujarat - 392140.

2. EXECUTIVE SUMMARY:

Gujarat Renewable Energy Policy- 2023: Government of India has pledged for transition to clean energy in power sector through nationwide targets with commitment towards Nationally Determined Contribution of 50% of cumulative electric power installed capacity from non-fossil fuel-based energy resources by the year 2030. Government of Gujarat is playing a pivotal role in this energy transition. State has successfully demonstrated its commitment towards clean energy with installed Renewable Capacity of 21.6 GW at present in which the addition of about 12 GW has taken place during last 5 years.

Taking cognizance of the generational shift occurring in electricity sector, the need for expediting efforts for de-carbonization and in an endeavour to embrace renewable energy more effusively, Government of Gujarat has notified a Renewable Energy Policy-2023 (*Reference: Gujarat Renewable Energy Policy- 2023 G.R. No. REN/e-file/20/2023/0476/B1 Sachivalaya, Gandhinagar, Date: 04/10/2023*) for further encouraging setting up of renewable generation projects based on Wind, Solar and Wind-Solar Hybrid technologies.

Renewable Energy Projects that are installed and commissioned during the operative period will be eligible for the benefits and incentives outlined in this policy. Further, the projects commissioned after 19th June-2023 under Wind Solar Hybrid Policy-2018 and before the issuance of this Policy shall be eligible for the benefits under this Policy. These benefits will be applicable for a period of 25 years from the date of commissioning or the lifespan of the RE project, as defined by GERC/MoP/MNRE, whichever is earlier.

Wind-Solar Hybrid under the Policy: Solar and wind energy generations being complementary to each other, 'hybridization' of two technologies would help in minimizing the variability apart from optimally utilizing available infrastructure, including land and transmission systems.

Capacity of one resource (solar or wind) in the hybrid projects shall be as per the National Wind-solar Hybrid Policy notified by MNRE vide letter no. F. No. 238/78/2017-Wind dated 14th May 2018 for Wind Solar Hybrid Projects and its amendment from time to time. For the purpose of simplicity, wind-solar hybrid power generation plants are divided into two categories:

Type-A Projects: This category includes the conversion of existing or under construction standalone wind or solar power plants into hybrid projects. Wind or solar capacity under construction shall be considered based on the registration certificate issued by GEDA or evacuation permission granted by GETCO / STU to the solar or wind RE developers as the case may be, before the issuance of this policy. The installed wind or solar capacity shall be considered based capacity of power purchase agreement (PPA) or wheeling agreement.

Type-B Projects: This includes new wind-solar hybrid power generation Gujarat Renewable Energy Policy-2023 Page 9 of 28 projects that are not registered with GEDA or for which evacuation permission has not been granted by GETCO/ STU until the date of issuance of this policy. Further, in the absence of a common RPO and tariff, only AC integration will be allowed. The integration of wind and solar components of a wind-solar hybrid project shall be allowed at the plant end or at the pooling / sending station depending upon the feasibility issued by DISCOM / GETCO in accordance with the connectivity regulations of GERC / CERC, Safety regulations issued by CEA and all other applicable regulations / standards / code.

This executive summary outlines the development of a 66.20 MW Hybrid Power Project (41 MW DC Solar + 25 MW Wind) at Village: Vichiyad, Taluka: Vagra, District: Bharuch, Gujarat, 392140. The project, initiated by M/s Sai Bandhan Infinium Limited, aims to harness solar & Wind energy to meet the organization's growing electricity needs sustainably and to optimize the operation cost while taking the existing Rolling mill to full capacity.

As a parent company M/s Sai Bandhan Infinium Limited has been venturing into shipping and ship-breaking industry since last 15 years. The company has forayed into integration with Bandhan TMX with the production capacity of 20,000 MT per month.

The company is having a modern integrated steel manufacturing unit at Bhavnagar – western India, which has the facility of manufacturing of finished steel long product from captive steel semis with adequate refining facility through LRF (Ladle refining furnace) to ensure flawless production of refined steel.

This highly sophisticated integrated steel plant facility comprising steel melting shop (SMS) equipped with electric furnace & ladle refining furnace, Continuous Billet Casting unit, Rolling mill with Block mill and German Technology (Thermex). Brief features of integrated plant are as follows:

- 25 Ton X 2 Electric furnace.
- 30 Ton X 1 Ladle refining furnace (for liquid steel refining).
- 3 stand: 6X11 M radius CCM (with copper mould tube).
- Standalone rolling mill equipped with block mill, only it's kind of mill in western India after TATA.
- Well-equipped in-house laboratory.

Company manufacture TMX bars and structural steel under the brand name “Bandhan TMX” through hot charging rolling mill with latest Tempcore quenching technology under licensing of CRM, Belgium’s Tempcore cooling technology. Company produces their Captive raw material (Billet) from sponge iron by using this technology for manufacturing of TMX bars. Company manufactures as well as deal in the following items on regular basis:

- Thermo Mechanical Treated (TMX) Bars: Fe 500 D, Fe 550, Fe 550 D, Fe 615 – 8mm to 32 mm
- M.s Billet.

Currently, company is having a sanction load of 33700 KW, however this integrated manufacturing plant is running for 8 hours per day and it consumes ~60 lakhs units per month to operate at this scope and scale. Historical financial position of the company is shown in the below table as on from 31st March 2022 to 31st March 2024:

Particular	As on 31 st March 2022 (Lakhs)	As on 31 st March 2023 (Lakhs)	As on 31 st March 2024 (Lakhs)
Total Assets	18,746.10	19,595.46	31,469.04
Long term borrowings	2257.94	4741.67	5225.10
Short term borrowings	9061.62	3493.09	3842.75
Turnover	14,940.98	51,010.50	45,479.86
PAT	233.17	83.58	944.08
Cash flow at the end	21.52	28.34	58.53

As per the internal assessment shown in the below table, after 24 hours of operation of plant, it would be requiring more than 1.8 Crores units a month. Currently unit price is INR 5.96 per unit (subsidized rate as the plant operates only from 10 pm to 6 am) and as the company plans to operate the factory for 24 hours the charges will go up to INR 9.15 per unit. And therefore, the company has planned installation of hybrid wind - solar project to offset the electricity consumption while the plant operates for 3 shifts.

Particular	Hours	Units per month	INR/Unit	Monthly Expense	Yearly Expense INR
Current Running Hours	8	60,00,000	5.96	3,57,60,000	42,91,20,000
Proposed Hours	24	1,80,00,000	9.15	16,47,00,000	1,97,64,00,000
Hybrid Installation	24	1,12,09,463 (Captive)	4.81	5,39,17,515	1,39,26,11,189
		67,90,537 (Industrial)	9.15	6,21,33,417	
Net-off (Savings)					58,37,88,811

As assessed above, the company can save up to INR 58.37 Crore by installing the proposed captive hybrid power plant. The primary objectives of the hybrid power plant is to reduce annual electricity cost by ~40%, decrease the carbon footprint by 30,000 tons per year, and ensure a reliable and renewable energy source for Sai Bandhan Infinium Limited's operations.

This is a 66.20 MW Captive hybrid power plant (41 MW DC Solar + 25.20 MW Wind), so whatever we will generate here, Gujarat Energy Transmission Corporation Limited (GETCO), power transmission company in the state of Gujarat, India will provide same units credit to the company's electricity bill unit to unit basis.

The plant will feature high-efficiency solar panels with a combined capacity of 41 MW DC Solar (~75926 nos. of Solar Panel) 540Wp of Bi-facial N-type Solar module from Waaree and Suzlon S 120 – (2.1 X 12) 25.20 MW Wind turbine generator (WTG). It will utilize advanced photovoltaic (PV) technology and include a state-of-the-art monitoring system to optimize performance and maintenance.

Proposed Power plant will be implemented through appointment of EPC, for which company has signed an agreement with KPI Green Energy Ltd. dated 13th September 2024 for CPP vertical i.e. to design, develop, transfer and maintain the solar and wind hybrid power plant on

behalf of M/s Sai Bandhan Infinium Limited as an industrial customer. According to which, estimated generated unit from the hybrid project would be 1459.15 lakhs in the initial year.

The plant is expected to reduce CO2 emissions by 33,000 tons annually, contributing significantly to Sai Bandhan Infinium Limited's sustainability goals. Additionally, the project will create ~150 local jobs during the construction phase and ~25 permanent positions for ongoing operations & maintenance. Thus, the proposed hybrid power plant represents a strategic investment in renewable energy, offering significant cost savings, environmental benefits, and alignment with Sai Bandhan Infinium Limited's sustainability objectives.

As per the agreement, M/s KPI Green Energy Limited has acquired ~137.77 Acre land at Renewable Energy Park at Village: Vichhiyad, Taluka: Vagra, District: Bharuch, Gujarat – 392140 for 66.20 MW Hybrid power project [41 MW DC Solar + 25.20 MW Wind] and will be sub-lease to Sai Bandhan. Grid Connectivity approval from GETCO for 140 MW Wind Solar hybrid power plant at 220/66 KV Wagra Substation has been taken by KPI Green Energy Ltd dated 02/11/2022. As per data/information provided by the client, sub-lease agreement will signed between the parties according to the financial and payment related milestone decided mutually.

Schematic layout plan has been prepared and shared by the client, which can be change during implementation period as informed by the management. As per data/information provided to us, the company has obtained some Statutory Approvals/NOC's such as Grid Connectivity Approval has been taken by KPI Green Energy Limited from GETCO. *Ref: ACE (R&C)/EE-C/4366 Dated: 02/11/2022.* Company is in the process to obtain Provisional Registration of Renewable Energy Project under Gujarat Renewable Energy Policy- 2023 from *Gujarat Energy Development Agency (GEDA).* *(Refer the section Statutory Approval in the later part of the report).*

During the site visit, we found that the proposed land is a vacant agricultural land which is not demarcated and work on the Project has not been started yet. As per informed by client, land development work will start soon. *(Kindly refer the site pictures captured during the survey attached in the later section of the report).*

As per the EPC agreement, the proposed captive hybrid power plant will be setting up with an initial investment of INR 467.62 Crore including EPC, IDC, and Contingencies & Preliminary & Pre-operative expenses, which is proposed to be funded through a term loan of INR 350.71 Crore and promoter's equity of INR 116.90 Crore. Plant is expected to be operational from 1st

April, 2026 after having a 16 months implementation period from 1st December 2024 to 31st March 2026.

At present, the company is in discussion with Financial Institutions to fund the project through a term loan of INR 350.71 Crore. In this regard M/s Sai Bandhan Infinium Limited has appointed R.K. associates to assess the Techno-Economic Viability of the proposed hybrid power plant. The company plans to achieve the financial closure by December, 2024 (expected).

3. PURPOSE OF THE REPORT:

To assess Project's Technical and Financial Feasibility for Client's requirement.

4. SCOPE OF THE REPORT:

To only assess, evaluate & comment on Technical & Financial Feasibility of the proposed Wind Solar Hybrid power plant being set up by M/s Sai Bandhan Infinium Limited as per the data/information provided by the company.

NOTES:

- *Project status is taken as per the Site inspection carried out by our survey team.*
- *Scrutiny about the company, background check, and credibility, credit worthiness of the company or its promoters is out-of-scope of this report.*
- *Any verification of the documents/ information from originals/ source is out-of-scope of this report.*
- *This report is only an opinion in respect to Technical and Financial Feasibility of the project as per the future Projections provided by the firm and independent analysis done by us and doesn't contains any recommendations including taking decision on the loan or any other financial exposure.*
- *This is not an audit activity of any kind. We have relied upon the data/ information shared by the company in good faith.*
- *Any review of the existing business of the promoters is out of scope of this report.*
- *Detailed cost estimation or detailed cost vetting is out of scope of the project.*
- *This is not a Detailed Project Report or a detailed design or architecture document. Land and property details mentioned in the report is only for illustration purpose as per the information provided to us by the client. The same doesn't tantamount for taking any responsibility regarding its legality, ownership and conforming to statutory norms.*

5. METHODOLOGY/ MODEL ADOPTED:

- Data/ Information collection.
- Review of Data/ Information collected related to TEV study.
- Independent review & assessment of technology used and financial projections provided by the company.
- Projections of Revenue, P&L, Balance Sheet, Working Capital Schedule, Depreciation Schedule, Loan Schedule as per the inputs given by the company and assessed by us
- Calculation of key financial indicators and ratio analysis including DSCR, NPV & IRR and payback period of the project.
- Report compilation and Final conclusion.

6. DATA/ INFORMATION RECEIVED FROM:

All the data/Information has been received from M/s Sai Bandhan Infinium Limited and M/s Impetus Finsol LLP and the required details about him shown in the below table:

Particulars	Details
Company	M/s Sai Bandhan Infinium & M/s Impetus Finsol LLP
Contact Person	Mr. Nikhil Gupta
Email Address	impetus.finsol@gmail.com , bandhan@infiniumgroup.in
Contact No.	+91-9099050621

7. DOCUMENTS / DATA REFFERED:

- Detailed Project Report and Promoters Profile
- Financial Projections of the proposed Hybrid Power Plant Project.
- EPC Agreement with KPI Green Energy Limited along with EPC profile.
- Technical Specification of WTG and Solar PV Modules
- Vinchiyad Key plan and Schematic Layout Plant
- Generation flow chart,
- Product profile along with Pricing Strategy etc.
- Letter from GETCO for Hybrid conversion
- Certificates of Statutory approvals/NOC's.
- Survey Report.

PART C

COMPANY PROFILE

1. COMPANY OVERVIEW:

As per certificate of incorporation shared by the client, Company was originally incorporated with the name “Sai Inductomelt Pvt. Ltd” on 16th day of August 2004 under the Company’s Act 1956. According to the Certificate of Incorporation pursuant to change of name, the name of the company has been changed from Sai Inductomelt Private Limited to M/s Sai Bandhan Infinium Private Limited with effect from 23 May 2019 Pursuant to rule 29 of the Companies (Incorporation) Rules, 2014.

Furthermore, as per the Certificate of Incorporation Consequent upon conversion to public company, the constitution of the company has changed from Private limited to Public Limited with effect from 15th October, 2024 and name of the company became :M/s Sai Bandhan Infinium Limited”. Below table shows the incorporation details of the company:

Incorporation Details of the Company	
Particular	Description
Company Name	M/s Sai Bandhan Infinium Limited
CIN	U35105GJ2004PLC044607
Date of Incorporation	16 th August 2004
Registration Number	044607
ROC Name	ROC Ahmedabad
Company Category	Company limited by shares
Company Subcategory	Non-government company
Class of Company	Public
Registered Address	3 rd Floor, 2137, Bansal House, NR. Golden Arc, Atabhai Chowk, Bhavnagar, Gujarat, India, 364002
Authorized Capital	INR 61,01,00,000
Paid up Capital	INR 55,60,00,000
Date of last AGM	30/09/2024
Date of Balance Sheet	31/03/2024
Company Status	Active

Source: Information extracted from MCA website & public domain

As per the amended Memorandum of Association (MoA) shared by the client, the company was incorporated to undertake and carry on the trader and business of shippers, breakers, ship repairers, shipping agents, broker, ship managers, tug owners, roading brokers, freight contractors, barge owners, lighter men, dredgers and forwarding agents, ship store merchants, ship husbands, stevedores, salvors, ship builders and ship repairers and to carry on business of breaking, cutting, dismantling of ship, steamers, trailers, steam launches, ocean going vessels, playing on water either by Company itself or through other arrangements whether on contract or job work basis.

To carry on the business of manufacturing of and dealing in larc slabs, billets, ingots, squares, sheets by electro metallurgical process by operating induction are furnace of any other process and to manufacture, buy sell, import, export and deal in bars, sections, foils, rods, pipes, tubes, angles, channels, strips, plates, sheets, rails, nails, pins, coils, circles, nuts bolts, fasteners wire ropes, ferrous and nonferrous metal of all kinds and to conduct and carry on business of roiling, re-roiling, casting, welding, extruding, stretching, reducing forging, pressing, drawing, machining, grinding, processing working or finishing in any manner of all kinds of metals and alloys.

The company is categorised as medeium enterprise with Udyam Registration Number *UDYAM-GJ-05-0004339 dated 8th Feb 2021*. In this company, the promoters have proposed to set up the proposed captive 66.20 MW Hybrid power project [41 MW DC Solar + 25.20 MW Wind] at Village: Vichhiyad, Taluka: Vagra, District: Bharuch, Gujarat – 392140.

2. PROPOSED SHAREHOLDING PATTERN:

As per the data/information provided by the client, Shareholding of promoters dated 14th September, 2024 is as follows:

Name of the Shareholder	Amount (In Rs.)	% age of total equity	No. of Equity Shares @ Rs. 10 each
Nikhil Gupta	55,600	0.01%	5,560
Ishu S Bansal	43,17,89,600	77.66%	4,31,78,960
Devansh Infinium Private Limited	3,89,20,000	7.00%	38,92,000
Samdeep Kothari	2,78,00,000	5.00%	27,80,000
Dimple Kothari	1,11,20,000	2.00%	11,12,000
Urja Ships Private Limited	1,11,20,000	2.00%	11,12,000
Breamer Subsea Pvt Ltd	55,60,000	1.00%	5,56,000
Kapoorchand Bansal	73,94,800	1.33%	7,39,480
Devang A Deliwala	13,34,400	0.24%	1,33,440

Negadia M Pravinbhai	13,34,400	0.24%	1,33,440
Pravinkumar Patel	20,01,600	0.36%	2,00,160
Radha V Shah	33,91,600	0.61%	3,39,160
Bharat V Mehta	97,85,600	1.76%	9,78,560
Shah Rekha Haresh	33,91,600	0.61%	3,39,160
Yogesh P Sarvaiya	6,67,200	0.12%	66,720
Pitroda H Ramkrishna	3,33,600	0.06%	33,360
Grand Total	55,60,00,000	100.00%	5,56,00,000

Source: Data/Information provided by the client.

3. KEY PROMOTER'S/DIRECTORS PROFILE:

As per data/information provided by the client about the promoters & directors, below table illustrate the educational & professional experience of the promoters along with the Address, DIN and contact details for FY 2024-25 as on 14th September 2024:

Name/ D.O.B	Designatio n/DIN	Address & Contact Details	Appointment Date	Qualifications/Experience
Mr. Nikhil Gupta (25 th March 1989)	Director DIN: 07981873	203, Shanti Jyot, Near Rupani Circle, Bhavnagar, Gujarat 364002 +91- 9099050621	20/12/2018	Mr. Nikhil Gupta, aged 35 years, is the joint Managing Director of the Company. He is the Head of Marketing & Administration in the business and holding an experience of over 10 years and has worked alongside leading entrepreneurs.
Mr. Sachin Agrawal	Company Secretary PAN: *****9349 R	NA	01/05/2023	
Mrs. Avani Ranka (Age: 21)	Director DIN: 10809483	Add: Ward 17 62 Lohiya Marg, Shujalpur, Shujalpur Mandi shujalpur, Madhya Pradesh- 465333 +91- 9479512003 (avanirankaa@g	16/10/2024	B. Tech. Engineering, Part time job

		mail.com)		
Mrs. Anushka Anurag Singhal (Age: 24)	CFO PAN: MXUPS691 6C	Add: Flat no.B- 602 Leela Shanti Heights,Iscon Mega City Opp.VictoriaPar k Bhavnagar - 364002 +91- 7622934532 (asinghal170101@gmail.com)	01/10/2024	Chartered Accountant, B. Com., Job
Mrs. Astha Digant Mehta (Age: 34)	Director DIN: 10810751	Add: Plot No. 8/B Takhteswat Plot Bhavnagar - 364002 +91- 9998068010 (astha.mehta29@gmail.com)	16/10/2024	Educational Background: Bachelor's Degree in Commerce from the Bhavnagar University and a Master of Business Administration in Finance from Gujarat technological university at Ahmedabad Professional Experience: She has 8 years of experience in the Finance sector
Mr. Mehul Shashikant Vadodaria (Age: 63)	Director DIN: 10768714	Add: Plot No. 2188/89/Bhakti Baug, Hill drive, Vadodaria Park, Bhavnagar, 364002, Gujarat ,India +91- 9825205639 (chimanlalsmeh@gmail.com)	15/10/2024	Educational Background: He has passed out Gujarat secondary education board Gandhinagar Professional Experience: He has 40 years of experience in the social and political and industrial sector. Previously, He was Ex- Mayor in Bhavnagar from Dec 2005 to June 2008
Mr. Dineshkumar Ravishankar Dave (Age: 69)	Director DIN: 10776918	Add: 401 Abhijyot Flat, Nr Bileshwar Mahadev, Sattelite, Jodhpur Char Rasta, Ahmedabad-	15/10/2024	Educational Background: He Hold a Bachelor Degree of Science from the Saurathtra University , P.P. Institute of Science, Bhavnagar Professional Experience: He has 40 years of experience in the

		380015, Gujarat +91- 7600035067 (efilling4income tax6@gmail.co m)		banking sector. Previously, He was Associates With State Bank of India
Mr. Shivnarayan Vijaykumar Bansal 28 th December, 1989	Managing Director DIN: 02247531	Plot No. 2137/A, "SHIVA", Beside Golden Arc Complex, Atabhai Chowk, Bhavnagar, Gujarat – 364002	29/08/2024	<p>Mr. ShivNarayan Bansal, aged 35 years, is the appointed director from 29/08/2024.</p> <p>Mr. Shivnarayan Bansal has completed his graduation in Bachelor of Business from Latrobe University, Australia.</p> <p>He is having over 10 years of experience in various fields such as finance and ship recycling and off shore Industrial and other business activities.</p> <p>He is examining and advising on Purchase of Old ships and finalizes the deals with the suppliers. He is also guiding on off shore activities and is arranging finance for the business of the company.</p> <p>He plays a major role in providing strategic guidance to our Company. He will be supervising the functional heads and responsible for the overall operation and growth of the Company.</p>
Mr. Sandeep Kothari (November, 4 1979)	Director DIN: 08574383	Wing B 603, Leela Shanti Height, Iscon Mega City, Water Tank Road, Sterling Hospital, Bhavnagar,	08/08/2024	<p>Mr. Sandeep Kothari, aged 45 years, was Non-Executive Director of the Company. He holds the directorship in the Company since August 08, 2024.</p> <p>He holds a degree in Bachelor of</p>

		Gujarat – 364002		<p>Commerce from Barkatullah University Bhopal. He is also a fellow member of ICAI.</p> <p>He has 8 years of experience in steel industry with overall experience of over 20 years. Presently, he is also a Director in Urja Ships Private Limited, Breamer Subsea Pvt Ltd, Tangible Recycling Pvt Ltd and is also a designated partner in Bansal Endeavours LLP and karta of Sandeep Kothari HUF</p>
Mr. Munishkumar Amritlal Bansal D.O.B: 25 th November, 1982	Director DIN: 06364716	Plot No. 313 to 319, Near Water Tank, Opp. Victoria Park, Iscon Megacity, Bhavnagar, Gujarat – 364002	29/08/2024	<p>Mr. MunishKumar Bansal, aged 42 years, bearing PAN no. AUSPB3624P has been appointed as Director of the Company.</p> <p>He has working industrial experience of over 15 years and has worked alongside leading entrepreneurs.</p> <p>Mr. Munishkumar Bansal is the joint Managing Director of the Company and is taking care of Business development and plays an active role while taking strategic decisions of the business.</p>

Source: Data/Information provided by the client

Below tables shows the information of the companies/LLPs with which each Director is associated with to give a basic background detail of the promoters as found on public domain in general/ tertiary category research.

(MR. NIKHIL GUPTA DIN: 07981873)

S. No	Company Name (CIN/FCRN)	Designation	Original Date of Appointment	Date Of Appointment at Current Designation
1	Fidelis International Private Limited (U36100GJ2015PTC084732)	Director	01/11/2018	01/11/2018

2	Sai Bandhan Infinium Limited (U35105GJ2004PLC044607)	Director	20/12/2018	20/12/2018
3	Sai Infinium Private Limited (U27320GJ2019PTC110732)	Director	-	08/11/2019
4	Oro International Private Limited (U74999GJ2015PTC083987)	Director	-	29/04/2019

Source: Information extracted from MCA website & public domain

(MRS. AVANI RANKA DIN: 10809483)

S. No	Company Name (CIN/FCRN)	Designation	Original Date of Appointment	Date Of Appointment at Current Designation
1	Sai Bandhan Infinium Limited (U35105GJ2004PLC044607)	Director	16/10/2024	24/10/2024
2	Sai Bandhan Infinium Limited (U35105GJ2004PLC044607)	Additional Director	-	16/10/2024

Source: Information extracted from MCA website & public domain

(MRS. ASTHA DIGANT MEHTA DIN: 10810751)

S. No	Company Name (CIN/FCRN)	Designation	Original Date of Appointment	Date Of Appointment at Current Designation
1	Sai Bandhan Infinium Limited (U35105GJ2004PLC044607)	Director	16/10/2024	24/10/2024
2	Sai Bandhan Infinium Limited (U35105GJ2004PLC044607)	Additional Director	-	16/10/2024

Source: Information extracted from MCA website & public domain

(MR. MEHUL SHASHIKANT VADODARIA DIN: 10768714)

S. No	Company Name (CIN/FCRN)	Designation	Original Date of Appointment	Date Of Appointment at Current Designation
1	Sai Bandhan Infinium Limited (U35105GJ2004PLC044607)	Director	15/10/2024	24/10/2024
2	Sai Bandhan Infinium Limited (U35105GJ2004PLC044607)	Additional Director	-	15/10/2024

Source: Information extracted from MCA website & public domain

(MR. DINESHKUMAR RAVISHANKAR DAVE DIN: 10776918)

S. No	Company Name (CIN/FCRN)	Designation	Original Date of Appointment	Date Of Appointment at Current Designation
1	Sai Bandhan Infinium Limited (U35105GJ2004PLC044607)	Director	15/10/2024	24/10/2024
2	Sai Bandhan Infinium Limited (U35105GJ2004PLC044607)	Additional Director	-	15/10/2024

Source: Information extracted from MCA website & public domain

(MR. SHIVNARAYAN VIJAYKUMAR BANSAL DIN: 02247531)

S. No	Company Name (CIN/FCRN/LLPIN)	Designation	Original Date of Appointment	Date Of Appointment at Current Designation
List of Associated Companies				
1	Sai Bandhan Infinium Limited (U35105GJ2004PLC044607)	Managing Director	29/08/2024	24/10/2024
2	Devansh Infinium Private Limited (U24109GJ2023PTC141598)	Director	15/03/2024	15/03/2024
3	Bansal Fintrade Private Limited (U65999GJ2009PTC107234)	Director	03/12/2013	09/10/2019
4	Devansh Multimetals Private Limited (U27100GJ2014PTC078735)	Director	14/02/2014	14/02/2014
5	Sai Bandhan Infinium Limited (U35105GJ2004PLC044607)	Director	-	29/08/2024
6	Sai Infinium Private Limited (U27320GJ2019PTC110732)	Director	-	07/08/2024
7	Orbis Infinium Private Limited (U92190GJ2014PTC078907)	Director	-	25/02/2014
8	Bansal International Private Limited (U35110GJ2004PTC107230)	Director	-	10/07/2008
9	Saffron Refinery Private Limited (U36994GJ2020PTC118355)	Director	-	21/11/2020
10	Bansal Fintrade Private Limited (U65999GJ2009PTC107234)	Additional Director	-	03/12/2013
List of Associated LLPs				
1	Leela Responsible Recycling LLP (AAO-7795)	Partner	-	04/04/2019
2	Saibaba Shiprecycling LLP (AAP-0879)	Partner	-	26/04/2019
3	Bansal Endeavours LLP (AAO-0999)	Partner	-	22/01/2019
4	Bansal Vesselbreakers LLP (AAO-2454)	Partner	-	11/02/2019
5	Bansal Vesselrecycling LLP (AAP-3707)	Partner	-	21/05/2019

Source: Information extracted from MCA website & public domain

(MR. SANDEEP KOTHARI DIN: 08574383)

S. No	Company Name (CIN/FCRN/LLPIN)	Designation	Original Date of Appointment	Date Of Appointment at Current Designation
List of Associated Companies				
1	Sai Bandhan Infinium Limited (U35105GJ2004PLC044607)	Director	08/08/2024	08/08/2024

2	Tangible Recycling Private Limited (U51100GJ2015PTC082024)	Director	08/12/2022	30/09/2023
3	Urja Ships Private Limited (U35900MH2022PTC395911)	Director	30/03/2023	02/09/2023
4	Breamer Subsea Private Limited (U82990GJ2023PTC143633)	Director	07/08/2023	07/08/2023
5	Tangible Recycling Private Limited (U51100GJ2015PTC082024)	Additional Director	-	08/12/2022
6	Urja Ships Private Limited (U35900MH2022PTC395911)	Additional Director	-	30/03/2023
7	Arihant Ferroalloys Private Limited (U28999GJ2019PTC110088)	Director	-	27/09/2019
List of Associated LLPs				
1	BANSAL ENDEAVOURS LLP (AAO-0999)	Designated Partner	-	01/10/2023
2	BANSAL ENDEAVOURS LLP (AAO-0999)	-	-	15/10/2019

Source: Information extracted from MCA website & public domain

(MR. MUNISHKUMAR AMRITLAL BANSAL DIN: 06364716)

S. No	Company Name (CIN/FCRN)	Designation	Original Date of Appointment	Date Of Appointment at Current Designation
1	Sai Bandhan Infinium Limited (U35105GJ2004PLC044607)	Director	29/08/2024	29/08/2024
2	Devansh Infinium Private Limited (U24109GJ2023PTC141598)	Director	23/05/2024	23/05/2024
3	Sai Infinium Private Limited (U27320GJ2019PTC110732)	Director	16/06/2023	16/06/2023
4	Shirdi Ship Breaking Private Limited (U37100GJ2012PTC071923)	Director	12/09/2012	12/09/2012
5	Honey Shipbreaking Private Limited (U35117GJ2003PTC041848)	Director	01/09/2016	01/09/2016
6	Pratyaksh Ship Breaking Private Limited (U74999GJ2017PTC100260)	Director	05/04/2021	05/04/2021
7	Shanti Ship Breakers Private Limited (U35117GJ2002PTC041019)	Director	-	10/09/2018

Source: Information extracted from MCA website & public domain

PART D

PROPOSED INFRASTRUCTURE DETAILS

1. PROPOSED PLANT LOCATION:

The proposed Wind Solar Hybrid Power plant will be set up by M/s Sai Bandhan Infinium Limited at Village: Vichhiyad, Taluka: Vagra, District: Bharuch, Gujarat – 392140, which is spread over an area of 137.77 Acre as per the data/information provided to us by the company.

During the site visit, we found that the proposed land is a vacant agricultural land which is not demarcated and work on the Project has not been started yet. As per informed by client, land development work will start soon. *(Kindly refer the site pictures captured during the survey attached in the later section of the report).*

Table: 1 is showing the details of the adjoining properties of the land for proposed hybrid power plant and Table: 2 is showing the Connectivity Details of the Proposed Location:

Table: 1 Adjoining Property Details	
Location	Details
East	Agricultural land
West	Agricultural land
North	Agricultural land
South	Agricultural land

Table: 2 Connectivity Details of the Proposed Location	
Connectivity	Details
Road	~15 t wide Vill. Vichhiyad road which is further connected to ~25 ft. wide Vagra Tehsil road
Rail	Major Railway station - ~32 km away
Airport	Vadodra International Airport, - ~80 km away

2. LOCATION MAP:

a) GOOGLE MAP LOCATION:

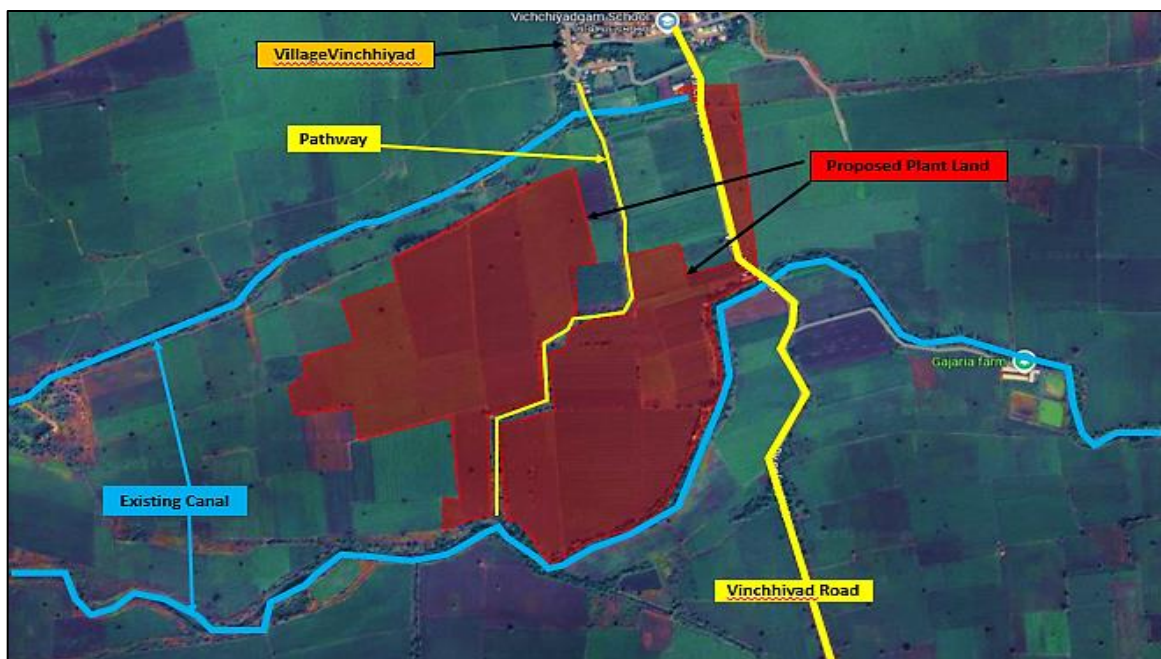
The hybrid power plant is proposed to be commissioned at Village: Vichhiyad, Taluka: Vagra, District: Bharuch, Gujarat – 392140 with GPS coordinates 21°52'53.3" North and 72°50'13.0" East as per the Google map attached below:



b) GOOGLE MAP LAYOUT:

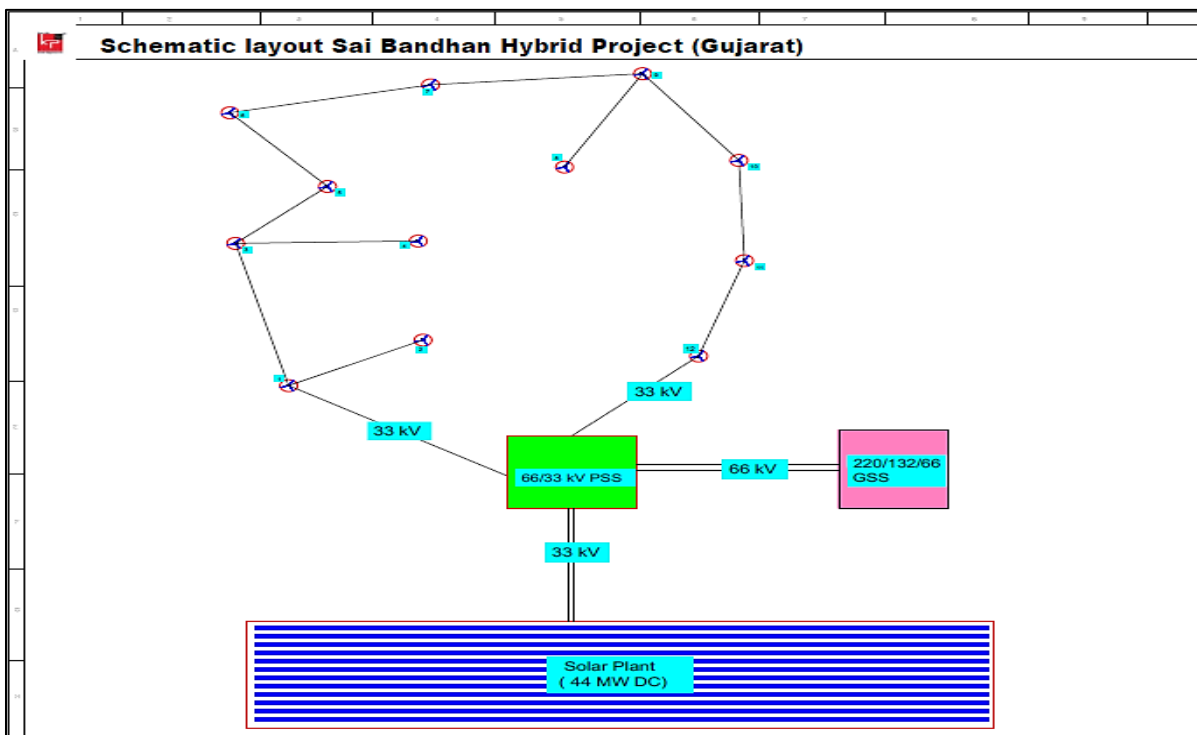
Demarcation of the land with approximate measurement on the Google map is attached in the below picture:



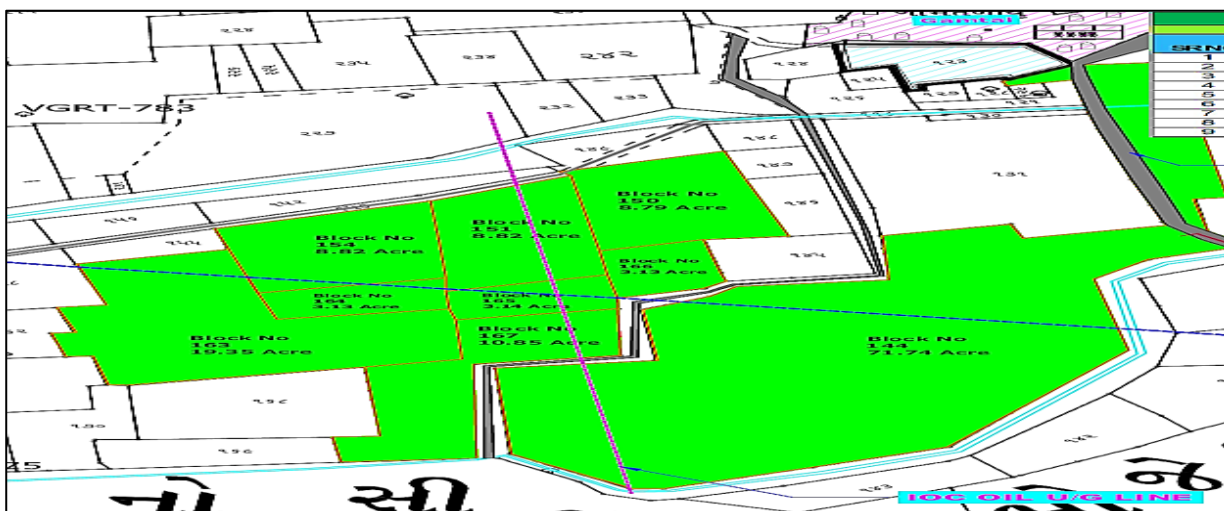


3. LAYOUT PLAN:

As per the data/information provided by the client/Company, Proposed Schematic layout plan layout plan is attached below for reference:



Note: As informed by the client, the schematic layout plan is subject to change as per the actual implementation plan.



Company needs to obtain Change of land use (CLU) as it seems an agricultural land. Any kind of sale/lease deed is not shared with us by the client due to confidentiality and Sub-lease is subject to payment milestones as per informed by client. We recommend the financial institution to suggest the client to submit the lease/sub-lease deed along with the current status of land use before disbursement.

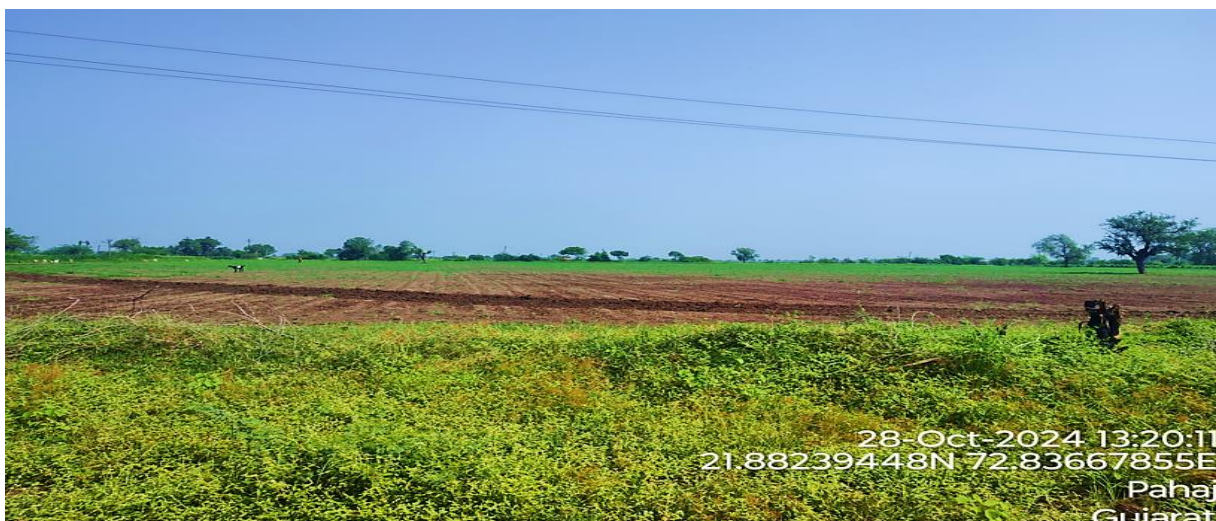
During the site visit dated 28th October 2024, we found that the proposed land is a vacant agricultural land which is not demarcated and work on the Project has not been started yet. As per informed by client, land development work will start soon. (Kindly refer the site pictures captured during the survey attached in the later section of the report).

5. SITE PICTURES:

Site pictures were captured during the site visit on 8th May 2024, for reference few of the pictures are attached below:







6. BUILDING & CIVIL WORKS:

The proposed wind solar hybrid power plant will not be having major building and civil works. Only land development and foundation work will be there as per the requirement of WTG and PV modules. Out of total EPC cost of INR 433.03 Cr., INR ~5% i.e. INR 21.67 Cr. will be the cost of Civil work, which seems to be reasonable after considering the infrastructure of the plant. However we are relied upon the data/information and EPC agreement of KPI shared with us by the client in this regard.

7. PLANT & MACHINERY/ EQUIPMENTS DETAILS:

Wind Power Plant	
Basic date	
Turbine Make	Suzlon

Model	S120-2.1MW
Rotor Diameter	120 mtr
Tower Height	138.10 mtr
Tower Type	Hybrid Lattice Tower (HLT)
Foundation Level	Site Specific (0.5 mtr)
Operating Data	
Rotor Speed Range	7.78 to 14.11 rpm
Rate Wind Speed	9.5 m/s (without turbulence intensity according to IEC 61400)
Cut in wind Speed	3.0 m/s
Cut out wind Speed	18.0 m/s
Tower Data	
Hub Height	140 mtr
Material	S355
Internals	Ladder-guided climber, cabling lights
Generator	
Type	Slip ring asynchronous generator
Rated frequency	50 Hz
Power factor with consumption	0.94 cap. To 0.94 ind.
Rotor data	
Rotor cone angle	3.5 degree
Rotor speed at rated power	12.78 rpm
Main shaft tilt angle	5 degree
Blades	
Quantity	3
length	59.0 m
material	Glass fibre-reinforced epoxy
Type of aerodynamic	Pitch/full blade
Transformers	
Type	Oil filled transformer
Winding connection	Delta/star
Vector group	Dyn5/Dyn11 (grid-dependent)
Rated apparent power	2300 kVA/ 2400 kVA

Source: Data/information provided by the client.

Solar Power Plant	
Produced Energy	98037 MWh/year
Specific production	1689 kWh/kWp/year
Performance Ratio (PR)	85.72%
Solar Module capacity	540Wp
type	Bi-facial N-type Dual Glass Framed
Make	Waaree Energies Ltd.
Panels Required	~75926 qty
Invertor Make	Sungrow
Max. PV input voltage	1500 V
AC output power	352 kVA @ 30 °C / 320 kVA @ 40 °C / 300 kVA @ 51 °C / 301.8 kVA @ 50 °C
Max. efficiency	99.02 %

Source: Data/information provided by the client.

As per EPC agreement, the estimated cost the plant will be ~467.62 Crore including INR 433 Cr. EPC cost, Interest During Construction (IDC), Contingencies and preliminary & Pre-operative expenses.

The estimated cost of the Plant & Machinery has been provided to us by the client as per EPC agreement. However, as a TEV consultant, the cost of major plant & machinery has been verified by us independently, which we found reasonable & in the permissible range although the cost may change as per specifications & brand.

Note: It is to be noted here that the cost estimation done by us is just a general assessment for TEV purpose. However, detailed cost vetting is out of scope of this TEV report.

8. UTILITIES: Details of Water, Electricity and other utilities are describes as below:

a. WATER:

As per the data/information provided by the client, there are two canals nearby the site and drinking water can also be arrange local municipality supply.

b. ELECTRICITY:

Not required as it is a power generating hybrid power plant itself.

Thus, ~INR 7.06 Crore per MW is the expected CAPEX for the proposed 66.20 MW Wind Solar Hybrid power plant as shown in the below table:

Particular	Capex (INR Cr.)	MW	Per MW Cost
Solar	149.31	41.00	INR 3.64 Cr.
Wind	284.05	25.20	INR 11.27 Cr.

Per MW cost of Solar and Wind power plants are in the line with market trends. The cost of a 1 MW solar power plant in India is typically between ₹4 and ₹5 crores. The cost depends on several factors, including: Solar panels, Land, Balance of system (BOS) components, Installation challenges, Batteries. For reference Amplus Solar (<https://amplussolar.com/blogs/1mw-solar-power-plant>) and Waree (<https://waaree.com/blog/5-mw-solar-power-energy-plant-in-india-profit-cost-land-requirement/>) are known name in this field.

Similarly, According to a report by the Ministry of New and Renewable Energy in India, the capital cost of wind power projects in India ranges from INR 5.5 crore per MW to INR 6.5 crore per MW (approximately USD 750,000 to USD 880,000 per MW) for onshore wind projects, and from INR 8.5 crore per MW to INR 12 crore per MW (approximately USD 1.2 million to USD 1.6 million per MW) for offshore wind project.
(<https://www.linkedin.com/pulse/india-wind-energy-potential-quesrow#:~:text=According%20to%20a%20report%20by,INR%2012%20crore%20per%20MW%20>).

Further, the proposed hybrid model in use incorporates a range of advanced technological improvements and structural enhancements. Specifically, it utilizes a combination of hybrid tubular and lattice tower structures, designed with a higher hub height and an expanded blade swept area and turbines with DFIG technology.

These features allow for a significantly increased energy capture and improved efficiency. These structural enhancements, coupled with state-of-the-art production technology, contribute to both the higher upfront costs and the enhanced production capacity achieved with this model. This approach represents an investment in the latest technology, aligning with industry trends focused on achieving higher output per unit and reducing lifetime costs through greater efficiency, whereas the Rs. 5-7cr for on shore projects were proposed for the older technology turbines with less hub height and small swept area as per design.

PART E

PROJECT TECHNICAL DETAILS

1. CAPACITY OF THE PROPOSED WIND SOLAR HYBRID POWER PLANT:

This is a 66.20 MW Captive hybrid power plant (41 MW DC Solar + 25.20 MW Wind), so whatever we will generate here, Gujarat Energy Transmission Corporation Limited (GETCO), power transmission company in the state of Gujarat, India will provide same units credit to the company's electricity bill unit to unit basis as illustrated in the below table:

Capacity of the proposed Power plant	
Particular	Capacity
Solar Power Plant	41 MW (~75926 nos. of Solar Panel) 540Wp of Bi-facial N-type Solar module from Waaree
Wind Power Plant	25.20 MW Suzlon S 120 – (2.1 X 12)

Source: Data/information provided by the client.

2. PROJECT IMPLEMENTATION:

M/s Sai Bandhan Infinium Limited has executed an EPC/Techno-Commercial contract with KPI Green Energy Private Limited for Captive hybrid power plant for 25.20 WTG with 36% PLF & 41 MW DC Solar 18.50% PLF.

KPI Green Energy Limited, is the solar and hybrid vertical of KP Group, a prominent Gujarat based solar and hybrid power generating company has been appointed an EPC through entering into a legal agreement dated 13th September 2024 who will be the solution provider for the proposed 66.20 MW hybrid project to implement on turnkey basis within 16 months of zero date for CPP vertical i.e. to design, develop, transfer and maintain the solar and wind hybrid power plant on behalf of M/s Sai Bandhan Infinium Limited as an industrial customer.

3. COMMERCIAL AGREEMENT DETAILS:

Techno-Commercial Contract is signed on 13th September 2024 by both the parties for CPP vertical i.e. to design, develop, transfer and maintain the solar and wind hybrid power plant on behalf of M/s Sai Bandhan Infinium Limited as an industrial customer. As per Scope of supply, estimated generated unit from the hybrid project would be 1459.15 lakhs in the initial year as shown in the below table:

Tentative annual units at generation at RE park end (1 st Year) (kwh in lakhs)				
S. No	Type/Make/Model	MW	Estimated PLF	Estimated Generation Units
1	Wind/ Suzlon/ 2.1 Suzlon	25.20	36.00%	794.71
2	Solar DC/ Tier-1 Bifacial Module/ Fix Tilt	41	18.50%	664.45
Total units in lakhs				1459.15
Total Units after transmission and curtailment losses (lakhs)				1385.90

Source: EPC Agreement shared by client.

COMMERCIAL DETAILS OF AGREEMENT

Commercial details of EPC agreement is shown in the below table:

Commercial Details of EPC Agreement						
Sr. No.	Division	Particular	UOM	Amount per Unit	GST (%)	Total Amount
1	Wind	Supply of 25.20 MW (2.1 Suzlon, 140 Mt.) including logistics of WTG supply from ex-works to wind farm storage yard and supply of package substation. Special lifting tools, stub, template and required accessories, hardware, supervision & service, PSS, included	WTG	15,00,00,000	(12%) 1,80,00,000	16,80,00,000
2		Balance of plant (Land, Foundation, Approach Road, Substation installation, WTG Erection and commissioning)	WTG	5,80,00,000	18% 1,04,40,000	6,84,40,000
Amount per WTG				20,80,00,000	2,84,40,000	23,64,40,000
A	Total Amount for 12 WTG Nos for 25.20 MW			2,49,60,00,000	34,12,80,000	2,83,72,80,000
1	Solar	Supply of Solar Panel and construction of solar park with supply of PV panels Tier-1 Top Con, Inverter, all required inverter duty transformer, AUX, Transfer, LTDB, MMS, HT Cable, LT Cable, DC Cable, Earthing Cable, HDPE	MW	3,20,00,000	(13.80%) 44,16,0000	3,64,16,000

		Pipe, Cable Accessories, Eathing Strips, Metering, Balance of plant (Land, Permits, approvals, land fencing, approach road, internal line, commissioning) fix tilt				
B	Total amount for 41 MW Solar DC			1,31,20,00,000	18,10,56,000	1,49,30,56,000
C	Total Hybrid Project Amount			3,80,80,00,000	52,23,36,000	4,33,03,36,000

O&M AND LEASE ILLUSTRATION

O & M Agreement					
Sr. No.	Particular	Units	Price In Lakhs	Escalation	Free Year
1	Solar Lease	MW	1.15	5% Every 3 year	0
2	Solar OMS Standard	MW	3.50	4%	2
3	BOP OMS Standard	WTG	3.15	5%	2
4	WTG OMS Comprehensive	WTG	19.99	5%	2
5	WTG Lease	WTG	3.00	5% Every 3 year	0

Sr. No.	OMS Charges	Units	Amount per unit In Lakhs	Capacity	Total in Lakhs
1	2.1 MW WTG Comprehensive	Nos	19.99	12	239.88
2	2.1 MW BOP Standard	Nos	3.15	12	37.80
3	Solar Standard	MW	3.50	41	143.50
Total					421.18

Sr. No.	Lease Charges	Units	Amount per unit In Lakhs	Capacity	Total in Lakhs
1	2.1 MW WTG	Nos	3.00	12	36.00
2	Solar	MW	1.15	41	47.15
Total					83.15

4. EPC DETAILS:

KP Group was established in 1994 and KPI Green Energy Limited which is a NSE & BSE listed company incorporated in 2008. KPI Green Energy Limited, is the solar and hybrid

vertical of KP Group. It is a prominent Gujarat based solar and hybrid power generating company. Incorporated in February, 2008, focused on providing solar and hybrid power through different Business verticals. The Company develops, builds, owns, operates and maintains solar and hybrid power plants through as an Independent Power Producer (IPP) and as service provider to Captive Power Producer (CPP) under the brand name of 'Solarism'.

Company is having its corporate office at 'KP House', Near KP Circle, Opp. Ishwar Farm Junction BRTS, Canal Road, Bhatar, Surat-395017 Gujarat, India and corporate office at Rajhans Montessa, 4th Floor (409) & 7th Floor (708), Dumas Rd, beside Le Meridien Hotel, near Airport, Surat-395007 Gujarat, India.

Particular	Description
Name	M/s KPI Green Energy Limited
CIN	L40102GJ2008PLC083302
Reg. Address	KP House, Near KP Circle, Opp. Ishwar Farm Junction BRTS, Canal Road, Bhatar , Surat City, Gujarat, India - 395017.
Website	https://www.kpigreenenergy.com/
ROC	ROC Ahmedabad
Date of Incorporation	01 February 2008
Company Category	Company limited by shares
Company Sub Category	Non-government company
Class of Company	Public
Authorised Share Capital	INR 700,000,000
Paid-up Share Capital	INR 602,826,080

Reflection Solar & Energy Co. is the group of companies of Shri Sai Electrical and Nuglade PVT Ltd. Company provides complete EPC & Roof top solutions for large, medium & small solar power plants ranging from Kilowatt to Megawatt scale. Having 250+ highly skilled human resources, they have Installed more than 35 MW Solar Photovoltaic System in India. Major group entities of KP group are as follows:

- KPI Green Energy Limited
- KPI Energy Limited

- KPI Green Engineering Limited
- KP Human Development Foundation
- KP Green Hydrogen & Ammonia Technology Private Limited.

KPI Green Energy Private Limited performs in two verticals as follows:

- IPP Vertical: The Company sells the solar power generated from its wind or hybrid plant to reputed industries through bilateral PPA under third party open access regulation of Gujrat Solar Power policy.
- CPP Vertical: The Company provided its services to design, develop, transfer and maintain the Solar & Hybrid plant on behalf of its industrial Customers.

They develop, transfer, operate and maintain grid-connected solar power projects for their CPP customers and generate revenue through the CPP model by selling solar power project to customers to meet their requirements. The captive solar plants help companies save on electricity expenses as the cost per unit for captive plants is lower than that from DISCOM.

They strive to provide absolute value to the customers through their turnkey solutions. This provides them access to common power evacuation infrastructure along with a pool of grid-connected land to generate solar power. They also offer Operation and Maintenance Services (O&M) through a separate O&M agreement to our customers. This provides them with a long-term annuity stream of revenue. Journey and key milestones of the company are as follows:

Year	Achievement
2008	<ul style="list-style-type: none"> • The Company was established
2013	<ul style="list-style-type: none"> • Received a GEDA registration certificate for developing a 15 MW Solar plant in Bharuch. • Received Power evacuation (PE) approval from the Gujarat Energy Transmission Corporation Limited (GETCO) for the first 15 MW
2014	<ul style="list-style-type: none"> • Commencement of 66 KV Transmission Line construction from Sudi plant to GETCO's Amod Substation for power evacuation
2015	<ul style="list-style-type: none"> • Signing of the first PPA and beginning of construction of the solar plant. • Another 15MW MOU signed with G.o.G. in Vibrant Gujarat. • Successful completion and charging of the 66KV Transmission Line
2016	<ul style="list-style-type: none"> • Received "Solar Innovation & Excellence Award - Excellence in Solar Park - Rise" • Commissioning of the first 1.5MW of solar plant and commencing the sale of power
2017	<ul style="list-style-type: none"> • Received GETCO approval for the next 15 MW (Total 30 MW) evacuation • Received GETCO approval for the laying of a second circuit on a 66 KV Transmission line using a panther conductor • Another 20MW MOU signed with G.o.G. in Vibrant Gujarat

2018	<ul style="list-style-type: none"> Received a GEDA registration certificate for developing the next 25 MW Solar plant Power Finance Corporation Ltd. (PFC) approved and signed a facility agreement to part finance 25 MW solar plant Launched a new segment of business under the Captive Power Producer (CPP) category and commissioned the first CPP solar plant
2019	<ul style="list-style-type: none"> Listed in BSE SME Board Disbursal of Loans from PFC started Successfully commissioned 15 MW of capacity for Phase 1 under the Independent Power Producer (IPP) category
2020	<ul style="list-style-type: none"> Successfully commissioned an additional 25 MW of capacity, aggregating to 40.7 MW under the Independent Power Producer (IPP) category
2021	<ul style="list-style-type: none"> Successfully migrated to the Main Board platform of BSE as well as on NSE Successfully commissioned incremental IPP capacity, aggregating to 49.2 MW. Also, charged a new 11kv transmission line for power evacuation capacity for CPP clients
2022	<ul style="list-style-type: none"> Successfully achieved the milestone of 100+ MW of capacity energized under the IPP segment Successfully energized 65+ MW of capacity under the CPP segment Switching from PFC to SBI results in a reduction in interest rates from an average of 11.30% p.a. to 7.45% p.a. Achieved the highest EPS ever at INR 43.09 during the 9 months period of FY-22-23
2023	<ul style="list-style-type: none"> ICRA has upgraded our credit rating from BBB+ to A KPI Global Infrastructure Ltd. has been renamed 'KPI Green Energy Limited' to make it more representative of the industry Successfully commissioned 26.10 MW first IPP Hybrid Project Successfully achieved the milestone of 300+ MW of cumulative capacity energised (IPP+CPP)
2025	<ul style="list-style-type: none"> 1000 MW.

Sources: As per data/information available in public domain.

KPI Green Energy Ltd has been serving its clients with the state of art renewable energy solutions in last 16+ years. Under the brand name of "Solarism" the company is on a sprint to achieve the humongous task of 1000+ MW in solar energy by 2025. The company has lately entered into the Hybrid energy solution provider vertical and has already achieved 1+ GW as orders in hand and 68+ MW Capacity already energized as on FY24. Company is having total 38 renewable sites at present shown in the below picture:

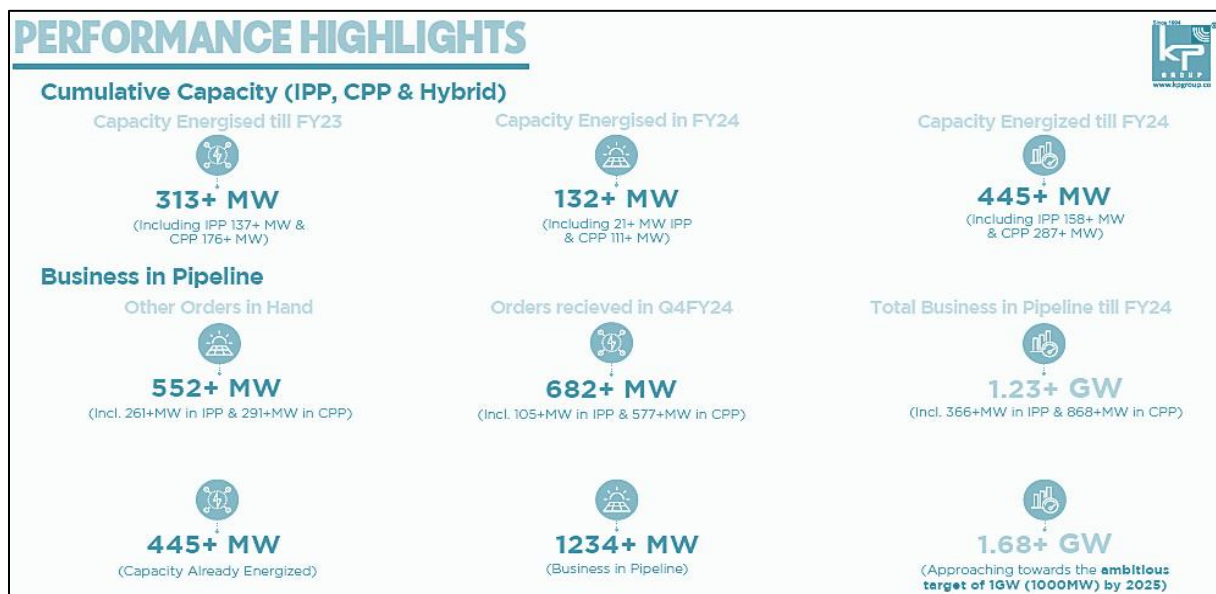
Dist. Bhavnagar	Dist. Kutch	Dist. Tapi	Dist. Surendranagar	Dist. Banaskantha	Dist. Rajkot	Dist. Narmada
BHUNGAR	KHAVDA	HATHODA	DHRANGADHRA	GIDASAN MOTI	JASDAN	SAGBARA
UNCHADI	NAKHATRANA	NIZAR				
VATALIA						
TALAJA						

Dist. Bharuch					
SAROD	SAMOJ	OCHHAN	BHIMPURA	TANCHHA	VILAYAT
SUDI	ORA	VAGRA	SHAHPURA	RANADA	KANVA
KURCHAN	BHENSALI	SAMIYALA	SIMARTHA	VEDCHHA	BHALOD
MULER	JHANOR	CHAKLAD	BHERSAM	KORA	JARSAD
NAMALPUR	NETRANG				

KEY TEAM OF EPC:

Name	Designation/Description
Dr. Faruk G. Patel	<ul style="list-style-type: none"> (Chairman & Managing Director, Kpigreenenergy Ltd.) Managing Director is the founding promoter of our company. He is one of the highly acclaimed entrepreneurs and visionary corporate leaders of the city. From starting his business journey of establishing a small venture engaged mainly in logistics and construction of residential buildings in the year 1994 to become the founder and promoter of 35 companies with the brand name of KP Group engaged into various businesses mainly Solar, Wind, Hyrbid and Green Hydrogen Ammonia and Fabrication & Galvanising within a short span of time speaks volume about his business acumen and entrepreneurship. During his entire business career, he has always emphasized upon pecuniary as well as the social objectives, pursuant to which he has earned fame and social acclamation from the community and the fraternity. Considering his achievements and contributions made by him to the city, he has also been awarded as 'Legends of Surat 2018' by Gujaratmitra, 'The Leaders Award 2019' by Mantavya News and also 'Business Icon 2018' by Times Group. Currently, He is also the Managing Director on the board of our Wind vertical Group Company, viz 'K.P. Energy Limited'. Lately he is also honored by the Honorary Doctorate by the American East Coast University, USA.
Mr. Moh. Sohil Yusufbhai Dabhoya	<ul style="list-style-type: none"> Wholetime Director
Mr. Shaheedul Hasan	<ul style="list-style-type: none"> Chief Operating Officer
Mrs. Venu Birappa	<ul style="list-style-type: none"> Independent Director
Mrs. Bhadrabala D. Joshi	<ul style="list-style-type: none"> Non-Executive Director
Mr. Mohamed Hanif Mohamed Habib Dalchawal	<ul style="list-style-type: none"> Independent Director

Mr. Sharadchandra B. Patil	<ul style="list-style-type: none"> Independent Director
Mr. Salim Suleman Yahoo	<ul style="list-style-type: none"> Chief Financial Officer
Ms. Rajvi Upadhyay	<ul style="list-style-type: none"> Company Secretary & Compliance Officer



As per the data/information available in public domain about the Company, Company has earned a revenue of ~INR 1031 Cr. and having a PAT of INR 162 Cr. during the FY 2024. Company is having a cumulative capacity of 445 MW till FY 2024, while cumulative power evacuation capacity of the company is 1657 MW. Company is having a land bank (Owned + leased) of 2217 Acres. As per ICRA rating of the Company is A- at present. Company is having a Total Business in Pipeline of 1.23+ GW. Market Capitalization of the Company till 25th April 2024 is ~112,714 Crore.

5. TECHNICAL SPECIFICATIONS OF THE PROPOSED POWER PLANT:

As per the data/information provided by the client, below table shows the technical specification of the proposed Power plant:

WTG (25.20 MW):

GENERAL TECHNICAL SPECIFICATION OF S 120 140/2.1 MW WOE

Basic data

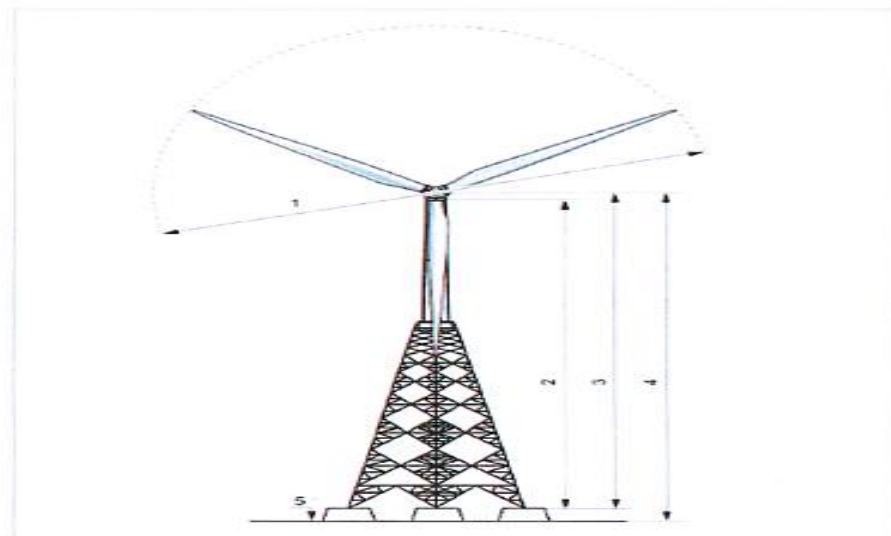
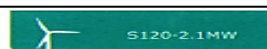


Figure 1: Dimensions of wind turbine generator (WTG)

1	Rotor diameter	120 m
2	Tower height	138.10 m
3	Tower type	Hybrid lattice tower(HLT)
4	Hub Height	140 m
5	Foundation level	Site-specific (0.5 m)



Description	Information
Wind	IEC S
WTG certification Scheme	IEC 61400-1 edition 3
Estimated service life	20 years
Ambient temperature range – operation	HIV light : "0 to 45 °C"
Ambient temperature range – Survival	HTV light : "0 to 50 °C"
A-factor (scale parameter)	8.15 m/s
Form factor (shape parameter) k	2.0 and 2.5
Annual average wind speed	7.25 m/s
Vertical average shear component	0.2
Extreme wind speed (10-minute average)	36.5 m/s
Survival wind speed (3-second average)	51.1 m/s
Reference turbulence intensity according to IEC 61400	0.14
Air density	1.16 kg/m³
Altitude (Height above sea level)	Max. 1000 m above sea level (refers to tower bottom ground level)

Humidity conditions

Description	Information
Permissible relative ambient humidity	0 to 100%

Corrosion protection

The corrosion protection applies in accordance with ISO 12944-2.

Description	Information		
Corrosion protection	Anti-corrosion paint (dry film thickness according corrosion protection class, except hot-dip galvanized components)		
Corrosion Category		External areas	Internal areas
	Nacelle and tower	C4-H	C3-H
	Hub	C4-H	C3-H
	Cabinets	—	C3-H

Lightning protection

The lightning protection applies to lightning protection level I in accordance with relevant standards. The lightning protection system is based on the lightning protection zone concept.

Grid connection

Description	Information
Voltage range (operation)	90% to 110% (continuously)
Current range (nominal)	Overcurrent protection via control system (SCS) and air circuit breaker (ACB) 2200A
Frequency range (operation)	47 Hz ≤ f ≤ 52.5 Hz / -6% to +5% (continuously)
Low Voltage Ride Through (LVRT)	Available
High Voltage Ride Through (HVRT)	Available



Tonality

Description	Information
Sound power level (L _{WA}) – normal operation mode	Max. 109.0 dB (A)

Further features

Description	Information
Quality standard	ISO 9001 / ISO 14001
SC-COMMANDER (control software user interface)	Available
Condition Monitoring System (CMS)	Optional*
Fire protection System	Optional*

*On request at additional cost

3 Operating data

Description	Information
Rated power	2.1 MW (enhanced performance: 2.25 MW)
Rotor speed range	7.78 to 14.11 rpm
Power regulation	Active pitch regulated
Rated wind speed	9.5 m/s (without turbulence intensity according to IEC 61400)
Cut in wind speed	3.0 m/s
Cut out wind speed	18.0 m/s

4 Tower data

Description	Information
Hub Height	140 m
Type	Hybrid lattice tower(HLT)
Material	S355
Internals	Ladder- guided climber, cabling, lights
Tower height	138.10 m

5 Nacelle data

Description	Information
Colour	RAL 7035
Main frame	
Description	Information
Type	Cast frame
Main shaft	
Description	Information
Type	Forged shaft
Main bearing	
Description	Information
Bearing type	Double row spherical roller bearing
Housing type	Cast Housing, flanged feet
Lubrication	Centralised automatic lubrication system (CALS) for main and yaw bearing Tank capacity: 8 l
Gearbox	
Description	Information
Type	1 planetary stages, 2 helical stage
Housing material	Cast steel
Cooling	Forced oil cooling lubrication system
Gear ratio	1:90 (± 0.3%)



Gearbox - electric oil pump

Description	Information
Electric oil pump voltage (phase to phase)	3 × 690 V
Mechanical brake	
Description	Information
Type	Hydraulic disc brake, activated by hydraulic pressure (active brake)
Brake disc	Material: steel Position: mounted on high speed shaft (HSS)
Coupling	
Description	Information
Type	Flexible coupling
Yaw system	
Description	Information
Yaw bearing	
Type	Friction bearing with gear rim
Yaw drives	
Type	Electrical driven planetary gearbox with motor brake and output pinion

Generator

Description	Information
Type	Slip ring asynchronous generator
Rated frequency	50 Hz (-6% to +5% continuously)
Number of poles/synchronous speed	6/1000 rpm
Cooling	IC616 as per IEC 60034 part 6
Rated power	2.315 MW (under DFIG operation with rotor circuit inverter system)
Power factor with compensation	0.94 cap. to 0.94 ind. (under DFIG operation with rotor circuit inverter system)
Protection class	IP 54 (slip ring IP 23)
Thermal classification	Class II (stator and rotor)
Lubrication	Centralised automatic lubrication system (CALS) Tank capacity: 2 l

Converter section

Description	Information
Technology	DFIG
Protection class	IP 54
Cooling	Liquid
Frequency variation capability	47 Hz to 52.5 Hz

6 Rotor data

Description	Information
Rotor cone angle	3.5°
Rotor speed at rated power	12.78 rpm
Main shaft tilt angle	5°
Power regulation	Electric blade pitch control
Rotor orientation	Upwind
Colour (rotor with blades)	RAL 7035

Blades

Description	Information
Type	SB59
Quantity	3
Length	59.0 m
Material	Glass fibre-reinforced epoxy
Type of aerodynamic brake	Pitch/full blade
Profiles	Glass low lift profile

Pitch system

Description	Information
Type	Electric asynchronous motor with forced ventilation unit, electric motor brake (spring-applied), planetary gearbox with output pinion, frequency converter, and ennergy backup
Quantity	3 (1 per blade)
Pitch angle range (operating range)	-5° to 95°
Pitch system – blade bearing	
Type	Eight point contact two row ball bearing
Lubrication blade bearing	Centralised automatic lubrication system (CALS) Tank capacity: 15 l

7 Transformer data

The scope of supply of the transformer is agreed by contract. If the transformer is supplied by the customer the below values are to be referenced as recommendations.

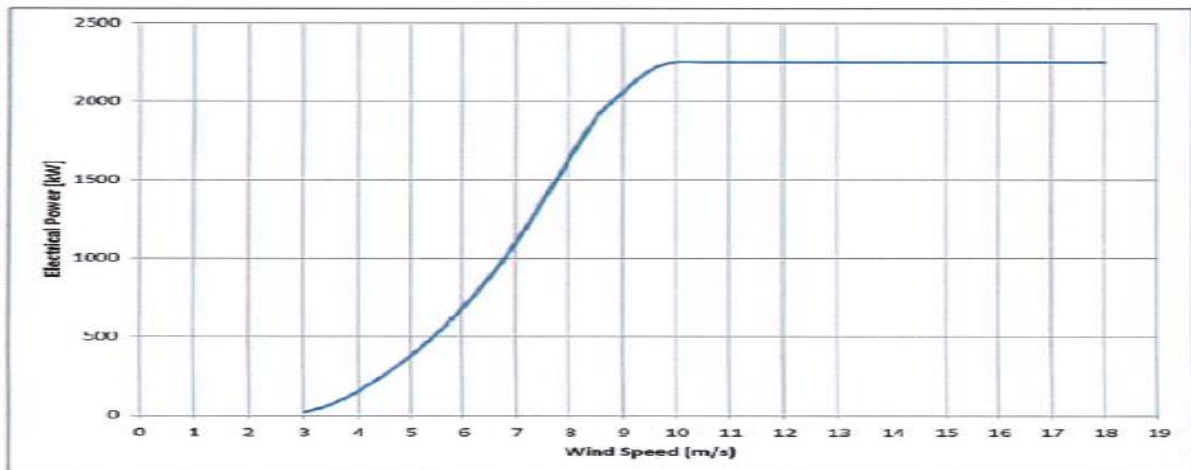
Description	Information
Type	Oil filled transformer
Winding connection	Delta (Δ)/Star (Y)
Vector group	Dyn5/Dyn11 (grid-dependent)
Rated apparent power	2300 kVA/ 2400 kVA

WARANTEED POWER CURVES: S 120 140/2.1 MW WOEG

Item	Parameter
Turbine	S120 2.1MW
Wind class	IEC S
Rotor diameter	120 m
Rotor blade	SB59
Rated power	2.1 MW
Cut in wind speed	3.0 m/s
Rated wind speed	9.5 m/s (without turbulence intensity according to IEC 61400)
Cut out wind speed	18.0 m/s
Grid Frequency	50 Hz

The power Curve at air density of 1.225 kg/cubic mt. The actual measurement may vary depending on different site-specification condition:

S120 (SB Blades)



Wind Speed and Power S120 (SB Blades) (AD=1.225 KG/cubic mt.)

Wind speed [m/s]	Electrical power [kW]
3.0	18
3.5	70
4.0	153
4.5	257
5.0	377
5.5	517
6.0	685
6.5	879
7.0	1103
7.5	1363
8.0	1633
8.5	1899
9.0	2060
9.5	2198
10.0	2250
10.5	2250
11.0	2250
11.5	2250
12.0	2250
12.5	2250
13.0	2250
13.5	2250
14.0	2250
14.5	2250
15.0	2250
15.5	2250
16.0	2250
16.5	2250
17.0	2250
17.5	2250
18.0	2250

TAWANAI WIND RESOURCE ASSESSMENT REPORT DATED 17TH SEPTEMBER 2024

KPI Green Energy Ltd - S120 2.1MWx14 - Vagra Final Report Mast: Sutrel Machine: Suzlon
S120 2.1MW 1.225AD Hub Height: 140 m Rotor Diameter: 120 m Internal Locations: 14
External Locations: 87 Air Density Considered: 1.16 Kg/m³.

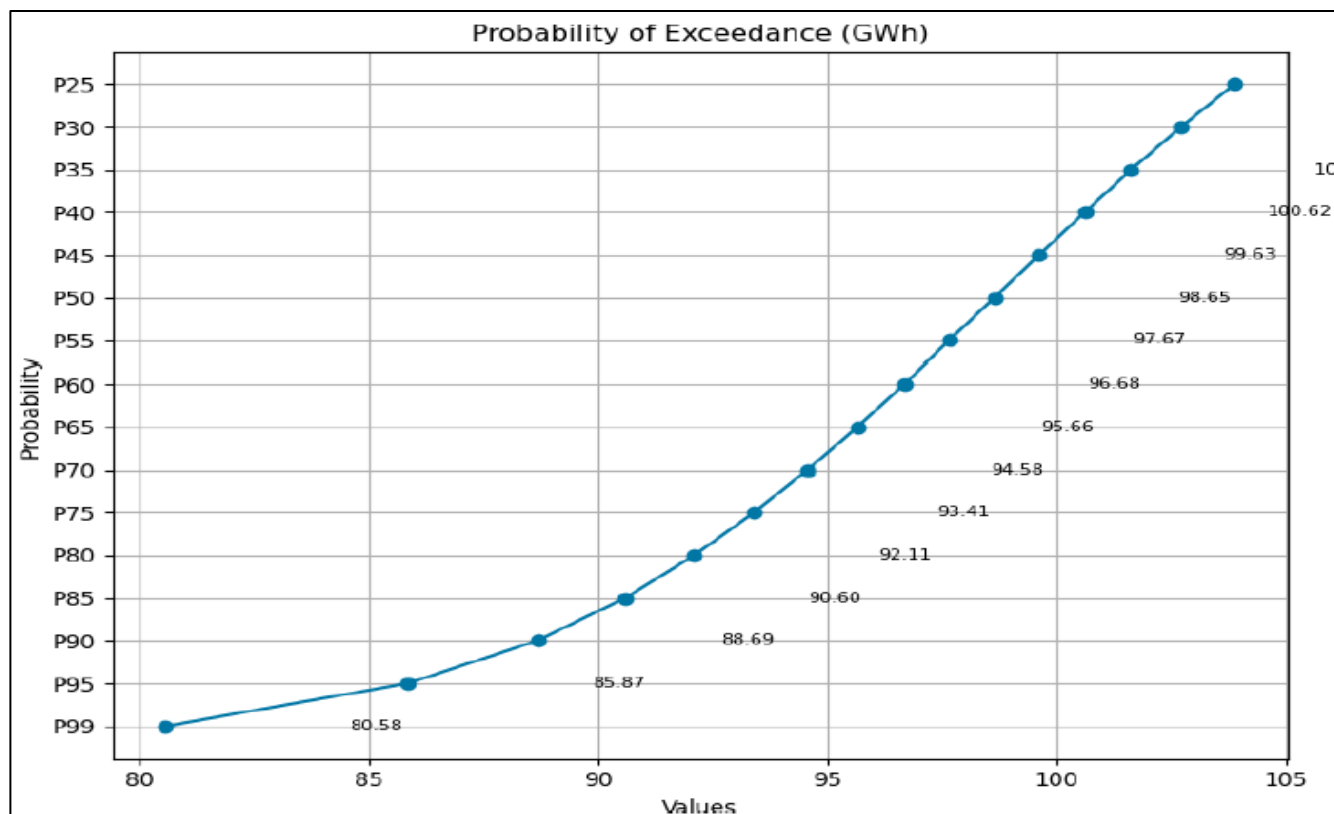
TECHNO-ECONOMIC VIABILITY REPORT

66.20 MW WIND-SOLAR HYBRID POWER PLANT

Particulars	Unit	Year 1	Year 10	Year 25	Remarks
No. of WTGs		14.0	14.0	14.0	14 Locations
Project capacity	MW	29.4	29.4	29.4	
Long Term Gross Gen. Estimate	GWh	117.85	117.85	117.85	Tawanai Analysis
Gross PLF Estimate	%	45.76	45.76	45.76	Tawanai Analysis
Machine Availability	%	95.0	97.5	97.0	Tawanai Assessment
Grid Availability	%	98.9	98.85	99.0	PGCIL SS GA
Wind sector management	%	100.0	100.0	100.0	Not Required-Tawanai Assessment
High wind hysteresis	%	100.0	100.0	100.0	Tawanai Analysis
Inflow angles	%	100.0	100.0	100.0	Tawanai Analysis
Temperature derating	%	100.0	100.0	100.0	Tawanai Assessment
Future Wake	%	100.0	100.0	100.0	Tawanai Assessment
Internal Wake	%	91.67	91.67	91.67	Tawanai Analysis - Derived from Modeling
Blockage-SpeedUP Net Effect	%	100.0	100.0	100.0	Tawanai Analysis - Derived from Modeling
Electrical line losses	%	97.0	97.0	97.0	Tawanai Assessment
Auxiliary consumption	%	99.7	99.7	99.7	Tawanai Assessment
Turbine Performance (Sub-optimal operation)	%	99.0	99.0	99.0	Tawanai Assessment
Turbine Power Curve Adjustment	%	99.7	99.7	99.7	Tawanai Assessment
Turbulence intensity	%	100.0	100.0	100.0	Tawanai Assessment
Blade soiling	%	99.71	99.71	99.71	Tawanai Assessment
Other environmental losses	%	100.0	100.0	100.0	Tawanai Assessment
Force Majeur	%	99.9	99.9	99.9	Tawanai Assessment
Long Term Correction Factor	%	100.0	100.0	100.0	Accounted for in Modeling
Effective loss factor	%	81.9	84.01	83.7	Tawanai Analysis
Net estimate @ P50	GWh	96.51	99.0	98.65	Tawanai Analysis
Net estimate @ P50%	%	37.47	38.44	38.3	Tawanai Assessment
Net estimate @ P75	GWh	90.05	93.65	93.41	Tawanai Assessment
Net estimate @ P75%	%	34.96	36.36	36.27	Tawanai Assessment
Net estimate @ P90	GWh	84.23	88.83	88.69	Tawanai Assessment
Net estimate @ P90%	%	32.7	34.49	34.44	Tawanai Assessment
Uncertainty	%	9.93	8.02	7.88	

PROBABILITY TABLE

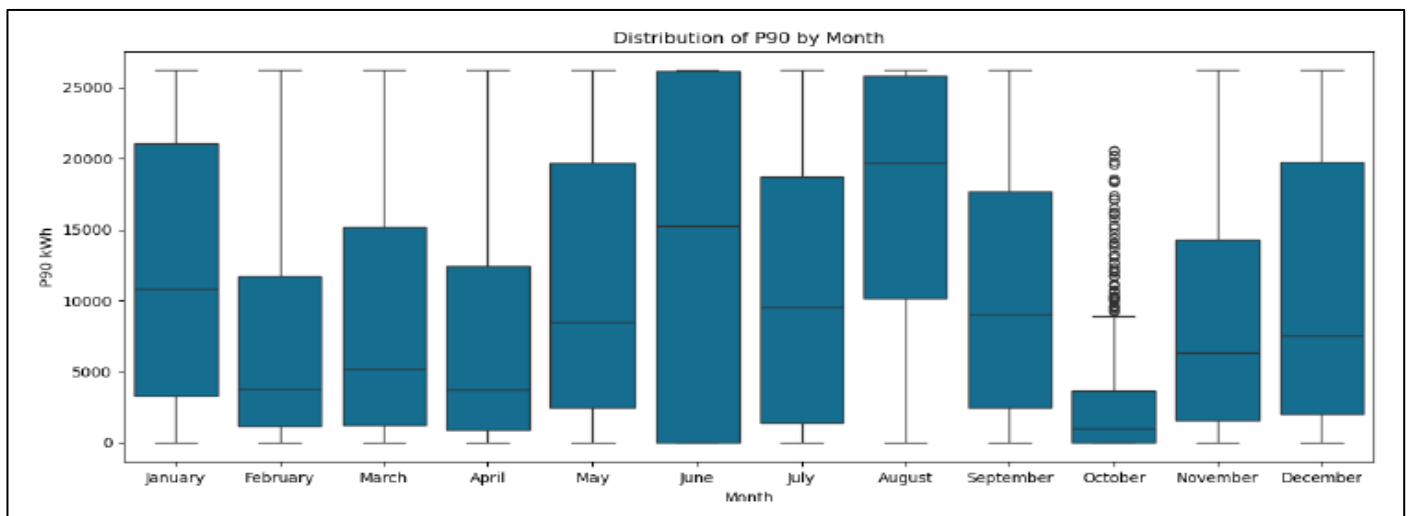
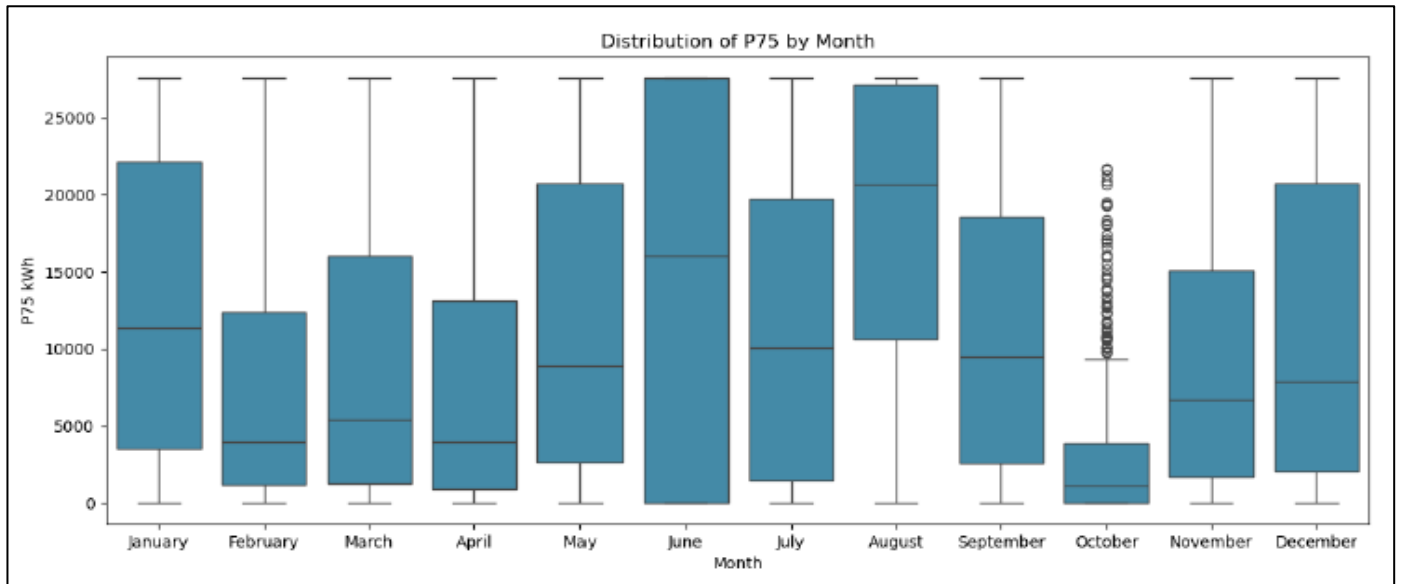
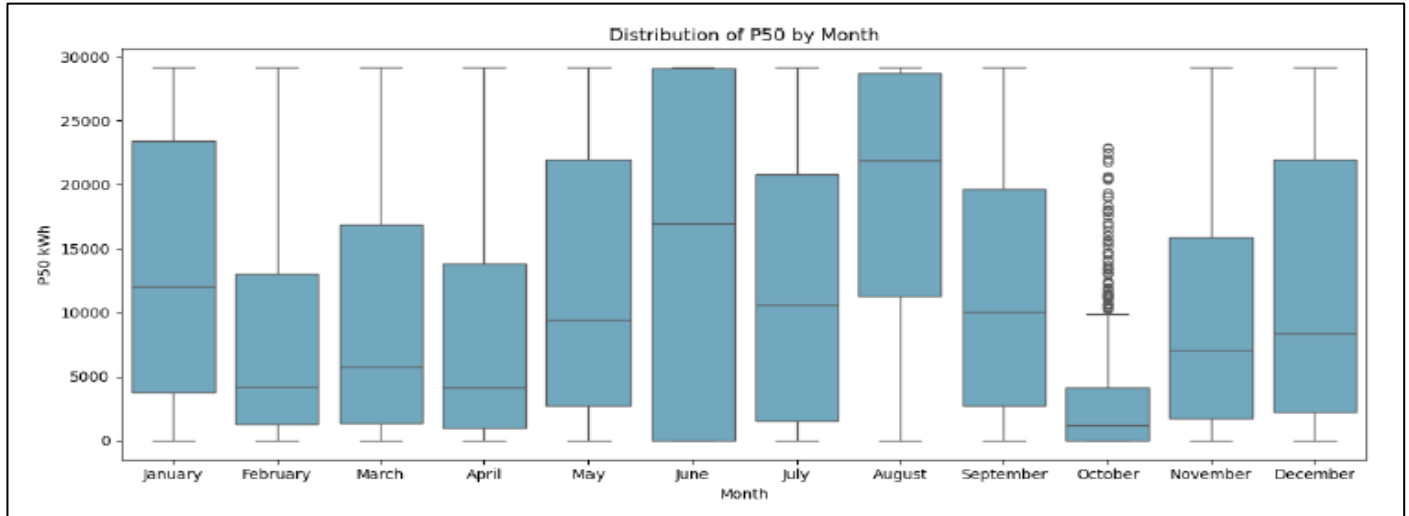
Probability	Values
P99	80.58
P95	85.87
P90	88.69
P85	90.6
P80	92.11
P75	93.41
P70	94.58
P65	95.66
P60	96.68
P55	97.67
P50	98.65
P45	99.63
P40	100.62
P35	101.64
P30	102.72
P25	103.89



LOSSESS TABLE

Losses	Project Specific
Machine Availability	97.0
Grid availability	99.0
Wind sector management	100.0
High wind hysteresis	100.0
Inflow angles	100.0
Temperature derating	100.0
Future Wake	100.0
Internal Wake	91.67
Blockage-SpeedUP Net Effect	100.0
Electrical line losses	97.0
Auxiliary consumption	99.7
Turbine Performance (Sub-optimal operation)	99.0
Turbine Power Curve Adjustment	99.7
Turbulence intensity	100.0
Blade soiling	99.71
Other environmental losses	100.0
Force Majeur	99.9
Long Term Correction Factor	100.0
Effective loss factor	83.7
Effective loss factor (without internal wake)	91.31


LONG TERM MONTHLY DISTRIBUTION, NET P50-P75-P90




DUAL GLASS BIFACIAL MODULE (WAREE) FOR THE PROPOSED SOLAR PLANT:

ELITE SERIES
N TOPCON TECHNOLOGY
BiN-08-545 to BiN-08-575
Framed Dual Glass Bifacial module


WAAREE[®]
One with the Sun




Highest reliability & enhanced crack tolerance MBB module




Sustain heavy snow & wind loads (5400 Pa & 2400 Pa)




Best in class thermal coefficients



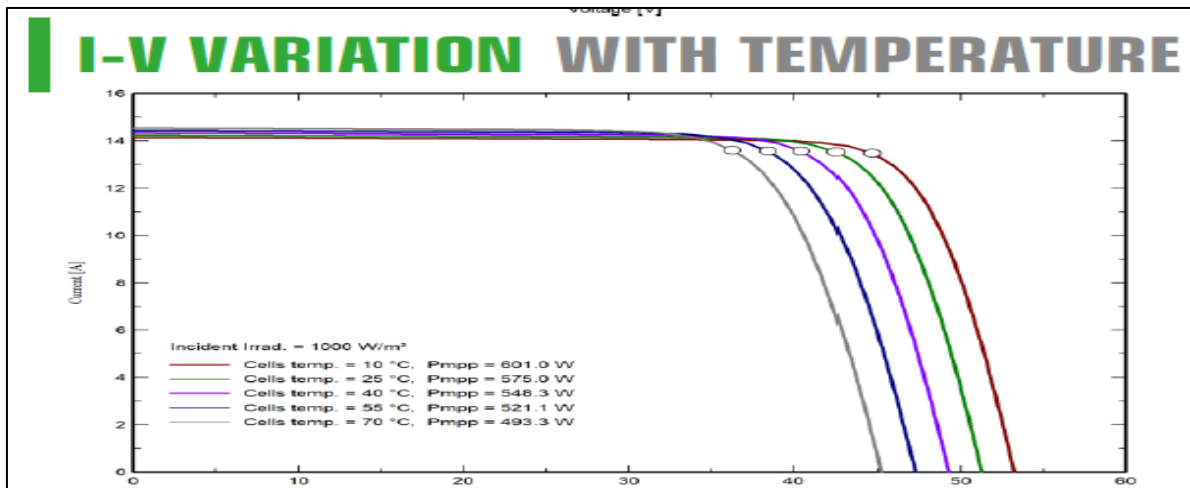
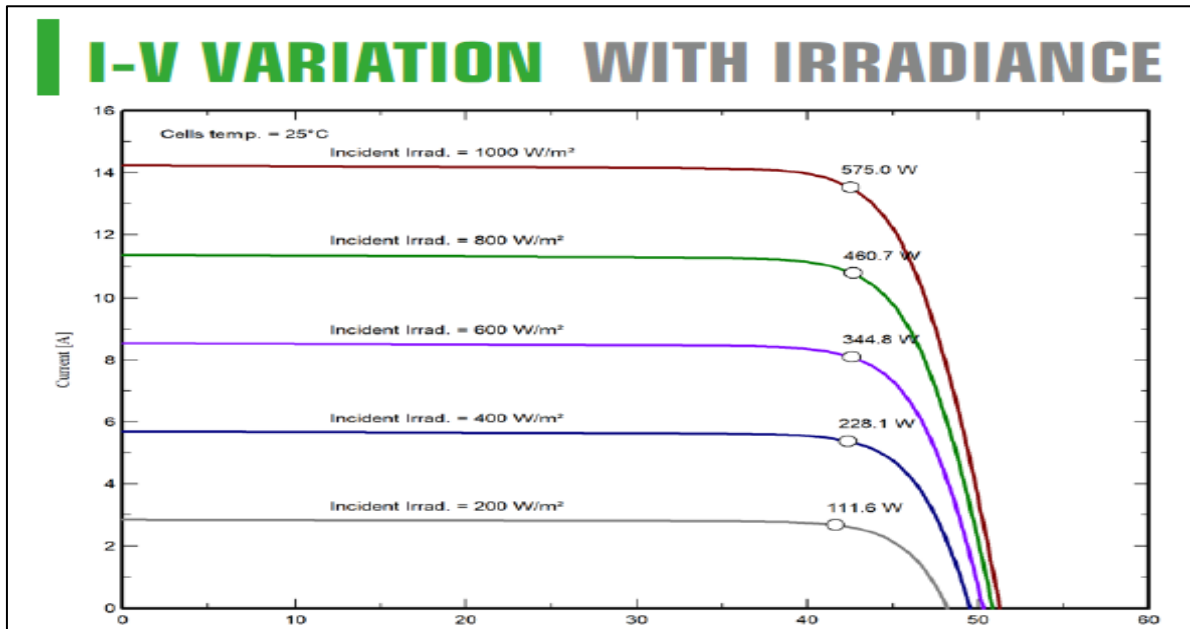
Highest commercial gains, lower LCOE

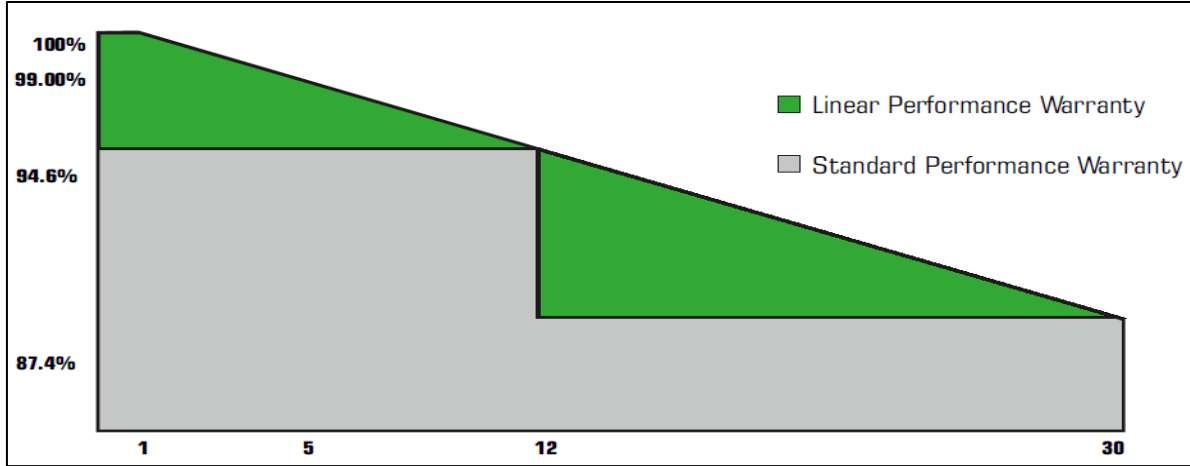


Better weak light performance



Excellent PID resistance





ELITE SERIES
N TOPCON TECHNOLOGY

BiN-08-545 to BiN-08-575

Framed Dual Glass Bifacial module

WAAREE[®]
One with the Sun

ELECTRICAL CHARACTERISTICS

Models	P _{max} (W)		V _{mp} (V)		I _{mp} (A)		I _{sc} (A)		V _{oc} (V)		Module Eff. (%)
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	
BiN-08-545	545	411.7	41.40	39.00	13.17	10.56	13.93	11.24	50.10	47.30	21.09
BiN-08-550	550	415.5	41.60	39.20	13.23	10.60	13.99	11.29	50.30	47.50	21.28
BiN-08-555	555	419.0	41.80	39.30	13.28	10.65	14.05	11.34	50.50	47.70	21.48
BiN-08-560	560	422.8	42.00	39.50	13.34	10.70	14.11	11.39	50.70	47.80	21.67
BiN-08-565	565	426.4	42.20	39.70	13.39	10.74	14.17	11.44	50.90	48.00	21.86
BiN-08-570	570	430.3	42.40	39.90	13.45	10.79	14.23	11.48	51.10	48.20	22.06
BiN-08-575	575	434.3	42.60	40.10	13.51	10.84	14.29	11.53	51.30	48.40	22.25

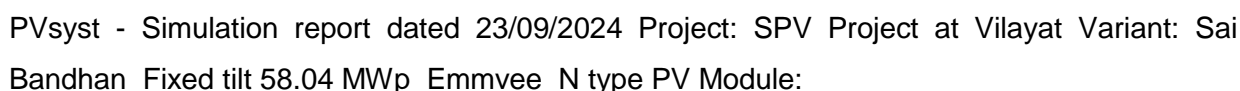
*Standard Test Conditions (STC) - 1000 W/m² irradiance, Air Mass 1.5 and 25°C cell temperature. Nominal Operating Cell Temperature (NOCT) - 800 W/m² irradiance, Air Mass 1.5, Ambient temperature 20°C and Wind speed 1 m/s.
Average power reduction of 4.5% at 200 W/m² as per IEC 60904-1. Measuring Uncertainty ± 3%.

System Voltage	1500 V	Series Fuse Rating	30 A
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BI-FACIAL OUTPUT - BACKSIDE POWER GAIN*

		BiN-08-545	BiN-08-550	BiN-08-555	BiN-08-560	BiN-08-565	BiN-08-570	BiN-08-575
15%	Power Output (W)	626	632	638	644	650	655	661
	Module Efficiency (%)	24.25%	24.47%	24.70%	24.92%	25.14%	25.37%	25.58%
20%	Power Output (W)	654	660	666	672	678	684	690
	Module Efficiency (%)	25.31%	25.53%	25.77%	26.00%	26.23%	26.47%	26.70%
25%	Power Output (W)	681	687	694	700	706	712	719
	Module Efficiency (%)	26.36%	26.60%	26.85%	27.08%	27.32%	27.57%	27.81%
30%	Power Output (W)	708	715	721	728	734	741	747
	Module Efficiency (%)	27.42%	27.66%	27.92%	28.17%	28.42%	28.67%	28.92%

*The bifacial gains are dependent on the power plant design and location



System summary					
Grid-Connected System		Unlimited sheds			
PV Field Orientation		Near Shadings		User's needs	
Sheds		Mutual shadings of sheds		Unlimited load (grid)	
tilt	19 °	Electrical effect			
azimuth	0 °				
System information					
PV Array		Inverters			
Nb. of modules	100072 units	Nb. of units		163 units	
Pnom total	58.04 MWp	Pnom total		44.83 MWac	
		Pnom ratio		1.295	
Results summary					
Produced Energy	98037 MWh/year	Specific production	1689 kWh/kWp/year	Perf. Ratio PR	85.72 %

General parameters			
Grid-Connected System		Unlimited sheds	
PV Field Orientation		Sheds configuration	
Orientation		Nb. of sheds	5 units
Sheds tilt	19 °	Unlimited sheds	
Sheds azimuth	0 °	Sizes	
		Sheds spacing	7.50 m
		Collector width	4.56 m
		Ground Cov. Ratio (GCR)	60.8 %
		Top inactive band	0.02 m
		Bottom inactive band	0.02 m
		Shading limit angle	
		Limit profile angle	25.2 °
		Shadings electrical effect	
		Cell size	15.6 cm
		Strings in width	2 units
Horizon		Near Shadings	
Free Horizon		Mutual shadings of sheds	
		Electrical effect	
Bifacial system		User's needs	
Model		Unlimited load (grid)	
		2D Calculation unlimited sheds	
Bifacial model geometry		Bifacial model definitions	
Sheds spacing	7.50 m	Ground albedo	0.20
Sheds width	4.60 m	Bifaciality factor	82 %
Limit profile angle	25.4 °	Rear shading factor	5.0 %
GCR	61.3 %	Rear mismatch loss	10.0 %
Height above ground	0.50 m	Module transparency	0.0 %

PV Array Characteristics			
PV module		Inverter	
Manufacturer	Emmvee Photovoltaic Power Limited	Manufacturer	WattPower Systems Pvt.Ltd
Model	E580HCBG144-T	Model	WP-330KTL-H1-Preliminary V0.1
(Custom parameters definition)		(Custom parameters definition)	
Unit Nom. Power	580 Wp	Unit Nom. Power	275 kWac
Number of PV modules	100072 units	Number of inverters	163 unit
Nominal (STC)	58.04 MWp	Total power	44825 kWac
Modules	3574 Strings x 28 In series	Operating voltage	500-1500 V
At operating cond. (50°C)		Max. power (=>30°C)	330 kWac
Pmpp	53.98 MWp	Pnom ratio (DC:AC)	1.29
U mpp	1107 V		
I mpp	48781 A		
Total PV power		Total inverter power	
Nominal (STC)	58042 kWp	Total power	44825 kWac
Total	100072 modules	Nb. of inverters	163 units
Module area	258511 m²	Pnom ratio	1.29

Array losses								
Array Soiling Losses			Thermal Loss factor			DC wiring losses		
Loss Fraction	1.5 %		Module temperature according to irradiance			Global array res.	0.29 mΩ	
			Uc (const)	29.0 W/m²K		Loss Fraction	1.2 % at STC	
			Uv (wind)	0.0 W/m²K/m/s				
Serie Diode Loss			LID - Light Induced Degradation			Module Quality Loss		
Voltage drop	0.7 V		Loss Fraction	1.0 %		Loss Fraction	0.0 %	
Loss Fraction	0.1 % at STC							
Module mismatch losses			Strings Mismatch loss					
Loss Fraction	0.7 % at MPP		Loss Fraction	0.1 %				
IAM loss factor								
Incidence effect (IAM): User defined profile								
0°	30°	50°	60°	70°	75°	80°	85°	90°
1.000	1.000	1.000	1.000	0.980	0.920	0.790	0.650	0.000
System losses								
Unavailability of the system			Auxiliaries loss					
Time fraction	1.5 %		Proportionnal to Power	2.0 W/kW				
	5.5 days,		0.0 kW from Power thresh.					
	3 periods							

AC wiring losses	
Inv. output line up to MV transfo	
Inverter voltage	800 Vac tri
Loss Fraction	1.03 % at STC
Inverter: WP-330KTL-H1-Preliminary V0.1	
Wire section (163 Inv.)	Alu 163 x 3 x 300 mm²
Average wires length	180 m
MV line up to Injection	
MV Voltage	33 kV
Wires	Alu 3 x 1000 mm²
Length	4000 m
Loss Fraction	0.66 % at STC
AC losses in transformers	
MV transfo	
Grid voltage	33 kV
Operating losses at STC	
Nominal power at STC	57098 kVA
Iron loss (24/24 Connexion)	57.10 kW
Loss Fraction	0.10 % at STC
Coils equivalent resistance	3 x 0.11 mΩ
Loss Fraction	1.00 % at STC

System Production

Produced Energy 98037 MWh/year

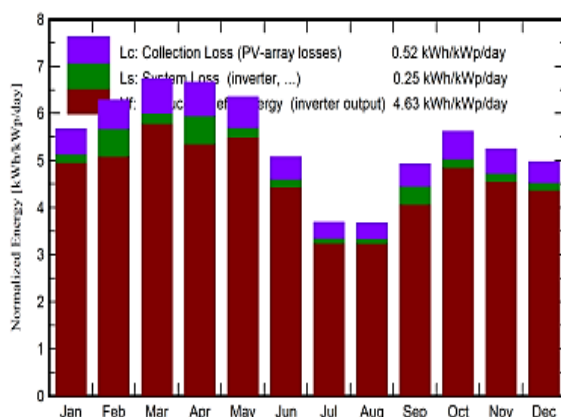
Specific production

1689 kWh/kWp/year

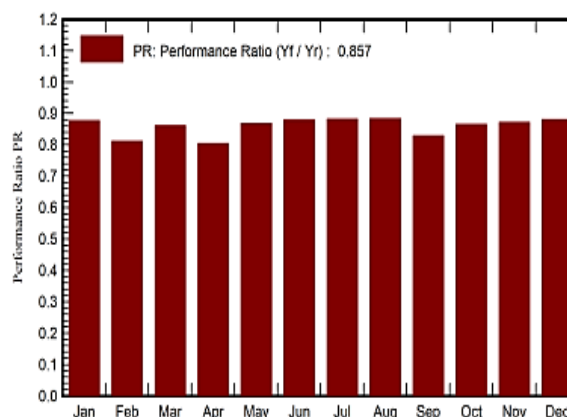
Performance Ratio PR

85.72 %

Normalized productions (per installed kWp)



Performance Ratio PR



Balances and main results

	GlobHor kWh/m²	DiffHor kWh/m²	T_Amb °C	GlobInc kWh/m²	GlobEff kWh/m²	EArray MWh	E_Grid MWh	PR ratio
January	139.1	44.84	21.67	175.5	170.7	9268	8936	0.877
February	149.1	47.09	23.91	175.8	171.4	9247	8283	0.812
March	191.8	66.43	27.90	208.8	203.0	10833	10430	0.861
April	197.9	79.20	29.93	200.0	194.1	10374	9343	0.805
May	206.5	94.82	31.25	196.7	190.4	10273	9908	0.868
June	162.3	98.03	29.88	152.1	146.4	8025	7753	0.878
July	120.1	89.01	28.56	114.2	109.4	6055	5852	0.883
August	117.0	90.72	27.86	113.9	109.0	6040	5839	0.883
September	142.9	80.53	27.98	147.9	142.8	7782	7107	0.828
October	155.0	74.53	28.74	174.1	168.7	9068	8744	0.865
November	130.6	56.53	25.80	157.3	152.7	8251	7959	0.872
December	123.3	50.00	22.88	154.1	149.9	8169	7880	0.881
Year	1835.6	871.73	27.21	1970.5	1908.5	103387	98037	0.857

Metrological Parameters for the Site	
Height above Sea level (m)	13
Solar Radiation Data (KWH/M2/YEAR)	1100
Temperature Data (deg C)	45 C Max
Wind data (m/s)	47 M/Sec
Technical Details of PV Module	
PV Module Type	Emmvee N type
Technical Specification of PV Module	580 Wp
PV Module Power O/P at STC (Watt)	66022 kWp
No. of Modules to be used	70691
Details of Series/parallel combination	2525 String * 28 in Series
O/p of PV arrays to be connected to PCU (Kw)	As per Inverter total AC Capacity
Temp co-efficient of power	50°C
Performance Warranty	30 Years
Manufacturing Warranty	12 Years
Power Conditioning Unit	
Technical Specification	HX - SUNGROW (SG350HX)
Rated Capacity of PCU (KW)	295 kWac sungrow
Input Voltage Range (Volts)	500-1500 V
Output Voltage	800
Output frequency	50
Efficiency of PCU (%)	>99%
Frequency Tolerance limit (%)	5%
Voltage Tolerance limit (%)	5%
No of Units to be Used	110 Nos.
Performance Warranty	5 Year
Manufacturing Warranty	5 Year
Details of Mounting Arrangement	
Proposed Tilt Angle (degree)	19°
Power Consumed (Kwh/year)	0
Amount of Mounting Structures (Kg/MW)	20000
Power Evacuation Details	
Generation Voltage (KV)	33
Evacuation Voltage (KV)	66
Substation Details	
Name of Substation	Vilayat
Connected Load of the Substation	
Distance from Project Site	10 Km Approx.
Transforming Rating	
Existing Capacity	

Estimation Of Supervision Charges For Erection OF 02 Nos of 66kv feeder bay for evacuation of (80 MW Already granted + 60 MW) Total 140 MW Solar Power evacuation at 220 kv Wagra (GETCO) S/S Solar Power Station of M/s KPI Green Energy Ltd. under option-3 *Reference: ACE (R&C) /EE-C/Solar/3999 dated: 13/09/2022.*

Sr. No.	Item	Estimated Amount in Rs. (Material + Erection Cost including Statutory Charges)	15% Supervision Charges on Estimated Amount in Rs.	GST on Supervision Charges Amount in Rs.	Total Amount in Rs.
		A	B = A x 15%	C = B x 18%	D = B + C
1	Part-I(A): Estimate of Supervision for erection of 2 no. of 66kV feeder bay at 220kV wagra (GETCO) S/S – GETCO Asset	96,78,435.59	14,51,765.00	2,61,318.00	17,13,083.00
2	Part-II: Estimate of Supervision for erection Metering CT-PT at Applicant end – Applicant Asset	10,44,385.06	1,56,658.00	28,198.00	1,84,856.00
3	Total Estimated Amount in Rs.	1,07,22,820.65	16,08,423.00	2,89,516.00	18,97,939.00

6. TECHNOLOGICAL ASSESSMENT:

Thus as per the above technical assessment, it seems to be reasonable to comment that the proposed wind solar hybrid power plant is technically viable as the company is implementing the plant through EPC and both Tiear-1 solar PV modules & WTG are standard make of Waree and Suzlon respectively.

The plant will feature high-efficiency solar panels with a combined capacity of 41 MW DC Solar (~75926 nos. of Solar Panel) 540Wp of Bi-facial N-type Solar module from Waaree, Suzlon S 120 – (2.1 X 12) 25.20 MW Wind turbine generator (WTG) and SG320HX-20 Multi-MPPT String Inverter for 1500 Vdc System, which is a high yield, Grid-Friendly and Safety proven system. It will utilize advanced photovoltaic (PV) technology and include a state-of-the-art monitoring system to optimize performance and maintenance.

It seems reasonable to comment that the plant will be running smoothly. Technology & specification of the plant are matching with the need to run the power plant to achieve the economies of scale.

7. MANPOWER:

As per the EPC agreement, KPI will be responsible to operate the plant on behalf of Sai Bandhan and there would be no additional manpower required to operate since the cost of manpower is already adjusted in O & M expenses.

PART F

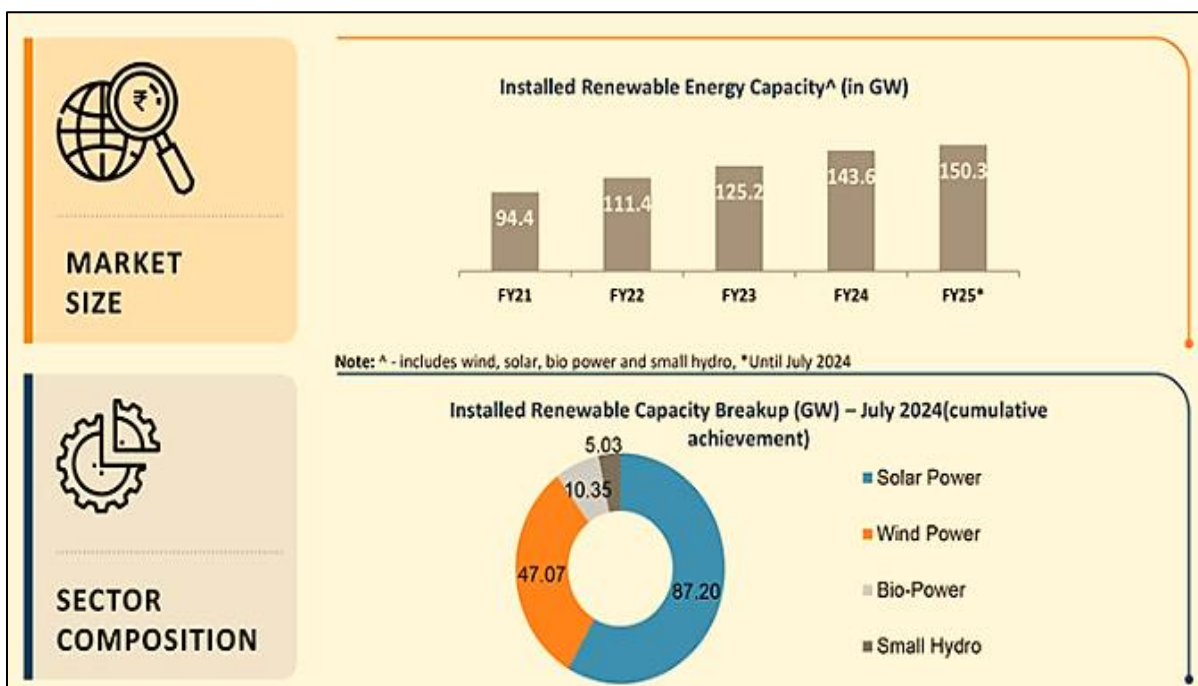
INDUSTRY OVERVIEW

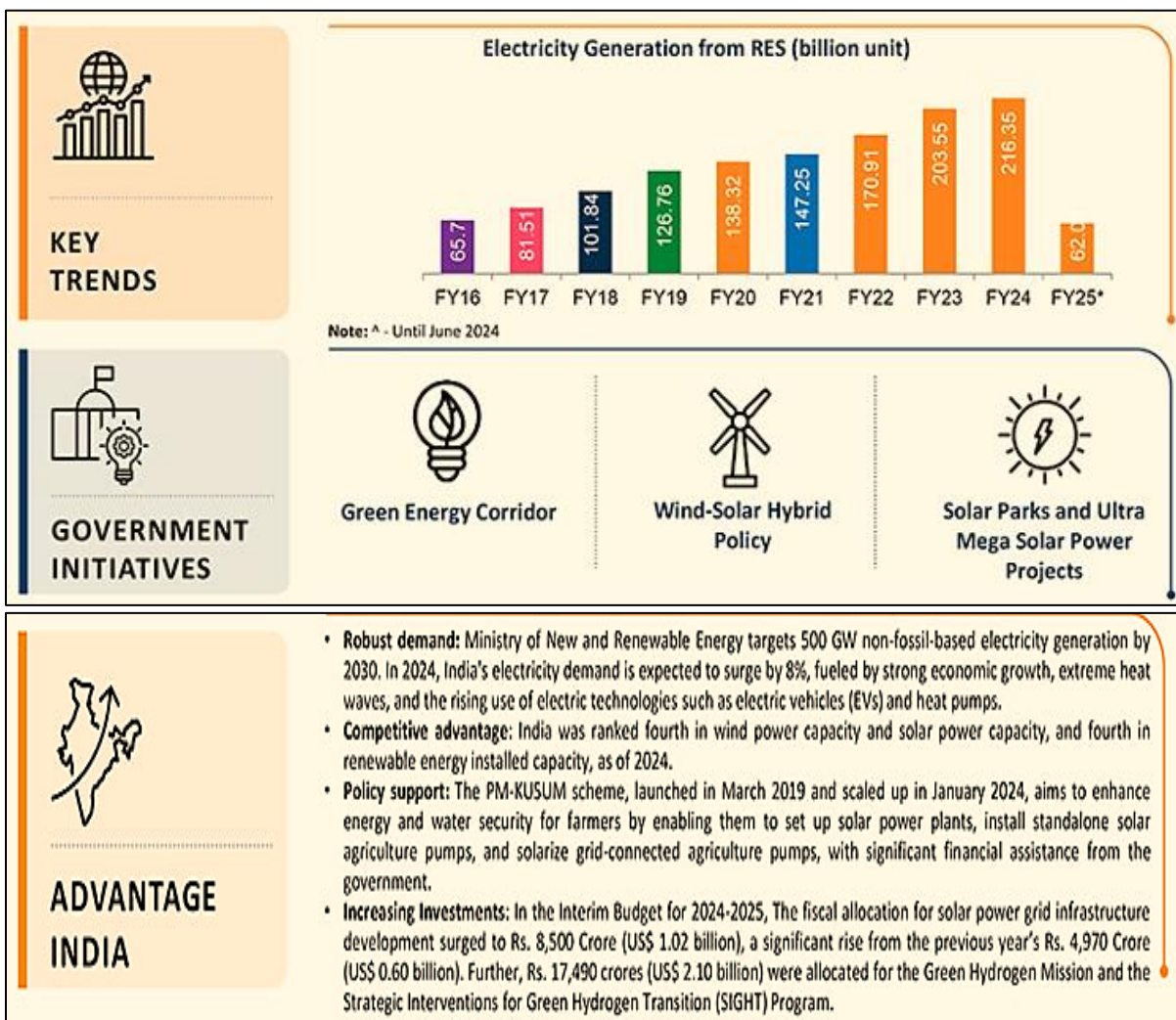
1. INTRODUCTION:

India's energy demand is expected to increase more than that of any other country in the coming decades due to its sheer size and enormous potential for growth and development. Therefore, most of this new energy demand must be met by low-carbon, renewable sources. India's announcement that it intends to achieve net zero carbon emissions by 2070 and to meet 50% of its electricity needs from renewable sources by 2030 marks a historic point in the global effort to combat climate change.

India was ranked fourth in wind power capacity and solar power capacity, and fourth in renewable energy installed capacity, as of 2023. Installed renewable power generation capacity has increased at a fast pace over the past few years, posting a CAGR of 15.4% between FY16 and FY23. India has 125.15 GW of renewable energy capacity in FY23. India is the market with the fastest growth in renewable electricity, and by 2026, new capacity additions are expected to double.

With the increased support of the Government and improved economics, the sector has become attractive from an investor's perspective. As India looks to meet its energy demand on its own, which is expected to reach 15,820 TWh by 2040, renewable energy is set to play an important role.





2. MARKET SIZE:

- As of July 2024, Renewable energy sources, including biomass, waste to power and waste to energy, have a combined installed capacity of 150.27 GW.
- As of July 2024, 44% of the total power installed capacity is from non-fossil-based sources, which fulfils the target of 40% by the end of 2022.
- India's installed renewable energy capacity is expected to increase to about 170 GW by March 2025 from the level of 135 GW as of December 2023, according to research agency ICRA.
- The country is targeting about 450 Gigawatt (GW) of installed renewable energy capacity by 2030 – about 280 GW (over 60%) is expected from solar.

- The non-hydro renewable energy capacity addition stood at 4.2 GW for the first three months of FY23 against 2.6 GW for the first three months of FY22. According to research by the Council on Energy, Environment and Water's Centre for Energy Finance (CEEW-CEF), India's total installed power generation capacity reached 416 GW in FY23, of which 125 GW (30%) came from renewable energy (RE) and 47 GW (11%) comes from hydro.
- The electricity generation target (Including RE) for the year 2023-24 has been fixed as 1750 Billion Units (BU). i.e. growth of around 7.2% over the actual generation of 1624.158 BU for the previous year (2022-23). The generation during 2022-23 was 1624.158 BU as compared to 1491.859 BU generated during 2021-22, representing a growth of about 8.87%.
- The installed solar energy capacity has increased by 26 times in the last 9 years and stands at 73.32 GW as of December 2023. In 2023, India has added 7.5 GW of solar power capacity.
- During January 2024, the capacity addition from solar energy stood at 9008.47 MW.
- Solar power accounted for 16.9% of the total installed power capacity and 40.1% of the total installed renewable capacity at the end of December 2023. Solar power's share increased by 0.3% from the last quarter, when it accounted for 39.5% of the total renewable capacity.
- India has hydroelectric power projects with a total capacity of 15 GW under construction, which will increase the country's total hydro capacity from 42 GW to 67 GW by 2031-32, supported by IMD's prediction of higher rainfall and the government's proactive stance towards accelerated hydropower development.
- India has generated 75.57 BU of solar power in the first eleven months of FY24.
- Power generation from renewable energy sources (not including hydro) stood at 22.41 billion units (BU) in January 2024, down from 25.79 BU in January 2023.
- India added a record 18.48 GW of renewable energy capacity in 2023-24, a 21% increase over the previous year.
- Power generation from renewable energy sources (not including hydro) stood at 22.27 billion units (BU) in June 2024, up from 21.86 BU in June 2024.

- Power generation from renewable energy sources stood at 62.09 billion units (BU) between April-June 2024, up from 57.94 BU in the same period in the previous year.
- With a potential capacity of 363 GW and with policies focused on the renewable energy sector, Northern India is expected to become the hub for renewable energy in India.

3. INVESTMENT:

According to the data released by the Department for Promotion of Industry and Internal Trade (DPIIT), the non-conventional energy space in India has become highly attractive for investors and received an FDI inflow of US\$ 15.36 billion between April 2000-September 2023. More than Rs. 5.2 lakh crore (US\$ 70 billion) has been invested in India's renewable energy sector since 2014. Some major investments and developments in the Indian renewable energy sector are as follows:

- India is set to significantly boost its renewable energy investments, with a projected increase of 83% to approximately US\$ 16.5 billion in 2024, as part of its strategy to transition to cleaner energy sources and reduce carbon emissions.
- India is set to invest over US\$ 360 billion in renewable energy and infrastructure by 2030, with US\$ 190 billion to US\$ 215 billion needed to achieve 500 GW of renewable capacity. An additional US\$ 150 billion to US\$ 170 billion will be required for electricity transmission and storage.
- Brookfield Asset Management plans to boost its investments in India's renewable energy sector to over US\$ 10 billion in the next three to four years, also exploring electric vehicles and green hydrogen.
- India's renewable energy sector set to attract over \$250 billion in investments, with solar PV projects expecting \$15.5 billion and battery manufacturing \$2.7 billion.
- The non-conventional energy space in India has become highly attractive for investors and received an FDI inflow of US\$ 17.88 billion between April 2000-March 2024.
- According to Moody's, India will require US\$ 190 billion-US\$ 215 billion of investment over the next seven years to achieve the target of 500 GW of renewable energy capacity by 2030, and another US\$ 150 billion-US\$ 170 billion for electricity transmission, distribution, and energy storage.

- Radiance Renewables, an Indian renewable energy developer, and the UK's Private Infrastructure Development Group have formed a joint venture called Radiance InfraCo Renewables to develop greenfield solar and wind-solar hybrid projects for commercial and industrial clients in India, leveraging their expertise to support the country's transition towards its net-zero emissions target by 2070.
- Maruti Suzuki India will invest Rs. 450 crore (US\$ 54 million) over the next three years in renewable energy projects, including a biogas plant at Manesar and expanding solar capacity. The pilot biogas plant aims to produce 1 lakh cubic meters of biogas in FY 2024-25, offsetting 190 tonnes of CO₂ annually. Solar capacity will grow from 43.2 MWp to 78.2 MWp by FY 2025-26, supporting Suzuki's 'Environment Vision 2050.
- NTPC Green Energy Ltd. will invest Rs. 80,000 crore (US\$ 9.59 billion) in Maharashtra for green hydrogen, ammonia, and methanol projects, including 2 GW pumped storage and up to 5 GW renewable energy projects, as part of a plan to build 60 GW renewable capacity by 2032.
- On December 4, 2023, Andhra Pradesh announced Rs 6600 crore (US\$ 794 million) clean energy and infrastructure expansion plans, including a 750 MW solar project, 100 MW solar plant, substation enhancements, collaborations with HPCL, Avera AI Mobility's electric vehicle expansion, and SECI contract for solar energy.
- On January 4, 2024, Torrent Power signed four initial pacts with the Gujarat government to invest Rs 47,350 crore (US\$ 5.70 billion) in renewable energy, green hydrogen, and electricity distribution. These investments are aimed at contributing to the state's development and creating employment opportunities.
- On January 8, 2024, Tata Power announced an Rs 70,000 crore (US\$ 8.42 billion) investment to develop 10 GW of solar and wind power capacity in Tamil Nadu over the next 5-7 years. This aligns with its goal of achieving 70% clean energy production by 2030.
- In November 2023, Ampln Energy Transition announced an investment of Rs. 3,100 crore (US\$ 372.6 million) to establish renewable energy projects exceeding 600 MW and an integrated manufacturing facility for solar cells and modules across the Eastern region. The funding will be focused in West Bengal, Bihar, Odisha, Jharkhand, Chhattisgarh, and the Northeastern States.

- Around US\$ 2.8 trillion will be invested in energy in 2023 globally. More than US\$ 1.7 trillion is going to clean energy, including renewable power, nuclear, grids, storage, low-emission fuels, efficiency improvements and end-use renewables and electrification.
- US\$ 2.4 billion National Hydrogen Mission for production of 5 MMT by 2030 and US\$ 36 million additional in budget.
- 59 solar parks with an aggregate capacity 40 GW have been approved in India. Solar Parks in Pavagada (2 GW), Kurnool (1 GW) and Bhadla-II (648 MW) are included in the top 5 operational solar parks of 7 GW capacity in the country.
- The world's largest renewable energy park of 30 GW capacity solar-wind hybrid project is under installation in Gujarat.
- India offers a great opportunity for investments in the RE sector; \$196.98 Bn worth of projects are underway in India.
- Wind Energy has an offshore target of 30 GW by 2030 with 3 potential sites identified.

4. GOVERNMENT INITIATIVES:

- In the Interim Budget for 2024-2025, The Government of India doubled funding for the National Green Hydrogen Mission, allocating Rs. 600 crores (US\$ 72 million). Additionally, Rs. 17,490 crores (US\$ 2.10 billion) were allocated for the Green Hydrogen Mission and the Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme, highlighting a commitment to sustainable energy transition.
- In the Interim Budget for 2024-2025, the fiscal allocation for solar power grid infrastructure development surged to Rs. 8,500 Crore (US\$ 1.02 billion), a significant rise from the previous year's Rs. 4,970 Crore (US\$ 0.60 billion).
- As of January 2, 2024, the Government of India is implementing the Production Linked Incentive (PLI) Scheme for the National Programme on High Efficiency Solar PV Modules, aimed at achieving gigawatt-scale manufacturing capacity. Under Tranche-II, with a budget allocation of Rs 19,500 crore (US\$ 2.35 billion), Letters of Award were issued in April 2023 for the establishment of 39,600 MW of fully or partially integrated solar PV module manufacturing units.

- The Ministry of New and Renewable Energy (MNRE) has proposed the establishment of a 13,000 MW renewable energy (RE) capacity along with a 12,000 MWh Battery Energy Storage System (BESS) in Ladakh. On October 18, 2023, the Cabinet Committee on Economic Affairs approved the construction of an Inter-State Transmission System (ISTS) to facilitate the power evacuation and grid integration of these RE projects in Ladakh.
- Proposed solar cities and parks: The Solar Park Scheme launched in December 2014 with a capacity of 20,000 MW was expanded to 40,000 MW by March 2017. As of November 30, 2023, 50 solar parks have been approved, totaling around 37,490 MW capacity across 12 states. Of these, 10,401 MW has been commissioned, including 284 MW in 2023.
- On February 13, 2024, Prime Minister Mr. Narendra Modi launched PM Surya Ghar Muft Bijli Yojana, offering free rooftop solar electricity to 1 crore households, backed by subsidies and concessional loans.
- On December 12, 2023, the Union Minister for New & Renewable Energy and Power reported the installation of 140 MW solar power plants and 2.73 lakh standalone solar pumps under PM-KUSUM, aimed at farmer welfare and environmental sustainability.
- In Budget 2023-24, Green Growth was identified as one of the nodes in the SAPTARISHI (7 priorities).
- In Budget 2023-24, pumped storage projects received a push with a detailed framework to be formulated.
- Union Budget 2023-24 envisions to create sustainable cities of tomorrow. To translate this, states and cities will be encouraged to undertake urban planning reforms and actions to transform our cities into 'sustainable cities of tomorrow.'
- The Indian government's commitment to reaching net-zero emissions by 2070 and increasing its renewable energy target to 500 GW by 2030 at the COP26 summit has provided great support to the industry and spurred unprecedented growth.
- In Budget 2023-24, Rs. 8,300 crore central sector support for ISTS infrastructure for 13 GW renewable energy from Ladakh was announced.

- On November 19, Prime Minister Mr. Narendra Modi dedicated the 600 MW Kameng Hydro Power Station in Arunachal Pradesh to the country. The project, which covers more than 80 kilometres and costs about Rs. 8,200 crore, is located in Arunachal Pradesh's West Kameng District.

5. CONCLUSION:

India has set a target to reduce the carbon intensity of the nation's economy by less than 45% by the end of the decade, achieve 50% cumulative electric power installed by 2030 from renewables, and achieve net-zero carbon emissions by 2070. Low-carbon technologies could create a market worth up to \$80 billion in India by 2030.

India's target is to produce five million tonnes of green hydrogen by 2030. The Green Hydrogen target is set at India's electrolyser manufacturing capacity is projected to reach 8 GW per year by 2025. The cumulative value of the green hydrogen market in India could reach \$8 Bn by 2030 and India will require at least 50 gigawatts (GW) of electrolysers or more to ramp up hydrogen production.

India's ambitious renewable energy goals are transforming its power sector. The rising population and widespread electrification in rural homes are fuelling the demand for energy to power homes, businesses and communities. Clean energy will reduce pollution levels as villages become self-sustainable with their use of clean energy. In 2022, India's renewable energy sector is expected to boom with a likely investment of US\$ 15 billion this year, as the government focuses on electric vehicles, green hydrogen, and the manufacturing of solar equipment.

It is expected that by 2040, around 49% of the total electricity will be generated by renewable energy as more efficient batteries will be used to store electricity, which will further cut the solar energy cost by 66% as compared to the current cost. The use of renewables in place of coal will save India Rs. 54,000 crore (US\$ 8.43 billion) annually. Around 15,000 MW of wind-solar hybrid capacity is expected to be added between 2020-25.

As per the Central Electricity Authority (CEA) estimates, by 2029-30, the share of renewable energy generation would increase from 18% to 44%, while that of thermal is expected to reduce from 78% to 52%. The CEA also estimates India's power requirement to grow to reach 817 GW by 2030.

PART G

SWOT ANALYSIS

SWOT ANALYSIS	
STRENGTHS	<ul style="list-style-type: none"> • Cost Saving on Energies: As per the assessment, Company will save ~58.37 Crore annually by setting up this captive hybrid power plant. The Proposed Hybrid Solar – Wind Power Plant will reduce its electricity bill significantly by producing its own power instead of purchasing from the grid. With high local electricity tariffs, this could result in significant cost savings. • Sustainability and Environmental Benefits: The plant will help Sai Bandhan Infinium Limited meet its sustainability goals and reduce its carbon footprint, appealing to environmentally conscious investors and customers. The primary objectives of the hybrid power plant is to reduce annual electricity cost by ~40%, decrease the carbon footprint by 30,000 tons per year, and ensure a reliable and renewable energy source for Sai Bandhan Infinium Limited's operations. • Energy Independence: By generating its own electricity, Sai Bandhan Infinium Limited reduces its exposure to energy price volatility and potential supply disruptions. • Government Incentives: Sai Bandhan Infinium Limited benefits from local and national subsidies and tax credits for renewable energy projects, improving the financial feasibility of the plant. • Scalability: As Sai Bandhan Infinium Limited's energy needs grow, it can expand the solar array or add more panels to increase capacity, providing flexibility for future growth. • Technological Advancements: The plant will feature high-efficiency solar panels with a combined capacity of 41 MW DC Solar (~75926 nos. of Solar Panel) 540Wp of Bi-facial N-type Solar module from Waaree and Suzlon S 120 – (2.1 X 12) 25.20 MW Wind turbine generator (WTG). It will utilize advanced photovoltaic (PV) technology and include a state-of-the-art monitoring system to optimize performance and maintenance, which improves energy efficiency and lowers the cost per megawatt-hour of electricity.
WEAKNESSES	<ul style="list-style-type: none"> • High Initial Capital Investment: INR 467.62 Crore required for the initial setup of 66.20 MW Hybrid [41 MW DC Solar + 25.20 MW Wind] power plant might strain Sai Bandhan Infinium Limited's capital, affecting short-term financial stability.

	<ul style="list-style-type: none"> • Space Requirements: The proposed plant requires 137.77 acres of land i.e. 2.08 Acre per MW approx., which might be challenging to secure in densely populated areas or where land prices are high. • Intermittency: The plant's output will vary with weather conditions and time of day, requiring Sai Bandhan Infinium Limited to invest in energy storage solutions or backup power sources. • Maintenance Costs: Regular maintenance and potential repairs for the plant could incur additional costs, impacting the overall budget and operational efficiency. • Long Payback Period: With an estimated payback period of 8-10 years, Sai Bandhan Infinium Limited might face challenges in demonstrating short-term returns to stakeholders.
OPPORTUNITIES	<ul style="list-style-type: none"> • Growing Demand for Renewable Energy: As more businesses and governments commit to renewable energy, Sai Bandhan Infinium Limited could benefit from increased demand for its surplus power under open access arrangements. • Technological Innovations: Advancements in battery storage technology could enable Sai Bandhan Infinium Limited to store excess energy and provide a more consistent power supply, enhancing profitability. • Regulatory Support: New regulations mandating a percentage of renewable energy in the grid mix could provide additional revenue opportunities through power sales. • Open Access Benefits: Sai Bandhan Infinium Limited can sell excess electricity to other businesses or utilities through open access policies, diversifying its revenue streams. • Corporate Social Responsibility (CSR): Investing in solar energy can enhance Sai Bandhan Infinium Limited's brand image, attracting customers and partners who value sustainability. • Expansion Potential: As Sai Bandhan is an existing and old group, Company can diversified its business in future by entering into large scale Renewable projects.
THREATS	<ul style="list-style-type: none"> • Regulatory Risks: Changes in government policies or reductions in subsidies could impact the financial viability of the solar project, affecting Sai Bandhan Infinium Limited's profitability.

- **Market Competition:** Increased competition from other renewable energy sources or cheaper conventional energy options might affect the market share and pricing power of Sai Bandhan Infinium Limited.
- **Technological Risks:** Rapid changes in solar technology or issues with the reliability of the installed equipment could pose risks to the project's performance and financial returns.
- **Economic Fluctuations:** Economic downturns could affect investment availability and delay project implementation or expansion plans.

PART H

PROJECT COST AND MEANS OF FINANCE

As per data/information shared by the client, the proposed Wind Solar Hybrid power project is proposed to be commissioned by making an investment of INR 467.62 Crore as shown in the below table along with Means of finance:

Total Project Cost			
Particular (INR Crore)	41.00 MW	25.20 MW	Solar + Wind
	Solar Plant	Wind Plant	Hybrid
Land Development Cost	0.00	0.00	0.00
Building & Civil Works	7.47	14.20	21.67
Plant & Machinery	141.84	269.84	411.68
Electricity Infrastructure	0.00	0.00	0.00
Vehicles	0.00	0.00	0.00
Office equipment & Furniture	0.00	0.00	0.00
Interest During Construction (IDC)			27.76
Preoperative Expenses ~ 1.0% of Hard Cost			4.33
Contingencies at ~ 0.5% of Hard Cost			2.17
Sub Total	149.31	284.04	467.62

Source: As per the EPC Agreement and other data/Information provided by the company.

Means of Finance			
S. No.	Particular		Amount (INR Crore)
1.	Equity	25%	116.90
2.	Term Loan from Bank	75%	350.71
	Total		467.62

Source: Data/Information provided by the company.

Notes:

- It is to be noted that the detailed vetting of the project cost is out of scope of this TEV report and we have relied upon the data/information provided by the client regarding Total Project cost in good faith, however as a TEV consultant we have cross verified the cost of the major components of TPC independently wherever required for the purpose of TEV only.
- Proposed Hybrid Power plant will be implemented through appointment of EPC, for which company has signed an agreement with KPI Green Energy Ltd. dated 13th September 2024 for CPP vertical i.e. to design, develop, transfer and maintain the solar and wind hybrid

power plant on behalf of M/s Sai Bandhan Infinium Limited as an industrial customer. As per the commercial details of EPC agreement below table shows the Cost of the project:

Commercial Details of EPC Agreement						
Sr. No.	Division	Particular	UOM	Amount per Unit	GST (%)	Total Amount
1	Wind	Supply of 25.20 MW (2.1 Suzlon, 140 Mt.) including logistics of WTG supply from ex-works to wind farm storage yard and supply of package substation. Special lifting tools, stub, template and required accessories, hardware, supervision & service, PSS, included	WTG	15,00,00,000	(12%) 1,80,00,000	16,80,00,000
2		Balance of plant (Land, Foundation, Approach Road, Substation installation, WTG Erection and commissioning)	WTG	5,80,00,000	18% 1,04,40,000	6,84,40,000
Amount per WTG				20,80,00,000	2,84,40,000	23,64,40,000
A	Total Amount for 12 WTG Nos for 25.20 MW			2,49,60,00,000	34,12,80,000	2,83,72,80,000
1	Solar	Supply of Solar Panel and construction of solar park with supply of PV panels Tier-1 Top Con, Inverter, all required inverter duty transformer, AUX, Transfer, LTDB, MMS, HT Cable, LT Cable, DC Cable, Earthing Cable, HDPE Pipe, Cable Accessories, Eathing Strips, Metering, Balance of plant (Land, Permits, approvals, land fencing, approach road, internal line, commissioning) fix tilt	MW	3,20,00,000	(13.80%) 44,16,0000	3,64,16,000
B	Total amount for 41 MW Solar DC			1,31,20,00,000	18,10,56,000	1,49,30,56,000
C	Total Hybrid Project Amount			3,80,80,00,000	52,23,36,000	4,33,03,36,000

3. As per the data/information provided by the client, Cost Bifurcation of Solar and Wind Power Plants as offered by EPC consultant are shown below:

Cost Bifurcation of 41 MW (DC) Solar Power Project					
Particular	Cost/MW	Total MW (DC)	Total Amount	GST	Total Amount
Supply of Solar panel and Construction of Solar Park with supply of PV panel Tier-1 Top Con, Inverter, all required, Inverter duty transformer, Aux. transformer, LTDB, MMS, HT cable, LT cable, DC cable, Earthing cable, HDPE pipe, cable accessories, Earthing strip, Metering. Balance of Plant (Land, Permits, Approvals, Land Fencing, Approach Road, Internal Line, Commissioning) (Auto Tracker)	3,20,00,000	41	1,31,20,00,000	13.80%	
Total Amount for 41 MW Solar (DC)	3,20,00,000	41	1,31,20,00,000	18,10,56,000	1,49,30,56,000

Cost Bifurcation of 25.2 MW WIND POWER PROJECT (2.1 MW* 12 nos. WTGs)				
Description	Particular	Basic	GST @12%	Total
Supply	WOEG	14,42,86,161	1,73,14,339	16,16,00,500
	Stub	16,97,320	2,03,678	19,00,998
	Stub Hardware	1,01,929	12,231	1,14,160
	Packaged SS	39,14,590	4,69,751	43,84,341
	Total	15,00,00,000	1,80,00,000	16,80,00,000
BOP (Balance of Plant) Cost				
Description	Particular	Basic	GST @18%	Total
Balance of Plant (BOP)	Road Development	50,84,746	9,15,254	60,00,000
	Civil works for Foundation	1,27,11,864	22,88,136	1,50,00,000
	USS Material	1,00,84,746	18,15,254	1,19,00,000
	33 KV Line Material	1,26,61,017	22,78,983	1,49,40,000
	Erection	81,35,593	14,64,407	96,00,000
	Commissioning	42,37,288	7,62,712	50,00,000
	Storage , Security & Insurance	50,84,746	9,15,254	60,00,000
	Total	5,80,00,000	1,04,40,000	6,84,40,000
	Grand Total	20,80,00,000	2,84,40,000	23,64,40,000
Total amount for 12 WTGs Nos. 25.20 MW		2,49,60,00,000	34,12,80,000	2,83,72,80,000

4. As per data/information provided by the client, Out of total EPC cost of INR 433.03 Crore, ~5% i.e. 21.67 Crore is the estimated cost of building & civil works and ~95% i.e. 411.68 Crore is the cost of plant and machinery for hybrid power plant.
5. As per the data/information provided by the client, applicable Interest during Construction (IDC) is 9.50%. Thus the company is required to pay INR 27.76 Crore as IDC from December 2024 to 31st March 2026 (16 months) as per the proposed Loan repayment schedule.
6. Preliminary & Pre-Operative Expenses has been considered based on the estimate of company's resources involvement as INR 4.33 Crore, which is 1% of hard cost of the project. However, Company did not provide us any invoices/bills against these tentative costs considered. We recommend that the bank/financial institutions advice the company to submit actual cost based on the final quotations/invoices/bills. This will help validate the assertion of different costs considered by the client.
7. Contingency cost of INR 2.17 Crore has been considered based on general assumption and professional experience (~0.5 of Hard Cost of the Project).
8. The project is proposed to be funded through a term loan of INR 350.71 crores and promoter's Equity of INR 116.90 crores.

PART I

PROJECT IMPLEMENTATION SCHEDULE

The proposed hybrid power plant is expected to achieve its C.O.D till 1st April 2026, as per the proposed implementation schedule shown in the table below:

S. No.	Particulars	Activity	Expected completion date	Status
1.	Land	Land Procurement	NA	Data Not provided
		Land Development	31 st March 2024	Scheduled
2.	Sanction of Rupee Term Loan	Sanction of Rupee Term Loan	31 st December 2024	Scheduled
3.	Building & Civil Works	Appointment of Architect	13 th September 2024	Completed
		Building/Layout Plan Preparation	1 st Jan 2025	Scheduled
		Building Plan Sanction	28 th Feb 2025	Scheduled
		Appointment of Civil contractor/ developer	13 th September 2024	Completed
		Building & Civil Works completion	1 st April 2025	Scheduled
4.	Plant & Machinery	Finalization of P&M suppliers	13 th September 2024	Completed
		Orders to P&M suppliers	1 st Jan 2025	Scheduled
		Arrival of P&M	1 st May 2025	Scheduled
		Installation of P&M	November 2025	Scheduled
		Utility Installation	Jan 2025	Scheduled

5.	Statutory Approvals, registrations & NOCs	From the respective authorities	Feb 2026	Pending except the approval obtained as per "Section L"
6.	Finishing & Trail Run	Informed by client	March, 2026	Scheduled
7.	Commercial Operation Date	Informed by client	1 st April 2026	Scheduled

Notes:

1. Proposed Hybrid Power plant will be implemented through appointment of EPC, for which company has signed an agreement with KPI Green Energy Ltd. dated 13th September 2024 for CPP vertical i.e. to design, develop, transfer and maintain the solar and wind hybrid power plant on behalf of M/s Sai Bandhan Infinium Limited as an industrial customer. Thus there is no need to appoint architect, civil contractor/developer separately and procurement of the Plant & Machinery will also be handled by EPC only.
2. Schedule has been made as per feasibility to achieve different milestones.
3. Achievement of Milestone will depend on sanction of term loan as per proposed timeline.
4. For current status of statutory approvals, kindly refer the "Section L" of this report.
5. It is to be noted here that hybrid power plant will be implemented through EPC and thus
6. As per this timeline, the expected C.O.D will be 1st April 2026.

PART J

STATUTORY APPROVALS | LICENCES | NOC

As shown in the below table along with current status, following major approvals are required, However the list is not exhaustive and State/District Authorities may be approached for further clearances required (if any):

S. No.	REQUIRED APPROVALS	DATE REFERENCE NO.	STATUS (Approved/ Applied For/ Pending)
1.	Provisional Registration of Renewable Energy Project under Gujarat Renewable Energy Policy- 2023 <i>Gujarat Energy Development Agency (GEDA)</i>	-	Pending
2.	Land conversion to Industrial/Non agriculture <i>Sub Divisional Magistrate, Bharuch, Gujrat.</i>	-	Pending
3.	Grid Connectivity Approval <i>Gujrat Energy Transmission Corporation Limited (GETCO)</i>	ACE (R&C)/EE-C/4366 Dated: 02/11/2022	Approved
4.	Electricity Regulatory Compliance <i>Gujarat Electricity Regulatory Commission (GERC)</i>	-	Pending
5.	Building and civil works Plan Sanction Approval <i>Concerned local development authority</i>	-	Pending
6.	Pre-establishment fire NOC <i>Fire and Emergency Services, Government Of Uttar Pradesh</i>	-	Apply in due course
7.	Fire NOC (on completion) <i>Fire and Emergency Services, Government Of Uttar Pradesh</i>	-	Will be Applied post C.O.D

Observation Note:

1. As per EPC agreement, KPI Green Energy Limited has taken Grid Connectivity approval from GETCO for 140 MW Wind Solar hybrid power plant at 220/66 KV Wagra Substation, *Ref: ACE (R&C)/EE-C/4366 Dated: 02/11/2022.*
2. As per the agreement, M/s KPI Green Energy Limited has acquired ~137.77 Acre land at Renewable Energy Park at Village: Vichhiyad, Taluka: Vagra, District: Bharuch, Gujarat – 392140 for 66.20 MW Hybrid power project [41 MW DC Solar + 25.20 MW Wind] and will be sub-lease to Sai Bandhan. As per data/information provided by the client, sub-lease agreement will signed between the parties according to the financial and payment related milestone decided mutually.
As per the site visit dated, 28th Oct 2024, we found that the land is an agricultural land for which KPI needs to obtain CLU certificate from the respective authority.
3. Above is the only illustration of the major approvals sought or to be sought by the company. It should not be construed as the exhaustive list and in case any approval is missed to be mentioned then it is the sole responsibility of the company to keep the unit compliant with the necessary statutory approvals/ NOCs.

PART K

PROJECT'S FINANCIAL FEASIBILITY

1. PROJECTIONS OF THE PROJECT:

The financial projections of the proposed Wind-Solar Hybrid power project are prepared from FY 2027 to FY 2052 based on the expected COD and loan tenure as per the best practice in industry to assess the financial feasibility of the project:

A. PROJECTED PROFIT & LOSS ACCOUNT:

(INR Crore)

Year Ending	31- Mar-27	31- Mar-28	31- Mar-29	31- Mar-30	31- Mar-31	31- Mar-32	31- Mar-33	31- Mar-34	31- Mar-35	31- Mar-36	31- Mar-37	31- Mar-38	31- Mar-39
Year Counter	1	2	3	4	5	6	7	8	9	10	11	12	13
Months Counter	12	12	12	12	12	12	12	12	12	12	12	12	12
Revenue	121.41	121.97	121.87	122.11	122.34	122.91	122.81	123.05	123.28	123.86	123.76	123.99	124.23
Operating Expenses													
O & M Expenses	0.00	0.00	4.21	4.41	4.61	4.83	5.05	5.29	5.54	5.80	6.07	6.35	6.65
Lease Rentals for land	0.83	0.83	0.87	0.87	0.92	0.92	0.96	0.96	1.01	1.01	1.06	1.06	1.11
Insurance Expenses	0.45	0.43	0.41	0.40	0.38	0.36	0.34	0.33	0.31	0.29	0.27	0.26	0.24
Banking charges+ Transmission Charges +Fixed demand Charges	11.77	11.75	11.66	11.60	11.55	11.53	11.44	11.39	11.34	11.32	11.24	11.18	11.13
Depreciation & Amortization	17.62	17.67	17.62	17.62	17.62	17.67	17.62	17.62	17.62	17.67	17.62	17.62	17.62

TECHNO-ECONOMIC VIABILITY REPORT

66.20 MW WIND-SOLAR HYBRID POWER PLANT

Total Expenses	30.67	30.68	34.78	34.90	35.08	35.31	35.43	35.59	35.82	36.09	36.26	36.47	36.75
EBIT	90.73	91.29	87.09	87.20	87.26	87.60	87.38	87.45	87.47	87.77	87.50	87.52	87.48
Interest expenses													
Interest on term loan	33.32	32.48	30.82	29.15	27.49	25.82	24.16	22.49	20.82	19.16	17.49	15.83	14.16
Profit before Taxes (PBT)	57.41	58.80	56.27	58.05	59.77	61.78	63.23	64.97	66.64	68.61	70.01	71.70	73.32
Tax	10.03	10.27	9.83	10.14	10.44	10.79	11.05	11.35	11.64	11.99	12.69	22.55	23.53
Profit after Taxes (PAT)	47.38	48.53	46.44	47.91	49.33	50.99	52.18	53.61	55.00	56.62	57.32	49.14	49.78

(Continued)

Year Ending	31-Mar-40	31-Mar-41	31-Mar-42	31-Mar-43	31-Mar-44	31-Mar-45	31-Mar-46	31-Mar-47	31-Mar-48	31-Mar-49	31-Mar-50	31-Mar-51	31-Mar-52
Year Counter	14	15	16	17	18	19	20	21	22	23	24	25	26
Months Counter	12	12	12	12	12	12	12	12	12	12	12	12	12
Revenue	124.81	124.71	124.95	125.19	125.77	125.67	125.91	126.15	126.74	126.64	126.88	127.12	127.72
Operating Expenses													
O & M Expenses	6.96	7.28	7.63	7.98	8.36	8.75	9.16	9.59	10.04	10.51	11.01	11.52	12.07
Lease Rentals for land	1.12	1.17	1.17	1.23	1.23	1.29	1.29	1.35	1.36	1.42	1.42	1.49	1.50
Insurance Expenses	0.22	0.20	0.19	0.17	0.15	0.13	0.11	0.10	0.08	0.06	0.04	0.03	0.01
Banking charges+ Transmission Charges +Fixed	11.11	11.03	10.98	10.93	10.92	10.84	10.79	10.74	10.72	10.65	10.60	10.55	10.54

TECHNO-ECONOMIC VIABILITY REPORT

66.20 MW WIND-SOLAR HYBRID POWER PLANT

demand Charges													
Depreciation & Amortization	17.67	17.62	17.62	17.62	17.67	17.62	17.62	17.62	17.67	17.62	17.62	17.62	17.67
Total Expenses	37.08	37.31	37.59	37.93	38.32	38.63	38.98	39.40	39.87	40.26	40.70	41.22	41.78
EBIT	87.73	87.40	87.36	87.25	87.45	87.04	86.94	86.75	86.87	86.37	86.19	85.90	85.94
Interest expenses													
Interest on term loan	12.49	10.83	9.16	7.50	5.83	4.16	2.50	0.00	0.00	0.00	0.00	0.00	0.00
Profit before Taxes (PBT)	75.24	76.57	78.20	79.76	81.62	82.88	84.44	86.75	86.87	86.37	86.19	85.90	85.94
Tax	24.53	25.28	26.07	26.79	27.57	28.12	28.75	29.56	29.73	29.67	29.71	29.70	29.79
Profit after Taxes (PAT)	50.71	51.29	52.13	52.96	54.05	54.75	55.69	57.19	57.14	56.70	56.48	56.20	56.15

B. PROFORMA BALANCE SHEET:

Below table shows the Projected Balance Sheet of the proposed Captive Wind-Solar Hybrid power project from the period FY 2025 to FY 2052. From 1st December 2024 to 31st March 2026 would be the implementation period of the project:

	(INR Crore)													
Year Ending	31-Mar-25	31-Mar-26	31-Mar-27	31-Mar-28	31-Mar-29	31-Mar-30	31-Mar-31	31-Mar-32	31-Mar-33	31-Mar-34	31-Mar-35	31-Mar-36	31-Mar-37	31-Mar-38
Year Counter	0	0	1	2	3	4	5	6	7	8	9	10	11	12
Months Counter	4	12	12	12	12	12	12	12	12	12	12	12	12	12
Non-Current Liabilities														
Equity	87.68	116.90	116.90	116.90	116.90	116.90	116.90	116.90	116.90	116.90	116.90	116.90	116.90	116.90

TECHNO-ECONOMIC VIABILITY REPORT

66.20 MW WIND-SOLAR HYBRID POWER PLANT

Reserve & Surplus	0.00	0.00	47.38	95.91	142.35	190.26	239.59	290.58	342.76	396.37	451.37	508.00	565.31	614.46
Secured Loan	140.28	350.71	333.18	315.64	298.10	280.57	263.03	245.50	227.96	210.43	192.89	175.36	157.82	140.28
Current Liabilities														
Term Liabilities														
Payable Within One Year	0.00	0.00	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54
Total	227.96	467.62	515.00	545.99	574.90	605.27	637.06	670.51	705.16	741.24	778.70	817.79	857.57	889.18
Assets														
Total Gross Block	187.05	467.62	467.62	467.62	467.62	467.62	467.62	467.62	467.62	467.62	467.62	467.62	467.62	467.62
Less: Depreciation			17.62	35.29	52.91	70.53	88.15	105.82	123.45	141.07	158.69	176.36	193.98	211.60
Net Block	187.05	467.62	449.99	432.32	414.70	397.08	379.46	361.79	344.17	326.55	308.93	291.26	273.64	256.01
Total Non-Current Assets	187.05	467.62	449.99	432.32	414.70	397.08	379.46	361.79	344.17	326.55	308.93	291.26	273.64	256.01
Current Assets														
Cash & Cash Equivalent	40.92	0.00	65.00	113.67	160.20	208.19	257.60	308.72	360.99	414.69	469.77	526.53	583.94	633.17
Total Current Assets	40.92	0.00	65.00	113.67	160.20	208.19	257.60	308.72	360.99	414.69	469.77	526.53	583.94	633.17
Total	227.96	467.62	515.00	545.99	574.90	605.27	637.06	670.51	705.16	741.24	778.70	817.79	857.57	889.18

(Continued)

Year Ending	31-Mar-39	31-Mar-40	31-Mar-41	31-Mar-42	31-Mar-43	31-Mar-44	31-Mar-45	31-Mar-46	31-Mar-47	31-Mar-48	31-Mar-49	31-Mar-50	31-Mar-51	31-Mar-52
Year Counter	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Months Counter	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Non-Current Liabilities														
Equity	116.90	116.90	116.90	116.90	116.90	116.90	116.90	116.90	116.90	116.90	116.90	116.90	116.90	116.90

TECHNO-ECONOMIC VIABILITY REPORT

66.20 MW WIND-SOLAR HYBRID POWER PLANT

Reserve & Surplus	664.24	714.95	766.23	818.36	871.33	925.37	980.12	1035.82	1093.01	1150.15	1206.85	1263.32	1319.53	1375.68
Secured Loan	122.75	105.21	87.68	70.14	52.61	35.07	17.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Current Liabilities														
Term Liabilities														
Payable Within One Year	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	0.00	0.00	0.00	0.00	0.00	0.00
Total	921.43	954.60	988.35	1022.94	1058.37	1094.88	1132.10	1170.26	1209.91	1267.05	1323.75	1380.23	1436.43	1492.58
Assets														
Total Gross Block	467.62	467.62	467.62	467.62	467.62	467.62	467.62	467.62	467.62	467.62	467.62	467.62	467.62	467.62
Less: Depreciation	229.22	246.89	264.51	282.13	299.76	317.42	335.05	352.67	370.29	387.96	405.58	423.20	440.82	458.49
Net Block	238.39	220.72	203.10	185.48	167.86	150.19	132.57	114.95	97.33	79.66	62.04	44.41	26.79	9.12
Total Non-Current Assets	238.39	220.72	203.10	185.48	167.86	150.19	132.57	114.95	97.33	79.66	62.04	44.41	26.79	9.12
Current Assets														
Cash & Cash Equivalent	683.04	733.88	785.25	837.46	890.51	944.69	999.53	1055.31	1112.58	1187.39	1261.71	1335.81	1409.64	1483.46
Total Current Assets	683.04	733.88	785.25	837.46	890.51	944.69	999.53	1055.31	1112.58	1187.39	1261.71	1335.81	1409.64	1483.46
Total	921.43	954.60	988.35	1022.94	1058.37	1094.88	1132.10	1170.26	1209.91	1267.05	1323.75	1380.23	1436.43	1492.58

C. PROJECTED CASH FLOW STATEMENT:

(INR Crore)														
Year Ending (INR Crore)	31-Mar-25	31-Mar-26	31-Mar-27	31-Mar-28	31-Mar-29	31-Mar-30	31-Mar-31	31-Mar-32	31-Mar-33	31-Mar-34	31-Mar-35	31-Mar-36	31-Mar-37	31-Mar-38
Year Counter	0	0	1	2	3	4	5	6	7	8	9	10	11	12
Months Counter	4	12	12	12	12	12	12	12	12	12	12	12	12	12

TECHNO-ECONOMIC VIABILITY REPORT

66.20 MW WIND-SOLAR HYBRID POWER PLANT

A. Source Of Fund														
Net Profit	0.00	0.00	47.38	48.53	46.44	47.91	49.33	50.99	52.18	53.61	55.00	56.62	57.32	49.14
Increase in Equity / Share Capital/USL	87.68	29.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Increase in TL	140.28	210.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Depreciation	0.00	0.00	17.62	17.67	17.62	17.62	17.62	17.67	17.62	17.62	17.62	17.67	17.62	17.62
Trade payables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	227.96	239.65	65.00	66.20	64.06	65.53	66.95	68.66	69.80	71.24	72.62	74.29	74.94	66.76
B. Application Of Funds														
Capital Expenses	187.05	280.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Decrease in Term Loan	0.00	0.00	0.00	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54
Total	187.05	280.57	0.00	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54
Opening Balance	0.00	40.92	0.00	65.00	113.67	160.20	208.19	257.60	308.72	360.99	414.69	469.77	526.53	583.94
Net Surplus/ Deficit	40.92	-40.92	65.00	48.66	46.53	47.99	49.41	51.12	52.27	53.70	55.08	56.76	57.40	49.23
Cumulative Balance	40.92	0.00	65.00	113.67	160.20	208.19	257.60	308.72	360.99	414.69	469.77	526.53	583.94	633.17

(Continued)

Year Ending (INR Crore)	31-Mar-39	31-Mar-40	31-Mar-41	31-Mar-42	31-Mar-43	31-Mar-44	31-Mar-45	31-Mar-46	31-Mar-47	31-Mar-48	31-Mar-49	31-Mar-50	31-Mar-51	31-Mar-52
Year Counter	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Months Counter	12	12	12	12	12	12	12	12	12	12	12	12	12	12
A. Source Of Fund														
Net Profit	49.78	50.71	51.29	52.13	52.96	54.05	54.75	55.69	57.19	57.14	56.70	56.48	56.20	56.15
Increase in Equity / Share Capital/USL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Increase in TL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TECHNO-ECONOMIC VIABILITY REPORT

66.20 MW WIND-SOLAR HYBRID POWER PLANT

Depreciation	17.62	17.67	17.62	17.62	17.62	17.67	17.62	17.62	17.62	17.67	17.62	17.62	17.62	17.67
Trade payables	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	67.41	68.38	68.91	69.75	70.59	71.71	72.37	73.31	74.81	74.81	74.32	74.10	73.82	73.82
B. Application Of Funds														
Capital Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Decrease in Term Loan	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	0.00	0.00	0.00	0.00	0.00
Total	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	0.00	0.00	0.00	0.00	0.00
Opening Balance	633.17	683.04	733.88	785.25	837.46	890.51	944.69	999.53	1055.31	1112.58	1187.39	1261.71	1335.81	1409.64
Net Surplus/ Deficit	49.87	50.84	51.37	52.22	53.05	54.18	54.84	55.78	57.27	74.81	74.32	74.10	73.82	73.82
Cumulative Balance	683.04	733.88	785.25	837.46	890.51	944.69	999.53	1055.31	1112.58	1187.39	1261.71	1335.81	1409.64	1483.46

D. KEY FINANCIAL RATIO:

Year Ending (INR Crore)	31-Mar-27	31-Mar-28	31-Mar-29	31-Mar-30	31-Mar-31	31-Mar-32	31-Mar-33	31-Mar-34	31-Mar-35	31-Mar-36	31-Mar-37	31-Mar-38	31-Mar-39
Year Counter	1	2	3	4	5	6	7	8	9	10	11	12	13
Months Counter	12	12	12	12	12	12	12	12	12	12	12	12	12
EBITDA Margin %	89.25%	89.33%	85.92%	85.85%	85.73%	85.65%	85.50%	85.40%	85.24%	85.13%	84.94%	84.80%	84.60%
Average	84.44%												
EBIT Margin %	74.74%	74.84%	71.46%	71.41%	71.32%	71.27%	71.15%	71.07%	70.95%	70.86%	70.70%	70.59%	70.41%
Average	70.27%												
PAT Margin %	39.03%	39.79%	38.11%	39.23%	40.32%	41.48%	42.49%	43.57%	44.61%	45.72%	46.31%	39.63%	40.07%
Average	42.49%												
Revenue Growth Rate		0.47%	-0.08%	0.19%	0.19%	0.47%	-0.08%	0.19%	0.19%	0.47%	-0.08%	0.19%	0.19%
Average	0.20%												

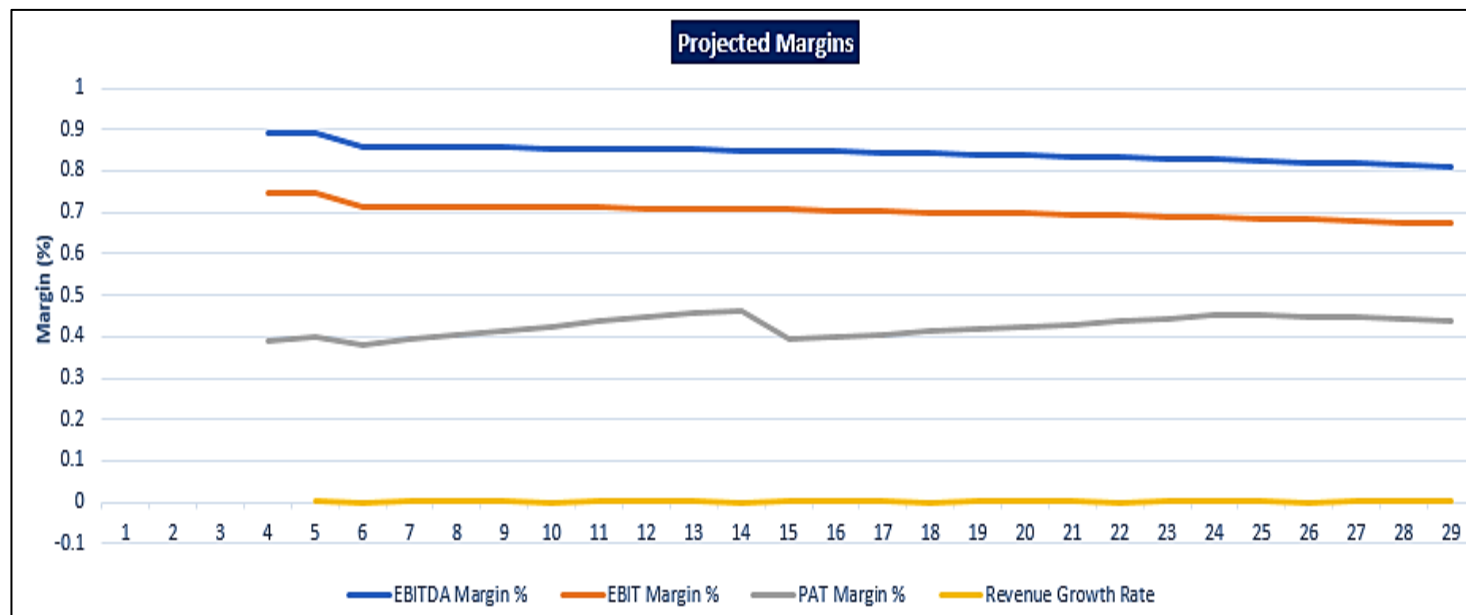
Year Ending (INR Crore)	31-Mar-40	31-Mar-41	31-Mar-42	31-Mar-43	31-Mar-44	31-Mar-45	31-Mar-46	31-Mar-47	31-Mar-48	31-Mar-49	31-Mar-50	31-Mar-51	31-Mar-52
Year Counter	14	15	16	17	18	19	20	21	22	23	24	25	26
Months Counter	12	12	12	12	12	12	12	12	12	12	12	12	12
EBITDA Margin %	84.45%	84.21%	84.02%	83.77%	83.58%	83.28%	83.04%	82.73%	82.48%	82.12%	81.81%	81.44%	81.12%
Average	84.44%												
EBIT Margin %	70.29%	70.08%	69.92%	69.70%	69.53%	69.26%	69.05%	68.76%	68.54%	68.20%	67.93%	67.58%	67.29%
Average	70.27%												
PAT Margin %	40.63%	41.13%	41.72%	42.31%	42.97%	43.57%	44.23%	45.33%	45.09%	44.77%	44.51%	44.21%	43.96%
Average	42.49%												
Revenue Growth Rate	0.47%	-0.08%	0.19%	0.19%	0.47%	-0.08%	0.19%	0.19%	0.47%	-0.08%	0.19%	0.19%	0.47%
Average	0.20%												

Note: The proposed solar power plant is having an average revenue growth rate of 0.20% during the forecasted period. Revenue growth is negative in many of the projected years due to applicable degradation rate of 0.80% year on year basis. Average EBITDA Margin & EBIT Margin of the project are 84.44% & 70.27% respectively. The project will be operational from 1st April 2026 and as per the trends analysis above, PAT margin is growing from 39.03% in FY 2027 to 43.96% in FY 2052 due to the lower interest cost on borrowings in the later projected years.

E. GRAPHICAL REPRESENTATION OF KEY RATIOS:

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F. ESTIMATED KEY FINANCIAL METRICS:

DEBT SERVICE COVERAGE RATIO (D.S.C.R)

(INR Crore except DSCR)

Year Ending (INR Crore)	31-Mar-27	31-Mar-28	31-Mar-29	31-Mar-30	31-Mar-31	31-Mar-32	31-Mar-33	31-Mar-34	31-Mar-35	31-Mar-36	31-Mar-37	31-Mar-38	31-Mar-39
Year Counter	1	2	3	4	5	6	7	8	9	10	11	12	13
Months Counter	12	12	12	12	12	12	12	12	12	12	12	12	12
Cash accrual	65.00	48.66	46.53	47.99	49.41	51.12	52.27	53.70	55.08	56.76	57.40	49.23	49.87
Interest on term loan	33.32	32.48	30.82	29.15	27.49	25.82	24.16	22.49	20.82	19.16	17.49	15.83	14.16
Subtotal	98.32	81.15	77.35	77.14	76.90	76.94	76.42	76.19	75.91	75.92	74.90	65.05	64.03

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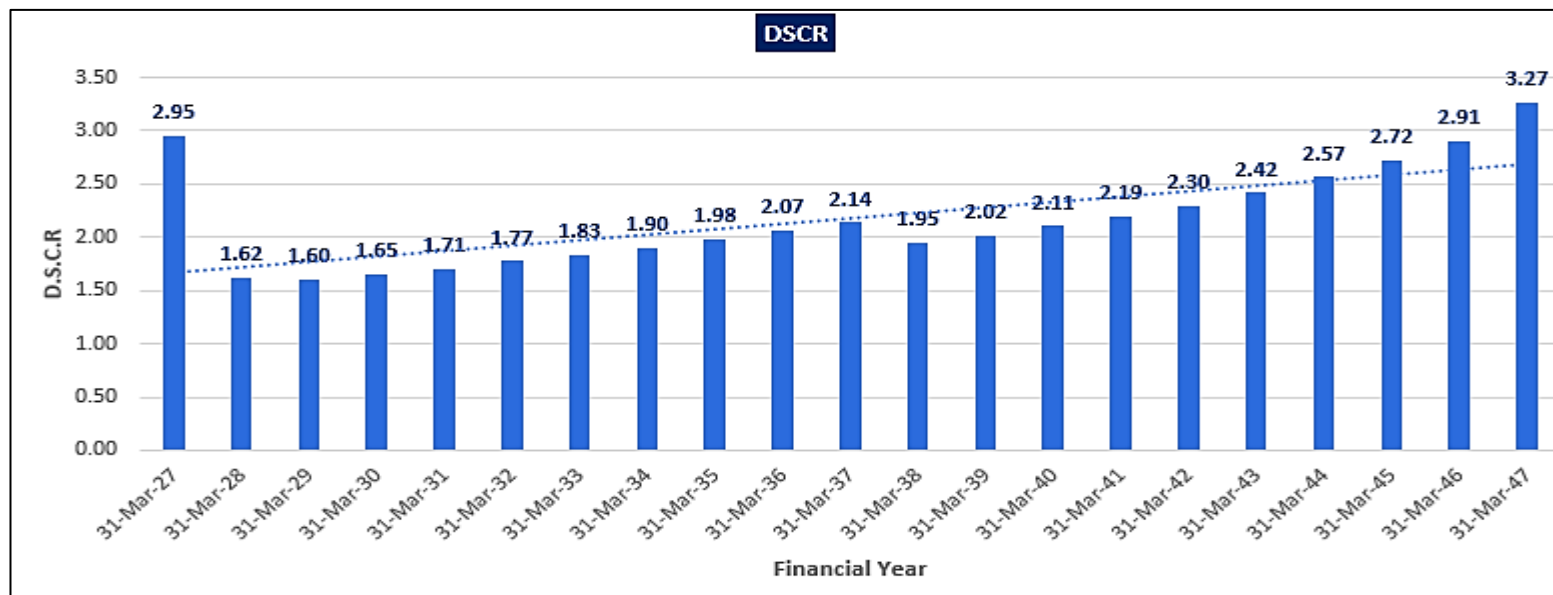
Interest on term loan	33.32	32.48	30.82	29.15	27.49	25.82	24.16	22.49	20.82	19.16	17.49	15.83	14.16
Loan Repayment	0.00	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54
Subtotal	33.32	50.02	48.35	46.69	45.02	43.36	41.69	40.02	38.36	36.69	35.03	33.36	31.70
DSCR	2.95	1.62	1.60	1.65	1.71	1.77	1.83	1.90	1.98	2.07	2.14	1.95	2.02

(Continue)

Year Ending (INR Crore)	31-Mar-40	31-Mar-41	31-Mar-42	31-Mar-43	31-Mar-44	31-Mar-45	31-Mar-46	31-Mar-47	31-Mar-48	31-Mar-49	31-Mar-50	31-Mar-51	31-Mar-52
Year Counter	14	15	16	17	18	19	20	21	22	23	24	25	26
Months Counter	12	12	12	12	12	12	12	12	12	12	12	12	12
Cash accrual	50.84	51.37	52.22	53.05	54.18	54.84	55.78	57.27	74.81	74.32	74.10	73.82	73.82
Interest on term loan	12.49	10.83	9.16	7.50	5.83	4.16	2.50	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	63.33	62.20	61.38	60.55	60.01	59.00	58.28	57.27	74.81	74.32	74.10	73.82	73.82
Interest on term loan	12.49	10.83	9.16	7.50	5.83	4.16	2.50	0.00	0.00	0.00	0.00	0.00	0.00
Loan Repayment	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	0.00	0.00	0.00	0.00	0.00
Subtotal	30.03	28.36	26.70	25.03	23.37	21.70	20.03	17.54	0.00	0.00	0.00	0.00	0.00
D.S.C.R	2.11	2.19	2.30	2.42	2.57	2.72	2.91	3.27					
Max. D.S.C.R	2.18												
Average D.S.C.R	3.27												

Note: D.S.C.R has been calculated for loan repayment period from FY 2027 to FY 2047. The proposed hybrid wind-solar power plant is having a D.S.C.R of more than 1 during the projected loan repayment period.

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G. NPV, IRR AND PAYBACK PERIOD OF THE PROJECT:

(INR Crore)

Year Ending	31-Mar-25	31-Mar-26	31-Mar-27	31-Mar-28	31-Mar-29	31-Mar-30	31-Mar-31	31-Mar-32	31-Mar-33	31-Mar-34	31-Mar-35	31-Mar-36	31-Mar-37	31-Mar-38
Year Counter	0	0	1	2	3	4	5	6	7	8	9	10	11	12
Months Counter	4	12	12	12	12	12	12	12	12	12	12	12	12	12
EBIT	0.00	0.00	90.73	91.29	87.09	87.20	87.26	87.60	87.38	87.45	87.47	87.77	87.50	87.52
Less: Taxes	0.00	0.00	26.42	26.58	25.36	25.39	25.41	25.51	25.45	25.47	25.47	25.56	25.48	25.49
Add: Depreciation & Amortisation	0.00	0.00	17.62	17.67	17.62	17.62	17.62	17.67	17.62	17.62	17.62	17.67	17.62	17.62
NOPAT	0.00	0.00	81.93	82.38	79.35	79.43	79.47	79.76	79.56	79.61	79.62	79.88	79.64	79.66

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Capex	187.05	280.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Free Cash Flow to Firm (FCFF)	- 187.05	- 280.57	81.93	82.38	79.35	79.43	79.47	79.76	79.56	79.61	79.62	79.88	79.64	79.66

(Continue)

Year Ending (INR Crore)	31-Mar-39	31-Mar-40	31-Mar-41	31-Mar-42	31-Mar-43	31-Mar-44	31-Mar-45	31-Mar-46	31-Mar-47	31-Mar-48	31-Mar-49	31-Mar-50	31-Mar-51	31-Mar-52
Year Counter	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Months Counter	12	12	12	12	12	12	12	12	12	12	12	12	12	12
EBIT	87.48	87.73	87.40	87.36	87.25	87.45	87.04	86.94	86.75	86.87	86.37	86.19	85.90	85.94
Less: Taxes	25.47	25.55	25.45	25.44	25.41	25.47	25.35	25.32	25.26	25.30	25.15	25.10	25.02	25.03
Add: Depreciation & Amortisation	17.62	17.67	17.62	17.62	17.62	17.67	17.62	17.62	17.62	17.67	17.62	17.62	17.62	17.67
NOPAT	79.63	79.85	79.57	79.54	79.47	79.65	79.32	79.24	79.11	79.24	78.84	78.71	78.51	78.58
Capex	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Free Cash Flow to Firm (FCFF)	79.63	79.85	79.57	79.54	79.47	79.65	79.32	79.24	79.11	79.24	78.84	78.71	78.51	78.58
NPV	INR 250 Crore													
IRR	15.76%													

Key Input for NPV & IRR	
Weight of Debt Wd	75%
Cost of Debt Kd	9.50%
Tax	29.12%
Post tax Kd	6.73%
Weight of Equity We	25%

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Cost of Equity Ke	18.00%
WACC	9.55%

Payback Period of the Project		
Financial Year	Cash Accrual	Accumulated Cash Accrual
31-Mar-27	65.00	65.00
31-Mar-28	48.66	113.67
31-Mar-29	46.53	160.20
31-Mar-30	47.99	208.19
31-Mar-31	49.41	257.60
31-Mar-32	51.12	308.72
31-Mar-33	52.27	360.99
31-Mar-34	53.70	414.69
31-Mar-35	55.08	469.77
31-Mar-36	56.76	526.53
31-Mar-37	57.40	583.94
31-Mar-38	49.23	633.17
31-Mar-39	49.87	683.04
31-Mar-40	50.84	733.88
31-Mar-41	51.37	785.25
31-Mar-42	52.22	837.46
31-Mar-43	53.05	890.51
31-Mar-44	54.18	944.69
31-Mar-45	54.84	999.53
31-Mar-46	55.78	1055.31
31-Mar-47	57.27	1112.58
31-Mar-48	74.81	1187.39

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31-Mar-49	74.32	1261.71
31-Mar-50	74.10	1335.81
31-Mar-51	73.82	1409.64
31-Mar-52	73.82	1483.46
Total	1483.46	
Total Project Cost	INR 467.62 Crore	
Payback Period	8.96 Years	

Thus, the project will be having a payback period of **8.96 years** and NPV & IRR of the project is **INR 250 Crore & 15.76%** respectively from C.O.D to loan repayment period, which indicates worthiness of the project.

H. SENSITIVITY ANALYSIS:

Sensitivity analysis of the project with respect to 5% & 10% decrease in the revenue, 5% & 10% increase in the operating cost and 2% increment in the proposed interest rate has been shown in the below table:

Sensitivity Analysis of D.S.CR, NPV & IRR				
S. No.	Particular	Average D.S.C.R	NPV	IRR
1.	As a base case	2.18	INR 250 Cr.	15.76%
2.	If the projected revenue decreased by 5%	2.03	INR 212 Cr.	14.88%
3.	If the projected revenue decreased by 10%	1.88	INR 174 Cr.	13.97%
4.	If the projected operating cost increased by 5%	2.13	INR 239 Cr.	15.52%
5.	If the projected operating cost increased by 10%	2.09	INR 228 Cr.	15.27%
6.	If interest rate is increased by 2%	1.98	INR 186 Cr.	15.56%

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Observation: The proposed project is found comparatively higher sensitive with respect to the downside variation in the projected revenue, than the upside variation in the projected operational and any surge in the interest rate.

I. OTHER FINANCIAL RATIOS:

Year Ending	31-Mar-27	31-Mar-28	31-Mar-29	31-Mar-30	31-Mar-31	31-Mar-32	31-Mar-33	31-Mar-34	31-Mar-35	31-Mar-36	31-Mar-37	31-Mar-38	31-Mar-39
Year Counter	1	2	3	4	5	6	7	8	9	10	11	12	13
Months Counter	12	12	12	12	12	12	12	12	12	12	12	12	12
Return on Capital Employed (%)	18.24%	17.27%	15.63%	14.84%	14.08%	13.42%	12.71%	12.08%	11.49%	10.97%	10.42%	10.04%	9.68%
Return on Investment (%)	40.53%	41.51%	39.73%	40.98%	42.20%	43.61%	44.64%	45.86%	47.05%	48.44%	49.03%	42.04%	42.59%
Return on Net Worth	28.84%	22.80%	17.91%	15.60%	13.84%	12.51%	11.35%	10.45%	9.68%	9.06%	8.40%	6.72%	6.37%
DSCR	2.95	1.62	1.60	1.65	1.71	1.77	1.83	1.90	1.98	2.07	2.14	1.95	2.02
ISCR	3.25	3.35	3.40	3.60	3.82	4.08	4.35	4.67	5.05	5.50	6.01	6.64	7.42
Fixed Asset Coverage Ratio	1.35	1.37	1.39	1.42	1.44	1.47	1.51	1.55	1.60	1.66	1.73	1.82	1.94
TOL/TNW	2.13	1.57	1.22	0.97	0.79	0.65	0.53	0.44	0.37	0.31	0.26	0.22	0.18
Debt to Equity Ratio	3.00	2.85	2.70	2.55	2.40	2.25	2.10	1.95	1.80	1.65	1.50	1.35	1.20

(Continue)

Year Ending	31-Mar-40	31-Mar-41	31-Mar-42	31-Mar-43	31-Mar-44	31-Mar-45	31-Mar-46	31-Mar-47	31-Mar-48	31-Mar-49	31-Mar-50	31-Mar-51	31-Mar-52
Year Counter	14	15	16	17	18	19	20	21	22	23	24	25	26
Months Counter	12	12	12	12	12	12	12	12	12	12	12	12	12

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Return on Capital Employed (%)	9.36%	9.00%	8.69%	8.38%	8.12%	7.81%	7.54%	7.17%	6.86%	6.52%	6.24%	5.98%	5.76%
Return on Investment (%)	43.37%	43.87%	44.59%	45.31%	46.23%	46.83%	47.64%	48.92%	48.88%	48.50%	48.31%	48.08%	48.03%
Return on Net Worth	6.10%	5.81%	5.57%	5.36%	5.19%	4.99%	4.83%	4.73%	4.51%	4.28%	4.09%	3.91%	3.76%
DSCR	2.11	2.19	2.30	2.42	2.57	2.72	2.91	3.27	0.00	0.00	0.00	0.00	0.00
ISCR	8.44	9.70	11.46	13.99	18.03	25.13	41.84						
Fixed Asset Coverage Ratio	2.10	2.32	2.64	3.19	4.28	7.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOL/TNW	0.15	0.12	0.09	0.07	0.05	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Debt to Equity Ratio	1.05	0.90	0.75	0.60	0.45	0.30	0.15	0.00	0.00	0.00	0.00	0.00	0.00

J. BREAK-EVEN ANALYSIS:

Year Ending (INR Crore)	31-Mar-27	31-Mar-28	31-Mar-29	31-Mar-30	31-Mar-31	31-Mar-32	31-Mar-33	31-Mar-34	31-Mar-35	31-Mar-36	31-Mar-37	31-Mar-38	31-Mar-39
Year Counter	1	2	3	4	5	6	7	8	9	10	11	12	13
Months Counter	12	12	12	12	12	12	12	12	12	12	12	12	12
Sales	121.41	121.97	121.87	122.11	122.34	122.91	122.81	123.05	123.28	123.86	123.76	123.99	124.23
Variable Expenses	6.93	6.89	11.03	11.17	11.32	11.50	11.66	11.84	12.04	12.26	12.46	12.69	12.94
Contribution	114.48	115.08	110.84	110.93	111.02	111.41	111.15	111.21	111.25	111.60	111.30	111.30	111.29
Fixed Expenses	23.74	23.79	23.75	23.73	23.76	23.80	23.77	23.75	23.78	23.83	23.80	23.78	23.81
Profit / PBT	90.73	91.29	87.09	87.20	87.26	87.60	87.38	87.45	87.47	87.77	87.50	87.52	87.48
PV RATIO	94.29%	94.35%	90.95%	90.85%	90.74%	90.64%	90.51%	90.38%	90.24%	90.10%	89.93%	89.76%	89.58%
BEP Sales	25.18	25.21	26.11	26.12	26.18	26.26	26.26	26.28	26.35	26.45	26.46	26.49	26.58

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BEP% (BEP Sales / sales)	20.74%	20.67%	21.43%	21.39%	21.40%	21.37%	21.38%	21.36%	21.38%	21.35%	21.38%	21.36%	21.40%
(Continue)													
Year Ending (INR Crore)	31-Mar-40	31-Mar-41	31-Mar-42	31-Mar-43	31-Mar-44	31-Mar-45	31-Mar-46	31-Mar-47	31-Mar-48	31-Mar-49	31-Mar-50	31-Mar-51	31-Mar-52
Year Counter	14	15	16	17	18	19	20	21	22	23	24	25	26
Months Counter	12	12	12	12	12	12	12	12	12	12	12	12	12
Sales	124.81	124.71	124.95	125.19	125.77	125.67	125.91	126.15	126.74	126.64	126.88	127.12	127.72
Variable Expenses	13.22	13.48	13.77	14.08	14.42	14.75	15.11	15.49	15.91	16.32	16.77	17.24	17.75
Contribution	111.59	111.23	111.18	111.11	111.35	110.92	110.80	110.66	110.83	110.32	110.11	109.89	109.97
Fixed Expenses	23.86	23.83	23.82	23.86	23.91	23.88	23.87	23.91	23.96	23.95	23.93	23.98	24.03
Profit / PBT	87.73	87.40	87.36	87.25	87.45	87.04	86.94	86.75	86.87	86.37	86.19	85.90	85.94
PV RATIO	89.41%	89.19%	88.98%	88.76%	88.54%	88.27%	88.00%	87.72%	87.45%	87.11%	86.79%	86.44%	86.10%
BEP Sales	26.69	26.72	26.77	26.88	27.00	27.06	27.12	27.26	27.40	27.49	27.57	27.74	27.91
BEP%	21.38%	21.43%	21.42%	21.47%	21.47%	21.53%	21.54%	21.61%	21.62%	21.71%	21.73%	21.82%	21.85%

K. TERM LOAN INPUTS:

Term Loan Repayment Inputs	
Total loan amount	INR 350.71 Crore
Rate of Interest	9.50%
1st Disbursement	Dec-24
IDC Start & End Month	Dec-24 to March-26
IDC Period (construction period)	16 Month
Commencement /Operation Start	1 st April 2026
Moratorium Start & End Month (only interest to pay)	Dec 2024 to March 2027

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Moratorium Period after COD	12 Month
Repayment Start	April-27
Repayment End	March-2047
Repayment Period	20 Years

(INR Crore)

Year Ending	31-Mar-25	31-Mar-26	31-Mar-27	31-Mar-28	31-Mar-29	31-Mar-30	31-Mar-31	31-Mar-32	31-Mar-33	31-Mar-34	31-Mar-35	31-Mar-36	31-Mar-37	31-Mar-38
Year Counter	0	0	1	2	3	4	5	6	7	8	9	10	11	12
Months Counter	4	12	12	12	12	12	12	12	12	12	12	12	12	12
Opening Bal	0.00	140.28	350.71	350.71	333.18	315.64	298.10	280.57	263.03	245.50	227.96	210.43	192.89	175.36
Disbursement of loan	140.28	210.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Repayment	0.00	0.00	0.00	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54
Closing Principal o/s	140.28	350.71	350.71	333.18	315.64	298.10	280.57	263.03	245.50	227.96	210.43	192.89	175.36	157.82
Interest	2.78	24.99	33.32	32.48	30.82	29.15	27.49	25.82	24.16	22.49	20.82	19.16	17.49	15.83
IDC	2.78	24.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TL Interest	0.00	0.00	33.32	32.48	30.82	29.15	27.49	25.82	24.16	22.49	20.82	19.16	17.49	15.83

(Continue)

Year Ending	31-Mar-39	31-Mar-40	31-Mar-41	31-Mar-42	31-Mar-43	31-Mar-44	31-Mar-45	31-Mar-46	31-Mar-47	31-Mar-48	31-Mar-49	31-Mar-50	31-Mar-51	31-Mar-52
Year Counter	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Months	12	12	12	12	12	12	12	12	12	12	12	12	12	12

TECHNO-ECONOMIC VIABILITY REPORT

66.20 MW WIND-SOLAR HYBRID POWER PLANT

Counter														
Opening Bal	157.82	140.28	122.75	105.21	87.68	70.14	52.61	35.07	17.54	0.00	0.00	0.00	0.00	0.00
Disbursement	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Repayment	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	17.54	0.00	0.00	0.00	0.00	0.00
Closing Principal o/s	140.28	122.75	105.21	87.68	70.14	52.61	35.07	17.54	0.00	0.00	0.00	0.00	0.00	0.00
Interest	14.16	12.49	10.83	9.16	7.50	5.83	4.16	2.50	0.00	0.00	0.00	0.00	0.00	0.00
IDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TL Interest	14.16	12.49	10.83	9.16	7.50	5.83	4.16	2.50	0.00	0.00	0.00	0.00	0.00	0.00

L. DEPRECIATION SCHEDULE (STRAIGHT LINE METHOD):

(INR Crore)

Depreciation Schedule as per Company's Act, 2013													
Particular	31-Mar-27	31-Mar-28	31-Mar-29	31-Mar-30	31-Mar-31	31-Mar-32	31-Mar-33	31-Mar-34	31-Mar-35	31-Mar-36	31-Mar-37	31-Mar-38	31-Mar-39
Building & Civil Works	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38
SLM Depreciation	0.740	0.742	0.740	0.740	0.740	0.742	0.740	0.740	0.740	0.742	0.740	0.740	0.740
Plant & Machinery	444.23	444.23	444.23	444.23	444.23	444.23	444.23	444.23	444.23	444.23	444.23	444.23	444.23
SLM Depreciation Plant &	16.88	16.93	16.88	16.88	16.88	16.93	16.88	16.88	16.88	16.93	16.88	16.88	16.88

TECHNO-ECONOMIC VIABILITY REPORT

66.20 MW WIND-SOLAR HYBRID POWER PLANT

Machinery													
Total SLM Depreciation	17.62	17.67	17.62	17.62	17.62	17.67	17.62	17.62	17.62	17.67	17.62	17.62	17.62

(Continue)

Depreciation Schedule as per Company's Act, 2013													
Particular	31-Mar-40	31-Mar-41	31-Mar-42	31-Mar-43	31-Mar-44	31-Mar-45	31-Mar-46	31-Mar-47	31-Mar-48	31-Mar-49	31-Mar-50	31-Mar-51	31-Mar-52
Building & Civil Works	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38	23.38
SLM Depreciation	0.742	0.740	0.740	0.740	0.742	0.740	0.740	0.740	0.742	0.740	0.740	0.740	0.742
Plant & Machinery	444.23	444.23	444.23	444.23	444.23	444.23	444.23	444.23	444.23	444.23	444.23	444.23	444.23
SLM Depreciation	16.93	16.88	16.88	16.88	16.93	16.88	16.88	16.88	16.93	16.88	16.88	16.88	16.93
Total SLM Depreciation	17.67	17.62	17.62	17.62	17.67	17.62	17.62	17.62	17.67	17.62	17.62	17.62	17.67

2. KEY ASSUMPTIONS & BASIS:

S. No.	Item	Assumptions and Basis
1.	General	<p>a. The projections of the proposed captive hybrid wind-solar power plant are done for the period from FY 2027 to FY 2052, ~25 years, to cover the term loan period as per the industry best practices. It is assumed that the plant will be achieving COD on 1st April 2026.</p> <p>b. We have considered both Revenue & cost based model (top to bottom approach) while making the future financial projections.</p> <p>c. Revenue modelling has been done based on the net unit generated annually and applicable tariff as per defined in the EPC agreement with KPI Green Energy Limited.</p> <p>d. Expense modelling has been done based on the terms & conditions mutually agreed by EPC & Company regarding Fixed and variable charges.</p> <p>e. The plant is assumed to be operational for 360 days for 24 hours annually.</p>
2.	Revenue Build up	<p>a. Company will be generating the revenue in the form of saving from the electricity generation from 41MW Solar and 25.20 MW Wind Power Plant.</p> <p>b. Plant load factor and degradation factors are considered as per the EPC agreement. After multiplying these factors with installed capacity, No. of units Production (Yearly) can be determined. After adjusted with transmission losses, Net units Exported annually are determined.</p> <p>c. Net units are multiplied by applicable tariff rate as per the EPC agreement and Net Revenue is calculated.</p> <p>d. Thus the company is expected to generate INR 121.41 Crore</p>

		<p>annual revenue in FY 2027, which is expected to increase up to INR 127.72 Crore till FY 2052.</p> <p>e. Escalation of 1% is considered in applicable tariff rate as informed by client during the projected period.</p>
3.	Pricing (Average Price Per Unit)	<p>a. Applicable tariff rate is considered as INR 8.76 per unit as per the EPC agreement with KPI.</p> <p>b. Escalation of 1% is considered in applicable tariff rate as informed by client during the projected period.</p>
4.	Capacity Utilization	<p>a. The proposed Wind Solar Hybrid power plant will be installed with a combined capacity of 41 MW DC Solar (~75926 nos. of Solar Panel) 540Wp of Bi-facial N-type Solar module from Waaree and Suzlon S 120 – (2.1 X 12) 25.20 MW Wind turbine generator (WTG).</p> <p>b. Plant load factor of 18.50% for Solar and 36% for wind are considered in the initial operating year and degradation factor of 0.80% y-o-y basis is taken as per the EPC agreement.</p>
5.	Capital Expenditure	<p>a. M/s Sai Bandhan Infinium Limited has executed an EPC/Techno-Commercial contract with KPI Green Energy Private Limited for Captive hybrid power plant for 25.20 WTG with 36% PLF & 41 MW DC Solar 18.50% PLF.</p> <p>b. KPI Green Energy Limited, is the solar and hybrid vertical of KP Group, a prominent Gujarat based solar and hybrid power generating company has been appointed an EPC through entering into a legal agreement dated 13th September 2024 who will be the solution provider for the proposed 66.20 MW hybrid project to implement on turnkey basis within 16 months of zero date for CPP vertical i.e. to design, develop, transfer and maintain the solar and wind hybrid power plant on behalf of M/s Sai Bandhan</p>

		<p>Infinium Limited as an industrial customer.</p> <p>c. The proposed wind solar hybrid power plant will not be having major building and civil works. Only land development and foundation work will be there as per the requirement of WTG and PV modules. Out of total EPC cost of INR 433.35 Cr., INR ~5% i.e. INR 21.67 Cr. will be the cost of Civil work, which seems to be reasonable after considering the infrastructure of the plant. However we are relied upon the data/information and EPC agreement of KPI shared with us by the client in this regard.</p> <p>d. As per the data/information provided by the client, applicable Interest during Construction (IDC) is 9.50%. As per the proposed Loan repayment schedule, company is required to pay INR 27.76 Crore as IDC from December 2024 to 31st March 2026 (16 months).</p> <p>e. Preliminary & Pre-Operative Expenses has been considered based on the estimate of company's resources involvement as INR 4.33 Crore, which is 1% of hard cost of the project. However, Company did not provide us any invoices/bills against these tentative costs considered. We recommend that the bank/financial institutions advice the company to submit actual cost based on the final quotations/invoices/bills. This will help validate the assertion of different costs considered by the client.</p> <p>f. Contingency cost of INR 2.17 Crore has been considered based on general assumption and professional experience (~0.5 of Hard Cost of the Project).</p> <p>g. As per the EPC agreement, the proposed captive hybrid power plant will be setting up with an initial investment of INR 467.62 Crore including EPC, IDC, and Contingencies & Preliminary & Pre-operative expenses.</p> <p>h. Thus, ~INR 7.06 Crore per MW is the expected CAPEX for the</p>
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		<p>proposed 66.20 MW Wind Solar Hybrid power plant, which seems to be reasonable and in the line with industrial benchmark.</p> <p>i. Per MW cost of Solar and Wind power plants are in the line with market trends. The cost of a 1 MW solar power plant in India is typically between ₹4 and ₹5 crores. The cost depends on several factors, including: Solar panels, Land, Balance of system (BOS) components, Installation challenges, Batteries. For reference Amplus Solar (https://amplussolar.com/blogs/1mw-solar-power-plant/) and Waree (https://waaree.com/blog/5-mw-solar-power-energy-plant-in-india-profit-cost-land-requirement/) are known name in this field.</p> <p>Similarly, According to a report by the Ministry of New and Renewable Energy in India, the capital cost of wind power projects in India ranges from INR 5.5 crore per MW to INR 6.5 crore per MW (approximately USD 750,000 to USD 880,000 per MW) for onshore wind projects, and from INR 8.5 crore per MW to INR 12 crore per MW (approximately USD 1.2 million to USD 1.6 million per MW) for offshore wind project. (https://www.linkedin.com/pulse/india-wind-energy-potential-quesrow#:~:text=According%20to%20a%20report%20by,INR%2012%20crore%20per%20MW%20).</p>
6.	Expenses	<p>a. O&M Expenses are considered as INR 1,43,50,000 and INR 2,77,68,000 yearly for Solar and Wind Plant respectively as per the EPC agreement. As per EPC, 2 years of O&M will be free. An escalation of 4% and 5% in O&M are considered for Solar and Wind Plant respectively as per the terms & conditions defined in EPC agreement.</p> <p>b. Banking Charges and Multi-Wheeling Charges are considered as 0.50 per unit as defined in the EPC agreement.</p> <p>c. State Load Despatch Centre (SLDC) are considered as INR 614.45</p>

		<p>per day as per the government policy and terms & conditions mentioned in EPC agreement.</p> <p>d. Transmission charges are considered as INR 4400 per MW Per day as per the government policy and terms & conditions mentioned in EPC agreement.</p> <p>e. Lease rental for land are INR 47,15,000 and INR 36,00,000 for solar and wind respectively as per the EPC agreement. An escalation of 5% every 3 year is considered as per EPC terms & condition.</p> <p>f. Insurance expenses are considered as 0.10 of WDV net block y-o-y basis.</p>
7.	Term Loan	<p>a. The project is proposed to be funded through a term loan of INR 350.71 crores and promoter's margin of INR 116.90 crores.</p> <p>b. Interest rate has been considered as 9.50% on the term loan.</p> <p>c. Loan repayment period will be for 20 years as per informed by bank/client/financial Institution.</p>

Key Findings:

1. Average DSCR, EBIDTA margin, EBIT margin is 2.18, 84.44%, and 70.27% respectively during the estimated period.
2. D.S.C.R of the proposed Wind Solar Hybrid Power plant is found highly sensitive with respect to any downside fluctuation in the projected revenue.
3. The company is having a positive NPV and IRR of INR 250 Crore and 15.76% respectively from C.OD to loan repayment period while it may vary with changes in the assumptions & micro and macro-economic trends considered as on date.
4. The proposed project is having a payback period of 8.96 years.
5. Based on the above key financial ratios of the proposed Project during the forecasted period shows that the project appears financially viable if the promoters of the project are able to maintain assumed capacity utilization, revenue and can contain cost as assumed above in the calculation.

PART L

CONCLUSION

Based on the technological, economical and market analysis done above, various assumptions of sectoral trends taken, product pricing to be adopted by the company, the Project appears to be Techno-commercially viable subject to the risks, threats, weaknesses, limitations of the product as detailed previously.

As per financial projections for the estimated period, **Average DSCR, EBITDA Margin and EBIT Margin** of the project are **2.18, 84.44% and 70.27%** respectively, where higher DSCR is the indicator of the project capability to pay out its outstanding debt and EBITDA margin shows the capability of the project to generate the operating profits over the forecasted period. Also the project is having the payback period of **8.96 Years** in the line with sectoral trends.

The proposed Wind Solar Hybrid project is having a positive **NPV and IRR** as **INR 250 Crore and 15.76%** respectively from C.O.D till loan repayment period as the industry is expectedly growing at a CAGR of 6.34% during the forecasted period. While it is not avoidable that the future projections may change in the upcoming years due to various factors impacting the operation, managerial, financial efficiency and economies of scale of the project.

While it would be depending on the management's capability in future that how efficiently company adopts marketing and advertisement strategy, supply chain and carry out inventory & resource management to achieve higher profitability. After considering the foreseen demand of the Power sector domestically and globally, various initiatives taken by the government, financial analysis of the project based on the assumptions taken over the projected period, it appears reasonable to comment that the proposed project is "**Technically and Economically**" Viable subject to current assumptions considered and occurring the same in the upcoming years same as the forecasted period which is dependent on the sincerity and efforts of the management and various micro and macroeconomic & industry situation.

We have tried our level best to analyse the Project techno-economic feasibility of the Project based on the Industry research, Project information and various futuristic assumption taken within the limitations and challenges came in front of us. However achieving the financial milestones depends on the ability, sincerity and efforts of the company, promoters and its key management to maintain the projected revenue level Y-o-Y basis keeping the fact in mind that the project is found sensitive with respect to the down side fluctuation in the revenue.

Declaration	<p>i. The undersigned does not have any direct/indirect interest in the above property/project/Company.</p> <p>ii. The information furnished herein is true and correct to the best of our knowledge, logical and scientific assumptions.</p> <p>iii. This TEV Report is carried out by our Financial Analyst team on the request from M/s Sai Bandhan Infinium Limited.</p> <p>iv. Meeting of Financial projections will be subject to the market & economy stability factors, judicious business operations and proper & timely implementation of the project and putting proper plan for achieving high productivity, efficiency and achieving cost saving benefits to increase profitability.</p> <p>v. We have submitted TEV report to M/s Sai Bandhan Infinium Limited.</p>
Number of Pages in the Report	107
Enclosed Documents	Disclaimer & Remarks 102-105
Place	Noida
Date	4 th November, 2024

FOR ON BEHALF OF M/S. R.K. ASSOCIATES VALUER & TECHNO ENGINEERING CONSULTANTS PVT. LTD.		
SURVEYED BY	PREPARED BY	REVIEWED BY
Mr. Sachin Pandey	Mr. Gaurav Kumar	Mr. Rachit Gupta

PART M

DISCLAIMER | REMARKS

1. No employee or member of R.K Associates has any direct/ indirect interest in the Project.
2. This report is prepared based on the copies of the documents/ information which the Bank/ Company has provided to us out of the standard checklist of documents sought from them and further based on our assumptions and limiting conditions. The client/owner and its management/representatives warranted to us that the information they supplied was complete, accurate and true and correct to the best of their knowledge. All such information provided to us has been relied upon in good faith and we have assumed that it is true and correct in all respect. I/We shall not be liable for any loss, damages, cost or expenses arising from fraudulent acts, misrepresentations, or wilful default on part of the owner, company, its directors, employee, representative or agents. Verification or cross checking of the documents provided to us from the originals or from any Govt. departments/ Record of Registrar has not been done at our end since this is beyond the scope of our work. If at any time in future, it is found or came to our knowledge that misrepresentation of facts or incomplete or distorted information has been provided to us then this report shall automatically become null & void.
3. Legal aspects for e.g. investigation of title, ownership rights, lien, charge, mortgage, lease, sanctioned maps, verification of documents, etc. have not been done at our end and same has to be taken care by legal expert/ Advocate. It is assumed that the concerned Lender/ Financial Institution has satisfied them with the authenticity of the documents, information given to us and for which the legal verification has been already taken and cleared by the competent Advocate before requesting for this report. I/ We assume no responsibility for the legal matters including, but not limited to, legal or title concerns.
4. This report is a general analysis of the project based on the scope mentioned in the report. This is not an Audit report, Design document, DPR or Techno feasibility study. All the information gathered is based on the facts seen on the site during survey, verbal discussion & documentary evidence provided by the client and is believed that information given by the company is true best of their knowledge.
5. This Techno Economic-Viability study is prepared based on certain futuristic assumption which are intra dependent on economic, market and sectorial growth condition in future and socio-economic, socio-political condition at macro and micro level.

6. Meeting of assumption and financial ratio will entirely depend on the sincerity and efforts of the company, promoters and its key managerial performance.
7. All observations mentioned in the report is only based on the visual observation and the documents/ data/ information provided by the client. No mechanical/ technical tests, measurements or any design review have been performed or carried out from our side during Project assessment.
8. This report has been diligently prepared by our techno-financial team to the best of their ability. However, it's important to note that the recommendations provided in this Total Economic Viability (TEV) assessment do not imply an endorsement, validation, or certification of the accuracy or completeness of the disclosed information by the involved stakeholders. Furthermore, we do not claim or endorse that the opinions presented herein are the sole best course of action for decision-makers to follow. There may exist additional approaches and inputs that have not been covered within this report or fall outside the scope of this report.
9. Bank/FII should **ONLY** take this report as an Advisory document from the Financial/ Chartered Engineering firm and its specifically advised to the creditor to cross verifies the original documents for the facts mentioned in the report which can be availed from the borrowing company directly.
10. In case of any default in loans or the credit facility extended to the borrowing company, R.K Associates shall not be held responsible for whatsoever reason may be and any request for seeking any explanation from the employee/s of R.K Associates will not be entertained at any instance or situation.
11. The documents, information, data provided to us during the course of this assessment by the client are reviewed only up to the extent required in relation to the scope of the work. No document has been reviewed beyond the scope of the work.
12. This report only contains general assessment & opinion as per the scope of work evaluated as per the information given in the copy of documents, information, data provided to us and/ and confirmed by the owner/ owner representative to us at site which has been relied upon in good faith. It doesn't contain any other recommendations of any sort including but not limited to express of any opinion on the suitability or otherwise of entering into any transaction with the borrower.

13. We have relied on data from third party, external sources & information available on public domain also to conclude this report. These sources are believed to be reliable and therefore, we assume no liability for the truth or accuracy of any data, opinions or estimates furnished by others that have been used in this analysis. Where we have relied on data, opinions or estimates from external sources, reasonable care has been taken to ensure that such data has been correctly extracted from those sources and /or reproduced in its proper form and context, however still we can't vouch its authenticity, correctness or accuracy.
14. This Report is prepared by our competent technical team which includes Engineers and financial experts & analysts.
15. This is just an opinion report and doesn't hold any binding on anyone. It is requested from the concerned Financial Institution which is using this report for taking financial decision on the project that they should consider all the different associated relevant & related factors also before taking any business decision based on the content of this report.
16. All Pages of the report including annexure are signed and stamped from our office. In case any paper in the report is without stamp & signature then this should not be considered a valid paper issued from this office.
17. Though adequate care has been taken while preparing this report as per its scope, but still we can't rule out typing, human errors, over sightedness of any information or any other mistakes. Therefore, the concerned organization is advised to satisfy themselves that the report is complete & satisfactory in all respect. Intimation regarding any discrepancy shall be brought into our notice immediately. If no intimation is received within **15 (Fifteen) days** in writing from the date of issuance of the report, to rectify these timely, then it shall be considered that the report is complete in all respect and has been accepted by the client up to their satisfaction & use and further to which R.K Associates shall not be held responsible in any manner.
18. Defect Liability Period is **15 DAYS**. We request the concerned authorized reader of this report to check the contents, data and calculations in the report within this period and intimate us in writing if any corrections are required or in case of any other concern with the contents or opinion mentioned in the report. Corrections only related to typographical, calculation, spelling mistakes, incorrect data/ figures/ statement will be entertained within the defect liability period. Any new changes for any additional information in already approved

- report will be regarded as additional work for which additional fees may be charged. No request for any illegitimate change in regard to any facts & figures will be entertained.
19. R.K Associates encourages its customers to give feedback or inform concerns over its services through proper channel at valuers@rkassociates.org in writing within **15 days** of report delivery. After this period no concern/ complaint/ proceedings in connection with the Techno- Economic Viability Study Services will be entertained due to possible change in situation and condition of the subject Project.
 20. Our Data retention policy is of **ONE YEAR**. After this period, we remove all the concerned records related to the assignment from our repository. No clarification or query can be answered after this period due to unavailability of the data.
 21. This Techno Economic Viability Study report is governed by our (1) Internal Policies, Processes & Standard Operating Procedures, (2) Information/ Data/ Inputs given to us by the client and (3) Information/ Data/ Facts given to us by our field/ office technical team. Management of R.K Associates never gives acceptance to any unethical or unprofessional practice which may affect fair, correct & impartial assessment and which is against any prevailing law. In case of any indication of any negligence, default, incorrect, misleading, misrepresentation or distortion of facts in the report then it is the responsibility of the user of this report to immediately or at least within the defect liability period bring all such act into notice of R.K Associates management so that corrective measures can be taken instantly.
 22. R.K Associates never releases any report doing alterations or modifications from pen. In case any information/ figure of this report is found altered with pen then this report will automatically become **null & void**.
 23. If this report is prepared for the matter under litigation in any Indian court, no official or employee of R.K Associates will be under any obligation to give in person appearance in the court as a testimony. For any explanation or clarification, only written reply can be submitted on payment of charges by the plaintiff or respondent which will be 10% of the original fees charged where minimum charges will be Rs. 15,000/.

EXTRACTS OF IMPORTANT STATUTORY APPROVALS PROVIDED BY THE CLIENT

**INDIA NON JUDICIAL
Government of Gujarat
Certificate of Stamp Duty**

Sr.No. 26380/2024
Expires on
Dt. 10-02-2025

Certificate No. : IN-GJ74986335470028W
Certificate Issued Date : 03-Oct-2024 07:02 PM
Account Reference : IMPACC (SV)/ gj13339604/ BHAVNAGAR/ GJ-BV
Unique Doc. Reference : SUBIN-GJGJ1333960465649904302936W
Purchased by : VISHAL KANADA
Description of Document : Article 5(h) Agreement (not otherwise provided for)
Description : EPC AGREEMENT FOR HYBRID PROJECT
Consideration Price (Rs.) : 0
(Zero)
First Party : SAI BANDHAN INFINIUM PVT LTD
Second Party : KPI GREEN ENERGY LTD
Stamp Duty Paid By : SAI BANDHAN INFINIUM PVT LTD
Stamp Duty Amount(Rs.) : 500
(Five Hundred only)

**GOVERNMENT OF INDIA
MINISTRY OF CORPORATE AFFAIRS**
Central Processing Centre
Manesar, Plot No. 6,7, 8, Sector 5, IMT Manesar, Gurgaon, Haryana, 122050, India

Certificate of Incorporation Consequent upon conversion to public company

Corporate Identity Number: U35105GJ2004PLC044607

IN THE MATTER OF SAI BANDHAN INFINIUM PRIVATE LIMITED



I hereby certify that SAI BANDHAN INFINIUM PRIVATE LIMITED which was originally incorporated on SIXTEENTH day of AUGUST TWO THOUSAND FOUR under Companies Act, 1956 as SAI INDUCTOMELT PRIVATE LIMITED and upon an intimation made for conversion into public company under Section 18 of the Companies Act, 2013; and approval of Central Government signified in writing having been accorded thereto by the ROC, CPC vide SRN AB1087613 dated 08/10/2024 the name of the said company is this day changed to SAI BANDHAN INFINIUM LIMITED

Given under my hand at ROC, CPC this FIFTEENTH day of OCTOBER TWO THOUSAND TWENTY FOUR

Certification signature by *.mca.gov.in,
Validity Unknown
Digitally signed by
*.mca.gov.in
Date: 2024.10.15 12:04:15 IST

Brijesh Kain

	GUJARAT ENERGY TRANSMISSION CORPORATION LIMITED Regd. Office: Sardar Patel Vidyut Bhavan, Race Course, VADODARA - 390 007 (CIN: U40100GJ1999SGC036018) Phone No. (0265) 2353886 (D) / Fax No. (0265) 2337918/2338164 (SU/VNL) Web site: www.getco.gujarat.com Email: secre.getco@getco.gujarat.com				
No. ACE(R&C)/EE-C/Solar/3499		Date: 13/09/2022			
SPEED POST					
To, M/S KPI Green Energy Limited, K P House, Opp Ishwar farm junction BRTS, Near Bliss IVF Circle, Canal road, Bhatar, Surat.					
Sub: Estimate of Supervision Charges for erection of 02 Nos of 66kV feeder bay for evacuation of (80 MW already granted+60 MW) Total 140 MW Solar Power evacuation at 220kV wagra (GETCO) S/S from solar Power Station of M/s.KPI Green Energy Limited under Option-3.					
Ref: (1) This Office L. No. ACE(R&C)/EE-C/3852 Dtd. 29.08.2022. (2) This Office L. No. ACE(R&C)/EE-C/3030 Dtd. 02.06.2022. (3) SE (TR), Bharruch L. No. 22-23/CO/BRH/T-2/31-A136/2732 Dtd. 08.07.2022. (4) CE (Projects) O.N No. CE (Projects)/II/T-2/R&C/8931 Dtd. 03.09.2022.					
Dear Sir, This is in continuation to the referred correspondences; the estimate of supervision charges for erection of 2 Nos of 66kV feeder bay for evacuation of (80 MW already granted+60 MW) Total 140 MW Solar Power of M/S KPI Green Energy Limited to GETCO 220kV Wagra S/S is hereby prepared. The summary of the estimate for same, under Option-III is as under:					
Option 3 - Applicant carries out the work					
Sr. No.	Item	Estimated Amount in Rs. (Material + Erection Cost including Statutory Charges)	15% Supervision Charges on Estimated Amount in Rs.	GST on Supervision Charges Amount in Rs.	Total Amount in Rs.
		A	B = A x 15%	C = B x 18%	D = B + C
1	Part-I(A): Estimate of Supervision for erection of 2 no. of 66kV feeder bay at 220kV wagra (GETCO) S/S - GETCO Asset	96,78,435.59	14,51,765.00	2,61,318.00	17,13,083.00
2	Part-II: Estimate of Supervision for erection Metering CT-PT at Applicant end - Applicant Asset	10,44,385.06	1,56,658.00	28,198.00	1,84,856.00
3	Total Estimated Amount in Rs.	1,07,22,820.65	16,08,423.00	2,89,516.00	18,97,939.00

	GUJARAT ENERGY TRANSMISSION CORPORATION LIMITED Regd Office: Sardar Patel Vidyut Bhavan, Race Course, VADODARA-390007 (CIN: U40100GJ1999SGC036018) Phone No. (0265) 2353586 (D)/Fax No. (0265) 2337918/2338164 Web site: www.getco.gujarat.com Email: secre.getco@getco.gujarat.com	
No. ACE (R & C)/EE-C/ 4366		DATE: 02/11/2022
SPEED POST		
To, M/s.KPI Green Energy Ltd, K P House, Opp Ishwar Farm Junction BRTS Near Bliss IVF Circle, Canal Road, Bhatar, Surat.		
Subject: System study for grid connectivity for evacuation of 140MW Solar Power at 220/66Kv Wagra Sub station, Taluka. Amod by KPI Green Energy Limited.		
Ref: (1) ACE(R&C)/EE-c/3852 dated 29-08-2022 (2) Your letter received dated 12-10-2022		
Dear Sir, This is in continuation to your letter received dated 12-10-2022 regarding setting up of 140MW Wind Solar Hybrid power plant instead of only solar project, which was earlier approved by this office for 140MW under third party sell and Captive mechanism.		
In this context, It is to Inform that the system study has been carried out for maximum Injection of 140MW at any given time vide this office letter. However, It is to clarify that, GERC in its orders has generally clarified the ratio of wind and solar at potential sites which reads as follows:		
Quote 3.3.2		
i.	At the locations of having good wind power potential, the solar PV capacity to be added as the solar-hybrid component could be relatively smaller.	
ii.	Similarly, in case of the sites where the wind power density is relatively lower or moderate, the component of the solar PV capacity could be relatively on a higher side.	
Unquote		
Since this is Hybrid Project under Type- B category of GERC Order No. 4 of 2021 Clause 3.2.4. The bifurcation of Wind capacity and Solar Capacity shall have to fixed by M/s. KPI Green Energy Ltd.		