

**IN THE HON'BLE NATIONAL GREEN TRIBUNAL, SOUTHERN ZONE
BENCH, CHENNAI**

ORIGINAL APPLICATION NO. 28 OF 2026

IN THE MATTER OF:

Kaliki Ramanareddy & Another .

...Applicants

Vs.

State of Andhra Pradesh & Ors.

...Respondents

**REPLY AFFIDAVIT FILED ON BEHALF OF RESPONDENT
NO. 4**



Adv. G.M. SYED NURULLAH SHERIFF

Adv. Krishna Ravindran

Adv. L. SURYAPRABHU

Adv. Dibeeshwar

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Counsels for Respondent No. 4**

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PLACE:- CHENNAI

DATE:- 4.7.2026

Adv. G.M. SYED NURULLAH SHERIFF

Adv. Krishna Ravindran

Adv. L. SURYAPRABHU

**Adv. Dibeeshwar
Counsels for Respondent No. 4**

DATES AND EVENTS

25.03.2025 G.O.Ms. No.43 was issued by the Government of Andhra Pradesh relating to allotment and identification of lands for establishment of renewable energy manufacturing projects including the project of the 4th Respondent.

04.12.2025 The 4th Respondent submitted application bearing Proposal No. SIA/AP/INFRA2/559590/2025 before SEIAA, Andhra Pradesh seeking Terms of Reference for construction of industrial buildings to establish Solar Modules Manufacturing Facility with annual capacity of 10 GW at Karedu Village, Ulavapadu Mandal, SPSR Nellore District.

10.12.2025 The proposal submitted by the 4th Respondent was considered in the 278th Meeting of the SEAC, Andhra Pradesh.

24.12.2025 The proposal of the 4th Respondent was considered in the 278th Meeting of SEIAA, Andhra Pradesh and was referred back for re-examination by SEAC.

07.01.2026 The proposal of the 4th Respondent was reconsidered by SEAC, Andhra Pradesh in its 280th Meeting and recommendations were made for issuance of Terms of Reference.

06.02.2026 SEIAA, Andhra Pradesh issued Terms of Reference vide File No. AP INFRA2 TOR NE 12 2025 2046 for the proposed 10 GW Solar Modules Manufacturing Facility at Karedu Village under Entry 8(b) of the EIA Notification, 2006.

18.04.2026 SEIAA, Andhra Pradesh granted Environmental Clearance in favour of the 4th Respondent for construction of industrial buildings to establish Integrated Solar Modules Manufacturing Facility at Chevvuru Village, Gudluru Mandal under Category 8(a) of the EIA Notification, 2006.

- The present Reply Affidavit is being filed by the 4th Respondent denying the allegations raised in the Original Application as false, premature and devoid of merits

**IN THE HON'BLE NATIONAL GREEN TRIBUNAL, SOTHERN ZONE,
CHENNAI BENCH**

IN

ORIGINAL APPLICATION NO. 32 OF 2025

IN THE MATTER OF:

Kaliki Ramanareddy & Another .

...Applicants

Vs.

State of Andhra Pradesh & Ors.

...Respondents

Reply Affidavit Filed On Behalf of Respondent No.4

IT IS MOST RESPECTFULLY SHOWETH:

I, Pothireddy Manoj Kumar Reddy, S/o Pothireddy Umamaheswara Reddy ,
Hindu ,aged 73 years, Head Downstream and Glass of M/s. INDOSOL
SOLAR PVT LTD having its registered office at 6-3-8-879/8, 3rd Floor,
Green Lands, G. Pulla Reddy Sweets Building, Begumpet, Hyderabad -
500 016, Telangana, representing, 4th respondent herein having come
down to Chennai and do hereby solemnly affirm and sincerely state as
follows:-

I am competent in the capacity as the Head Downstream and Glass to
file this affidavit on behalf of the 4th respondent herein from the available
records from the office. That I'm fully conversant with the facts and
circumstances of this case from the records maintained in the office and
I have read and understood the contents of the petition there off and
as



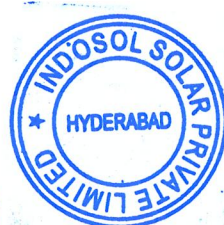
P. Manoj

such i am authorised and competent to swear the present affidavit on behalf of the 4th respondent herein in view of the power of attorney given in my favour. **Annexure A3**

I submit that I deny all the allegations/averments mentioned in the present application filed by the applicant except those that are specifically admitted herein in the counter affidavit filed hereunder

It is mostly respectfully submitted that the 4th respondent herein namely The Indosol Solar pvt Ltd is a private limited company registered under the companies act 2013 having its registered office in 6-3-8-879/8, 3rd Floor, Green Lands, G. Pulla Reddy Sweets Building, Begumpet, Hyderabad – 500 016, Telangana, . It is an organisation to setup and establish, integrated solar photovoltaic module (ingot, wafer, cell and module manufacturing facility). The Articles of association and the memorandum of Association of the company are enclosed herewith **Annexure A1, Annexure A2**

I'm duly authorised to file the present counter affidavit on behalf of the 4th respondent in the capacity as the general power of attorney holder for and on behalf of Indosol solar pvt Ltd to do in their name and in their behalf all such acts, deeds and things as are necessary for signing and submission of all documents, applications , forms , papers , declarations, etc and any other documents relating to general operations of the entity on behalf of the company **Annexure A3**



P. May

1.It is humbly submitted that the the answering 4th respondent most respectfully submits that India, as part of its stand at COP-26 to UNFCCC, has committed to achieve 50% of its total energy requirements from Renewable Energy (RE) and to reach 500 GW of Non-fossil energy capacity by 2030. Apart from increasing the capacity of RE in the energy mix and encouraging the usage of power from Renewable energy based sources, the policy landscape of the country also shows a keen focus on creating suitable infrastructure and supplying the required materials for implementation of Renewable Energy (RE) based power generation. One such scheme includes the Production Linked Incentive (PLI) scheme announced in 2021 for manufacturing of high efficiency Solar PV modules. As per the Central Electricity Authority's Optimum Energy Mix report, the electricity requirement of India by 2029-30 would be 817 GW including the 500 GW from Non fossil Energy sources, out of which 300 GW would come from Solar Energy.

2.It is humbly submitted that India's Solar Energy sector is heavily dependent on imports of Solar cells and modules from China, Vietnam and Malaysia. Indian Government have initiated various policy measures such as the National Solar Mission in 2010, and the Modified Special Incentive Package Scheme (MSIPS) in 2012. Further, the government has introduced Domestic Content Requirement (DCR) in 2014 and the Safeguard Duty (SGD) in 2018 to reduce the dependency on imports and to boost domestic manufacturing. The government has approved Production-Linked Incentive



(PLI) Scheme for the solar PV manufacturing sector in April 2021, for encouraging investment in manufacturing high-efficiency solar PV modules. In the latest move to make domestic solar manufacturing competitive, the government has ordered to impose 40% and 25% Basic Custom Duty (BCD) from 1 April 2022, on the import of solar modules and solar cells respectively. To achieve the target of 300 GW of installed Solar capacity by 2030, around 31 GW of solar energy capacity is needed to be installed every year, till 2030. Considering India's huge solar targets, it is imperative for India to develop domestic solar manufacturing capacities and reduce dependence on imports.

3.It is further submitted that India has set an ambitious goal to achieve 300 GW of solar power capacity by 2030, as part of its broader commitment to generate 500 GW of electricity from non-fossil fuel sources. This includes a significant increase from its current installed capacity of around 60 GW. This goal is a key part of India's strategy to transition to a low-carbon economy and reduce its carbon footprint. India has growing need for domestic solar PV module manufacturing facilities to reduce import dependence, boost local manufacturing, and meet its ambitious renewable energy targets. While India has significantly increased its solar PV capacity, it still relies heavily on imports for solar cells and modules. Government initiatives like the Production-Linked Incentive (PLI) scheme are aimed at fostering domestic manufacturing and attracting investments in this sector.

The proposed project aims to:



- Develop an end-to-end solar manufacturing ecosystem within India, thereby reducing import dependency.
- Support the Government of India's Atmanirbhar Bharat initiative and National Solar Mission.
- Generate direct and indirect employment opportunities during both construction and operation phases.
- Promote regional industrial development and contribute to sustainable energy infrastructure

Thus, the project is of strategic national importance, aligning with India's renewable energy vision and contributing significantly toward the transition to a clean, self-reliant energy future.

4. It is humbly submitted that The Information Memorandum (IM) brings out a perspective and plan of Indosol Solar Private Limited (ISPL), the 4th respondent herein to establish a Greenfield Vertically Integrated Solar Photovoltaic (PV) Module Manufacturing Facility in India. This vision is coherent with Government of India's goal to accelerate domestic industrial production through 'Make in India' program and is aligned to 'Atmanirbhar Bharat' program. This project would create huge employment opportunities. Being a first of its kind facilities in the country and further reduces import dependence on solar PV modules and also bring foreign direct investment and increase exports. **Annexure A4**



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5.It is most respectfully submitted that The Government of India has been steadfast in its commitment to Renewable Energy and this has been highlighted in India's stand at COP-26 to the United Nations Framework Convention on Climate Change (UNFCCC). As parts of its climate action, India presented the following 5 elements (called Panchamrit):

- Reach 500 GW Non-fossil energy capacity by 2030
- 50 per cent of its energy requirements from renewable energy by 2030.
- Reduction of total projected carbon emissions by one billion tonnes from now to 2030.
- Reduction of the carbon intensity of the economy by 45 per cent by 2030, over 2005 Levels.
- Achieving the target of net zero emissions by 2070

6.It is further submitted that Renewable energy as a means of energy source has gained a traction over a last decade with more than 286% increase in the installed capacity in the country . Solar power install capacity in India has increased from 2.6.gw in 2014 to 54GW by end of 2022. Several Indian corporates have already announced their intention to meet the demand of the solar power that would translate to an increasing demand for solar cells and modules. For catering to the increasing demand and to reduce dependence on import of solar PV components government of India have



P. Ray

announced an increase in funding under the PIL scheme for domestic solar cells and module manufacturing by 6 fold and the 4th respondent herein M/s. Indosol Solar pvt Ltd believes with the encouragement given by the government of India Initially set up in the beginning 1GW plant at chevuru village, fully complied with all the statutory compliance and an EC has already been granted for the same on 18.4.2026. **Annexure A5, Annexure A20**

7.It is most respectfully submitted that In May 2021, IREDA – Indian Renewable Energy Development Agency Ltd (IREDA-A Govt of India Enterprise) invited applications for selection of manufacturers for setting up high efficiency solar PV modules under PLI scheme. Shirdi Sai Electricals Limited (SSEL) , vide reference 1 cited above, emerged as a successful bidder to set up a 4 GW vertically integrated solar PV module manufacturing plant in India encompassing production of Polysilicon, Ingot, Wafer, solar cells, and PV modules with PLI incentive amount of INR 1,875 Cr. Indosol Solar Private Limited, an SPV set up in full consonance with terms of Government of India for PLI scheme, was incorporated. **Annexure A4**

8.It is humbly submitted that Subsequently ISPL, participated and emerged successful in PLI Tranche 2 as well. Solar Energy Corporation of India, allocated the highest PLI amount of INR 3,300 Cr on 27th Mar 2023 for setting up a 6 GW of Polysilicon, Ingot, Wafer, Solar cells, & PV modules. In total, Govt. of India allocated PLI capacities for manufacturing 10 GW of Polysilicon, Ingot, Wafer, Solar cells & PV modules. **Annexure A4**



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It is humbly submitted that to put it in a nutshell in this case, the following are the relevant points is to be concluded

- (I) The challenge of the project plant at Karedu Village of the TOR stage is highly premature
- (II) Separate projects cannot be artificially clubbed according to the whims and fancies of the applicant
- (III) The projects developed in different timelines with independent approvals do not amount to illegal segmentation and
- (IV) The environmental statutory authorities are experts in environmental law in different segments of environmental law and they should be allowed to complete the statutory appraisal process before judicial intervention whatsoever.

9.It is further submitted that at Karedu village it is proposed to set up India's first fully integrated solar PV module manufacturing facility by Indosol solar pvt Ltd 4th respondent herein with a global scale capacity of 10GW per year for which the statutory compliance process is undergoing and a TOR has been issued by the SEIAA, Andhra Pradesh the State regulatory authority. The 4th respondent has decided to set up the above global scale capacity of 10GW per year along with in house float glass manufacturing facility and it is pertinent to note that this project of 10GW per year capacity is envisioned to be one of the largest non Chinese factory in the world with truly global



P. Ray

scale capacity and cutting edge technologies. M/s. Indosol Solar Private Limited (ISPL) proposed to establish an Integrated Solar Modules (Ingot, wafer, Cell, Module and Glass) Manufacturing Facility with annual Capacity of 10 Giga Watt (GW) at Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh in an area of 340.9 Hectares(798 acres). The project comprises industrial construction activity with a total built-up area of 12,31,064 sqm. The capital cost of the proposed project is Rs. 18,000 crores. The project aims to enhance domestic manufacturing capacity for solar cells and modules, supporting the nation's renewable energy targets and reducing dependence on imports. **Annexure A6, A9, A13, A21, A22, A23**

10.It is most respectfully submitted that Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC) has allotted 340.9ha(798 acres) for the project land at Karedu Village, Ulavapadu Mandal, SPSR Nellore District to M/s. Indosol Solar Private Limited (ISPL) for the establishment of an Integrated Solar Modules (Ingot, wafer, Cell, Module and Glass) Manufacturing Facility. As the total built-up area of the proposed industrial buildings exceeds 1,50,000 sq.m and the project covers an area of more than 50 hectares, it falls under Category B (B1), Item 8(b) –“Townships and Area Development Projects,” as per the EIA Notification dated 14th September 2006 and its subsequent amendments. Therefore, the proposed project requires prior Environmental Clearance (EC) from the State Environment Impact Assessment Authority (SEIAA), Andhra Pradesh. Hence, it is proposed to seek prior Environmental Clearance, as the industrial shed



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construction exceeds the stipulated threshold limits under Category 8(b) of the EIA Notification, S.O. 1533€and its subsequent amendments. The total land area allotted and available for the proposed development is 798 acres, at Karedu village **Annexure A6, A9, A13**

11.The answering 4th Respondent most respectfully submits that the present Original Application is wholly misconceived, factually distorted, legally untenable and liable to be dismissed in limine inasmuch as the entire edifice of the Applicant's case is founded upon assumptions, speculative apprehensions, selective extraction of portions from preliminary investment communications and deliberate mischaracterization of the nature and scope of the projects presently under consideration before the statutory authorities. It is respectfully submitted that the Applicant has intentionally mixed up conceptual future expansion possibilities, policy-level investment proposals, long-term industrial planning documents and independent statutory applications pertaining to different extents of land situated in different villages and at different stages of appraisal, and has attempted to portray the same as though the 4th Respondent has already commenced a massive integrated metallurgical industry over 8348 acres without obtaining Environmental Clearance.

12.It is respectfully submitted that no such project presently exists either in law or on ground at Karedu village and the allegations made by the Applicant are contrary to the records available before the statutory authorities



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including SEAC, SEIAA and APPCB. It is further submitted that the present Application is a classic example of premature invocation of jurisdiction by seeking adjudication even before the statutory appraisal process has attained finality for a 10GW project at Karedu village where only a ToR vide File No. AP INFRA2 TOR NE 12 2025 2046 dated 06.02.2026 in Proposal No. SIA/AP/INFRA2/559590/20256.2.2026 has been Issued and therefore the present Original Application deserves to be dismissed at the threshold itself.

Annexure A13

13.The answering 4th Respondent further submits that the Applicant has approached this Hon'ble Tribunal by suppressing material developments and by intentionally failing to place before this Hon'ble Tribunal the subsequent statutory approvals, proceedings and deliberations undertaken by the competent authorities. It is respectfully submitted that the Applicant has selectively relied upon isolated portions of preliminary DPR concepts and investment proposals while completely suppressing the fact that the 1GW project presently established at Chevuru Village has already undergone statutory scrutiny before the competent environmental authorities and Environmental Clearance dated 18.04.2026 bearing EC Identification No. EC26C3806AP5556979N in File No. AP INFRA2 EC PR 04 2026 2508 has already been granted by SEIAA, Andhra Pradesh for "Construction of Industrial Buildings to Establish Integrated Solar Modules Manufacturing Facility" under the applicable category of the EIA Notification, 2006.

Annexure A20



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14.It is respectfully submitted that the said project relates to integrated solar module manufacturing involving ingot, wafer, cell and module production using imported polysilicon and does not involve any metallurgical conversion process as falsely alleged by the Applicant. The Applicant has deliberately omitted these crucial facts solely with an intention to create an impression as though the answering Respondent is carrying on unauthorized industrial activities without any statutory approvals. **Annexure A20**

15.It is respectfully submitted that the entire allegation regarding applicability of Entry 3(a) of the EIA Notification, 2006 is fundamentally misconceived and technically untenable. The Applicant has repeatedly alleged that the 4th Respondent is establishing a “120000 TPA metallurgical silicon plant” and “polysilicon manufacturing facility” requiring appraisal under Entry 3(a), whereas in fact the presently approved and proposed projects involve downstream solar manufacturing operations utilizing imported polysilicon as feedstock material for manufacture of ingots, wafers, cells and modules. **Annexure A9, A21, A23**

16.It is respectfully submitted that there is no process involving reduction smelting of silica, metallurgical extraction of silicon from quartz, or primary metallurgical conversion operations attracting the provisions of Entry 3(a) as alleged by the Applicant. The Applicant has intentionally failed to appreciate the distinction between upstream metallurgical silicon manufacturing and downstream solar module manufacturing processes. Mere use of expressions



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such as “silicon”, “polysilicon”, “wafer” or “ingot” does not automatically render the project a metallurgical industry within the meaning of Entry 3(a) of the EIA Notification, 2006. The allegations are therefore based upon complete technical misunderstanding and deserve outright rejection. Annexure A9, A20.

17.It is respectfully submitted that the Applicant has intentionally relied upon preliminary investment proposals and broad future expansion concepts discussed with the Government of Andhra Pradesh and has mechanically treated such future possibilities as though they constitute presently existing approved industrial projects. The Applicant has repeatedly referred to proposed capacities of 10 GW, 20 GW and 30 GW together with conceptual references to metallurgical and polysilicon facilities over large extents of land and has sought to portray the same as though all such phases are presently under implementation. **Annexure A4**

18.It is respectfully submitted that industrial investment proposals submitted before Governments routinely contain long-term expansion possibilities, conceptual phases, contingent infrastructure requirements and projected capacities subject to market feasibility, statutory permissions, environmental appraisal, financial closure and availability of land and infrastructure. Unless each independent phase undergoes the statutory process prescribed under environmental law, no such conceptual proposal can be treated as an approved or operational project. The Applicant has



P. Hanf

therefore intentionally conflated policy-level investment proposals with actual statutory applications presently under appraisal before SEIAA and APPCB. **Annexure A4, A9**

19.It is respectfully submitted that the Applicant has deliberately failed to appreciate that the projects situated at Chevuru Village and Karedu Village are distinct in terms of location, extent, stage of implementation and statutory status. The project situated at Chevuru Village, Gudluru Mandal pertains only to establishment of industrial buildings for integrated solar module manufacturing facility over approximately 52.6 acres of land presently available with the 4th Respondent and the said 1GW project has already obtained Environmental Clearance dated 18.04.2026 bearing EC Identification No. EC26C3806AP5556979N in File No. AP INFRA2 EC PR 04 2026 2508 from SEIAA, Andhra Pradesh after due appraisal by the competent authorities. The said project has also obtained Consent to Establish proceedings and related permissions from Andhra Pradesh Pollution Control Board vide Order.No. 302 /PCB/CTE/RO-NLR/HO/2025-Dt:01-06-2025 in accordance with law. On the other hand, the proposal relating to Karedu Village pertains only to a proposed 10 GW solar modules manufacturing facility for which the statutory process has presently reached only the stage of issuance of Terms of Reference dated 06.02.2026 vide File No. AP INFRA2 TOR NE 12 2025 2046. The Applicant has intentionally merged both these independent projects and has sought to create an



impression of one massive integrated illegal project solely to prejudice the authorities and mislead this Hon'ble Tribunal. **Annexure A20, A7, A21, A22**

20. It is respectfully submitted that the Applicant has deliberately suppressed the fact that the competent Revenue and Forest authorities have already examined the status of the subject lands and issued No Objection proceedings vide Rc. No.214/2026-F11, dated 26.03.2026 towards the Chevuru 1GW plant clearly indicating that the project area does not involve notified forest land attracting the provisions of the Forest (Conservation) Act, 1980 and stating it does not fall within reserved forest and are outside the Chevuru reserved forest. The said proceedings were obtained after due verification of revenue records, field position and applicable land classification by the competent authorities and the same forms part of the statutory documents placed before the environmental authorities during the appraisal process. It is respectfully submitted that despite full knowledge of the said proceedings, the Applicant has intentionally attempted to create an impression as though the project involves forest diversion and ecological encroachment without placing any contrary notification, forest classification record or statutory material before this Hon' ble Tribunal. The Applicant has not produced any document demonstrating that the subject lands at survey nos. 595, 594, 593, 592, 585 and 584 at Chevuru Village are recorded as reserved forest, protected forest or deemed forest under applicable law. In the absence of any such material, the bald allegations regarding forest impact are wholly speculative and contrary to official governmental records.



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The issuance of No Objection proceedings vide. Rc. No.214/2026-F11, dated 26.03.2026 by the competent authorities itself demolishes the Applicant's allegations relating to forest violations and clearly establishes that the project proposal has already undergone scrutiny by the concerned departments prior to being processed before SEIAA and APPCB. **Annexure A15**

21.It is further submitted that the 4th respondent M/s. Indosol Solar pvt Ltd at Chevuru Village Nellore district Andhra Pradesh comes under white category industry as per the CPCB classification and the white category industry does not require consent from Andhra Pradesh Pollution Control Board and an intimation to the concerned state pollution control board/pcc shall be sufficient was clearly indicated by the receipt no. PCB/RO Nellore/3129891 dated 23.2.2024 by the Andhra Pradesh Pollution Control Board Regional office Nellore. Despite the same the APPCB has already issued the CTE order no. 306/pcb/ro-nlr/ho/225 dated 1.6.2025 to the 1GW Chevuru Village project where even EC also has been issued. It is submitted that originally the land allotted by the government was only 29.97 acres of non-contiguous land at Chevuru Village in which only a module plant can be installed which came under a White category statutory compliance. Whereas later when we were able to get allotted around 23 acres of land subsequently which made us to expand backward integration into cell and ingot process under Red category for which also we have been thoroughly scrutinized by the statutory authorities under valid Environmental Clearance dated 18.04.2026 bearing EC Identification No.



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EC26C3806AP5556979N in File No. AP INFRA2 EC PR 04 2026 2508 have been issued. Hence on this ground also this OA is not maintainable since the statute is clear that once the EC is issued it can be challenged by way of only an appeal and not in this present original application **Annexure A5, A7, A20**

22.The answering 4th Respondent most respectfully submits that the allegation regarding illegal segmentation of project is wholly false, baseless and contrary to the factual position reflected in the records before the statutory authorities. It is respectfully submitted that the proposal submitted before SEIAA, Andhra Pradesh in Proposal No. SIA/AP/INFRA2/559590/2025 specifically disclosed the nature of the project, total plot area, built-up area, proposed manufacturing components and associated infrastructure facilities before the competent authorities. The competent authorities including SEAC and SEIAA examined the proposal in detail during their meetings held on 10.12.2025, 24.12.2025 and 07.01.2026 before ultimately issuing Terms of Reference dated 06.02.2026 vide File No. AP INFRA2 TOR NE 12 2025 2046 for further environmental appraisal. It is respectfully submitted that the very fact that the proposal underwent multiple levels of statutory scrutiny itself demolishes the allegation of suppression or concealment. The Applicant has not produced any material whatsoever to establish that the answering Respondent concealed any presently existing operational project from the authorities. **Annexure A9, A10, A11, A12, A13.**



P. Ray

23.It is respectfully submitted that the Applicant has repeatedly alleged that the 4th Respondent is in possession of 8348 acres of land at Karedu Village and is undertaking industrial activities over the said extent without Environmental Clearance. The said allegation is wholly false and contrary to the records. It is respectfully submitted that out of the broad extent identified by the Government for possible future industrial development, only approximately 798 acres are presently available with the 4th Respondent in relation to the proposed 10 GW facility presently under appraisal. Mere issuance of Government Orders identifying land for industrial purposes or initiation of acquisition proceedings under the RFCTLARR Act, 2013 does not automatically result in transfer of possession, commencement of industrial operations or creation of any deemed integrated project under environmental law. The Applicant has intentionally failed to distinguish between preliminary governmental land identification exercises and actual project implementation and has therefore created a wholly misleading factual narrative before this Hon'ble Tribunal. **Annexure A6, A9, A13**

24.It is respectfully submitted that the Applicant has deliberately suppressed the fact that the proposal presently under consideration at Karedu Village has not yet obtained Environmental Clearance and is still undergoing the statutory appraisal mechanism prescribed under the EIA Notification, 2006. The Terms of Reference issued by SEIAA on 06.02.2026 vide File No. AP INFRA2 TOR NE 12 2025 2046 itself demonstrates that the statutory process is still at a preliminary stage and several mandatory stages including



preparation of EIA Report, baseline environmental studies, impact assessment, risk analysis, public consultation, appraisal by SEAC and final consideration by SEIAA are yet to take place. It is respectfully submitted that the Applicant is attempting to invoke the extraordinary jurisdiction of this Hon'ble Tribunal even before completion of the statutory process itself. Such premature interference would amount to completely bypassing the environmental appraisal mechanism established under the Environment (Protection) Act, 1986 and EIA Notification, 2006. **Annexure A13**

25. It is respectfully submitted that this Hon'ble Tribunal as well as the Hon'ble Supreme Court have consistently held that interference at the stage of Terms of Reference is ordinarily unwarranted inasmuch as the environmental appraisal process itself provides adequate statutory safeguards for examination of all environmental concerns raised by stakeholders. At the stage of TOR no vested rights accrue in favour of the project proponent and the regulatory authorities retain complete powers to seek additional studies, modify conditions, direct reconsideration or even reject the proposal upon appraisal of the final EIA report. The Applicant therefore cannot seek a blanket direction compelling SEIAA to reject the application of the 4th Respondent even before completion of the statutory process. The present Application is therefore not only premature but also contrary to the scheme and framework of environmental jurisprudence governing environmental appraisal proceedings. **Annexure A13**



P. Nay

26.The answering 4th Respondent further submits that the Applicant has intentionally invoked Clause 8(vi) of the EIA Notification alleging concealment and misrepresentation without appreciating the scope and applicability of the said provision. It is respectfully submitted that Clause 8(vi) contemplates situations involving deliberate concealment or submission of false or misleading data before the regulatory authorities and the power to reject an application or cancel Environmental Clearance on such grounds vests exclusively with the regulatory authority after examination of records and compliance with principles of natural justice. In the present case no such finding has been recorded either by SEAC or SEIAA against the answering Respondent. On the contrary, the competent authorities after detailed deliberations consciously proceeded to issue TOR dated 06.02.2026 vide File No. AP INFRA2 TOR NE 12 2025 2046 and Environmental Clearance dated 18.04.2026 bearing EC Identification No. EC26C3806AP5556979N in File No. AP INFRA2 EC PR 04 2026 2508 respectively for the projects under consideration. The Applicant therefore cannot seek invocation of Clause 8(vi) merely on the basis of speculative allegations unsupported by any technical or statutory finding. **Annexure A10, A11, A12, A13, A20**

27.It is respectfully submitted that the Applicant has also sought to allege that the answering Respondent has illegally commenced land clearing, tree felling and industrial activities without Environmental Clearance. It is respectfully submitted that no industrial production activity whatsoever has commenced at Karedu Village. The proposal is still at TOR stage and no final



P. Manj

Environmental Clearance has yet been granted for the said project. Any preliminary activities undertaken are limited to incidental and preparatory activities permissible under law including boundary demarcation, preliminary surveys, temporary access arrangements and related non-industrial measures which do not amount to commencement of industrial operations attracting the provisions of the EIA Notification. It is submitted that Ministry of environment forest and climate change (impact assessment division in its office memorandum dated 29.3.2022 issued a clarification regarding activities which can be undertaken for securing the land for a project prior to the grant of environmental clearance. Earlier in this regard and office memorandum number. J- 11011/41/2006- IA. II(i) dated 19.8.2010 clarified that while securing the land no activity relating to any project covered under EIA notification, 2006 including civil construction can be undertaken at the site without prior EC except fencing of the site to protect it from getting encroached and construction of temporary sheds for the guards over a period of time instead of conventional barbed wire and wall fencing have come into existence with pre fabricated structures, pre cast compound wall, etc and in view of the same it has been decided by the competent authority in the ministry to explicitly clarify in its office memorandum dated 29.3.2022 that the following activities can be undertaken by the project proponent for securing the land



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- (I) Fencing of the project site by boundary wall using civil construction barbed wire or pre cast/pre fabricated components
- (II) Construction of temporary sheds using pre fabricated/modular structure for site office/guards and storing materials and machinery. It was further observed that the land were the project is expected to come should be in the legal possession of the project proponent which is 340. Ha (798 acres) and as such there is no involvement of any forest land or requirement of any wildlife clearance and necessary permission from standing committee for National board for wildlife as such required for this project . hence the allegations made by the applicant herein that the 4th respondent has submitted a truncated/segmented for the project is totally false, frivolous and nothing but of a figment of imagination of the applicant. It is totally denied that the 4th respondent herein is the process of acquiring lands for more than 8000 acres is nothing but of the applicants own imagination. The so called allegations that the 4th respondent does not own the lands and the acquisition process is pending is totally denied whereas, 798acres have already been allotted to the 4th respondent to install the proposed 10GW project.
- (III) The allegations made by the applicant that the concrete structures have been brought to the project site for commencing further civil work by the 4th respondent which is totally denied and in no way it



P. Nay

would amount to an illegal activity as it is they are very much mandated by the OM mentioned above dated 29.3.2022 to clarify that the above said activities can be undertaken for securing the land prior to grant of Environmental clearance

The Applicant has not produced any inspection report issued by APPCB, SEIAA, District Administration, Forest Department or any competent authority recording any violation by the answering Respondent. Mere filing of photographs without establishing date, location, survey numbers, ownership particulars or nature of activities cannot constitute proof of environmental violation. **Annexure A4, A6,A7, A14, A15**

28.It is respectfully submitted that the allegations regarding ecological destruction, irreversible environmental degradation, groundwater depletion and destruction of agricultural lands are wholly vague, generalized and unsupported by any scientific material whatsoever. The Applicant has not placed on record any environmental assessment report, expert study, groundwater analysis, satellite imagery, ecological impact assessment or statutory inspection report establishing any environmental damage attributable to the answering Respondent. On the contrary, the statutory appraisal process presently underway itself requires comprehensive environmental assessment including water requirement analysis, environmental baseline studies, ecological impact assessment,



P. Rang

environmental management planning and risk mitigation measures before any final decision is taken by SEIAA. The Applicant therefore seeks to prejudge the outcome of the statutory appraisal process itself without allowing the expert bodies constituted under environmental law to discharge their functions. **Annexure A13**

29.It is respectfully submitted that the Applicant has intentionally omitted reference to the detailed conceptual plans, project presentations, site layouts and statutory documents submitted before the competent authorities which clearly disclose the nature of the proposed facilities and manufacturing processes. The conceptual plans submitted before the authorities specifically disclose integrated solar module manufacturing involving ingot, wafer, cell and module plants, warehouses, utility buildings, solar glass related facilities, greenbelt and associated infrastructure. The project presentations also clearly indicate that the proposed facilities relate to downstream solar manufacturing ecosystem intended to support renewable energy manufacturing within the country. There is therefore absolutely no concealment of the nature of activities proposed by the answering Respondent before the statutory authorities. **Annexure A21, A22, A23**

30.It is respectfully submitted that the Applicant has attempted to create confusion by repeatedly using the expressions “metallurgical silicon”, “polysilicon”, “solar glass” and “integrated solar manufacturing” interchangeably without appreciating the technical distinctions between



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upstream metallurgical industries and downstream solar module manufacturing activities. The mere use of ingot and wafer manufacturing processes does not automatically render the project a metallurgical industry attracting Entry 3(a). The Applicant has failed to place on record any technical material demonstrating that the project presently proposed by the answering Respondent involves smelting operations, reduction furnaces, extraction of metallurgical silicon from silica or any other activity attracting Entry 3(a) of the EIA Notification. In the absence of any such material, the unilateral interpretation advanced by the Applicant cannot override the considered appraisal undertaken by the expert statutory authorities.

Annexure A20, A23.

31. It is respectfully submitted that the environmental appraisal process presently underway for 10GW project at Karedu village itself demonstrates that the competent authorities are fully seized of all relevant project particulars and environmental considerations. The proposal submitted by the answering Respondent was considered by SEAC in its 278th meeting held on 10.12.2025, thereafter by SEIAA in its meeting held on 24.12.2025 and subsequently reconsidered by SEAC in its 280th meeting held on 07.01.2026 before issuance of Terms of Reference on 06.02.2026 vide File No. AP INFRA2 TOR NE 12 2025 2046. It is respectfully submitted that the very fact that the proposal underwent repeated scrutiny and reconsideration completely demolishes the allegation that the authorities were misled or that any concealment occurred. The Applicant has intentionally suppressed these



P. Ray

procedural developments and has selectively extracted only portions favourable to its narrative. **Annexure A10, A11, A12, A13**

32.It is respectfully submitted that the Applicant has further attempted to rely upon broad governmental policy documents and land allocation proceedings for contending that the answering Respondent intends to establish an integrated industrial complex over several thousand acres. It is respectfully submitted that governmental policy communications and investment facilitation measures cannot automatically be treated as statutory environmental approvals. Industrial projects evolve in phases depending upon multiple contingencies including land acquisition, financing, infrastructure availability, statutory approvals and market viability. Unless and until specific applications are filed and independently appraised under the EIA Notification, no conceptual future phase can be treated as a presently existing project. The Applicant has therefore intentionally exaggerated the scope of presently proposed activities solely to invoke the jurisdiction of this Hon'ble Tribunal at a premature stage.

Annexure A6

33.It is most respectfully submitted that the present original application is liable to be rejected wholly as a premature one in view of the settled position of law recently also reiterated by this Hon'ble Tribunal(SZ) on OA no. 47 of 2026 – Patlola Karthik Reddy vs Union of India and Ors decided on 2.4.2026. This Hon'ble Tribunal categorically held that once the project proponent has



entered the process of statutory environmental appraisal mechanism, obtained the Terms of reference and the environmental impact assessment process is underway no interference is warranted at such an intermediary stage and any challenge can only be maintained, if at all after the competent authority takes a final decision on grant of environmental clearance. It was also observed by this Hon'ble Tribunal in this above matter by specially recording that once the statutory authorities are seized of the matter and the appraisal process is in progress, objection relating to environmental impact are required to be considered only by the expert appraisal authority in accordance with the EIA notification 2006 and not by prematurely stalling the statutory process. In this present case even we are in a stronger footing in as much as the proposal relating to Karedu village has merely reached the terms of reference stage and all subsequent future statutory safeguards including EIA studies, appraisal, public consultation, experts scrutiny, etc and final decision is left with SEIAA Andhra Pradesh which is yet to take place. Hence at this stage the interference by this Hon'ble Tribunal may please be avoided in order to complete the statutory process. Hence therefore the present original application deserves to be rejected on this ground of prematurity alone.

It is respectfully submitted that for better appreciation and understanding the relevant portions of this Hon'ble Tribunals judgement is extracted hereunder.



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“The learned AAG... and the learned Senior Counsel... submitted that an application for Environmental Clearance has already been filed and that the SEIAA, Telangana has issued the Terms of Reference (ToR). Based on the ToR, the EIA is presently under preparation. The said statement is recorded.”

“Since the authorities have already applied for the required clearances and approvals, the applicant cannot raise objections at this stage. It is open to the applicant to raise objections only after the Environmental Clearance is granted, if it is found to be in violation of the EIA Notification, 2006.”

“In view of the above, the Original Application [O.A. No.47 of 2026 (SZ)] is closed as premature.”

It is further submitted that the statutory mechanism prescribed under the EIA notification 2006 itself provides adequate safeguards for examination of every environmental issue raised by the applicant in this OA. The issuance of Terms of Reference merely initiates the environmental appraisal process and does not confer and final approval as such upon the project proponent. It has held recently also by this Hon'ble Tribunal in OA no 47 of 2026 any grievance regarding environmental impact or legality of the project can appropriately be examined only after completion of the statutory appraisal process which culminates into a final environmental clearance issuance. It is observed that the present original application having been instituted before the completion of the statutory process itself it is wholly premature and liable to be dismissed in this point alone.



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It is most respectfully submitted that this Hon'ble Tribunal has further held that where projects are undertaken under separate statutory approvals, independent planning permissions and different implementation schedules they cannot be merged merely because they are promoted by the same entity it was also specifically recognized that sequential implementation of projects by the same project proponent does not by itself establish illegal segmentation or project splitting. The applicant in this present case adopted precisely such an impermissible approach by combining an independently approved project where valid EC has been issued at Chevuru Village project with a proposed project presently under appraisal at Karedu village and further thereafter attempting to attribute an aggregate capacity and land extent which does not exist either in law or in fact. Such an approach has already been disapproved by this Hon'ble Tribunal at various instances

It is respectfully submitted that in the matter of *Rajiv Suri vs Delhi Development Authority*, the Hon'ble Supreme court held "The decision to attribute different timelines and purposes to different projects is a domain of planning and the Court cannot readily attribute the label of mala fides... until and unless there is a clear attempt to evade the requirements of law."

In the light of the above decisions it is very much premature when the challenge is made at the TOR stage for the project at Karedu village and the environmental authorities should be allowed to complete their statutory appraisal. In the case of Chevuru Village a 1GW project has been cleared by



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this statutory authorities and a valid EC has been issued by the SEIAA Andhra Pradesh dated 18.04.2026 bearing EC Identification No. EC26C3806AP5556979N in File No. AP INFRA2 EC PR 04 2026 2508 for “Construction of Industrial Buildings to Establish Integrated Solar Modules Manufacturing Facility” under the applicable category of the EIA Notification, 2006. It is always Open for the applicant to challenge the EC if there is any violation as such by way of an appeal and not by way of this OA.

34.It is respectfully submitted that the present Application is also liable to be rejected on the ground that the Applicant has failed to establish any substantial question relating to environment presently arising for adjudication before this Hon’ble Tribunal. The proposal relating to Karedu Village is still undergoing statutory environmental appraisal and no final Environmental Clearance has yet been granted. The Applicant has not demonstrated any completed environmental violation, operational industrial activity or irreversible ecological damage. The entire case is founded upon speculative apprehensions regarding possible future activities which are themselves subject to detailed environmental scrutiny by statutory expert bodies. In the absence of any established environmental violation, the invocation of jurisdiction under Sections 14 and 15 of the National Green Tribunal Act, 2010 is wholly misconceived.



P. Nay

35.It is respectfully submitted that the balance of convenience overwhelmingly lies in favour of permitting the statutory authorities to complete the environmental appraisal process independently in accordance with law rather than injuncting the project at a nascent stage. The answering Respondent has already invested substantial resources in planning, infrastructure coordination, statutory compliance and governmental approvals relating to establishment of integrated renewable energy manufacturing infrastructure. The project carries substantial public importance in relation to domestic solar manufacturing, renewable energy transition, reduction of import dependency and industrial development within the State of Andhra Pradesh. Grant of interim injunction at this premature stage would cause severe prejudice not only to the answering Respondent but also to ongoing governmental and industrial processes undertaken in furtherance of national renewable energy objectives.

Annexure A4, A6

36.It is respectfully submitted that the Applicant has approached this Hon'ble Tribunal with distorted facts, selective disclosures and speculative allegations solely with an intention to stall the lawful statutory process presently underway before the competent authorities. The allegations regarding applicability of Entry 3(a), illegal segmentation, concealment of facts, illegal commencement of activities and environmental violations are wholly unsupported by technical material, statutory findings or expert evidence. The Applicant has failed to produce any document demonstrating



P. Hanj

that the answering Respondent is presently carrying on metallurgical silicon manufacturing or any activity attracting Entry 3(a) of the EIA Notification, 2006. On the contrary, the records before SEIAA and APPCB clearly establish that the projects presently under consideration pertain to integrated solar module manufacturing involving downstream renewable energy manufacturing activities.

37. Therefore, in view of the facts and circumstances stated above, it is most respectfully submitted that the present Original Application is wholly premature, factually misconceived, legally untenable and devoid of merits and is therefore liable to be dismissed with exemplary costs as against this answering 4th Respondent and thus render justice.

Therefore, in view of the above, it is prayed that this Hon'ble Tribunal may please to take on record and consider our above said submissions made while passing an appropriate order, by dismissing the present original application with heavy cost and thus render justice.



P. Hanu

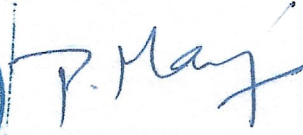
VERIFICATION

I, Pothireddy Manoj Kumar Reddy, S/o Pothireddy Umamaheswara Reddy, aged 73 years, Head Downstream and Glass of M/s. INDOSOL SOLAR PVT LTD having its registered office at 6-3-8-879/8, 3rd Floor, Green Lands, G. Pulla Reddy Sweets Building, Begumpet, Hyderabad - 500 016, Telangana, 4th Respondent herein, the aforementioned Deponent do hereby declare on this day 4th of July 2026 at Chennai, that the contents of the affidavit are true to my knowledge and belief and nothing material has been concealed therefrom.

BEFORE ME:-



S.D. PRABHAKARAN
(MS. 2131/2016)



RESPONDENT NO.4

THE COMPANIES ACT, 2013

COMPANY LIMITED BY SHARES

ARTICLES OF ASSOCIATION

OF

INDOSOL SOLAR PRIVATE LIMITED

Part - A

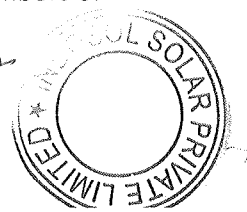
INTERPRETATION

I.

1. In these Regulations :-

- a) "Company" means "INDOSOL SOLAR PRIVATE LIMITED".
 - b) "Office" means the Registered Office of the Company.
 - c) "Act" means the Companies Act, 2013, and any statutory modification thereof.
 - d) "Seal" means the Common Seal of the Company.
 - e) "Directors" means the Directors of the Company and includes persons occupying the position of the Directors by whatever names called.
 - (*) f) "Lenders" shall mean, collectively, all such banks, financial institutions, non-banking financing companies (including their respective assignees and novatees from time to time) who have agreed to provide/provided any fund based/non-fund based financial assistance to the Company as per the terms of the Financing Documents. The term "Lender" shall refer to any and / or each of the Lenders individually.
 - (*) g) "Financing Documents" shall mean all the agreements / deeds/ undertakings/ documents/ writings/letters executed/to be executed in relation to the fund based/non-fund based financial assistance availed by the Company from the Lender(s) in relation to the main and/or ancillary objects as stated under its memorandum of association.
2. Unless the context otherwise requires words or expressions contained in these Articles shall bear the same meaning as in the Act, or any statutory modification thereof in force at the date at which these Articles become binding on the Company.

(*) Inserted vide Special Resolution passed at the extra-ordinary general meeting of the members of the company held on 10.03.2025.



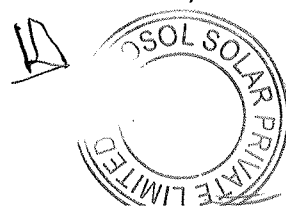
3. The Company is a Private Company within the meaning of Section 2(68) of the Companies Act, 2013, and accordingly:
 - (i) The right to transfer shares in the Company is restricted in the manner and to the extent hereinafter appearing;
 - (ii) The number of members of the Company (exclusive of persons who are in the employment of the Company, and persons who having been formerly in the employment of the Company, were members of the Company while in the employment and have continued to be members after the employment ceased) shall be limited to two hundred; provided that for the purpose of this definition where two or more persons jointly hold one or more shares in the Company, they shall, be treated as a single member, and.
 - (iii) prohibits any invitation to the public to subscribe for any securities of the company;
4. The Company shall act as a Special Purpose Vehicle (SPV) for setting up manufacturing capacities for higher efficiency solar PV modules.
5. The Company is a Joint Venture or Consortium of Shirdi Sai Electricals Limited (SSEL) and HES Infra Private Limited (HIPL) and SSEL shall act as a lead member of the Joint Venture including management of its affairs.

SHARE CAPITAL AND VARIATION OF RIGHTS

II.

1.

- (a) The Authorised Share Capital of the Company shall be such amounts and be divided into such shares as may, from time to time, be provided in Clause V of the Memorandum of Association with power to increase or reduce the capital in accordance with the Company's regulations and legislative provisions for the time being in force in that behalf with the powers to divide the share capital, whether original increased or decreased into several classes and attach thereto respectively such ordinary, preferential or special rights and conditions in such a manner as may for the time being be provided by the Regulations of the Company and allowed by law.
- (b) The rights of the holders of any class of shares forming part of capital for the time being of the Company may be modified, affected, varied, extended, surrendered or Abrogated in such manner as is or may be provided by the Articles of Association of the Company as originally registered or as altered from time to time.
- (c) The business of the Company may be commenced soon after the entire share subscription amount received by the Company and file a form with the Ministry of Corporate Affairs (MCA) confirming the receipt of the entire share subscription amount.
- (d) The shares shall be under the discretionary control of the Directors who may allot or otherwise dispose of the same.
- (e) The Company in general meeting may decide to issue fully paid up bonus share to the member if so recommended by the Board of Directors.
- (f) The certificate to share registered in the name of two or more persons shall be delivered to first named person in the register and this shall be a sufficient delivery to all such holders.



2. (i) Every person whose name is entered as a member in the register of members shall be entitled to receive within two months after incorporation, in case of subscribers to the memorandum or after allotment or within one month after the application for the registration of transfer or transmission or within such other period as the conditions of issue shall be provided —

(a) One certificate for all his shares without payment of any charges; or

(b) Several certificates, each for one or more of his shares, upon payment of twenty rupees for each certificate after the first.

- (ii) Every certificate shall be under the seal and shall specify the shares to which it relates and the amount paid-up thereon.

- (iii) In respect of any share or shares held jointly by several persons, the company shall not be bound to issue more than one certificate and delivery of a certificate for a share to one of several joint holders shall be sufficient delivery to all such holders.

3. (i) If any share certificate be worn out, defaced, mutilated or torn or if there be no further space on the back for endorsement of transfer, then upon production and surrender thereof to the company, a new certificate may be issued in lieu thereof, and if any certificate is lost or destroyed then upon proof thereof to the satisfaction of the company and on execution of such indemnity as the company deem adequate, a new certificate in lieu thereof shall be given. Every certificate under this Article shall be issued on payment of twenty rupees for each certificate.

- (ii) The provisions of Articles (5) and (6) shall mutatis mutandis apply to debentures of the company.

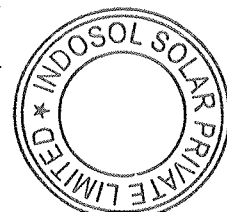
4. Except as required by law, no person shall be recognised by the company as holding any share upon any trust, and the company shall not be bound by, or be compelled in any way to recognise (even when having notice thereof) any equitable, contingent, future or partial interest in any share, or any interest in any fractional part of a share, or (except only as by these regulations or by law otherwise provided) any other rights in respect of any share except an absolute right to the entirety thereof in the registered holder.

5. (i) The company may exercise the powers of paying commissions conferred by sub-section (6) of section 40, provided that the rate per cent or the amount of the commission paid or agreed to be paid shall be disclosed in the manner required by that section and rules made there under.

- (ii) The rate or amount of the commission shall not exceed the rate or amount prescribed in rules made under sub-section (6) of section 40.

- (iii) The commission may be satisfied by the payment of cash or the allotment of fully or partly paid shares or partly in the one way and partly in the other.

6. (i) If at any time the share capital is divided into different classes of shares, the rights attached to any class (unless otherwise provided by the terms of issue of the shares of that class) may, subject to the provisions of Section 48, and whether or not the company is being wound up, be varied with the consent in writing of the holders of three-fourths of the issued shares of that class, or with the sanction of a special resolution passed at a separate meeting of the holders of the shares of that class.



(ii) To every such separate meeting, the provisions of these regulations relating to general meetings shall mutatis mutandis apply, but so that the necessary quorum shall be at least two persons holding at least one third of the issued shares of the class in question.

7. The rights conferred upon the holders of the shares of any class issued with preferred or other rights shall not, unless otherwise expressly provided by the terms of issue of the shares of that class, be deemed to be varied by the creation or issue of further shares ranking pari-passu therewith.
8. Subject to the provisions of section 55, any preference shares may, with the sanction of an ordinary resolution, be issued on the terms that they are to be redeemed on such terms and in such manner as the company before the issue of the shares may, by special resolution, determine.

LIEN

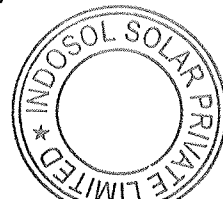
9. The Company shall have a first and paramount lien upon all the shares (not being a fully paid up share) registered in the name of such member (whether solely or jointly with others) and upon the proceeds of sale thereof for his debts, liabilities and engagements (whether presently payable or not) solely or jointly with any other person, to or with the Company, whether the period for the payment, fulfillment or discharge thereof shall have actually alien or not and such lien shall extend to all dividends, from time to time, declared in respect of shares, subject to section 124 and bonuses declared from time to time in respect of such shares under the Act. The Board of Directors may at any time declare any shares to be wholly or in part exempt from the provisions of this clause.

CALLS ON SHARES

10. The Directors are empowered to make call on members of any amount payable at a time fixed by them.

TRANSFER OF SHARES

11. Any member desiring to sell any of his shares must notify the Board of Directors of the number of shares, the fair value and the name of the proposed transferee and the Board must offer to the other share holders the shares offered at the fair value and if the offer is accepted, the shares shall be transferred to the acceptor and if the shares or any of them, are not so accepted within one month from the date of notice to the Board the members proposing transfers shall, at any time within three months afterwards, be at liberty, subject to Articles 19 and 20 hereof, to sell and transfer the shares to any persons at the same or at higher price.
12. No transfer of shares shall be made or registered without the previous sanction of the Directors, except when the transfer is made by any member of the Company to another member or to a member's spouse or child or children or their heirs and the Directors may decline to give such sanction without assigning any reason subject to Section 58 and 59 of the Act.
13. (i) Where any member of the Company shows interest to sell the shares held by it, rights of first offer or refusal to buy such shares shall be given to SSEL.
- (ii) The Directors may refuse to register any transfer of shares (1) where the Company has a lien on the shares or (2) where the shares are not fully paid up shares, subject to Section 58 and 59 of the Companies Act, 2013.

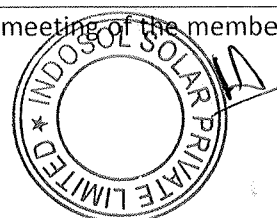


- (iii) Subject to Section 58 and 59 of the Act, the Directors may in their discretion, without assigning any reason, refuse to register the transfer of any shares to any person, whom it shall, in their opinion, be undesirable in the interest of the Company to admit to membership.
- 14. (i) At the death of any members his or her shares be recognised as the property of his or her heirs upon production of reasonable evidence as may required by the Board of Directors.
- (ii) The instrument of transfer must be accompanied by the certificates of shares.
- (*) 14A. Notwithstanding anything contrary stated in Articles 11-14 hereinabove and other provisions of these regulations/articles, the Board /Directors shall not register any infusion/transfer/ pledge of shares or any securities issued by the Company made in contravention of the provisions of the Financing Documents nor shall the Board/Directors exercise any rights available to the Company relating to the shares of the Company, in contravention of the provisions of the Financing Documents. Provided however, any request for transfer of shares or other securities by the Lenders (acting on their own or through their agents/trustee), claiming to invoke the pledge lien/charge etc., over the shares or securities of the Company shall be duly recognized and taken on record by the Company and all its shareholders without any delay, demur or objection in accordance with applicable laws and regulations.

TRANSMISSION OF SHARES

- 15. (i) On the death of a member, the survivor or survivors where the member was a joint holder, and his nominee or nominees or legal representatives where he was a sole holder, shall be the only persons recognised by the company as having any title to his interest in the shares.
- (ii) Nothing in clause (i) shall release the estate of a deceased joint holder from any liability in respect of any share which had been jointly held by him with other persons.
- 16. (i) Any person becoming entitled to a share in consequence of the death or insolvency of a member may, upon such evidence being produced as may from time to time properly be required by the Board and subject as hereinafter provided, elect, either—
 - (a) to be registered himself as holder of the share; or
 - (b) to make such transfer of the share as the deceased or insolvent member could have made.
- (ii) The Board shall, in either case, have the same right to decline or suspend registration as it would have had, if the deceased or insolvent member had transferred the share before his death or insolvency.

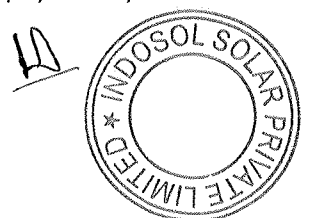
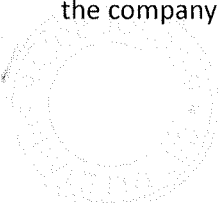
(*) Inserted vide Special Resolution passed at the extra-ordinary general meeting of the members of the company held on 10.03.2025.



17. (i) If the person so becoming entitled shall elect to be registered as holder of the share himself, he shall deliver or send to the company a notice in writing signed by him stating that he so elects.
- (ii) If the person aforesaid shall elect to transfer the share, he shall testify his election by executing a transfer of the share.
- (iii) All the limitations, restrictions and provisions of these regulations relating to the right to transfer and the registration of transfers of shares shall be applicable to any such notice or transfer as aforesaid as if the death or insolvency of the member had not occurred and the notice or transfer were a transfer signed by that member.
18. A person becoming entitled to a share by reason of the death or insolvency of the holder shall be entitled to the same dividends and other advantages to which he would be entitled if he were the registered holder of the share, except that he shall not, before being registered as a member in respect of the share, be entitled in respect of it to exercise any right conferred by membership in relation to meetings of the company. Provided that the Board may, at any time, give notice requiring any such person to elect either to be registered himself or to transfer the share, and if the notice is not complied with within ninety days, the Board may thereafter withhold payment of all dividends, bonuses or other monies payable in respect of the share, until the requirements of the notice have been complied with.

FORFEITURE OF SHARES

19. If a member fails to pay any call, or installment of a call, on the day appointed for payment thereof, the Board may, at any time thereafter during such time as any part of the call or installment remains unpaid, serve a notice on him requiring payment of so much of the call or installment as is unpaid, together with any interest which may have accrued.
20. The notice aforesaid shall—
- (a) Name a further day (not being earlier than the expiry of fourteen days from the date of service of the notice) on or before which the payment required by the notice is to be made; and
- (b) State that, in the event of non-payment on or before the day so named, the shares in respect of which the call was made shall be liable to be forfeited.
21. If the requirements of any such notice as aforesaid are not complied with, any share in respect of which the notice has been given may, at any time thereafter, before the payment required by the notice has been made, be forfeited by a resolution of the Board to that effect.
22. (i) A forfeited share may be sold or otherwise disposed of on such terms and in such manner as the Board thinks fit.
- (ii) At any time before a sale or disposal as aforesaid, the Board may cancel the forfeiture on such terms as it thinks fit.
23. (i) A person whose shares have been forfeited shall cease to be a member in respect of the forfeited shares, but shall, notwithstanding the forfeiture, remain liable to pay to the company all monies which, at the date of forfeiture, were presently payable by him to the company in respect of the shares.

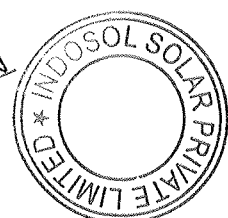


- (ii) The liability of such person shall cease if and when the company shall have received payment in full of all such monies in respect of the shares.
24. (i) A duly verified declaration in writing that the declared is a director, the manager or the secretary, of the company, and that a share in the company has been duly forfeited on a date stated in the declaration, shall be conclusive evidence of the facts therein stated as against all persons claiming to be entitled to the share.
- (ii) The company may receive the consideration, if any, given for the share on any sale or disposal thereof and may execute a transfer of the share in favour of the person to whom the share is sold or disposed of.
- (iii) The transferee shall thereupon be registered as the holder of the share.
- (iv) The transferee shall not be bound to see to the application of the purchase money, if any, nor shall his title to the share be affected by any irregularity or invalidity in the proceedings in reference to the forfeiture, sale or disposal of the share.
25. The provisions of these regulations as to forfeiture shall apply in the case of non-payment of any sum which, by the terms of issue of a share, becomes payable at a fixed time, whether on account of the nominal value of the share or by way of premium, as if the same had been payable by virtue of a call duly made and notified.

ALTERATION OF CAPITAL

26. The company may, from time to time, by ordinary resolution increase the share capital by such sum, to be divided into shares of such amount, as may be specified in the resolution.
27. Subject to the provisions of section 61, the company may, by ordinary resolution,—
- (a) Consolidate and divide all or any of its share capital into shares of larger amount than its existing shares;
- (b) Convert all or any of its fully paid-up shares into stock, and reconvert that stock into fully paid-up shares of any denomination;
- (c) Sub-divide its existing shares or any of them into shares of smaller amount than is fixed by the memorandum;
- (d) Cancel any shares which, at the date of the passing of the resolution, have not been taken or agreed to be taken by any person.
28. Where shares are converted into stock, —
- (a) the holders of stock may transfer the same or any part thereof in the same manner as, and subject to the same regulations under which, the shares from which the stock arose might before the conversion have been transferred, or as near thereto as circumstances admit:

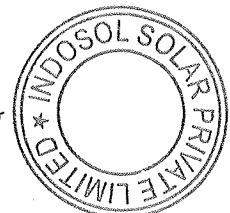
Provided that the Board may, from time to time, fix the minimum amount of stock transferable, so, however, that such minimum shall not exceed the nominal amount of the shares from which the stock arose.



- (b) the holders of stock shall, according to the amount of stock held by them, have the same rights, privileges and advantages as regards dividends, voting at meetings of the company, and other matters, as if they held the shares from which the stock arose; but no such privilege or advantage (except participation in the dividends and profits of the company and in the assets on winding up) shall be conferred by an amount of stock which would not, if existing in shares, have conferred that privilege or advantage.
 - (c) Such of the regulations of the company as are applicable to paid-up shares shall apply to stock and the words "share" and "shareholder" in those regulations shall include "stock" and "stock-holder" respectively.
29. The company may, by special resolution, reduce in any manner and with, and subject to, any incident authorised and consent required by law,—
- (a) its share capital;
 - (b) any capital redemption reserve account; or
 - (c) any share premium account.

CAPITALISATION OF PROFITS

30. (i) The company in general meeting may, upon the recommendation of the Board, Resolve—
- (a) that it is desirable to capitalize any part of the amount for the time being standing to the credit of any of the company's reserve accounts, or to the credit of the profit and loss account, or otherwise available for distribution; and
 - (b) that such sum be accordingly set free for distribution in the manner specified in clause (ii) amongst the members who would have been entitled thereto, if distributed by way of dividend and in the same proportions.
- (ii) The sum aforesaid shall not be paid in cash but shall be applied, subject to the provision contained in clause (ii), either in or towards—
- (a) paying up any amounts for the time being unpaid on any shares held by such members respectively;
 - (b) Paying up in full, unissued shares of the company to be allotted and distributed, credited as fully paid-up, to and amongst such members in the proportions afore said;
 - (c) Partly in the way specified in sub-clause (A) and partly in that specified in sub-clause (B);
 - (d) A securities premium account and a capital redemption reserve account may, for the purposes of this regulation, be applied in the paying up of unissued shares to be issued to members of the company as fully paid bonus shares;
 - (e) The Board shall give effect to the resolution passed by the company in pursuance of this regulation.
31. (i) Whenever such a resolution as aforesaid shall have been passed, the Board shall—
- (a) make all appropriations and applications of the undivided profits resolved to be capitalized thereby, and all allotments and issues of fully paid shares if any; and
 - (b) generally do all acts and things required to give effect thereto.



(ii) The Board shall have power—

- (a) to make such provisions, by the issue of fractional certificates or by payment in cash or otherwise as it thinks fit, for the case of shares becoming distributable in fractions; and
- (b) to authorize any person to enter, on behalf of all the members entitled there to, into an agreement with the company providing for the allotment to them respectively, credited a fully paid-up, of any further shares to which they may be entitled upon such capitalization, or as the case may require, for the payment by the company on their behalf, by the application thereto of their respective proportions of profits resolved to be capitalized, of the amount or any part of the amounts remaining unpaid on their existing shares;
- (iii) Any agreement made under such authority shall be effective and binding on such members.

BUY-BACK OF SHARES

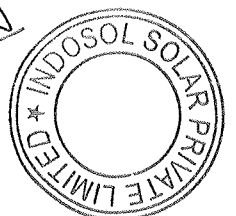
32. Notwithstanding anything contained in these articles but subject to the provisions of sections 68 to 70 and any other applicable provision of the Act or any other law for the time being in force, the company may purchase its own shares or other specified securities.

GENERAL MEETINGS

33. All general meetings other than annual general meeting shall be called extra-ordinary general meeting.
34. (i) The Board may, whenever it thinks fit, call an extra-ordinary general meeting.
- (ii) If at any time directors capable of acting who are sufficient in number to form a quorum are not within India, any director or any two members of the company may call an extra-ordinary general meeting in the same manner, as nearly as possible, as that in which such a meeting may be called by the Board.
- (iii) All General Meetings may be called by giving to members clear Seven days notice in writing except where such condition is waived off with the consent is given in writing by not less than 95% of the members entitled to vote.

PROCEEDINGS AT GENERAL MEETINGS

35. (i) No business shall be transacted at any general meeting unless a quorum of members is present at the time when the meeting proceed to business.
- (ii) Save as otherwise provided herein, the quorum for the general meetings shall be as provided in section 103.
36. The Chairperson, if any, of the Board shall preside as Chairperson at every general meeting of the Company.



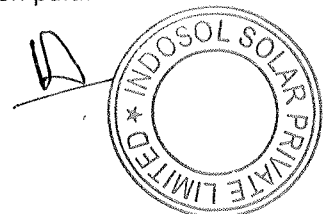
37. If there is no such Chairperson, or if he is not present within fifteen minutes after the time appointed for holding the meeting, or is unwilling to act as chairperson of the meeting, the directors present shall elect one of their members to be Chairperson of the meeting.
38. If at any meeting no director is willing to act as Chairperson or if no director is present within fifteen minutes after the time appointed for holding the meeting, the members present shall choose one of their members to be Chairperson of the meeting.

ADJOURNMENT OF MEETING

39. (i) The Chairperson may, with the consent of any meeting at which a quorum is present, and shall, if so directed by the meeting, adjourn the meeting from time to time and from place to place.
- (ii) No business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place.
- (iii) When a meeting is adjourned for thirty days or more, notice of the adjourned meeting shall be given as in the case of an original meeting.
- (iv) Save as aforesaid, and as provided in section 103 of the Act, it shall not be necessary to give any notice of an adjournment or of the business to be transacted at an adjourned meeting.

VOTING RIGHTS

40. Subject to any rights or restrictions for the time being attached to any class or classes of shares,—
- (a) on a show of hands, every member present in person shall have one vote; and
- (b) on a poll, the voting rights of members shall be in proportion to his share in the paid-up equity share capital of the company.
41. A member may exercise his vote at a meeting by electronic means in accordance with section 108 and shall vote only once.
42. (i) In the case of joint holders, the vote of the senior who tenders a vote, whether in person or by proxy, shall be accepted to the exclusion of the votes of the other joint holders.
- (ii) For this purpose, seniority shall be determined by the order in which the names stand in the register of members.
43. A member of unsound mind, or in respect of whom an order has been made by any court having jurisdiction in lunacy, may vote, whether on a show of hands or on a poll, by his committee or other legal guardian, and any such committee or guardian may, on a poll, vote by proxy.
44. Any business other than that upon which a poll has been demanded may be preceded with, pending the taking of the poll.
45. No member shall be entitled to vote at any general meeting unless all calls or other sums presently payable by him in respect of shares in the company have been paid.



46. (i) No objection shall be raised to the qualification of any voter except at the meeting or adjourned meeting at which the vote objected to is given or tendered, and every vote not disallowed at such meeting shall be valid for all purposes.

(ii) Any such objection made in due time shall be referred to the Chairperson of the meeting, whose decision shall be final and conclusive.

PROXY

47. The instrument appointing a proxy and the power-of-attorney or other authority, if any, under which it is signed or a notarised copy of that power or authority, shall be deposited at the registered office of the company not less than 48 hours before the time for holding the meeting or adjourned meeting at which the person named in the instrument proposes to vote, or, in the case of a poll, not less than 24 hours before the time appointed for the taking of the poll; and in default the instrument of proxy shall not be treated as valid.

48. An instrument appointing a proxy shall be in the form as prescribed in the rules made under section 105.

49. A vote given in accordance with the terms of an instrument of proxy shall be valid, notwithstanding the previous death or insanity of the principal or the revocation of the proxy or of the authority under which the proxy was executed, or the transfer of the shares in respect of which the proxy is given:

Provided that no intimation in writing of such death, insanity, revocation or transfer shall have been received by the company at its office before the commencement of the meeting or adjourned meeting at which the proxy is used.

BOARD OF DIRECTORS

50. (i) The number of Directors shall not be less than two and not more than fifteen.

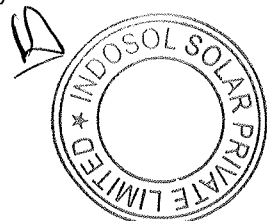
(ii) The first Directors of the Company shall be the following persons, who are nominees of SSEL:-

1. Mr. Visweswara Reddy Narreddy (DIN: 02996298)
2. Mr. Sharat Chandra Kolla (DIN: 08851423)

51. The Directors may from time to time, appoint one or more of their board members to the office of the Managing Director for one or more of the divisions of the business carried on by the Company and to enter into agreement with him in such terms and conditions as they may deem fit.

52. Subject to the provisions of section 149, the Board of Directors, at any time and from time to time, to appoint any person as additional Director in addition to the existing Directors so that the total number of Directors shall not at any time exceed the number fixed for Directors in these articles, Any Directors so appointed shall hold office only until the next following Annual General Meeting but shall be eligible thereof for election as Director.

53. The Managing Director may be paid such remuneration as may, from time to time, be determined by the Board and such remuneration as may be fixed by way of salary or commission or participation in profits or partly in one way or partly in another subject to the provisions of the Companies Act, 2013.



54. The quorum necessary for the transaction, of the business of the Board meeting subject to Section 174 of the Act, shall be one third of the total strength or at least two whichever is higher. The participation of the directors by video conferencing or by other audio visual means shall also be count for the purpose of quorum.
55. Subject to section 175 of the Act, a resolution in writing signed by the Director except a resolution which the Act specifically required it to be passed at a Board meeting shall be effective for all purposes as a resolution passed at a meeting of Directors duly called, held and constituted.
56. (i) The Managing Director, if any and other Directors who involve in the day to day affairs of the Company are entitled for remuneration in commensurate with the services rendered to the Company as may be fixed by the Board of Directors of the Company in compliance with the provisions of the Companies Act, 2013.
- (ii) If any Director or Directors shall undertake special services for the company, the Board of Directors may sanction a special remuneration for his or their work, as they may think proper provided that the confirmation of the members in the General Meeting shall be taken thereof.
- (iii) Subject to the provisions of the Act, the property, business of the Company and affairs of the Company shall be managed by and under the direction of the Board. The Board may exercise all such powers of the Company and do all such lawful acts and things as are permitted under applicable Law and the Memorandum and Articles of Association of the Company.
- (*) (iv) Notwithstanding anything to the contrary contained in these regulations/AoA, any Lender shall be entitled to appoint, remove or replace from time to time, such non-executive director(s) and/ or observer(s) on the board of directors ("Board") of the Company as per the terms of the Financing Documents entered into with such Lender, including for the period as specified in such Financing Documents (hereinafter as the "Nominee Director" or "Observer" as the case may be). Neither the Nominee Director nor the Observer shall be required to hold qualification shares nor be liable to retire by rotation. The Nominee Director shall be appointed as member of the committees of the Board, if so desired by the said Lender(s) as per the terms of the Financing Documents. The Nominee Director and/or the Observer shall be entitled to receive all notices, agenda and any other information and to attend all general meetings and board meetings and meetings of any committees of the Board. In the event the Nominee Director / Observer is unable to attend any of the above meetings or has not been appointed by the Lender, the said Lender may depute an Observer or any individual, as the case may be, to attend the meeting and such deputation shall be in addition to and not in substitution. The expenses incurred by the said Lender in this connection shall be borne and payable by the Company. The Nominee Director or the Observer shall have the right to furnish to the Lender(s) reports of the proceedings of all such meetings and the Company shall not have any objection to the same.

The appointment or removal of the Nominee Director/Observer shall be by notice in writing by the said Lender(s) addressed to the Company and shall take effect forthwith upon such a notice being delivered to the Company. The Nominee Director shall be entitled to all the rights and privileges of other non-executive directors of the Board and the sitting fees, and expenses as payable to other directors (other than executive directors) on the Board. Provided however, if any other fees, commission, monies or remuneration in any form payable to the non-executive directors, then such fees, commission, monies and remuneration in relation to such Nominee Director shall accrue



to the Lender(s) who appointed such Nominee Director and the same shall accordingly be paid by the Company directly to such Lender(s) in proportion to the loans then outstanding. Provided further, if a Nominee Director is an officer of the Lender then the sitting fees in relation to such Nominee Director shall accrue to such Lender and the same shall accordingly be paid by the Company directly to such Lender. All expenditure incurred by the Lender(s) or the Nominee Director or both in connection with their appointment of directorship shall be borne and payable by the Company. The Company shall ensure that the Nominee Director and/or the Observer shall be entitled to the same indemnities as the Directors and shall be indemnified by the Company against any liabilities, losses, damages, claims, penalties, judgments, suits, costs and expenses arising as a result of its actions pursuant to the appointment as a Nominee Director/Observer (as the case may be) and shall have all the rights and remedies available to them as per the Financing Documents.

PROCEEDINGS OF THE BOARD

57. (i) The Board of Directors may meet for the conduct of business, adjourn and otherwise regulate its meetings, as it thinks fit.

(ii) A director may, and the manager or secretary on the requisition of a director shall, at any time, summon a meeting of the Board.

58. (i) Save as otherwise expressly provided in the Act, questions arising at any meeting of the Board shall be decided by a majority of votes.

(ii) In case of an equality of votes, the Chairperson of the Board, if any, shall have a second or casting vote.

59. The continuing directors may act notwithstanding any vacancy in the Board; but, if and so long as their number is reduced below the quorum fixed by the Act for a meeting of the Board, the continuing directors or director may act for the purpose of increasing the number of directors to that fixed for the quorum, or of summoning a general meeting of the company, but for no other purpose.

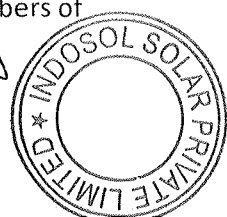
60. (i) The Board may elect a Chairperson of its meetings and determine the period for which he is to hold office.

(ii) If no such Chairperson is elected, or if at any meeting the Chairperson is not present within five minutes after the time appointed for holding the meeting, the directors present may choose one of their number to be Chairperson of the meeting.

61. (i) The Board may, subject to the provisions of the Act, delegate any of its powers to committees consisting of such member or members of its body as it thinks fit.

(ii) Any committee so formed shall, in the exercise of the powers so delegated, conform to any regulations that may be imposed on it by the Board.

(*) Inserted vide Special Resolution passed at the extra-ordinary general meeting of the members of the company held on 10.03.2025.

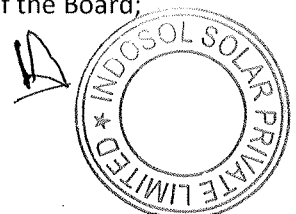


62. (i) A committee may elect a Chairperson of its meetings;
- (ii) If no such Chairperson is elected, or if at any meeting the Chairperson is not present within five minutes after the time appointed for holding the meeting, the members present may choose one of their members to be Chairperson of the meeting.
- (iii) (a) A committee may meet and adjourn as it thinks fit.
- (a) Questions arising at any meeting of a committee shall be determined by a majority of votes of the members present, and in case of an equality of votes, the Chairperson shall have a second or casting vote.
- (b) All acts done in any meeting of the Board or of a committee thereof or by any person acting as a director, shall, notwithstanding that it may be afterwards discovered that there was some defect in the appointment of any one or more of such directors or of any person acting as aforesaid, or that they or any of them were disqualified, be as valid as if every such director or such person had been duly appointed and was qualified to be a director.
- (c) Save as otherwise expressly provided in the Act, a resolution in writing, signed by all the members of the Board or of a committee thereof, for the time being entitled to receive notice of a meeting of the Board or committee, shall be valid and effective as if it had been passed at a meeting of the Board or committee, duly convened and held.
63. The quorum necessary for the transaction of the business of Directors shall be two Directors or one third of the total number of Directors whichever is higher. A meeting of the Directors for the time being, at which a quorum is present, shall be competent to exercise all or any of the authorities, powers and discretions by law or under the Articles and regulations for the time being vested or exercisable by the Directors generally.
64. For Meeting of Board of Directors of the Company, the Board of Directors may meet for the dispatch of business, adjourn and otherwise regulate its meetings, as it thinks fit.
65. (i) A Director or Directors may on the requisition of a director or directors of the Company, at any time, summon a meeting of the Board.
- (ii) Save as otherwise expressly provided in the Act, question arising at any meeting of the Board shall be decided by a simple majority of votes.
- (iii) The Members may by passing an Ordinary Resolution remove a director, before the expiry of his period of office.

CHIEF EXECUTIVE OFFICER, MANAGER, COMPANY SECRETARY OR CHIEF FINANCIAL OFFICER

66. Subject to the provisions of the Act,—

- (i) A chief executive officer, manager, company secretary or chief financial officer may be appointed by the Board for such term, at such remuneration and upon such conditions as it may think fit; and any chief executive officer, manager, company secretary or chief financial officer so appointed may be removed by means of resolution of the Board;



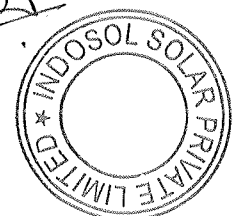
- (ii) A director may be appointed as chief executive officer, manager, company secretary or chief financial officer.
67. A provision of the Act or these regulations requiring or authorising a thing to be done by or to a director and chief executive officer, manager, company secretary or chief financial officer shall not be satisfied by its being done by or to the same person acting both as director and as, or in place of, chief executive officer, manager, company secretary or chief financial officer.

THE SEAL

68. (i) The Common Seal of the Company may be made either of metal or of rubber as the directors may decide.
- (ii) The Board shall provide for the safe custody of the Company's Common Seal.
- (iii) The Seal shall not be affixed to any instrument except by the authority of a resolution of the Board or of a Committee of the Board authorised by it in that behalf and except in the presence of at least one director or any officer authorized by the Board by way of resolution, who shall sign every instrument to which the seal of the Company if so affixed. The share certificate will, however, be signed and sealed in accordance with Rule prescribed by Central Government in this regard.

DIVIDENDS AND RESERVE

69. The company in general meeting may declare dividends, but no dividend shall exceed the amount recommended by the Board.
70. Subject to the provisions of section 123, the Board may from time to time pay to the members such interim dividends as appear to it to be justified by the profits of the company.
71. (i) The Board may, before recommending any dividend, set aside out of the profits of the company such sums as it thinks fit as a reserve or reserves which shall, at the discretion of the Board, be applicable for any purpose to which the profits of the company may be properly applied, including provision for meeting contingencies or for equalising dividends; and pending such application, may, at the like discretion, either be employed in the business of the company or be invested in such investments (other than shares of the company) as the Board may, from time to time, thinks fit.
- (ii) The Board may also carry forward any profits which it may consider necessary motto divide, without setting them aside as a reserve.
72. (i) Subject to the rights of persons, if any, entitled to shares with special rights as to dividends, all dividends shall be declared and paid according to the amounts paid or credited as paid on the shares in respect whereof the dividend is paid, but if and so long as nothing is paid upon any of the shares in the company, dividends may be declared and paid according to the amounts of the shares.
- (ii) No amount paid or credited as paid on a share in advance of calls shall be treated for the purposes of this regulation as paid on the share.



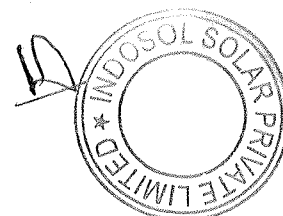
- (iii) All dividends shall be apportioned and paid proportionately to the amounts paid or credited as paid on the shares during any portion or portions of the period in respect of which the dividend is paid; but if any share is issued on terms providing that it shall rank for dividend as from a particular date such share shall rank for dividend accordingly.
73. The Board may deduct from any dividend payable to any member all sums of money, if any, presently payable by him to the company on account of calls or otherwise in relation to the shares of the company.
74. (i) Any dividend, interest or other monies payable in cash in respect of shares maybe paid by cheque or warrant sent through the post directed to the registered address of the holder or, in the case of joint holders, to the registered address of that one of the joint holders who is first named on the register of members, or to such person and to such address as the holder or joint holders may in writing direct.
- (ii) Every such cheque or warrant shall be made payable to the order of the person to whom it is sent.
75. Any one of two or more joint holders of a share may give effective receipts for any dividends, bonuses or other monies payable in respect of such share.
76. Notice of any dividend that may have been declared shall be given to the persons entitled to share therein in the manner mentioned in the Act.
77. No dividend shall bear interest against the company.

ACCOUNTS

78. (i) The Board shall, from time to time, determine whether and to what extent and at what, times and places and under what conditions or regulation the accounts and books of the Company or any of them shall be open to the inspection of members (not being Director).
- (ii) No members (not being Director) shall have any right of inspecting any accounts or books of account of the Company except as conferred by law or authorised by the Board or by the Company in General Meeting.
- (iii) The Directors shall in all respect comply with the provisions of Section 128, 134, 137, 206, 207 and 208, of the Act, and profits and Loss Account, Balance Sheet and Auditors Report and every other document required by law to annexed or attached as the case may be, to the Balance Sheet, to be sent to every member and debenture holder of the Company and every trustee for the holders of the debentures issued by the Company at least twenty one days before the date of Annual general meeting of the Company at which they are to be laid, subject to the provisions of section 136 of the Act.

WINDING UP

79. Winding up when necessary will be done in accordance with the requirements of the Companies Act, 2013 or statutory modification thereto.



INDEMNITY

80. Every officer of the company shall be indemnified out of the assets of the company against any liability incurred by him in defending any proceedings, whether civil or criminal, in which judgment is given in his favour or in which he is acquitted or in which relief is granted to him by the court or the Tribunal.

OTHERS

81.

Preference Shares

- (i) The Company shall, subject to provisions of the Companies Act has power to issue preference shares redeemable at the option of the Company or to issue share with disproportionate voting rights.

Alteration to Memorandum

- (ii) The Company shall have the power to alter the conditions of the Memorandum in any manner.

Control of Shares

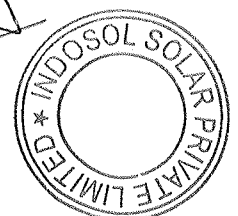
- (iii) The shares of the Company shall be under the control and discretion of the Board of Directors who may divide the shares into several classes and subject to the provisions herein contained may allot, transfer or persons and for such consideration upon such terms and conditions, at such time as the directors may in their absolute discretion think fit and such shares may be issued at par, at a premium or at a discount. The Directors may allot and issue shares in the capital of the company in payment or part payment for any property sold and transferred or for services rendered to the company or the conduct of its business or for any other consideration and any shares so allotted may be issued as fully paid up and/or partly paid up shares. The company shall have the power to issue shares having disproportionate voting rights.

Shares Held Jointly

- (iv) If the shares are held in the name of two or more jointly, then the person first named in the Register of Members shall for all the purpose except voting and transfer, be deemed to be sole holder thereof. But the joint holders are severally and jointly liable for all purpose.

Increase of Capital

- (v) The Company in General Meeting may, from time to time increase the Capital by the creation of new shares, such increase to be of such aggregate amount and to be divided into shares of such respective amounts as the resolution shall prescribe. Subject to the provisions of the Act, any shares of the original or increased Capital shall be issued upon such terms and conditions and with such right and privileges annexed thereto, as the General Meeting resolving upon the creation thereof shall direct, and if no direction be given, as the Directors shall determine and in particular, such may be issued with a preferential or qualified right to divide and in the distribution of Assets of the Company.



Issue of Shares in Kind

- (vi) The Company subject to the provisions of the Companies Act, 2013 and the statutory modifications and applicable provisions, if any, is authorised to issue the Shares in kind to the Shareholders.

Borrowing Powers

- (vii) Subject to section 73 and 179 of the Companies Act, 2013, and Regulations made there under and Directions issued by the RBI the directors may, from time to time, raise or borrow any sums of money for and on behalf of the Company from the member or other persons, companies or banks or they may themselves advance money to the company on such interest as may be approved by the Directors.
- (viii) The Directors may, from time to time, secure the payment of such money in such manner and upon such terms and conditions in all respects as they deem fit and in particular by the issue of bonds or debentures or by pledge, mortgage, charge or any other security on all or any properties of the Company (both present and future) including its uncalled capital for the time being.

Operation of Bank Accounts

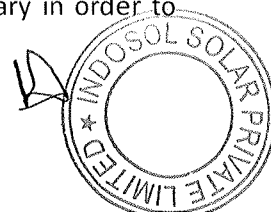
- (ix) The Directors shall have the power to open bank accounts to sign cheques on behalf of the Company and to operate all banking accounts of the Company and to receive payments, make endorsements, draw and accept negotiable instruments, haudies and bills or may authorise any other person or persons to exercise such powers.

AUDIT

- (x) The first Auditor of the Company shall be appointed by the Board of Directors within 30 days from the date of registration of the Company and the Auditors so appointed shall hold office until the conclusion of the first Annual General Meeting.
- (xi) At first annual General Meeting the Company shall appoint an Auditor to hold Office from the conclusion of the Meeting till the conclusion of its sixth Annual General Meeting and thereafter till the conclusion of every sixth meeting.
- (xii) The remuneration of the Auditor shall be fixed by the Company in the Annual General Meeting or in such manner as the Company in the Annual General Meeting may determine. In case of an Auditor appointed by the Board his remuneration shall be fixed by the Board.

Secrecy

- (xiii) Subject to the provisions of law of land and the act, every manager, auditor trustee, member of a committee, officer servant, agent, accountant or other persons employed in the business of the company shall, if so required by the Board of Directors before entering upon his duties, sign, declaration, pledging himself to observe strict secrecy respecting all transactions of the Company with its customers and the state of account with individuals and in matters relating thereto and shall by such declaration pledge himself, not to reveal any of the matters which may come to his knowledge in the discharge of his duties except when required to do so by the directors or by any court of law and except so far as may be necessary in order to comply with any of the provisions in these presents.



General Authority

- (xiv) Wherever in the applicable provisions under Companies Act, 2013 it has been provided that any Company shall have any right, privilege or authority or that any Company could carry out any transaction only if the Company is authorized by its Articles, then and in that case this regulation hereby authorizes and empowers the Company to have such right, privilege or authority and to carry out such transaction as have been permitted by the Act without there being any other specific regulation in that behalf herein provided.

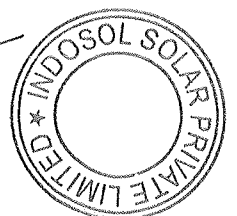
The Doctrine of Constructive Notice

- (xv) Any person, who is dealing with the company, is presumed that such person has full information or he has read the public documents such as Memorandum and Articles of Association and other relevant information of the Company available in the public domain.

(xvi) Authorization

The provisions of this Article do have overriding effect over the provisions of other Articles contained herein. As the SSEL is a lead member of the Joint Venture or Consortium, the Board of Directors or SSEL is entitled to initiate and complete certain corporate actions as and when required in the interest of the Company. The other partner of the Consortium viz. HIPL hereby entrusted their power or right irrevocably in favour of SSEL to appoint their nominees or representatives on their behalf to attend and vote at general meetings of the Company and HIPL hereby give their consent and approval to carry out the following corporate actions as SSEL deems fit:

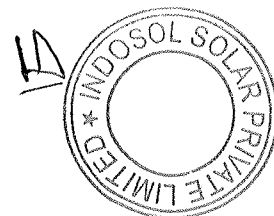
- a. Any amendment, restatement, modification or waiver of any of the provisions of the Memorandum and Articles of Association of the Company.
- b. Any changes to the capital structure or indebtedness of the Company, including but not limited to –
 - (a) changes in the authorized or issued share capital of the Company, any conversion, consolidation or sub-division of the Equity Share Capital of the Company;
 - (b) issuance, forfeiture, listing or delisting of any Equity Shares or Securities (whether by way of a public offering or private placement, or otherwise) or other new equity or equity linked instruments or conversion of loans or debentures into Shares;
 - (c) changes in the rights of any class or classes or any Securities;
 - (d) creation of any new class or series of shares of the Company having preference to or pari passu with the existing Shares and/or the Securities held by the Investor with respect to dividends, voting, liquidation preferences, or conversion rights or the issuance of any debts instrument convertible into, or debt issued with warrants exercisable for, any Shares of the Company; or



- (e) any buy-back, redemption, repurchase or other acquisition by the Company of its Securities or reduction in share capital of the Company.

"indebtedness" shall include: (i) debt for borrowed money, (ii) obligations evidenced by notes, bonds or similar instruments, (iii) reimbursement and related obligations with respect to letters of credit, bank guaranties, bankers' acceptances and similar arrangements.

- c. Any decision in relation to future requests for funding into the Company by the Investor or Promoters or third parties, including the amount of funding required, the source of such funds, and the timing for delivery of such funding.
- d. Any matter relating to borrowings or fund raising from banks, financial institutions or any person without any limit required for the business of the Company.
- e. Valuation of business, assets and properties of the Company including fair valuation of shares of the Company.
- f. Distribution of capital or declaration or payment by the Company of dividends by the Company or other distributions on its Equity Shares or other Securities or making any payment or other distribution to the shareholders (in each of the foregoing cases whether in cash, securities, property or other assets).
- g. A merger, demerger, amalgamation, consolidation, of the Company or any other reconstruction or reorganisation of the Company or a sale of all or substantially all its assets or any other transaction involving a Change in Control or other acquisition of the Company.
- h. Acquisitions of material assets including Intellectual Property Rights, other than in the ordinary course of business, establishment of subsidiaries or the investment in the Securities of any other company or the entry into any joint venture or partnership arrangement or financial collaboration or otherwise investing in any other business.
- i. Sale, lease, disposal, transfer of or creation or redemption of any Encumbrances on any Assets or properties of the Company.
- j. Approval, design and/or implementation of any employee stock option plans or other similar plans and any amendments thereto, or issuance of stock options or profit sharing arrangements, incentives or bonus exceeding 5% of the overall operation cost of the Company, and any amendments thereto.
- k. Entering into, amendment, grant of waiver, extension and/or termination of any transactions (including, without limitation, any loan transaction) with any Related Person.
- l. Change in the size or composition of the Board.
- m. Approval of annual budgets, Business Plan and financial plans of the Company, and any amendments thereto, and the approval or notification of any departure from the same.



- n. Any sale, transfer, licensing of, or creation of Encumbrance on, the Intellectual Property Rights used by the Company, other than in the ordinary course of business.
- o. Any capital allocation outside the normal business (i.e. unrelated business diversifications) of the Company, including for the purpose of tax planning, any change in the scope of business of the Company (including any cessation of any kind of business), entering into any new business (including expansion).
- p. Adoption of annual accounts which have any qualification by the auditors.
- q. Any calls or revocation of calls on any outstanding Securities of the Company.
- r. Any remuneration to any Director or Managing Director.
- s. Any change in the statutory auditors of the Company.
- t. Any winding up, voluntary liquidation, dissolution or other analogous proceeding of the Company, whether voluntary or not.
- u. The appointment or removal of the Directors, CFO, CEO, Managing Director, whole time directors, and determination of the terms of employment, including the compensation of such personnel.
- v. Any proposed change in the legal status of the Company.
- w. Any proposal to move the registered offices of the Company.

* PART- B

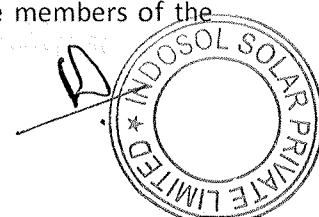
Subject to the requirements of Applicable Law, in the event of any conflict (direct or indirect) between the provisions of Part A and Part B of these Articles, Part B of these Articles shall prevail and apply. Notwithstanding the provisions of Articles 1 to 81, the Company and the Shareholders (as defined hereafter) shall not be bound by, or subject to, any duties, obligations or covenants under Articles 1 to 81 where such provisions conflict in any manner with the Articles 82 to Article 89.

82. Definitions:-

- i. **"Agreement"** shall mean this Shareholders Agreement together with the attachments, annexures and schedules thereto, as amended, modified and supplemented from time to time;
- ii. **"Articles"** shall mean the articles of association of the Company, as amended from time to time in accordance with the Companies Act;
- iii. **"Aurobindo"** shall mean Aurobindo Realty & Infrastructure Private Limited.
- (**) iv. **"Axis"** shall mean Axis Energy Ventures India Private Limited.

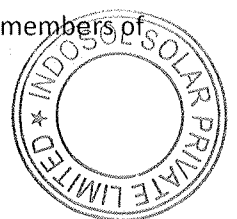
* Inserted vide Special Resolution passed at the extra-ordinary general meeting of the members of the company held on 27.09.2022.

** Inserted vide Special Resolution passed at the annual general meeting of the members of the company held on 27.09.2023.

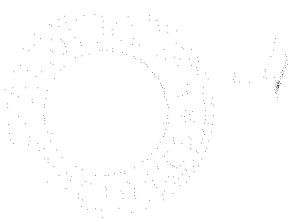
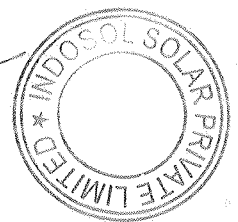


- v. **"Board"** shall mean Board of Directors of Indosol Solar Private Limited.
- vi. **"Company"** shall mean Indosol Solar Private Limited.
- (**) vii. **"Deed of Adherence"** means the Deed of Adherence agreement dated February 27, 2023 entered into between SSEL, HES, Aurobindo, Axis and Company together with the attachments, annexures and schedules thereto, as amended, modified and supplemented from time to time;
- viii. **"Effective Date"** means 4th March, 2022.
- ix. **"Encumbrance"** shall include (a) any right, title or interest existing or created or purported to be created by way of or in the nature of a sale, agreement to sell, pledge, equitable interest, hypothecation, lien, mortgage, charge, assignment by way of security, co-ownership, or attachment, claim, security interest, collateral assignment, encumbrance, defect in title, title retention agreement, voting trust agreement, interest, option, commitment, restriction or limitation of any nature whatsoever, including restriction on use, voting rights, transfer, right of first refusal, right of pre-emption, exercise of any other attribute of ownership, any arrangement for the purpose of, or which has the effect of, granting security, or any other security interest of any kind whatsoever, or another type of preferential arrangement (including, without limitation, a title transfer or retention arrangement) having similar effect or any restriction on the transfer of the Shares, or any agreement, whether conditional or otherwise, to create any of the same (b) any statutory liabilities which are recoverable by sale of property, and (c) any third party rights or lien generally;
- x. **"Exit Price"** means the subscription amount / purchase consideration paid by the relevant Dragged Shareholder, Called Shareholder or Breaching Party (as the case may be) for subscribing / purchasing the relevant Dragged Securities, Called Securities or Default Option Securities (as the case may be);
- xi. **"General Meeting"** means any annual or extraordinary meeting of the Shareholders duly constituted and held in accordance with the provisions of the Companies Act and these Articles;
- xii. **"HES"** shall mean HES Infra Private Limited.
- xiii. **"Other Shareholders"** means any Shareholder, other than SSEL. As on the Effective Date, HES, Aurobindo and Axis are the Other Shareholders;
- xiv. **"Parties"** shall collectively mean the Company, SSEL, HES, Aurobindo and Axis and individually be referred to as "Party".
- xv. **"Person"** shall mean and include any individual, legal entity, sole proprietorship, partnership firm, limited liability partnership, company, trust, association, or body corporate whether incorporated or not;

** Inserted vide Special Resolution passed at the annual general meeting of the members of the company held on 27.09.2023.



- xvi. **"Securities"** shall mean the Company's Shares, preference shares, debentures, options, warrants, loans or such other security that are / may be issued by the Company from time to time, which are convertible into or exercisable or exchangeable for, or which carry a right to subscribe for or purchase shares of the Company, as adjusted for any stock splits, stock dividends, combinations, subdivisions, consolidations, stock swaps, recapitalization, re-issuance and the like;
- xvii. **"Shares"** shall mean the fully paid-up equity shares of the Company with a par value of INR 10 each in the share capital of the Company together with all the rights attached thereto;
- xviii. **"SPA"** means the share purchase agreement dated March 04, 2022 entered into between SSEL, HES, Aurobindo, TCL and Company together with the attachments, annexures and schedules thereto, as amended, modified and supplemented from time to time;
- xix. **"Shareholder"** means any person who is entitled to be registered in the register of members of the Company as per the provisions of the Companies Act;
- xx. **"SSEL"** shall mean Shirdi Sai Electricals Limited.
- xxi. **"TCL"** shall mean Trident Chemphar Limited.
- xxii. **"Transfer"** means to sell, gift, assign, lease, exchange, transfer of any interest in trust, mortgage, alienate, hypothecate, pledge, encumber, grant a security interest in, amalgamate or merge or cease to exist (whether by operation of law or otherwise) any Encumbrance on, any Shares or any right, title or interest therein or otherwise dispose of in any manner whatsoever voluntarily or involuntarily including, without limitation, any attachment or assignment for the benefit of creditors against the Company or appointment of a custodian, liquidator or receiver of any of its properties, business or undertaking, but shall not include transfer by way of testamentary or intestate succession.



83. SHARE CAPITAL

83.1 If the Board determines that the Company requires additional funding and that the same is to be availed in the form of loans from banks or financial institutions, then the Company shall be entitled to procure the same by providing such securities as may be required. Provided however, the Other Shareholders shall not be required to provide any security or guarantee for the same, except creating a pledge of the Securities of the Company held by them.

83.2 If the Board determines that the Company requires additional funding and that the same is to be availed by issuance of any Securities ("New Securities"), the Company shall be entitled to offer such New Securities, subject to compliance with applicable law, to (a) then existing Shareholders in proportion to the Shares then held and owned by each of them; or (b) any third party.

83.3 If any New Securities are offered to the Shareholders, and any Shareholder does not subscribe to the New Securities or subscribes to less than its entitlement, as the case maybe (the "Unsubscribed Portion"), then such Shareholder shall renounce or offer such Unsubscribed Portion in favour of SSEL for subscription.

83.4 SSEL shall have the right to renounce all or any of the New Securities (including the Unsubscribed Portion) offered to it, in favour of any Person which are legally capable of acquiring the said New Securities (including the Unsubscribed Portion). The Other Shareholders shall not have the right to renounce any of the New Securities offered by the Company to them in favour of any Person, other than SSEL and / or nominee of SSEL.

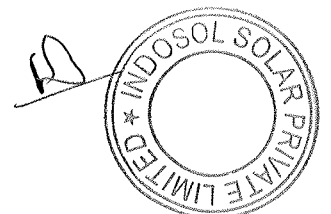
84. BOARD OF DIRECTORS

84.1 Subject to the provisions of this Articles and the Act, the Board shall be responsible for the management, supervision, direction and control of the Company. The Board shall be responsible for the overall policy, control and superintendence of the affairs of the Company except to the extent that Applicable Laws, the Charter Documents or this Articles otherwise provide or allocate responsibility over any particular matter to be determined at a General Meeting. The Board shall be entitled to delegate powers to such committees that the Board may create and / or officers of the Company, as may be deemed appropriate by it subject always to Applicable Laws, the Charter Documents and the provisions of this Articles.

84.2 SSEL shall have the right to nominate / appoint all the Directors on the Board.

84.3 The Directors nominated by SSEL shall not be required to retire by rotation. If such Director(s) are compulsorily required to retire by rotation due to the operation of any provisions of the Act, then such retiring Directors shall be reappointed to the Board, unless otherwise specified in writing by SSEL.

84.4 SSEL shall be solely entitled to remove the Director(s) including any alternate director(s) nominated by it, by notice to the Company. Any vacancy occurring with respect to the position of any Director nominated by SSEL, by reason of death, disqualification, resignation, retirement, removal or the inability to act, shall be filled only by another nominee specified by SSEL. The Shareholders (other than SSEL) shall not be entitled to remove the Director(s) nominated or appointed by SSEL.



84.5 If SSEL removes a Director in accordance with its rights to do so, it shall be responsible for and indemnify the other Shareholders and the Company against any and all claims by such Director for unfair or wrongful dismissal or other compensation arising out of such removal and against any losses, costs or expenses suffered or reasonably incurred as a result thereof by the other Shareholders and / or the Company.

84.6 The Directors shall not be required to hold any qualification Shares.

84.7 The meetings of Board shall be called in accordance with the Act and the Charter Documents.

84.8 One of the directors nominated by SSEL shall be appointed by the Board as the chairman of the Board ("**Chairman**"), who shall be entitled to take the chair at all meetings of the Board and at all general meetings of the Company. The Chairman shall have a second and/or casting vote in his capacity as a Chairman.

84.9 All matters regarding the Company placed before the Board shall be decided by way of passing resolutions. Each Director shall be entitled to 1 (one) vote. The decisions of the Board shall be valid and binding if the same is approved by the majority of Directors present and voting at the meeting (whether conducted through physical meeting, video conference or other audio-visual means permitted under applicable law), and the same includes the affirmative consent of at least 1 (one) Director nominated by SSEL. Where any decision is to be taken pursuant to a circular resolution, the same shall be valid and binding if the same is approved by the majority of the Directors, and the same includes at least 1 (one) Director nominated by SSEL.

84.10 If any committee/s are constituted then only the Directors nominated by SSEL shall be appointed on such committee/s. Unless otherwise agreed to in writing by the Parties, to the extent applicable, all provisions of this Articles relating to the meeting, chairman and decision making of the Board shall be applicable *mutatis mutandis* to the committees of the Board and their meetings.

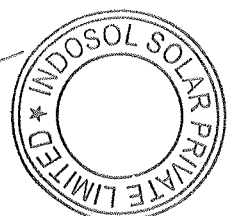
84.11 The Company shall be entitled to pay sitting fees to the Directors for attending any meeting of the Board or any meeting of the committee thereof unless otherwise agreed to by the Shareholders. The Company shall reimburse the Directors for costs reasonably incurred in attending meetings of the Board and other meetings or events attended on behalf of the Company.

84.12 The Shareholders agree and undertake to use their voting rights or extend consents, as the case may be, and to take all other actions as may be necessary (including causing the Company to call a General Meeting and exercising its votes at such a General Meeting) to effectuate the system of appointment and election of Directors elaborated in this Article.

85. GENERAL MEETING

85.1 The General Meetings shall be conducted by providing at least 7 (seven) days notice to the Shareholders. Provided however, the General Meeting may be conducted by shorter notice, in accordance with the Act.

85.2 A General Meeting shall be validly quorate if in addition to the quorum requirements as specified under the Act, the authorised representative or proxy of SSEL is present at the beginning and throughout such meeting.



85.3 Voting at a meeting of the Shareholders shall be by poll.

85.4 All matters regarding the Company placed before the General Meeting shall be decided by way of passing resolutions. All matters which according to the Act mandatorily require to be passed by a special majority at General Meeting, shall have to be approved as such and includes the affirmative consent of SSEL to be valid and binding. All other matters at the General Meeting, shall have to be approved by simple majority of the votes cast, and include the affirmative consent of SSEL, to be valid and binding.

85.5 The chairman of any General Meeting shall be the Chairman of the Board or in his absence, the Board shall appoint 1 (one) of the Directors nominated by SSEL to act as the Chairman for such General Meeting. The chairman of a General Meeting shall be entitled to a second or casting vote.

86. TRANSFER OF SECURITIES

86.1 Except as provided in this Article 86 and Article 88, each of the Other Shareholders agree and undertake it shall not, directly or indirectly, Transfer all or any of the Securities or any rights or interest in any of the Securities held by them in the Company to any Person without the prior written consent of SSEL, which may be withheld by SSEL at its sole and absolute discretion. Any Transfer of such Securities by the Other Shareholders in breach of Article 86 or Article 88 shall be null and void ab-initio and shall not be binding on the Company. The Company shall not, and the Shareholders shall exercise all rights and powers available to it to procure that the Company does not, reflect on its books any Transfer of the Securities to any Person, except a Transfer made in accordance with Article 86 or Article 88.

86.2 Notwithstanding anything contained in this Articles, SSEL may at any time Transfer without any restrictions all or any of the Securities held by it to any Person. Upon any Transfer by SSEL, SSEL shall cause such transferee to execute a deed of adherence in a form and manner agreed between SSEL and such transferee.

86.3 If SSEL grants its written consent for any sale of Securities held by the Other Shareholders, then such sale can be undertaken subject to the following provisions:

- a) If all or any of the Other Shareholders (the "Selling Party") wishes to sell all or any of the Securities held by them (the "Sale Securities"), to any Person (hereinafter referred to as the "Proposed Buyer"), then the Selling Party shall give a written notice (the "Sale Offer Notice") of such intended sale to SSEL and offer the same to SSEL to purchase the Sale Securities on the same terms as those agreed by the Proposed Buyer. The Sale Offer Notice shall set out the identity of the Proposed Buyer, the purchase price of the Sale Securities (including the per Share price), the proposed date of sale and the number of Sale Securities proposed to be purchased by the Proposed Buyer and any other material terms and conditions of the sale.
- b) Within 60 (sixty) calendar days of receipt of the Sale Offer Notice ("Response Period"), if SSEL wishes to purchase the Sale Securities on same or better terms and conditions as those agreed by the Proposed Buyer, then it may inform the Selling Party of the same by issuing a notice in writing to the Selling Party ("Acceptance Notice"). The Parties will then promptly, within 90 (ninety) calendar days of the expiry of the Response Period, complete the sale and purchase of the Sale Securities (free of all Encumbrances) with the Selling Party.



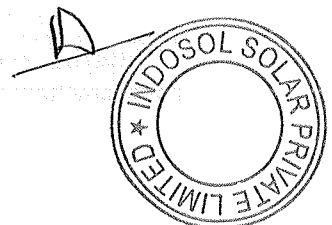
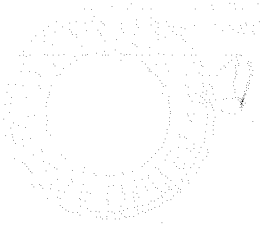
providing the customary representations, warranties and indemnification to SSEL as to the ownership and unencumbered title to the Sale Securities.

- c) If SSEL does not issue Acceptance Notice during the Response Period, then effective as of the first day immediately following the expiration of the Response Period, the Selling Party shall be free to sell the Sale Securities to the Proposed Buyer on the same price as specified in the Sale Offer Notice or higher and on no more beneficial terms than those specified in the Sale Offer Notice, subject to the Proposed Buyer executing a deed of adherence in a form and manner acceptable to SSEL. The Selling Party shall complete the sale of the Sale Securities to the Proposed Buyer within 90 (ninety) calendar days of the expiry of the Response Period. If the same is not completed within the aforesaid 90 (ninety) day period then the provisions of this Article 86.3 shall have to be followed again.

86.4 If at any time SSEL wishes to sell all the Securities held by them to any Person, then SSEL shall have the right (but not an obligation) to require all or any of the Other Shareholders ("**Dragged Shareholders**") to sell all the Securities held by them ("**Dragged Securities**"), to the Proposed Buyer ("**Drag Along Right**"). SSEL shall exercise its Drag Along Right by issuing a notice in writing to the Dragged Shareholder/s ("**Drag Notice**") specifying therein the details of the purchaser of the Dragged Securities ("**Drag Transferee**"), the applicable Exit Price and the period within which the sale of the Dragged Securities is required to be consummated. The Other Shareholders hereby agree that the Dragged Securities shall be purchased by the Drag Transferee at the applicable Exit Price. On the date specified in the Drag Notice or such other date as may be intimated by SSEL to the Dragged Shareholder/s, (a) the entire consideration for the Dragged Securities (being the relevant Exit Price) shall be paid to the Dragged Shareholder/s; (b) the Dragged Shareholder/s shall simultaneously transfer the Dragged Securities, free of all Encumbrances to Drag Transferee; and (c) Dragged Shareholder/s shall provide the customary representations, warranties and indemnification to Drag Transferee as to the ownership and unencumbered title to the Dragged Securities.

86.5 On and from the Effective Date, SSEL shall have the right (which it may exercise in its sole and absolute discretion) but not an obligation to purchase, all or any of the Securities held by the Other Shareholders. ("**Call Option**") SSEL shall be entitled to exercise the Call Option from time to time. In order to exercise the Call Option, SSEL shall send the relevant Other Shareholder/s ("**Called Shareholder**") a written notice (a "**Call Notice**") specifying therein the Securities which are to be sold ("**Called Securities**"), the Exit Price and the period within which the sale of the Called Securities is required to be consummated. The delivery of the Call Notice shall constitute a binding agreement and obligation of the Called Shareholder to sell the Called Securities at the Exit Price to SSEL. On the date specified in the Call Notice or such other date as may be intimated by SSEL to the Called Shareholder/s, (a) the entire consideration for the Called Securities (being the relevant Exit Price) shall be paid to the Called Shareholder/s; (b) the Called Shareholder/s shall simultaneously transfer the Called Securities, free of all Encumbrances to SSEL; and (c) Called Shareholder/s shall provide the customary representations, warranties and indemnification to SSEL as to the ownership and unencumbered title to the Called Securities.

86.6 Notwithstanding anything to the contrary, SSEL shall have the right to designate and nominate one or more Persons to acquire the Securities pursuant to Article 86.3 and Article 86.5.



86.7 For any sale of Securities by the Other Shareholders pursuant to Article 86.3 to Article 86.5, and for any Transfer of Securities by SSEL, the Parties shall take all actions required to give effect to the same, including execution of all necessary documents, share transfer forms, passing relevant resolutions, recording such transfer in the books and records of the Company and making requisite filings.

86.8 Each of the Other Shareholders agree not to create any Encumbrance (otherwise as provided in this Articles) on the Securities held by it without the prior written permission of SSEL.

86.9 Any agreement or arrangement to Transfer any Securities other than in the manner set out in this Articles shall be null and void ab initio. The Company shall not, record or register any such attempted Transfer or agreement or arrangement to Transfer on its books and shall not recognize and shall reject, any equitable or other claim to, or any interest in, such Securities which have been attempted to be Transferred in any manner otherwise than in accordance with the terms of this Articles. The Parties agree that all such Transfers in violation of this Articles shall be deemed to be a material breach of this Articles and shall form "sufficient cause" within the meaning of the Companies Act for the Board to refuse the registration of such transfer by the Company.

86.10 The Proposed Buyer to whom Other Shareholder has transferred any Securities in accordance with Article 86.3 of this Articles shall be bound by all the obligations, and entitled to all the rights, of the transferor Other Shareholder under this Articles.

86.11 SSEL shall be entitled to transfer / assign all or any of its rights and / or obligations under this Articles to any Person to whom it has Transferred all or any of the Securities held by it.

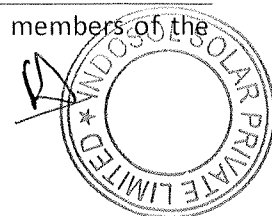
86.12 The Company shall procure that each certificate issued by it in relation to the Securities will carry the following statement:

*"Any disposition, transfer, pledge, charge of or dealing in any other manner in the securities represented by this certificate is restricted by a Shareholders' Agreement dated March 04, 2022 and (**) Deed of Adherence dated 27th February, 2023, as well as by the Memorandum of Association and Articles of Association of Indosol Solar Private Limited."*

87. SHAREHOLDERS UNDERTAKINGS

87.1 No Shareholder shall grant any proxy or enter into or agree to be bound by any shareholder agreement or like arrangements of any kind (including any arrangement or agreement with respect to the acquisition, disposition or voting of any Securities) with any Person (including any Person that becomes a Shareholder hereafter) that is inconsistent with any of the provisions of this Articles.

** Inserted vide Special Resolution passed at the annual general meeting of the members of the company held on 27.09.2023.



87.2 If a resolution contrary to the terms of this Articles is proposed at any General Meeting or at any meeting of the Board or any committee thereof or by way of circular resolution, the Shareholders, their representatives (including proxies) and their respective appointed/ nominated Directors (or alternate directors), subject to applicable law, shall vote against the same; provided, however, that if for any reason such a resolution is passed, the Shareholders shall, as necessary convene or cause to convene a meeting of the Board or any committee thereof or a General Meeting for the purpose of implementing the terms and conditions of this Articles and to give effect thereto, and to supersede such resolution.

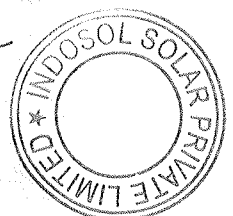
87.3 Each of SSEL and the Company expressly agree, and shall take all actions to ensure, that Aurobindo and Axis are not categorised as 'promoters' under any filings made by the Company.

87.4 The Articles provide for indemnification of the Directors, to the maximum extent permitted under applicable law. Each Director shall be indemnified, out of the assets and capital of the Company, against any losses incurred, suffered or borne by such Director in (a) defending any proceedings, whether civil or criminal, against the Company, or (b) in his /her capacity as Director.

87.5 Unless otherwise expressly agreed, any financing availed by the Company shall be on a non-recourse basis to the Other Shareholders (including without the requirement of issuing comfort letters, sponsor undertakings, capital commitment letters, guarantees or any other instrument which has the effect of securing any indebtedness of the Company). Nothing contained hereinbefore, shall restrict the obligation of the Other Shareholders to pledge the Securities and / or issuance of non-disposal undertaking with respect to the Securities, for any financing availed by the Company.

87.6 Notwithstanding any provision to the contrary, each of the Other Shareholders hereby irrevocably and unconditionally agrees and undertakes to vote in accordance with any recommendation made by SSEL in respect of all matters placed before each General Meeting.

87.7 SSEL hereby agrees to, indemnify, defend and hold harmless the Other Shareholders, promptly upon demand at any time and from time to time, from and against all claims, actions, causes of action, proceedings, demands, assessments, direct losses, damages, liability, judgements, settlements, penalties, costs and expenses (including attorney's fees and expenses), asserted against, resulting to, imposed upon, or incurred by any of the Other Shareholders, directly or indirectly, by reason of or resulting from or in any way relate to or by virtue of the Business, the operations and activities of the Company. Notwithstanding anything to the contrary, SSEL shall not be liable for any remote, indirect, consequential, special, punitive or speculative losses, damages, claims, demands, costs, expenses or liabilities.



87.8 SSEL, HES and Company irrevocably agree that Aurobindo and Axis shall not be considered as Promoters or JV Partners of the Company. Further, Aurobindo and / or Axis shall not extend any Corporate Guarantee or any other security or any kind of deeds or documents in connection with loans/financial assistance to be secured by the Company in future for the purpose of project implementation. SSEL, HES and the Company further agree to furnish financial statements and any other statements and information with respect to the Company and / or project undertaken by the Company, at such intervals as may be required by Aurobindo and Axis, in writing, without any delay, as long as Aurobindo and / or Axis are the shareholders of the Company.

88. DEFAULT AND CONSEQUENCES

88.1 If any of the Other Shareholders ("**Breaching Party**"):

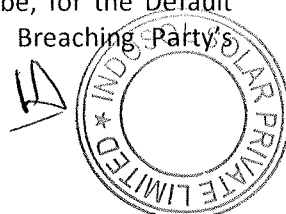
- a) has committed a breach of the Agreement, and the same is not rectified or cured within 60 (sixty) days from the date of issue of written notice by SSEL requiring the Breaching Party to cure such breach;
- b) makes or is proposing to make or is entering into any arrangement or composition with, or assignment for the benefit of its creditors generally;
- c) presents or makes a petition or other form of application for the appointment of an administrator or receiver over any part of the assets or undertaking of the Breaching Party or where such a petition or application is made by any other Person against the Breaching Party, and the same is not set aside or dismissed within 120 (one hundred twenty) days of such application; or
- d) is declared insolvent, dissolved or wound up compulsorily or if an order is made or an effective resolution is passed for the dissolution or winding up of such Party,

SSEL shall be entitled at its option and in its sole discretion (but shall not be obliged) ("**Default Option**") to offer in writing to purchase all (but not less than all) the Securities held by the Breaching Party at such time ("**Default Option Securities**"), from the Breaching Party or the estate or legal representative or official assignee or receiver, as the case may be, of the Breaching Party ("**Breaching Party's Nominee**") at Exit Price.

88.2 SSEL shall at anytime upon becoming aware of the occurrence of any of the events specified in Article 88.1 inform such Breaching Party or Breaching Party's Nominee about its decision to exercise its Default Option (a "**Default Option Notice**"). The delivery of the Default Option Notice shall constitute a binding agreement and obligation of the Breaching Party or Breaching Party's Nominee, as the case may be, to sell the Default Option Securities at the Exit Price to SSEL.

88.3 The Default Option Notice shall indicate the place, date, time for formalization of the purchase and sale of the Default Option Securities which shall take place within 30 (thirty) Business Days (excluding any time required for any regulatory approvals) following the Default Option Notice ("**Default Option Completion Date**").

88.4 On the Default Option Completion Date, SSEL or its nominee shall pay the Exit Price to the Breaching Party or the Breaching Party's Nominee, as the case may be, for the Default Option Securities upon simultaneously the Breaching Party or the Breaching Party's



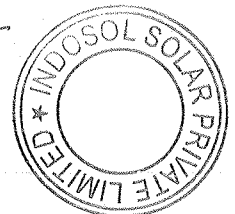
Nominee, as the case may be, transferring the legal and beneficial title to all of the Default Option Securities to SSEL or its nominee, free from all Encumbrances and together with all rights attaching to them. Further, the Breaching Party or the Breaching Party's Nominee shall provide the customary representations, warranties and indemnification to SSEL as to the ownership and unencumbered title to the Default Option Securities.

- 88.5 If the Default Option is exercised, the Parties agree to cooperate and undertake all necessary actions (including, but not limited to, the execution of any and all documents and transfer deeds and, if then required by Applicable Law, to complete the sale of the Default Option Securities in accordance with the terms of this Article 88.

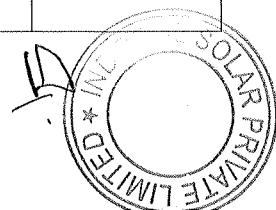
89. MISCELLANEOUS

- 89.1 **Assignment:** No Party shall be entitled to assign its rights and obligations under the Agreement (and any such attempted assignment in contravention of this provision shall be void) without the prior written consent of SSEL, save and except that SSEL shall be entitled to transfer or assign all or any part of its rights, benefits, obligations or responsibilities under the Agreement to any Person who purchases the Securities held by SSEL, without the prior written consent of any Other Shareholders and / or the Company; and the Other Shareholders and the Company undertake not to object to assignment of such rights and / or obligations by SSEL.
- (*) 89.2 The provisions of the Financing Documents shall be deemed to be incorporated by reference herein for the purposes of compliance and observance thereof by the Company, its members and directors. It is hereby agreed, acknowledged and confirmed that the provisions of the Financing Documents shall prevail over any provisions inconsistent therewith (whether contained herein or in any other document/ instrument relatable to the Company and/or its members) and; all such consistent provisions herein/ or in any other document/ instrument relatable to the Company shall stand automatically waived/ amended or modified.

(*) Inserted vide Special Resolution passed at the extra-ordinary general meeting of the members of the company held on 10.03.2025.



Subscriber Details					
S. No.	Name, Address, Description and Occupation	DIN/PAN/Passport Number	Place	DSC	Dated
1.	SHIRDI SAI ELECTRICALS LIMITED U31401TG2010PLC069777 Having its registered office at G Pulla Reddy Sweets Building, 3rd Floor, # 6-3-8-879/B, Greenland Road, Begumpet, Hyderabad -500 016 Email ID: info@ssel.in Represented by Mr. Chinnakondur Raghav Veera Reddy, S/o. Mr. Chinnakondur, Jayarami Reddy, (General Manager- Finance of Shirdi Sai Electricals Limited), resident of 8-4-549/151 Nethaji Nagar, Near AG Colony, Erragadda, Hyderabad – 500 018, Telangana, as an authorised representative of Company. Authorised vide Board Resolution Dated 03.01.2022	AHHPC8701A	Hyderabad	Sd/-	29/01/2022
2.	HES INFRA PRIVATE LIMITED U45400AP2007PTC054641 Having its registered office at 74-5-9/1, Prakash Nagar, Rajahmundry -533 104, Andhra Pradesh. Email ID: visisht27@gmail.com Represented by Mr. Venkata Rama Krishnam Raju Indukuri S/o. Mr. Janaki Rama Raju Indukuri, Managing Director of the Company, resident of 293/82/A/1030/3, Road No-51, Near Maha Tv, Jubilee Hills, Shaikpet, Hyderabad – 500 033, Telangana, as an authorised representative of Company Authorised vide Board Resolution Dated 28.01.2022	AAJPI3011Q	Hyderabad	Sd/-	29/01/2022
Signed before me					
Name	Address, Description and Occupation	DIN/PAN/Passport Number/ Membership Number	Place	DSC	Dated
FCS	R. SIVARAM REDDY PLOT NO.188, ROAD NO. 21-A, PRASHASAN NAGAR, ROAD NO. 72, JUBILEE HILLS, HYDERABAD - 500096, TELANGANA. OCC:COMPANY SECRETARY	5505	Hyderabad	Sd/-	29/01/2022

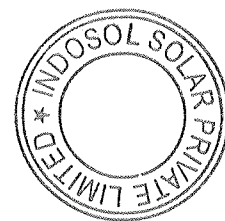


INCORPORATED
UNDER
THE COMPANIES ACT, 2013

COMPANY LIMITED BY SHARES

MEMORANDUM OF ASSOCIATION
OF
INDOSOL SOLAR PRIVATE LIMITED

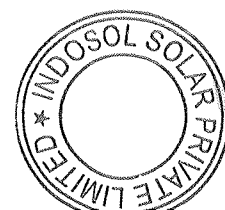
- I. The name of the Company is **INDOSOL SOLAR PRIVATE LIMITED**.
- II. The registered office of the Company will be situated in the State of Telangana.
- III. (a) The objects to be pursued by the Company on its incorporation are:—
 1. To carry out business as manufacturers, makers, producers, buyers, sellers, importers, exporters, agents, distributors, assemblers or otherwise deal in all kinds of solar energy panels, solar cells, solar modules, solar power batteries/storage systems, solar photovoltaic, solar chimney and any other Solar based devices and equipment and to extract, store, process, refine and trade in quartz, silica, minerals, chemicals and raw materials required for manufacturing of solar photovoltaic modules and related products.
 2. To carry on the business to promote, establish, build, develop, acquire, erect, install manage, maintain or deal with fully integrated manufacturing facilities or segmented manufacturing facilities including backward and forward processes for manufacture of solar photovoltaic modules and other related products.
 3. To acquire concessions or licenses granted by or to enter into contracts with, the Government of India, any State Government, Municipal, Local Authority or other Statutory bodies, Companies or any other person for the development, erection, installation, establishment, construction, operation and maintenance of Solar Power Plants, and in this regard to promote, develop, own, acquire, set up, erect, build, install, commission, construct, establish, maintain, improve, manage, operate alter, control, take on hire / lease, carry out and run all necessary Plants, equipments, sub-stations, workshops, generators, transmission facilities, machinery, electrical equipment, accumulators, repair shops, wires, cables, lamps, fittings and apparatus in the capacity of principals, contractors, developers or otherwise and to deal, buy, sell and hire / lease all apparatus and things required for or used in connection with generation, distribution, supply, accumulation of Solar Energy and to undertake research and development in the field of solar energy and other allied fields.



- (*) 4. To carry on in India or elsewhere the business of prospecting, exploring, operating and working on mines, quarries and to win, set, crush, smelt, manufacture, process, excavate, dig, break, acquire, develop, exercise, turn to account, survey, produce, prepare, remove, undertake, barter, convert, finish, load, unload, handle, transport, buy sell, import, export, supply, and to act as agent, broker, Adatia, stockiest, distributor, consultant, contractor, manager, operator or otherwise to deal in all sorts of presents and future ores, minerals, deposits, goods, substances & materials, including sands, stones, and soils, chalk, clay, china clay, betonies, broils, calcite and coal, lignite, rockphoscate, brimstone, brine, bauxite, limestone, Silica Based Minerals, quartz and other mining of minerals and mineral beneficiaries, precious and other stones, gold, silver, diamonds, iron, aluminum, titanium, vanadium, mica, apalite, chrome, copper, gypsum, rutile, sulphate, tin, zinc, zircon, tungsten, silicon, brass, and other allied materials, by products, mixtures, blends, residues & substances, and to do all incidental acts and things necessary for the attainment of the objects under these presents.
- (*) 5. To carry on in India or elsewhere the business to buy, take on lease or under a licence, concession, grant or otherwise acquire mines, mining rights in any land or other place and metalliferous land and any interest there in and to explore, work, develop, turn to account the same.
- (*) 6. To search, survey, discover, acquire by concession, grant, purchase, barter, lease, license, degrees & tenders the allotment or otherwise of land or water area from government, semi-government, local authorities, private bodies, corporations and other persons, such rights, powers, and privileges whatsoever for obtaining mines, open cast mines, bucket mines, quarries, deposits, etc. for the accomplishment of the above objects.
- (**) 7. To carry on all or any of the business of manufacturers, importers, exporters and dealers in glass, glass products including sheets and plate glass, optical glass, glass wool, glass work, flat glass, float glass, fibre glass, solar panel glass, PV glass, Solar glass including tempered solar glass and to develop solar glass technologies, glass tiles, laboratory ware, bottles, jars, containers, thermo bottles, enamel ware and receptacles of all kinds.
- (**) 8. To act as designers, convertors, importers, exporters, traders, buyers, sellers, retailers, wholesalers, suppliers, indenters, packers, movers, preservers, stockists, agents, sub-agents, merchants, distributors, consignors, jobbers, brokers, concessionaires or otherwise deal in all kinds of glass, leveled and unleveled silvered sheet, curved or flat laminated and safety glass, toughened glass, fiber glass, welding glass, silver glass, colored glass, float and plate glass, lead glass, gold mirror, decorative glass, ice flowered glass, glass doors and fittings.
- (**) 9. To generate, accumulate, transmit, distribute, purchase, sell and supply various gases and fumes, Compressed Bio Gas, electrical power by conventional and non-conventional methods including coal, gas lignite, oil, biomass, waste, thermal, solar, hydel, geo-hydel, wind and tidal waves.

(*) – Inserted vide special resolution passed at the AGM of the Members of the Company held on 27.09.2023.

(**) – Inserted vide ordinary resolution passed at the Extra-Ordinary General Meeting of the Members of the Company held on 10.03.2025.

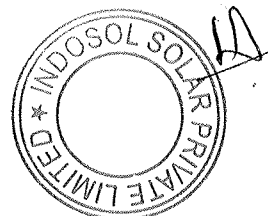


(**) 10. To carry on the business to promote, establish, build, develop, acquire, erect, install, manage, maintain desalinated water plant, including to generate, accumulate, transmit, distribute, purchase, sell and supply water from the desalinated water plant.

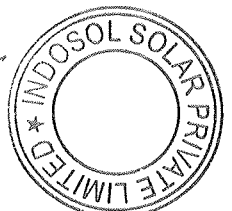
(b) Matters which are necessary for furtherance of the objects specified in clause 3(a) are:—

1. To do the research and developmental activities in the areas of the main objects stated above and to acquire the designing or technical knowhow on technologies and applications related to the main objects mentioned above.
2. To acquire by purchase, lease, license, mortgage, exchange, rent, hire, or otherwise, and to own, hold, exploit, use, develop, operate, sell, assign, lease, transfer, convey, exchange, mortgage, create security interests in, take options over, pledge, or otherwise dispose of or rights or privileges of any kind over or in respect of any property for the purpose of business of the Company, and to construct, decorate, develop, furnish, maintain, manage, operate, lease, rebuild, enlarge, alter or improve any building or other structure, now or hereafter erected on any such property, including setting up offices, flats, houses, factories, shops, libraries, databases, and other research, development, production, designing, mixing, marketing, testing and training facilities for the business of the Company.
3. To grant to other persons or companies or firms the right, lease, sub-lease, license, sub-license or privilege to carry on any kind of business on the property of the Company on such terms as the Company deems expedient or proper.
4. To apply for, register, purchase, or by any other means acquire and protect, prolong and renew, whether in India or abroad any patent, patent right, license, secret process, trade mark, design, copyright, protection or concession and to disclaim, alter, modify, use and turn to account and to manufacture under or grant license or privilege in respect of the same, and to expend money in experimenting upon, testing and improving any of the aforesaid rights which the Company may acquire or propose to acquire.
5. To acquire and undertake the whole or any part of the business, goodwill or assets of any person, firm or company and as part of the consideration for such acquire an interest in, amalgamate with, or enter into partnership or any arrangement for sharing profits, or for co-operation, or joint venture or mutual assistance with any such person, firm or company, or for subsidizing or otherwise assisting any such person, firm or company, and to give or accept, by way of consideration for any of the acts or things aforesaid or property acquire, any shares, debentures, debenture stock or securities that may be agreed upon, and to hold and retain or sell, mortgage and deal with any shares, debentures stock or securities so received.
6. To establish, promote and/or make investments in ventures, companies, firms and other entities in the interest of the Company.
7. To improve, manage, construct, repair, develop, exchange, let on lease, otherwise mortgage, charge, sell, dispose off, turn to account, grant license, option, right or privileges in respect of, or otherwise deal with, all or any part of the property and rights of the Company.
8. To invest and deal with the moneys of the Company in such manner as may, from time to time, is determined and to hold otherwise deal with any investments made.

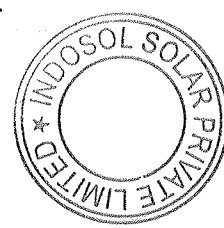
(**) – Inserted vide ordinary resolution passed at the Extra-Ordinary General Meeting of the Members of the Company held on 10.03.2025.



9. To subscribe for, take, purchase, or otherwise acquire and hold shares or other interest in or securities of, any other companies and to co-ordinate and manage the businesses and operations of any company in which the company holds any such interest.
10. To subscribe for, purchase, or own and hold the securities of other companies, and to direct the operations of other companies, through the ownership of securities therein and to promote any other company for the purpose of acquiring the whole or any part of the business or property, undertaking or liabilities of the company, or of undertaking any business or operations which may appear likely to assist or benefit the company or to enhance the value of any property or business of the Company, and to place or guarantee the placing of, underwrite, subscribe for, or otherwise acquire all or any part of the shares or securities of any such company as aforesaid.
11. To enter into guarantee, contracts of indemnity and surety ship on such terms as may seem expedient and with or without security to customers, suppliers and others to receive and to secure or guarantee the payment of any sums of money or the performance of any obligation by any company, firm or person including any parent or subsidiary company provided that the Company shall not do any banking within the meaning of Banking Regulation Act, 1949.
12. Subject to the provision of the Companies Act, 2013, to borrow and raise money, other than public deposits, and to secure the repayment of any money borrowed, raised or owing by mortgage, charge, standard security, lien or other security upon the whole or any part of the company's property or assets (whether present or future), including its uncalled capital, and also by a similar mortgage, charge, standard security, lien or security to secure and guarantee the performance by the Company of any obligation or liability it may undertake or which may become binding on it.
13. To open bank accounts and to draw, make, accept, endorse, discount, negotiate execute and issue cheques, promissory notes, bills of lading, warrants, debentures and other negotiable or transferable instruments.
14. To apply for, promote and obtain any order or license of the concerned authority for enabling the Company to carry any of its objects into effect, or for effecting any modification of the company's constitution, or for any other purpose which may seem calculated directly or indirectly to promote the Company's interest, and to oppose any proceedings directly or indirectly likely to prejudice the Company's interest.
15. To adopt, carry out or give effect to any pre-incorporation or post incorporation agreements, or arrangements or any modifications and amendments thereto, arrived at between the Company's shareholders, promoters and/or any Government authority (Central, State, Municipal, Local or otherwise), company (whether incorporated in India or outside India), firm or person for promotion of the Company, provision of technical knowhow to the Company and or in respect of any matters concerning the affairs and business of the Company.
16. To enter into, make, perform, and carry out any contracts, agreements or arrangements of every sort and kind with any Government authority (central State Central, State, Municipal, Local or otherwise), company (whether incorporated in India or outside India), firm or person that may seem necessary or convenient or conducive for the business of the Company or to the attainment of the Company's objects or any of them, and to obtain from any such Government or authority any charters, decrees, rights, services, privileges or concessions which the Company may think desirable and to carry out, exercise, and comply with any such charters, decrees, rights, privileges and concessions.



17. To enter into any partnership, limited or general, as limited or general partners, or both, and to enter into any other arrangement for sharing profits, union of interest, unitization or farm out agreement, reciprocal concession, or cooperation, with any corporation, association, partnership, syndicate, entity, person, or governmental, municipal, or public authority, domestic or foreign, in the carrying on of any business which the Company is authorized to carry on, or any business or transaction deemed necessary, convenient, or incidental to carrying out any of the purposes of the company.
18. To set up, establish, promote, start research and training institutes, centers, libraries, workshops and provide and assist in the provision of training, education, aid and advice and to publish and distribute material in respect of any matters connected with or incidental to the business of the Company.
19. To engage any person, firm or company rendering professional, consultancy or advisory services to the Company and to remunerate any such person, firm or Company as may be thought expedient.
20. To employ, retrench, lay-off, suspend, terminate the appointment of or dismiss executives, managers, assistants, support staff and other employees and other employees and to remunerate them at such rates as shall be thought fit.
21. To pay all or any expenses incurred in connection with the promotion, formation and incorporation of the Company.
22. To act for itself or others in the development, promotion, exploitation, and marketing of new devices and ideas with respect to any merchantable product and for that purpose to adopt such means of making known the products and activities of the Company as may seem expedient.
23. Subject to the provisions of the Companies Act, 2013, to support and subscribe to any charitable or public object and to support and subscribe to any institution, society or club which may be for the benefit of the Company or its Directors or employees, or which may be connected with any town or place where the Company carries on business: to give or award pensions, annuities, gratuities, and superannuation or other allowances or benefits or charitable aid and generally to provide advantages, facilities and services for any persons who are or have been directors of or who are or have been employed by or who are serving or have served the Company or its holding company or any company which is a subsidiary of the Company or the holding company or of the predecessors in business of the Company and to the wives, widows, children and other relatives and dependents of such Directors or employees: and to set up, establish, support and maintain profit sharing or share of the Company or of any such subsidiary or holding company and to lend money to any such director or employees or trustees on their behalf and to enable any such schemes to be established or maintained.
24. To create any depreciation fund, reserve fund, sinking fund, insurance fund or any special or other fund whether for depreciation or for repairing, improving, replacing, renewing, extending or maintaining any of the properties of the Company or for any other purpose whatsoever deemed beneficial to the Company.
25. To sell or otherwise dispose of the whole or any part of the business or property of the Company, either or together in and to receive in return any form of consideration including shares, debentures or securities of any company purchasing the same.
26. To distribute, subject to the provisions of the Companies Act, 2013, among the shareholders of the Company any property of the Company of whatever nature.



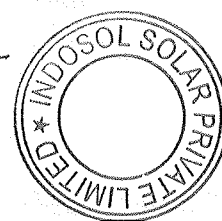
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27. To become a member of and communicate with trade, industry and business associations, chambers of commerce and other mercantile and public bodies throughout India and, in other parts of the world and to promote measures for the advancement and protection of the trade, industry and business in which the Company may be engaged.
28. To provide consultancy, advisory, public relations, marketing, training, educational and other services relating to the Company's objects and to establish, operate, license training centers for the foregoing.
29. To guarantee the performance of any contract or obligation and the payment of money of or by any person or companies and generally to give guarantees and indemnities.
30. To enter into partnerships or any arrangements for sharing profits, amalgamation, union of interests, co-operation, joint venture, reciprocal concessions, or otherwise with any person or company carrying on or engages in, any business or transaction which this Company is authorized to carry on or to amalgamate with any other company having objects altogether different
31. To undertake Corporate Social Responsibility ("CSR") activities in terms of the provisions of the Companies Act, 2013 and Rules made thereunder or in such other manner as the Company deems fit.

IV. The liability of the member(s) is limited and this liability is limited to the amount unpaid, if any, on the shares held by them.

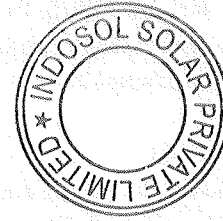
(**) V. The Authorized share capital of the Company is Rs. 370,00,00,000/- (Rupees Three Hundred and Seventy Crores) divided into 37,00,00,000 (Thirty Seven Crore only) equity shares of Rs. 10/- each (Rupees Ten only) with power to increase, modify and reduce the capital of the company and to divide the shares in the capital for the time being into several classes and to attach thereto respectively such preferential, deferred, qualified, or special rights, privileges or conditions as may be determined under the provisions of Companies Act, 2013 or any other applicable, acts, rules and regulations.

(**) – Modified / substituted vide ordinary resolution passed at the Extra-Ordinary General Meeting of the Members of the Company held on 10.03.2025.

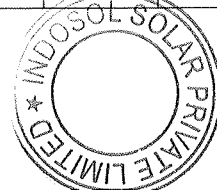
Signed before me

Name		Address, Description and Occupation	DIN/PAN/ Passport Number/ Membership Number	DSC	Dated
FCS	R. SIVARAM REDDY	PLOT NO.188, ROAD NO. 21-A, PRASHASAN NAGAR, ROAD NO. 72, JUBILEE HILLS, HYDERABAD - 500096, TELANGANA. OCC:COMPANY SECRETARY	5505	Sd/-	29/01/22



We, the several persons, whose names and addresses as subscribed, are desirous of being formed into a company in pursuance of this Memorandum of Association, and we respectively agree to take the number of shares in the capital of the company set against our respective names:-

Subscriber Details						
S. No.	Name, Address, Description and Occupation	DIN/PAN/ Passport Number	No. of shares taken		DSC	Dated
1.	U31401TG2010PLC069777 SHIRDI SAI ELECTRICALS LIMITED Having its registered office at G Pulla Reddy Sweets Building, 3rd Floor, # 6-3-8-879/B, Greenland Road, Begumpet, Hyderabad -500 016 Email ID: info@ssel.in Represented by Mr. Chinnakondur Raghu Veera Reddy, S/o. Mr. Chinnakondur, Jayarami Reddy, (General Manager- Finance of Shirdi Sai Electricals Limited), resident of 8-4-549/151 Nethaji Nagar, Near AG Colony, Erragadda, Hyderabad – 500 018, Telangana, as an authorised representative of Company. Authorised vide Board Resolution Dated 03.01.2022	AHHPC8701A	5,700	Equity	Sd/-	29/01/22
2.	U45400AP2007PTC054641 HES INFRA PRIVATE LIMITED Having its registered office at 74-5-9/1, Prakash Nagar, Rajahmundry - 533 104, Andhra Pradesh. Email ID:visisht27@gmail.com Represented by Mr. Venkata Rama Krishnam Raju Indukuri S/o. Mr. Janaki Rama Raju Indukuri, Managing Director of the Company, resident of 293/82/A/1030/3, Road No-51, Near Maha Tv, Jubilee Hills, Shaikpet, Hyderabad – 500 033, Telangana, as an authorised representative of Company Authorised vide Board Resolution Dated 28.01.2022	AAJPI3011Q	4,300	Equity	Sd/-	29/01/22
Total Shares taken			10,000	Equity		



78

Phone No:
Sold To/Issued To:
P Manoj Kumar Reddy
For whom/ID Proof:
Indosol Solar Pvt Ltd



₹ 0000100/-
Power of Attorney
3816232/174180/508075 00030698
3816232 67/2023

General Power of Attorney

KNOW ALL MEN BY THESE PRESENTS, We, INDOSOL SOLAR PRIVATE LIMITED (CIN: U31900TG2022PTC159366), a private limited company incorporated under the Companies Act, 2013 and having its Registered Office situated at # 6-3-8-879/B, 3rd Floor, Green Lands, G. Pulla Reddy Sweets Building, Begumpet, Hyderabad - 500 016, Telangana, India do hereby irrevocably constitute, nominate, appoint and authorize Mr. Pothireddy Manoj Kumar Reddy (Aadhaar No: 8939 2563 0442), Head - Downstream & Glass of the Company, as our true and lawful attorney (hereinafter referred to as the "Attorney") whose signatures are attested below, to do in our name and on our behalf, all such acts, deeds and things as are necessary for signing and submission of all documents, applications, forms, papers, declarations, undertakings, Contract agreements, affidavits, Offers, Quotations, Empanelment, Applications, Commercial Documents, Bid Documents, drawings, contracts and any other documents relating to general operations of the entity on behalf of the Company.

AND we hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us. IN WITNESS WHEREOF WE, INDOSOL SOLAR PRIVATE LIMITED, THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS 12th DAY OF MARCH, 2025.

Specimen Signature of Attorney Holder

P. Manoj

Pothireddy Manoj Kumar Reddy

For and on behalf of Indosol Solar Private Limited

Visweswara Reddy Narreddy

VISWESWARA REDDY NARREDDY

Director

DIN: 02996298

Witnesses:

1. *[Signature]*
Y. S. R. Ravivara Prasad
Flat No- 301, Pinnacle Hill Crest,
Near Central Bank - 500084
2. *[Signature]*
K. SRINIVASA RAO
Flat No: 43, Adalhallanagar,
Kopla, Sec. 64 - 500062



ATTESTED
[Signature]
B. AGAIAH, B.A., LL.M.
ADVOCATE / NOTARY
Indra Reddy Allwyn Colony,
Miyapur, R.R. Dist., G.O.M.S. No. 1972/121
My Commission Expires on 15-11-2026

F. No. IA3-22/10/2022-IA.III [E 177258]

Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhawan
Aliganj, Jorbagh Road
New Delhi-110 003

Dated: 29th March, 2022

OFFICE MEMORANDUM

Subject: Clarification regarding activities which can be undertaken for securing the land prior to grant of Environmental Clearance-regarding.

As per the provisions of Environment Impact Assessment (EIA) Notification 2006, the project or activities [New/Expansion/ Modernization/ change of product-mix or raw material mix] listed in the Schedule to the said Notification would require prior Environment Clearance (EC) from the concerned Competent Authority before undertaking any construction work or preparation of land by the project proponent, except for securing the land.

2. In this regard, Office Memorandum No. J-11011/41/2006-IA.II(I) dated 19/08/2010 clarified that while securing the land, no activity relating to any project covered under EIA Notification, 2006 including civil construction can be undertaken at the site without prior EC except fencing of the site to protect it from getting encroached and construction of temporary shed(s) for the guard(s).

3. Over a period of time, various options other than conventional barbed wire and wall fencing, have come into existence, viz., use of pre-fabricated structures, pre-cast compound wall etc. Further, in order to secure the land, the project proponent may need to have water and electricity connection. In view of the same, it has been decided by the Competent Authority in the Ministry to explicitly clarify that following activities can be undertaken by the project proponent for securing the land.

- i. Fencing of the project site by boundary wall using civil construction, barbed wire or precast/ prefabricated components.
 - ii. Construction of temporary sheds using pre-fabricated / modular structure, for site office/guards and storing material and machinery.
 - iii. Provision of temporary electricity and water supply for site office/guards only.
4. The above activities shall be undertaken subject to the following:

- i. The land should be in the legal possession of the project proponent and all statutory approvals in respect of the project site should have been obtained.
 - ii. In case of involvement of any forest land, no activity shall be initiated at the site till the Stage II Forest Clearance is obtained under the relevant provisions of Forest (Conservation) Act, 1980. In case of applicability of Wildlife Clearance, necessary permission from Standing Committee for National Board for Wildlife (SCNBWL) shall be obtained under the provisions of Wildlife Protection Act, 1972.
 - iii. In case of felling of trees if any, requisite permission from the Forest Department/Statutory Authorities of the concerned State Government shall be obtained.
 - iv. The investment made by the Project Proponent on the above, in anticipation of the applicable clearances under the relevant provisions of the Acts/Rules, shall be entirely at the cost and risk of the proponent.
5. However, the above dispensation would not entitle the project proponent to claim ***fait accompli*** with regard to grant of EC or any other applicable permission from any concerned statutory authority and further, the works of the aforesaid nature shall have no bearing on appraisal of the project for grant of EC which shall follow the due process and procedure as laid down in EIA Notification 2006, as amended.
6. This O.M. is being issued in supersession of the earlier O.M. dated 19/08/2010 and with the approval of the Competent Authority.



(A.K. Agrawal)
Director

To

1. Chairman, Central Pollution Control Board (CPCB)
2. Chairman of all the Expert Appraisal Committees
3. Chairperson/Member Secretaries of all the SEIAAs/SEACs
4. Chairpersons/Member Secretaries of all SPCBs/UTPCCs
5. All the Officers of I.A. Division

Copy for information to:

1. PS to Hon'ble Minister for Environment, Forest and Climate Change
2. PS to Hon'ble MoS (EF&CC)
3. PPS to Secretary (EF&CC)
4. PPS to DG (FC) & SS
5. PPS to AS(TK) / AS (NPG)/ AS(RS)
6. PPS to JS (SKB)
7. Website, MoEF&CC/Guard file.



ANDHRA PRADESH POLLUTION CONTROL BOARD
REGIONAL OFFICE NELLORE
1st Floor, A P S F C Building, A K Nagar Nellore 524 004

Receipt.No.PCB/RO NELLORE/3129891

Dated: 23-Feb-24

Sub : APPCB – : RO NELLORE – M/s. Indosol Solar Private Limited, Sy. Nos. 584/9, 584/10, 584/11, Chevuru village, Gudluru mandal, Nellore district, Andhra Pradesh 500016 White Category Industry - Regarding.

Ref : 1) CPCB Lr.No.B – 29012/ESS/CPA/2015-16, Dated 07.03.2013.

2) B.O. Circular Memo No.7/APPCB/HO/CFO-UH.IV/2016, dated 21.03.2016.

3) Your Application No 3129891 Date 23-Feb-24

With reference to your information submitted to the A.P. Pollution Control Board through Single Desk Portal vide reference 3 rd cited for establishment of **Solar module non conventional energy apparatus manufacturing unit** in the name and style **M/s. Indosol Solar Private Limited, Sy. Nos. 584/9, 584/10, 584/11, Chevuru village, Gudluru mandal, Nellore district, Andhra Pradesh** Andhra Pradesh, your proposed activity vide reference 1 st cited comes under White Category Industry as per the CPCB Classification. White category industry does not require Consent from A.P.Pollution Control Board and an intimation to the concerned SPCB/PCC shall sufficient.

Please note that:

1. The industry shall not cause any air/water pollution problems to the surrounding environment if any.
2. The industry shall take all necessary measures to control the odour nuisance to the surroundings if any.
3. If line of activity changes from White to Green/Orange/Red or in case of any modifications in the process / operations, the industry will require to obtain consent from the Board under Water and Air acts.
4. The Board reserves its right to stipulate any additional conditions or to take any action in case any change in line of activity.
5. In case of submission of any false information to the Board by the industry vide reference 3rd cited, this receipt stands cancelled.

To

M/s. Indosol Solar Private Limited,

Sy. Nos. 584/9, 584/10, 584/11, Chevuru village, Gudluru mandal, Nellore district, Andhra Pradesh 500016

GOVERNMENT OF ANDHRA PRADESH
ABSTRACT

Industries & Commerce Department – Proposal of M/s. Indosol Solar Pvt. Ltd. for establishment of vertically Integrated Solar PV Manufacturing Plant at Chevuru (V), Gudlur (M), SPSR Nellore District & Karedu (V), Ulavapadu (M), SPSR Nellore District, Andhra Pradesh – Extension of certain special package of incentives, duly incorporating the previously sanctioned incentives due to change of location of the integrated plant - Orders - Issued.

INDUSTRIES & COMMERCE (P&I) DEPARTMENT

G.O.MS.No.43

Dated:25.03.2025

Read the following:

1. G.O.Ms.No. 66, Ind.&Comm. (P&I) Dept. dt: 15.09.2022.
2. G.O.Ms.No. 4, Ind.&Comm. (P&I) Dept. dt: 19.01.2023.
3. G.O.Ms.No. 112, Ind.&Comm. (P&I) Dept. dt: 09.11.2023.
4. Representation from Managing Director, M/s. Indosol Solar Pvt. Ltd., Dt. 14.02.2025.
5. Minutes of the 7th State Investment Promotion Committee meeting held on 18.02.2025.
6. Minutes of the 4th State Investment Promotion Board meeting held on 13.03.2025.

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ORDER:

In the reference 1st read above, orders have been issued extending certain incentives to M/s Indosol Solar Private Limited (ISPL), Ramayapatnam, SPSR Nellore District.

2. In the reference 2nd read above, orders have been issued constituting Project Implementation Unit (PIU) to facilitate and handhold approvals/clearances for setting up of Integrated Solar PV module manufacturing facility and in house Float glass manufacturing facility at Ramayapatnam, SPSR Nellore Dist. By M/s Indosol Solar Pvt. Ltd.

3. Further, the Government, vide GO 66, I&C Dept., dt. 12.09.2022; GO Ms. No. 4, I&C Dept., Dt. 19.01.2023; G.O.Ms. No. 112, I&C Dept., dt. 09.11.2023; GO 19, Energy (Power-II), Dept., dt. 12.09.2022, GO 19, Energy (Power.II), Dept., dt. 06.02.2024 and any other Department specific orders issued viz., GO 16, Water Resources Dept., dt. 21.02.2023, GO 43, I&C dept., dt. 23.06.2023 etc, orders have been issued extending certain Non-Fiscal incentives and Fiscal incentives to M/s Indosol Solar Private Limited (ISPL) for implemenation of their proposal.

4. In the reference 4th read above, M/s. Indosol Solar Private Limited have submitted the details of their project and their production line, with an investment of about 69,000 Cr (eligible FCI of Rs.58,489 Cr) with a potential of direct employment of about 13,050. The details of the project, viz proposed production capacity in phases, details of sanctions under Production Linked Incentive Scheme of MNRE, GoI and the revised project implementation timelines with the details of lands requirement are given at Annexure-1.

Mg Silicon	~30 GW
Polysilicon	~30 GW
Ingot/ Wafer	20 GW
Solar Cell	20 GW
Solar Module	20 GW
Solar Glass	3,600 TPD (~21) GW

5. Accordingly, M/s. Indosol Solar Private Limited have requested the following.

a. Relocation of proposed Integrated Solar PV Module Manufacturing Plant to Karedu (V), Ulavapadu (M), Nellore District as the lands at Chevuru (V), earlier identified for ISPL, are being earmarked for the proposed green field refinery project proposed by M/s Bharat Petroleum Corporation Limited and allotment of alternate lands at Karedu (V), Ulavapadu (M), SPSR Nellore District.

b. Request for certain infrastructure development and other assistance to expedite the establishment of the plant

6. Further, M/s Indosol Solar Private Limited, a subsidiary of M/s Shirdi Sai Electricals Limited (SSEL), have submitted additional fiscal incentives viz capital subsidy as per the AP Industrial Development Policy 2024-29. They have requested for extending the incentive package already granted by the Government, vide GO 66, I&C Dept., dt. 12.09.2022; GO Ms. No. 4, I&C Dept., Dt. 19.01.2023; GO 112, I&C Dept., dt. 09.11.2023; GO 19, Energy (Power-II) Dept., dt. 12.09.2022, GO 19, Energy (Power-II) Dept., dt. 06.02.2024 and any other Department specific orders issued viz., GO 16, Water Resources (Reforms), Dept., dt. 21.02.2023, GO 43, I&C (Mines-III) dept., dt. 23.06.2023 etc.

7. Accordingly, the proposal from Director of Industries was placed before the State Investment Promotion Board (SIPB) meeting held on 13.03.2025 with recommendations of State Investment Promotion Committee (SIPC) in its meeting held on 18.02.2025. The SIPB has recommended to place their recommendations on the proposal of M/s. Indosol Solar Pvt. Ltd., for establishment of vertically Integrated Solar PV Manufacturing Plant at Chevuru (V), Gudlur (M), SPSR Nellore District & Karedu (V), Ulavapadu (M), SPSR

Nellore District, Andhra Pradesh, with total investment of INR 69,000 Cr and committed employment for 13,050 persons.

8. Government, after careful consideration of the decision of the State Investment Promotion Board, hereby extend certain special package of incentives to M/s. Indosol Solar Pvt. Ltd., for establishment of vertically Integrated Solar PV Manufacturing Plant and associated Captive Renewable Energy Plants (Solar Power, Wind Power, Pumped Storage Project) at Chevuru (V), Gudlur (M), SPSR Nellore District & Karedu (V), Ulavapadu (M), SPSR Nellore District, Andhra Pradesh.

Land and Infrastructure support related

- a) Allotment of 8,348 Ac of land at Karedu (V), Ulavapadu (M), SPSR Nellore District and ~114.5 Ac identified at Chevuru (V), Gudluru (M), SPSR Nellore District on cost basis, for establishment of Integrated Solar PV Module Manufacturing facility (30 GW Mg-Silicon/ Polysilicon, 20 GW Wafer-Cell-Module capacity, 3,600 TPD Solar Glass manufacturing, duly Permitting the APIIC to proceed for acquisition of the above lands.
- b) Acquisition of requisite lands in Singarayakonda (V) and Binginapalli (V) to the north of ManneruVagu for developing access and utility corridor to Karedu (V), after receipt of proposals, through APIIC, on cost basis.
- c) APIIC to allot these lands as per allotment regulations in force and as per the request, the lands can be allotted to the ISPL / SSEL / Designated SPV / subsidiary or associates of SSEL.
- d) APMB & APIIC to do the necessary book adjustments, for the amount already paid by ISPL/SSEL to APMB for land acquisition
- e) Provision of 100-meter-wide approach road from National highway(s)/Rail-Road over bridges up to new 100-meter-wide port road and 4 lane access & service roads to the doorstep of the aforementioned Industrial Unit.
- f) Facilitating RoW for laying of pipelines along with associated infrastructure and any other utilities including discharge/storage of treated water related to the 1 GW downstream and Overall project.
- g) Providing permission for development of marina in Manneruvagu for captive jetty & barge facilities for transportation of bulk shipments from port to plant.

Energy and Renewable energy related

- a) Allotment of land for the total Renewable Energy Capacities (5 GW Solar, 2.5 GW Wind, 2.2 GW Pumped Storage Project) and process for allotment of additional renewable energy capacities (1.5 GW Solar and 1 GW Wind) to ISPL/ parent of ISPL/ Subsidiary of ISPL to serve as captive power sources for the Integrated Solar PV Module Manufacturing facility.

- b) Allotment on lease/ alienation of revenue lands available if any in the PSP, Wind and Solar project areas on lease basis @ Rs. 31,000/ Acre/ Year with an escalation of 5% every two years. In case outright purchase of land, land value will be decided by the competent authority based on basic value/market value of the land at that point of time.
- c) Allowing sale of power from captive RE sources in the market, after meeting captive requirements of ISPL.
- d) Establishment of substation by the Energy Dept. (AP Transco) at its own cost with required capacity of 220 kV voltage and power infrastructure/lines drawn up to the premises by Aug 2026 along with arranging power supply during construction phase, including developmental and any other charges, until the substation is commissioned.
- e) Exemption of Development charges & Security deposit and any supervisory and administration charges for obtaining power supply from DISCOM, with the provision that if any of the said charges are paid by ISPL, the same to be adjusted in the monthly bill payments by DISCOM.
- f) Establishment of sub-station by Energy Department (AP TRANSCO) with required capacity by Jan 2027, with N-2 contingency and socializing the same for the industries coming up in and around the area, with the condition that the company must lay the lines at their own cost from the substation.
- g) Providing requisite support in providing STU/ CTU power connectivity for captive RE power projects.
- h) Arranging for Right of Way, facilitate and extend support in obtaining requisite approvals/clearances including Forest Clearances from Govt. of India and exempt any statutory charges applicable for construction of the Direct Transmission Line and RE power projects.

Water Resources Department & I&C (Mines) Dept., related

- a) Necessary permissions from water resources department for
 - I. Allocating minor ponds of Chevuru pond, Chennapalayam pond water drawl to meet 7 MLD water requirement of 1 GW Downstream plant and
 - II. Allocation of Karedu minor irrigation pond to be used for water drawl and meeting the water storage requirements, as most of the ayacut lands are proposed for acquisition.
- b) Permission for allocation, grant and development of mines for captive usage, in the name of ISPL/ parent of ISPL/ subsidiary of SSEL, subject to compliance with applicable mining rules.
- c) Issuing detailed operational guidelines, in consultation with the departments concerned.

Financial incentives related

a) Approval of fiscal incentives, totalling to 59.78% of the total eligible fixed capital investment of the vertically Integrated Solar PV Manufacturing Project (as given at Annexure-2), consisting of

- I. Extending the incentive package already granted by the Government, vide GO 66, I&C Dept., dt. 12.09.2022; GO Ms. No. 4, I&C Dept., Dt. 19.01.2023; GO 112, I&C Dept., dt. 09.11.2023; GO 19, Energy Dept., dt. 12.09.2022, GO 19, Energy Dept., dt. 06.02.2024 and any other Department specific orders issued viz., GO 16, Water Resources Dept., dt. 21.02.2023, GO 43, I&C dept., dt. 23.06.2023 etc. duly migrating the Incentive package/ GOs/ Orders/further amendments to the latest Industrial Development Policy 2024-29.
- II. Provision of 25% subsidy on eligible Fixed Capital Investment, to be paid over a period of 15 years, not exceeding INR 14,152 Cr over a period of 15 years @ INR 943.47 Cr per annum, after commissioning of the project.
- III. Permitting APIIC to levy administrative cost of Land Acquisition @ INR 10,000 per acre against 60,000 per acre

9. Detailed operational guidelines, in consultation with the departments concerned will be issued, concerning all the departments for smooth implementation of the project.

10. The above incentives shall be made applicable subject to company adhering to the definite time lines for implementation of the Mega project and investment and employment commitment from the company as per the proposal submitted.

11. The Special Chief Secretary/Principal Secretary/Secretary of the concerned departments such as Power, Water Resources Department, Industry and Commerce (CIP), Skill Development Department, Revenue (Land, Registration and Stamps), Finance Department and other departments concerned are requested to take further necessary action accordingly, duly instructing their HODs and PSUs under them for expeditious grounding and implementation of the project.

12. The Vice Chairman & Managing Director, Andhra Pradesh Industrial Infrastructure Corporation Limited, Mangalagiri and the Director of Industries, Andhra Pradesh shall take further necessary action accordingly in coordination with the line Departments.

13. As envisaged under the Andhra Pradesh Industrial Development Policy (4.0) 2024-29, the Director of Industries shall assign the handholding for facilitations of all the inputs as required for expeditious grounding and

implementation of this project to a senior level officer and should try to ensure that the project is implemented as per the expected timelines, duly facilitating the required approvals and clearances under the Single Desk Portal 2.0 and duly implementing the project as per the intended spirit of the Speed of Doing Business.

14. The Director of Industries, A.P., Mangalagiri should ensure that the PIU with the Department monitors the progress of the project, duly bringing the issues that are to be resolved, to the respective line departments, from time to time and resolve the issues and intimate the status of the progress of the project to the Government from time to time and bring the issues for resolution at the government end, if any, for smooth execution of the project.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH)

N YUVARAJ
SECRETARY TO GOVERNMENT

To

The Vice Chairman & Managing Director, APIIC Ltd., Mangalagiri.

The Director of Industries, A.P., Mangalagiri.

The Managing Director, M/s. Indosol Solar Pvt. Ltd.

The Special CS/Principal Secretary/Secretary of the concerned department viz,

The Revenue (Land, Registration and Stamps) Department,

The Finance Department,

The PR&RD Department,

The MA&UD Department,

The EFS&T Department,

The Energy Department,

The Water Resource Department,

The Transport, Roads and Buildings Department,

The Skill Development Department,

The Infrastructure and Investment Department,

The Industry and Commerce (Mines-II & III) Department

The VC&MD, NREDCAP, Tadepalli.

The Collector & District Magistrate, SPSR Nellore District.

Copy to:

The Finance (FMU-I&I, Energy and I&C) Department.

The Revenue (CT) Department.

The Law (H) Department

The Accountant General, Vijayawada, Andhra Pradesh.

The Chief Commissioner of Taxes, Andhra Pradesh.

The P.S. to Secretary to Chief Minister.

The P.S. to Hon'ble Minister (Ind. & Comm. Food Processing).

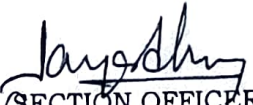
The P.S. to Chief Secretary to Government of Andhra Pradesh.

The P.S. to Secretary to Government & CIP, Industries & Commerce, Dept.,

The G.A. (Cabinet.I) Department.

SC/SF.

//FORWARDED::BY ORDER//


SECTION OFFICER


Annexure-1 on the proposals of M/s. Indosol Solar Private Limited (ISPL)

- Indosol Solar Private Limited (ISPL) is a subsidiary of M/s Shirdi Sai Electricals Limited (SSEL).
- Proposed Production Capacity of the ISPL

Phases	1	2	3	4	5	6	7	Total
Mg Silicon				~15 GW			~15 GW	~30 GW
Polysilicon				~15GW			~15GW	~30GW
Ingot / Wafer	1 GW	4 GW	5 GW		5 GW	5 GW		20 GW
Solar Cel	1 GW	4 GW	5 GW		5 GW	5 GW		20 GW
Solar Module	1 GW	4 GW	5 GW		5 GW	5 GW		20 GW
Solar Glass		1,200 TPD	1,200 TPD			1,200 TPD		3,600 TPD ~21GW

- Approval of proposal of ISPL under the PLI Scheme of MNRE, GoI

Scheme	Approved Capacity (GW) under PLI	PLI incentive (INR Cr)	Deadline
PLI 1	4 GW (Polysilicon- Ingot- Wafer- Cell Module)	1,875	November 2024*
PLI 2	6 GW (Polysilicon- Ingot- Wafer- Cell Module)	3,300	March 2026

*Requested MNRE to relax the PLI timelines at least by 2 years for entire capacity of 10 GW (allocated under PLI 1&2) i.e., till Nov 2026, considering the major challenges related to technology, equipment sourcing and land acquisition issues.

- Revised Project implementation Timeline and Land Requirement (due to change of location)

Project Implementation Timelines & Land Requirement				
#	Activity	Construction Start date	Proposed DCP	Land Re. (Ac)
1	1 GW - Ingot, Wafer, Cell, Module	Feb-24	Dec-25	114*
2	4 GW - Ingot, Wafer, Cell, Module	May-25	Nov-26	2,100
3	1,200 TPD Solar Glass	May-25	Mar-27	
4	5 GW - Ingot, Wafer, Cell, Module	Aug-25	May-27	2,400
5	1,200 TPD Solar Glass	Aug-25	Se-27	
6	15 GW - Mg Silicon, Polysilicon	Sep-25	Sep-27	2,300
7	5 GW - Ingot, Wafer, Cell, Module	Oct-25	May-28	1,450
8	5 GW - Ingot, Wafer, Cell, Module, 1200 TPD Solar Glass	Jan-26	Sep-28	Covered in earlier phases
9	15 GW - Mg Silicon, Polysilicon	Jan-26	Se-28	
Grand Total		55 months		8,364

* 114 acres of out of 8,364 acres at Chevuru (V), Gudur (M), SPSR Nellore District and remaining 8,250 acres at Karedu (V), Ulavapadu (M), SPSR Nellore District.

• Project Cost of the Vertically integrated Solar PV Manufacturing Plant

Project Component	Amount (INR Cr)
Land	1,859
Equipment	29,726
Civil& Buildings	12,293
Utilities& Facilities	10,708
Technology & Project Mgmt	3,883
FCI	58,489
Others	7,368
IDC	3,164
Total (INR Crore)	69,000

N YUVARAJ
SECRETARY TO GOVERNMENT

Annexure-2-Financial Incentives recommended on the proposal of M/s Indosol Solar Private Limited

S No	Incentives Requested	Incentives granted vide earlier GOs	Additional incentive request	Total (INR Cr)
1	100% exemption of stamp duty/ registration fee, transfer duty on purchase of land meant for industrial use and township and any other project related activity.	214.19	-	214.19
2	Exemption of property tax viz. NALA taxes / Panchayat / Municipal taxes or building permissions / site zoning charges or any such taxes, as applicable.	176.08	-	176.08
3	Exemption of royalty/seigniorage fee, DMF, MERIT, Consideration amount, Green Fee for consumption of Morrum / Gravel & Ordinary Earth, Ordinary Sand, Road Metal & Ballast, Rough Stone/ Boulders & any other minor minerals for construction of buildings and project related infrastructure (approach roads etc) on entire project.	498.14	-	498.14
4	Exemption of additional premium payment and security deposit; 100% waiver of Seigniorage fee & dead rent, consideration amount, district mineral fund, MERIT for mineral(s) dispatched from the allotted mines for the end use plant for a period of 10 years	337.59	-	337.59
5	Exemption of Consent for approval fees	64.00	-	64.00
6	Exemption of Stamp duty & transfer duty on Land transfer to SPV(s) / ancillary units	117.19	-	117.19
7	Exemption of Development charges & Security deposit for power supply	300.00	-	300.00
8	Fixed Power tariff @ INR 4.00 per unit for first 7 years & INR 4.50 per	4,045.00	-	4,045.00

S No	Incentives Requested	Incentives granted vide earlier GOs	Additional incentive request	Total (INR Cr)
	unit for the next 8 years			
9	Exemption of OA Charges & CSS for a period of 15 years	3,245.00	-	3,245.00
10	Exemption of Electricity Duty for a period of 15 years	15,021.00	-	15,021.00
11	Net SGST reimbursement of sale of products for 10 years	3,042.00	-	3,042.00
12	Exemption of administrative, supervisory any other incidental expenditure /charges/ fees/ costs towards LA are charged except for the compensation to be paid to landowners & an additional facilitation charges at INR 10,000 per acre (Karedu extent: 8,350 Ac ; Chevuru 114 Ac)	-	42.31	42.31
13	25% capital subsidy on Solar PV manufacturing project over a period of 15 years	-	14,152.00.	14,152.00
Grand Total		27,060.00 (39.21%)	14,194.31 (20.57%)	41,254.50 (59.78%)

N YUVARAJ
SECRETARY TO GOVERNMENT



ANDHRA PRADESH POLLUTION CONTROL BOARD
 Paryavaran Bhavan, APIIC Colony Road, Gurunanak Colony,
 Autonagar, Vijayawada- 520007.
 Website: www.pcb.ap.gov.in



CONSENT TO ESTABLISH (CTE) ORDER

Order.No. 302/PCB/CTE/RO-NLR/HO/2025-

Dt:01-06-2025

Sub: APPCB - CTE - **M/s. Indosol Solar Pvt. Ltd**, Sy. Nos. 584/9, 10, 11, 585/2, 3, 4, 5, 6, 7, 8, 592/1, 2, 593/1, 2, 3, 594/1A, 1B, 2A, 2B, 595/2, 2B, 3B, 4A, 4B, 5A, 5B, Chevuru Village, Gudluru Mandal, SPSR Nellore District, A.P. - **Consent to Establish (CTE)** of the Board under Sec.25 of the Water (Prevention and Control of Pollution) Act, 1974 and under Sec.21 of the Air (Prevention and Control of Pollution) Act, 1981 - **Orders - Issued** - Reg.

Ref: 1. CTE application received by the Board through APOCMMS on 03.06.2024.
 2. SEE, ZO: Tirupati reports received on 25.09.2024 & 25.04.2025.
 3. T.O. Letter dt: 20.10.2024 & 22.05.2025.
 4. CTE Committee meeting held on 14.10.2024 & 01.05.2025
 5. Project Proponent submitted the information in APOCMMS Portal on 23.04.2025 & 26.05.2025.

1) **M/s. Indosol Solar Pvt. Ltd**, vide reference 1st cited, submitted an application to the Board seeking **Consent to Establish (CTE)** to establish unit to manufacture the following products with installed capacities as mentioned below, with an investment of Rs. 2,000 Crores.

S.No.	Name of the Products	Quantity
1	Solar Photovoltaic (PV) modules	9,09,091 Nos./annum
2	Solar Photovoltaic (PV) Cells	14,02,59,740 Nos./annum
3	Solar Photovoltaic (PV) Wafers	14,72,72,727 Pcs/annum

Raw material and chemicals used:

S.No.	Name of the Raw Materials	Quantity (Tons/Day)
1.	Polysilicon Virgin big size	3,88,218 Kg/Annum
2.	Polysilicon Virgin size small	21,99,900 Kg/Annum
3.	Nitric Acid	20,41,354 Lts/Annum

4.	Hydrofluoric Acid	3,40,226 Lts/Annum
5.	Wafer	14,72,72,727 Pcs/Annum
6.	Solar Cells	7,01,29870 Pcs/Annum

2) As per the application, the above activity is to be located at Sy. Nos. 584/9, 10, 11, 585/2, 3, 4, 5, 6, 7, 8, 592/1, 2, 593/1, 2, 3, 594/1A, 1B, 2A, 2B, 595/2, 2B, 3B, 4A, 4B, 5A, 5B, Chevuru Village, Gudluru Mandal, SPSR Nellore District, Andhra Pradesh, in an area of 1,98,500 Sq.m.

3) The above site was inspected by the Senior Environmental Engineer, Zonal Office, Tirupati and Environmental Engineer, Regional Office, Tirupati, A.P Pollution Control Board on 09.08.2024 and observed that the site is surrounded by

North Agricultural lands

South Agricultural lands

East Vacant land followed by Donka road

West Agriculture canal adjacent to the proposed site

4) The Board, after careful scrutiny of the application and verification report of SEE, Zonal Office: Tirupati and recommendations of CTE Committee, hereby issues **CONSENT TO ESTABLISHMENT** to the Project under Section 25 of Water (Prevention & Control of Pollution) Act 1974 and Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and the rules made there under. This order is issued to manufacture the products as mentioned at para (1) only.

5) The industry shall comply with the following conditions:

- All the units of the ETP & STP shall be constructed above ground and shall be impervious to prevent ground water pollution.
- The industry shall provide digital flow meters with totalizers at the inlet and outlet of treatment systems and maintain records. The industry shall also provide magnetic flow meters with totalizers at inlet of MEE and ATFD, RO permeate & RO rejects and the same shall be connected to APPCB website.
- The industry shall install online real time monitoring system at outlet of ETP units and web camera facilities and connect to APPCB / CPCB websites as per CPCB directions.
- The industry shall adopt Zero Liquid discharge system and the treated water shall be reused in the process & makeup water streams.
- The industry shall avoid the handling of drums for storage of solvents/ raw materials shall use the tankers only.
- The industry shall implement adequate measures to control all fugitive emissions from the plant.
- Greenbelt of 33% of the total project area shall be developed within plant premises with at least (5-10m) wide greenbelt on all along the periphery of the project area, in downward direction, and along road sides etc. Selection of

plant species shall be as per the CPCB guidelines in consultation with the DFO.

6) This Consent Order now issued is subject to the conditions mentioned in Annexure.

7) This order is issued from pollution control point of view only. Zoning and other regulations are not considered.

8) This order is valid for a period of 7 years from the date of issue.

Encl: Annexure.

**S SRI
SARAVANAN
Member Secretary**

To

M/s. Indosol Solar Pvt. Ltd.

Sy. Nos. 584/9, 10, 11, 585/2, 3, 4, 5, 6, 7, 8,
592/1, 2, 593/1, 2, 3, 594/1A, 1B, 2A, 2B, 595/2,
2B, 3B, 4A, 4B, 5A, 5B,
Chevuru Village, Gudluru Mandal,
SPSR Nellore District, Andhra Pradesh.
Email: manoj@indosolsolar.com

Copy to:

1. The SEE, Z.O: Tirupati for information.
2. The E.E., R.O: Nellore for information and necessary action.

ANNEXURE

1) The proponent shall obtain Consent to Operation (CTO) from APPCB, as required under Sec.25/26 of the Water (P&C of P) Act, 1974 and under sec. 21/22 of the Air (P&C of P) Act, 1981, before commencement of the activity.

2) The applicant shall provide separate energy meters for Effluent Treatment Plant (ETP)/ Sewage Treatment Plant (STP) and Air pollution Control equipment to record energy consumed. An alternative electric power source sufficient to operate all pollution control systems shall be provided.

3) The industry shall construct separate storm water drains. No effluents shall be discharged in to the storm water drains

Water:

4) The Project Proponent obtained permission from the Water Resources Department vide G.O.Ms.No.18 dt:13.04.2025 for allocation of 7.0 MLD of water from both Chevuru and Chennayapalem lakes to M/s. Indosol Solar Private Limited, for setting up and integrated Solar PV Module manufacturing facility along with In-House Float Glass Manufacturing facility at **Ramayapatnam**, SPSR Nellore District. The Project Proponent shall ensure that the maximum permitted water consumption shall not exceed the capacity mentioned below:-

S.No.	Purpose	Quantity (KLD)		
		Fresh	Recycled	Total
1	Process & Washings	394.08	3448.70	3842.78
2	Scrubbing	132.23	107.77	240.00
3	Cooling Tower make up	396.47	750.73	1147.20
4	DM Plant	1119.77	646.63	1766.40
5	Domestic	206.40	--	206.40
6	Gardening	163.20	95.00	258.20
	Total	2412.14	5048.84	7460.98

- Separate meters with necessary pipe-line shall be provided for assessing the quantity of water used for each of the purposes mentioned above.

5) The maximum waste water generation shall not exceed the following:

S.No.	Source	Quantity (KLD)
1	Process & Washings	3446.78
2	Scrubber	96.00
3	Cooling Tower blow down	573.60
4	DM Rejects	1766.40
5	Domestic	100.00
	Total	5982.78

Treatment & Disposal:

Effluent source	Treatment system provided	Mode of final disposal
Trade effluents (Process & Washings, boiler blow down, Cooling tower bleed-off, FGD Waste water)	Zero Liquid Discharge (ZLD) system including Effluent Treatment Plant (6028 KLD) followed by RO systems (8 Nos.), MEE (300 KLD) & ATFD (39 KLD).	After treatment, RO permeate shall be reused for utilities make-up. • RO Rejects to MEE • MEE concentrate to ATFD • MEE & ATFD Condensate to Biological treatment plant followed by RO. • ATFD Salts to TSDF landfill. The industry shall maintain ZLD.
Domestic effluents	Sewage Treatment Plant (120 KLD)	After treatment, shall be utilized for on-land for gardening purpose.

6) All the units of the ETP & STP shall be above ground and impervious to prevent ground water pollution. The Effluent Treatment Plant (ETP) and STP shall be operated regularly.

7) The domestic effluents shall be treated to the on land for irrigation standards, as stipulated under Schedule-VI of Environment (Protection) Rules, 1986, notified by Ministry of Environment and Forests, Government of India vide G.S.R.422 (E), dt.19.05.1993 and its amendments thereof.

8) The industry shall provide digital flow meters with totalizers at the inlet and outlet of treatment systems and maintain records. The industry shall provide magnetic flow meters with totalizers at inlet of MEE and ATFD, RO permeate & RO rejects and the same shall be connected to APPCB website.

9) The industry shall install online real time monitoring system at outlet of ETP units and web camera facilities and connect to APPCB / CPCB websites as per CPCB directions.

10) The industry shall adopt Zero Liquid discharge system and the treated water shall reuse in the process & makeup water streams.

11) Floor washings shall be admitted into the effluent collection system only and they shall not be allowed to find their way in storm drains or open areas. All pipe valves, sewers, drains shall be leak proof.

12) Under any circumstances, the industry shall not discharge the treated/ untreated waste water/ contaminated runoff outside the premises or into any water bodies or aquifers.

13) The industry shall construct rain water runoff tank for collection of first flush of storm water and to channelize to ETP for treatment.

14) The industry shall implement adequate measures to curtail spillages at source and any discharges into storm water drains to prevent contamination of run-off.

Air:

15) The Air pollution Control equipment shall be installed along with the commissioning of the activity and shall comply with the following for controlling air pollution.

Sl. No	Details of Stack	Stack – 1	Stack – 2	Stack - 3
a)	Attached to	Common stack attached to Cell, Ingot & Wafer Manufacturing Equipment	D G Set	D G Set
b)	Capacity	--	1250 KVA	1500 KVA
c)	Name of the Fuel:	--	HSD	HSD
d)	Stack height above ground (m.)	30 m	30 m	30 m
e)	Details of Air pollution control equipment	Scrubbers -5 Nos.	Acoustic enclosures	Acoustic enclosures

16) A sampling port with removable dummy of not less than 15 cm diameter shall be provided in the stack at a distance of 8 times the diameter of the stack from the nearest constraint such as bends etc. A platform with suitable ladder shall be provided below 1 meter of sampling port to accommodate three persons with instruments. A 15 AMP 250 V plug point shall be provided on the platform.

17) The industry shall properly operate and maintain VOC monitoring system with auto recording facility and connect to APPCB website.

18) The industry shall properly operate and maintain the monitoring system to all the stacks / vents in the plant. Regular monitoring shall be carried out and report shall be submitted to the Regional officer.

19) The industry shall implement adequate measures to control all fugitive emissions from the plant and solvent storage tank farms.

20) Ambient Air Quality monitoring stations shall be setup in the down wind direction as well as where maximum ground level concentration of PM2.5, PM10 SO2, NOx & HCL (methane & non-methane) are anticipated in consultation with concerned Regional Office.

21) The industry shall take appropriate measures to control odour nuisance in the surroundings and details shall be reported to Concerned Regional office of PCB before applying for CFO.

22) The generator shall be installed in a closed area with a silencer and suitable noise absorption systems. The ambient noise level shall not exceed 75 dB (A) during day time and 70 dB (A) during night time.

Hazardous / Solid Waste:

23) The industry shall comply with the following:

S. No	Details of waste	Quantity	Method of disposal
1	ETP sludge (Inorganic)	36.44 TPD	Shall be sent to TSDF/ Authorised Recyclers
2	ETP sludge (Organic)	16.80 TPD	
3	Evaporation Salts	15.84 TPD	
4	Silica recovered from ETP	44.00 TPD	Shall be sent to reuse
5	STP Sludge	0.3 TPD	Shall be used as manure/ Horticulture
6	Oily waste	1.0 TPA	Shall be sent to Authorized Agencies/ Recyclers/ Vendors
7	Waste oils & Grease	500 KLPA	
8	Detoxified containers & bags	300 Nos./month	
9	Used PPE	0.5 TPM	
10	E-Waste including production reject	321.5 TPA	
11	Plastic Waste	10 TPA	
12	Metal Scrap	20.0 TPM	Shall be sent to TSDF
13	Used / Discarded RO Membranes Cartridge	4.0 TPA	
14	Spent Resin	6.0 TPA	
15	Spent Anthracite	0.5 TPA	Shall be sent to authorised re-cyclers, as per E-Waste (Management) Rules, 2022.
16	Discarded / Broken Solar Cells/ wafers	0.5% of production	

24) Proper handling, storage, utilization and disposal of all the solid waste should be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid / hazardous waste shall be submitted to the Regional office.

25) Industry shall register with Andhra Pradesh Environment Management Corporation Ltd (APEMCL) for disposal of hazardous and other wastes before applying for CTO of the Board and shall comply with Hazardous Waste Management Rules, 2016.

26) The industry shall provide closed shed on elevated platform, leachate collection & odour extraction/scrubbing system for storage of Hazardous waste.

27) The following rules and regulations notified by the MoEF& CC, GoI shall be

implemented:

- a. Regulation of Persistent Organic Pollutants Rules, 2018.
- b. Hazardous waste and other wastes (Management and Transboundary Movement) Rules, 2016 and amendments thereof.
- c. Plastic Waste Management Rules, 2016.
- d. Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989
- e. Batteries (Management & Handling) Rules, 2010.
- f. E-Waste (Management) Rules, 2016.
- g. Construction and Demolition waste Management Rules, 2016.
- h. Solid Waste Management Rules, 2016.
- i. Public Liability Insurance Act, 1991 and its amendments thereof.
- j. Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996
- k. Ozone Depleting Substances (ODS) Rules of 2000.

Other Conditions:

28) The industry shall maintain ZLD system for treatment of effluents.

29) The industry shall install three stage scrubbers and connect all vents to the scrubbers to the process emissions.

30) The industry shall avoid the handling of drums for storage of solvents/ raw materials shall use the tankers only.

31) The industry shall submit a copy of the NOC issued by the Andhra Pradesh State Disaster Response and Fire Service Dept., (APSDRFSD) at concerned Regional Office, APPCB.

32) The industry shall obtain policy under PLI Act before applying for CTO of the Board.

33) The industry shall prepare risk assessment report covering worst scenario clearly describing impact within the industry premises and outside the industry premises and emergency response system.

34) The proponent shall display online data outside the main factory gate on quantity and nature of hazardous chemicals being used in the plant, water & air emissions and solid waste generated within the factory premises.

35) The industry shall submit risk assessment report covering worst scenario clearly describing impact within the industry premises and outside the industry premises and emergency response system.

36) The industry shall prepare a safety report and carry out an independent safety audit report of the respective industrial activities including chemical storages / isolated storages by an expert not associated with such industrial activity as required under Rule 10 of MSIHC Rules, 1989 and get it approved by the Factories

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Dept., and submit the compliance along with copy of the safety report, safety audit report and safety certificate at concerned Regional Office, APPCB.

37) Greenbelt of 33% of the total project area shall be developed within plant premises with at least (5-10m) wide greenbelt on all the periphery of the project area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

38) The industry shall identify major accident hazard chemicals & list out the hazardous chemicals endangered to human health & environment and the details shall be furnished to the Factories Department and to the Regional Office, APPCB time to time duly certifying the same by the industry. Further the industry shall extend training to the working personnels while handling hazardous chemicals for prevention of accidents and necessary antidotes to ensure the safety, as per the MSIHC Rules, 1989.

39) The industry shall carryout calibration of safety equipments and leak detection systems at regular intervals and shall certify the same with the Factories Department. That certified copy shall be submitted to the APPCB, Regional Office. The industry shall install fluorescent Wind Vane at the highest point in the industry premises.

40) The proponent shall ensure that there shall not be any change in the process technology and scope of working without prior approval from the Board.

41) The proponent shall comply with all the directions issued by the Board from time to time.

42) The industry shall submit compliance to the conditions stipulated in the CTE orders to the concerned Regional Officer of APPCB every six months and shall upload the same at APPCB website viz., https://pcb.ap.gov.in/UI/Submission_Compliance_of__CTE_CFO_Direction.aspx.

43) Concealing the factual data or submission of false information / fabricated data and failure to comply with any of the conditions mentioned in this order attracts action under the provisions of relevant pollution control Acts.

44) The Board reserves its right to modify above conditions or stipulate any additional conditions including revocation of this order in the interest of environment protection.

45) Notwithstanding anything contained in this conditional letter or consent, the Board hereby reserves its right and power Under Sec. 27(2) of Water (Prevention and Control of Pollution) Act, 1974 and Under sSec.21 (4) of Air (Prevention and Control of Pollution) Act, 1981 to revoke the order, to review any or all the conditions imposed herein and to make such modifications as deemed fit and stipulate any additional conditions.

46) The proponent shall comply with the Technical suggestions at Chapter No. 7.3

& 7.4 for Hazardous Chemical handling industries by High Power Committee (HPC) of Govt. of Andhra Pradesh. The HPC report is available at www.ap.gov.in.

47) Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules, 1976 and Air Rules, 1982, to such authority (hereinafter referred to as the Appellate Authority) constituted under Section 28 of Water (Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air (Prevention and Control of Pollution) Act, 1981.

**S SRI
SARAVANAN
Member Secretary**

To

M/s. Indosol Solar Pvt. Ltd.

Sy. Nos. 584/9, 10, 11, 585/2, 3, 4, 5, 6, 7, 8,
592/1, 2, 593/1, 2, 3, 594/1A, 1B, 2A, 2B, 595/2,
2B, 3B, 4A, 4B, 5A, 5B,

Chevuru Village, Gudluru Mandal,

SPSR Nellore District, Andhra Pradesh.

Email: manoj@indosolsolar.com



ANDHRA PRADESH INDUSTRIAL INFRASTRUCTURE CORPORATION LIMITED,

(A GOVERNMENT OF ANDHRA PRADESH UNDERTAKING)

Plot NO.1, IT Park, Mangalagiri, Guntur District - 522503

From
Sri M Abhishikth Kishore, IAS,
Vice-Chairman & Managing Director,
Floor No.11, APIIC Towers,
Plot No.1, IT Park,
Mangalagiri, Guntur dist.-522503

To
Member Secretary
Andhra Pradesh Pollution Control Board
Paryavaran Bhavan,
APIIC Colony Road, Gurunanak Colony,
Autonagar, Vijayawada - 520007

Lr. No. APIIC-25/42/2025-PROJSEC/2912106, Dt.05-08-2025

Sir,

Sub: APIIC/HO/Projects Wing – Initiation of process to grant the EC/CFE to M/s. Indosol Solar Private Limited (ISPL) for establishment of vertically integrated Solar PV manufacturing plant at Chevuru (V) Guduru (M) & Karedu (V), Ulavapadu (M) of SPSR Nellore District – Arrangement of comfort letter - Reg.

Ref: 1. G.O. Ms. No. 43 dated:25.03.2025 I&C Dept (P&I) GoAP

2. Gazette No: 72, Nellore District, Preliminary Notification, dated:19.06.2025

3. Lr. No. ISPL/I&C/2025-26/003, Dt. 02.07.2025 of M/s. Indosol solar Pvt Ltd., Hyderabad

4. Letter No. 1946333/P&I/A1/2025 dated:10.07.2025 of the Secretary to Government, Industries & Commerce Dept

In the reference cited 1st above, the Government has allotted and extended support to facilitate the following:

1. Allotment of 8,348 acres of land at Karedu (V), Ulavapadu (M), SPSR Nellore District and ~114.5 Ac identified at Chevuru [V], Gudluru (M), SPSR Nellore District on cost basis to M/s. Indosol Solar Private Limited (ISPL), for establishment of Integrated Solar PV Module Manufacturing facility (30 GW Mg-Silicon/ Polysilicon, 20 GW Wafer-Cell-Module capacity, 3,600 TPD Solar Glass manufacturing, duly permitting the APIIC to proceed for acquisition of the above lands.
2. APIIC to allot these lands as per allotment regulations in force to M/s. Indosol Solar Private Limited.
3. Facilitating Right of Way for laying of pipelines along with associated infrastructure and any other utilities including discharge/ storage of treated water related overall project and to the 1 GW downstream.

It is to inform that APIIC, has filed requisition with the Collector & District Magistrate, SPSR Nellore for acquisition of land in Karedu Village of Ulavapadu Mandal for establishment of Industrial Hub

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Subsequently, The District Collector, SPSR Nellore in the reference 2nd cited, has released the Preliminary Notification for acquisition of 1,345.83 acres of land in Block-I on 19.06.2025.

Further to the above, In the reference cited 3rd and 4th the Government has directed APIIC to arrange a comfort letter to APPCB based on the request of M/s. Indosol Solar Private Limited.

Hence, in view of the above, it is requested that the APPCB shall facilitate in applying for Terms of Reference (TOR) towards grant of EC/CFE.

Sincerely,

Digitally signed by
M ABHISHIKTH KISHORE
Date: 05-08-2025
15:16:24

Vice Chairman and Managing Director
APIIC Limited

Encl: As above

Copy submitted to the Secretary to Government, Industries & Commerce Department, AP Secretariat, Velagapudi, Amaravati for information.

1. Details of Project

1.1. Name of the Project	Proposed Construction of Industrial Buildings to establish Solar Modules Manufacturing Facility with Annual Capacity of 10 GW at Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh by M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL)
1.2. Project Proposal For	New
1.3. Project ID (Single Window Number)	SW/266967/2025
1.4. Description of Project	Proposed Construction of Industrial Buildings to establish Solar Modules (Ingot, wafer, Cell, Module and Glass) Manufacturing Facility with Annual Capacity of 10 GW with Site area – 3409030 Sq.m.; Total Built up area – 1231064 Sq.m., located at Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh by M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL)

2. Details of the Company/Organization/User Agency making application

2.1. Legal Status of the Company/Organization/User Agency	Individual
2.2. Name of the Company/ Organization/User agency	MANOJ KUMAR REDDY POTHIREDDY

Registered address

2.3. Address	Survey No 585/2, 585-5, 593-2A, Near Port Road, Chevuru Village, Gudluru Mandal, Sri Pooti Sriramulu Nellore, Andhra Pradesh- 523291
2.4. State	ANDHRA PRADESH
2.5. District	SPSR NELLORE
2.6. Pin Code	523291
2.7. E-mail address	saidiwakar.gundram@indosolsolar.com
2.8. Mobile number	xxxxxx0828

3. Details of the person making application

3.1. Name	MANOJ KUMAR REDDY POTHIREDDY
3.2. Designation	Authorised signatory

Correspondence address

3.3. Address	Survey No 585/2, 585-5, 593-2A, Near Port Road, Chevuru Village, Gudluru Mandal, Sri Pooti Sriramulu Nellore, Andhra Pradesh- 523291
3.4. State	ANDHRA PRADESH
3.5. District	SPSR NELLORE
3.6. Pin Code	523291
3.7. E-mail address	saidiwakar.gundram@indosolsolar.com
3.8. Mobile number	xxxxxx0828

4. Location of the Project or Activity

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4.1. Upload KML

indosol solar private limited kml.kml

4.2. Whether the project/activity falling in the state/UT sharing international borders

NO

5. Shape of the Project

Non - Linear

Location Details

Toposheet No	State/UT	District	Sub District	Village	Plot/Survey/Khasra No.
D44C4	ANDHRA PRADESH	Sri Potti Sriramu lu Nell*	Ulavapadu	KAREDU	Survey Nos. 26, 385, 386, 389 to 392, 394 to 407, 428 to 431, 491, 492, 495 to 501, 510, 511, 535, 726, 802 to 822, 824, 825, 827 to 829, 831, 834, 837 to 844, 850, 855 to 866, 873 to 875, 881, 882, 885, 888, 961, 975, 977 to 981, 983 to 997, 1007 to 1009, 1019, 1024, 1025, 1027 to 1041, 1044, 1056, 1058 to 1073, 1083 to 1087, 1089 to 1098, 1102, 1106, 1118, 1119, 1121 to 1156, 1158 to 1162, 1167, 1174 to 1181, 1183 to 1185, 1187 to 1199, 9882, 11861 and part of the following Survey Nos. 410, 800, 1501, 422, 508, 416, 493, 427, 799, 409, 801, 1080, 408, 502, 509, 797, 432, 1011, 1081, 1010, 433, 1004, 503, 1075, 490, 999, 1001, 1021, 512, 1074, 793, 1082, 1023, 998, 1048, 870, 867, 434, 871, 379, 890, 378, 887, 889, 872, 380, 971, 884, 384, 969, 974, 970, 883, 387, 1042, 1120, 897, 1100, 1043, 1055, 830, 1101, 976, 1116, 853, 1117, 1053, 845, 1168, 880, 1163, 1173, 1054, 1165, 833, 1103, 1166, 849, 836, 1052, 388, 854, 876, 1170, 1200, 1208, 1206, 1207, 1209 Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh

Remarks

N/A

6. Land Requirement (in Ha) of the project or activity

6.1. Nature of Land involved

6.2. Non-Forest Land [A]	340.9
6.3. Forest Land [B]	0
6.4. Total Land [A+B]	340.9

Project Activity Cost

7. Project/Activity Cost

7.1. Total Cost of the Project at current price level (in Lakhs)

1800000

Amount in Words : **Eighteen Lakh Lakh(s) Only**

8. Employment likely to be generated

8.1. During construction phase

Permanent employment

8.1.1. No. of permanent employment (No.s) [A]	600
8.1.2. Period of employment (No. of days) [B]	1650
8.1.3. No. of man-days [X]=[A]*[B]	990000

Temporary employment

8.1.4. Temporary / Contractual employment (No. of Man days) [Y]	140000
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8.1.5. Total [X] + [Y]	1130000
------------------------	---------

8.1.5. Total [X] +[Y]	1130000
8.2. During operational phase	107
Permanent employment	
8.2.1. No. of permanent employment (No.s) [A]	550
8.2.2. Period of employment (No. of days) [B]	330
8.2.3. No. of man-days [X]=[A]*[B]	181500
Temporary employment	
8.2.4. Temporary / Contractual employment (No. of Man days) [Y]	22500
8.2.5. Total [X] +[Y]	204000

Others

9. Whether Rehabilitation and Resettlement (R&R) involved?	NO
10. Whether project area involves shifting of watercourse/road/rail/Transmission line/water pipeline, etc. required?	NO
11. Whether any alternative site(s) examined or part thereof for the non-site-specific component?	Not applicable as the project or activity is site specific
12. Whether there is any Government Order or Policy/ Court order relevant or restricting to the site?	NO
13. Whether there is any litigation pending against the project and/or land in which the project is proposed to be set up?	NO
14. Whether the proposal involves violation of Act/Rule/Regulation/Notification of Central/State Government?	NO

Basic Information

1. Category of the Project/Activity

1.1. Name of the project proposal	Proposed Construction of Industrial Buildings to establish Solar Modules Manufacturing Facility with Annual Capacity of 10 GW at Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh by M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL)	
1.2. Type of Proposal	New	
1.3. Whether the Project Activity (Construction/ Operation) has been undertaken without obtaining prior Environmental Clearance under the provision of EIA Notification 1994/ 2006?	No	
1.4. Whether multiple items (Components) as per the notification involved in the proposal?	No	
1.4.1. Item No. as per schedule to EIA Notification, 2006	8(b) Townships/ Area Development Projects / Rehabilitation Centres	Area Development
Capacity	1231064	sqmtr
2. Whether project/activity attracts the General Condition specified in the Schedule of EIA Notification?	No	
3. Whether any Protected Areas Notified Under the Wild Life (Protection) Act, 1972 are located within 10 km of the project site	No	
4. Whether any Severely Polluted Areas as identified by the CPCB from time to time located in proximity to the project site	No	
5. Whether any Critically Polluted Areas as identified by the CPCB from time to time located in proximity to the project site	No	
6. Whether any Notified Eco-Sensitive area notified under Environmental (Protection) Act, 1986 located in proximity to the project site	No	
7. Whether any Inter-State Boundaries and International Boundaries located in proximity to the project site	No	
8. Whether any Eco-sensitive Zone notified/proposed to be notified under Environment (Protection) Act, 1986 located within 10 km of the project site	No	
9. Whether any forest land present within 10 km of the project site	Yes	
9.1. Whether located within/outside Forest land	Outside	
Name of Forest	Shortest distance from the project boundary in Km	Remarks
Karedu reserve forest	0.51	N/A

10. Category of the Project as per EIA Notification, 2006

B1

109

10.1. Whether proposal is required to be appraised at Central level?

No

11. Whether Proposal has interlinked / interdependent projects or activities?

No

11.1. Reason thereof

N/A

12. Whether any Forest Land involved in the project or part thereof

No

13. Whether NBWL recommendation is required?

No

14. Land Acquisition Details

Type of Land	In case of non-forest land, please specify	Type of privately owned land	Type of land in terms of ownership	Supporting documents			Status of Land Acquisition
				Document Name	Remarks	Document	
Non-forest Land	Government owned land	N/A	N/A	Land allotment APIIC – Indosol	N/A	land allotment apiic_indosol. pdf Preview	Acquired

Project Details

15. Details of CTE

15.1. Whether consent under Air & Water Act has been obtained from SPCB / UTPCC?

No

15.1.1. Reason thereof

New Proposed Construction of Industrial Buildings to establish Solar Modules Manufacturing Facility

16. Whether the project/activity located in Notified Industrial Area?

No

17. Whether the project/activity located in CRZ or ICRZ area?

No

18. Whether the project proposed to be located in Territorial waters (Off-shore)

No

19. Whether project/activity attracts the Specific Condition specified in the Schedule of EIA Notification?

No

Product Details

20. Details of Products & By-products

Name of Product	Product / By Product	Quantity / Capacity	Unit	Mode of Transport / Transmission	Remarks
Construction of Industrial Buildings to Establish Solar Modules Manufacturing Facility	Product	1231064	sq m	Road	Total Builtup area

110

21. Whether any other Environmental Sensitive area exists within 10 Km from the project/activity boundary?

Yes

21.1. Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value

No

21.2. Areas which are important or sensitive for ecological reasons- Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests

Yes

Name	Shortest distance from the project boundary in Km	Remarks
------	---	---------

Karedu RF	0.51	N/A
-----------	------	-----

21.3. Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration

No

21.4. Inland, coastal, marine or underground waters

Yes

Name	Shortest distance from the project boundary in Km	Remarks
------	---	---------

Bay of bengal	2.8	N/A
---------------	-----	-----

21.5. Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas

No

21.6. Defence installations

No

21.7. Densely populated or built-up area

Yes

Name	Shortest distance from the project boundary in Km	Remarks
------	---	---------

Karedu	0.54	N/A
--------	------	-----

21.8. Areas occupied by sensitive man-made land uses

Yes

Name	Shortest distance from the project boundary in Km	Remarks
------	---	---------

PVSS ZP High school, Karedu	1.02	N/A
-----------------------------	------	-----

21.9. Areas containing important, high quality or scarce resources

No

21.10. Areas susceptible to natural hazards which could cause the project to present environmental problems similar effects

No

22. Status of collection of baseline data

Already collected

22.1. Period of baseline data collection

22.1.1. From 01/10/2025

22.1.2. To 31/12/2025

22.2. Seasons of collection Post monsoon

22.3. Number of Monitoring locations for

22.3.1. Meteorology (Nos.) 1

22.3.2. Ambient Air Quality (Nos.) 9

22.3.3. Surface Water Quality (Nos.) 4

22.3.4. Ground Water Quality (Nos.) 9

22.3.5. Ground water level (Nos.) 0

22.3.5. Ground water level (Nos.)	9
22.3.6. Noise Level (Nos.)	111
22.3.7. Soil Quality (Nos.)	9
22.3.8. Summary on the baseline situation	indosol solar baseline summary.pdf
22.3.9. Map showing the monitoring locations	indosol solar baseline maps.pdf

Consultant Details

25. Whether QCI/NABET Accredited EIA Consultant engaged?	Yes
25.1. Accreditation No. / Organization Id	ORG000561
25.2. Name of the EIA Consultant Organization	TEAM Labs and Consultants
25.3. Address	B- 115 & 509, Annapurna Block, Aditya Enclave, Ameerpet, Hyderabad – 500038
25.4. Mobile No.	9866415966
25.5. E-mail Id	teamlabs@gmail.com
25.6. Category of Accreditation (Eligible for Category A / Eligible for Category B)	A
25.7. Sector(s) of Accreditation	1,4,8,9,11,13,16,17,21,25,31,34,38,39,7
25.8. Validity of Accreditation	06/01/2030

Project Details

1. Introduction of Project or Activity

1.1. Need for the project or activity and its importance to the country/region

Strengthening renewable energy capacity & supporting national clean-energy and economic growth goals

1.2. Demand - Supply Gap and Domestic and export markets, if any

The proposed 10 GW integrated Solar Modules manufacturing project is essential for strengthening India's renewable energy capacity, reducing import dependence, and supporting national clean-energy and economic growth goals.

2. Social Infrastructure

2.1. Readily available

Roads, schools, Hospitals, Transport facilities etc are available in the project vicinity

2.2. Proposed to be developed

The social community facilities are available in the project vicinity

3. Connectivity to the project or activity

3.1. Nearest railway station and its distance (in Km)

Ulavapadu Railway Station

1.5

3.2. Nearest Airport and its distance (in Km)

Kadapa Airport

152.3

3.3. Nearest Town/City/District head quarter and its distance (in Km)

Ulavapadu

1.07

4. Soil classification

Sandy loam

5. Distance from the HFL of the river in m, if any

N/A

6. Benefits of the project

6.1. Social benefits of project or activity

The project will generate significant social benefits by creating local employment, promoting skill development, boosting regional economic activity, and supporting India's transition to clean and sustainable energy.

6.2. Financial benefits of project or activity

Additional taxes to local body and state Government

7. Project/ Activity Construction Status

To be Started

7.1. Likely date of start of construction activity (start of mining operations in case of mining proposals)

23/03/2026

7.2. Likely date of completion of construction activity (end of mining operations in case of mining proposals)

31/03/2031

Resource Utilization

8. Use of resources for construction or operation of the project

8.1. Whether requirement of water involved in the project?

Yes

Details of Water requirement during Construction stage

113										
Sr.No.	Source	Quantity in KLD Present	Quantity in KLD with Expansion	Method of water withdrawal	Distance from Source in mtr	Mode of Transport	Details of Permission	Competent Authority	Upload a copy of the permission letter/NOC	Status of Permission/
1	Private water tankers or Bore wells	300	N/A	Private water tankers or Bore wells	2000	Tankers	N/A	No	N/A	N/A

Details of Water requirement during Operational stage

Sr.No.	Source	Quantity in KLD Present	Quantity in KLD with Expansion	Method of water withdrawal	Distance from Source in mtr	Mode of Transport	Details of Permission	Competent Authority	Upload a copy of the permission letter/NOC	Status of Permission/
1	Other	45117	N/A	Others	72350	Pipeline	G.O. Ms. No. 66	No	N/A	N/A

8.2. Other information, if any N/A

8.3. Whether requirement of Minerals and/or fuels involved in the project? Yes

Details thereof

Name of Minerals / Fuel	Quantity per annum in MT	Source	Mode of transport	Distance from source in Km	Details of linkage / supply agreement
Sand	240303	local suppliers	Road	3	
Aggregates	327955	local suppliers	Road	46	

8.4. Other information, if any N/A

8.5. Construction material Yes

Construction material	Quantity in MT	Source	Mode of transport	Distance from source in Km
Steel	52936	Dealers/Manufacturer/local suppliers	Road	50
Cement	297917	Dealers/Manufacturer/local suppliers	Road	50
Aggregates	1639777	local suppliers	Road	46
Sand	1201518	local suppliers	Road	3

8.6. Timber No

8.7. Electric Power: Yes

8.7.1. Total Electricity requirement (MW): 480

8.7.2. Main Source: APTRANSCO

8.7.3. Renewable energy proposed to install (KW):	1			
8.7.4. Percentage contribution of renewable energy:	114			
8.7.5. Standby arrangements (details of DG Sets):	35 x 2500			
8.7.6. Stack height in m (DG set):	30			
8.7.7. Energy conservation measures:	smart automation systems to minimize overall power consumption			
8.8. Whether any other natural resources / other raw materials required?:	No			
8.9. Whether any use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies) required?	Yes			
Name of the substance or material	HS Code	Quantity (use appropriate standard units)	Toxicity LD50 (mg/kg)	Remarks
TMA - trimethylamine	29211100	318.83 Kg/month	600	Cell manufacturing
Hydrofluoric acid (49%)	28111100	760.98 KLPM	25	Cell manufacturing
Hydrofluoric acid (49%)	28111100	283.52 KLPM	25	Ingot and Wafer manufacturing
Hydrochloric Acid (37%)	28061000	127.54 KLPM	700	Cell manufacturing
Ammonia	28142000	29.76 TPM	350	Cell manufacturing
8.10. Whether any resource efficiency / optimization / recycling and reuse envisaged in the project?	Yes			
8.10.1. Details	Optimized raw-material use, recycling of process water, and reuse of treated wastewater to minimize overall resource			

Physical Changes

9. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality:		
9.1. Whether any permanent or temporary change in land use, land cover or topography due to project activity?	Yes	
Current Land Use	Area in Ha	Remarks
9.1.1. Forest Land	N/A	N/A
9.1.2. Agriculture land	N/A	N/A
9.1.3. Grazing Land	N/A	N/A
9.1.4. Barren Land	N/A	N/A
9.1.5. Waste Land	N/A	N/A
9.1.6. Surface water bodies	N/A	N/A
9.1.7. Marshy land	N/A	N/A
9.1.8. Mangroves	N/A	N/A
9.1.9. Settlements	N/A	N/A
9.1.10. Roads / Other infrastructure	N/A	N/A

9.1.11. Plantation / Green belt	N/A	N/A
9.1.12. Industrial use	115	340.9
9.1.13. Other land use		
Please Specify	Area in Ha	Remarks
9.1.14. Total	340.9	
9.1.15. Proposed/Post-project land use		
Please Specify	Area in Ha	Remarks
Storm storage pond	4.5	
Open area	76.2	
Plant Area	78	
Common Utilities & Support Infrastructure	48.1	
Parking area	16.7	
Road area	48.9	
9.1.16. Green belt	68.5	N/A
9.1.17. Total	340.9	
9.2. Whether any clearance of existing vegetation due to project activity?	Yes	
9.2.1. No. of Trees	479	
9.2.2. Area covered with plantation/ vegetation / greenbelt proposed to be cleared in Ha	3.832	
9.2.3. No. of trees proposed for transplantation	479	
9.2.4. Other information, if any	N/A	
9.3. Whether any loss of native species or genetic diversity?	No	
9.4. Whether any demolition works involved in project activity?	No	
9.5. Whether any linear structures proposed for diversion or demolition due to project activity? (e.g. roads, transmission lines, rail line, pipeline, conveyor, etc.)	No	
9.6. Whether any closure or diversion of existing transport routes or infrastructure due to project leading to changes in traffic movements?	No	
9.7. Whether any closure or diversion of water bodies present in project area or realignment of water courses passing through project area?	No	
9.8. Whether any dismantling or decommissioning or restoration works or reclamation works (Long-term/ short-term)?	No	

9.9. Whether any construction works for temporary use for project activity?

Yes
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Details	No.s	Built up area	Remarks
Material storage sheds	5	5000	
Material storage sheds	3	1500	
		Total No.s	Total Built up area in Sq.m
Total		8	6500

9.10. Whether any cut and fill excavations proposed for the project activity?

Yes

9.10.1. Quantity of cutting material in Cu.m

272722

9.10.2. Proposed utilization / dispose of cutting material

The excavated Topsoil will be used for landscaping. The excavated earth used for backfilling and internal road construction works within the site.

9.10.3. Quantity of filling material in Cu.m

368175

9.10.4. Source of filling material

Quantity of cutting material within site

9.10.5. Other information, if any

balance filling shall be drawn from nearest quarry

9.11. Whether any underground works including tunnelling?

No

9.12. Whether any dredging involved in project?

No

9.13. Whether any offshore structures involved in project?

No

9.14. Whether any new road, rail, sea, airports, helipad, etc. during construction or operation?

No

9.15. Whether any construction of new linear structures? (e.g. transmission lines, pipelines, etc.)

No

9.16. Whether any Facilities for storage of goods or raw materials?

Yes

9.16.1. Covered area proposed for storage

221091

sqm

9.16.2. Open area proposed for storage (sqm/Km)

26623

sqm

9.16.3. Other information, if any

N/A

9.17. Whether any Facilities for long term/ permanent housing of operational workers/ staff?

No

9.18. Whether any Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?

No

9.19. Whether any Stream crossings, temporary and permanent?

No

9.20.	Whether any Influx of people to an area in either temporarily or permanently?	Yes 117
9.20.1.	No. of people likely to influx to an area temporarily	200
9.20.2.	No. of people likely to influx to an area Permanently	0
9.20.3.	Other information, if any	N/A
9.21.	Whether any other information would like to submit?	No

Pollution Details

10.	Release of pollutants to Air and Mitigation measures	
10.1.	Whether any probable air pollutants generated?	Yes
	Air Pollution Source	Probable Pollutants
	Demolition	PM
	Transport of raw material/products	PM
	Excavation	PM
	DG sets	PM, SO2 and NOx
	Manufacturing process	HCL, HF, PM
		Mitigation Measures
		Damp down the soil with water sprinkling
		Water sprinkling, or dry fogging
		Water sprinkling
		Effective Stack height
		Sent to scrubbers and Bag filters
10.2.	Other information, if any	N/A
10.3.	Generation of Noise & Vibration and mitigation measures	
10.3.1.	Whether any probable generation of Noise and vibration from the proposed project?	Yes
10.3.1.1.	Sources of Noise	construction machinery, material handling equipment, and operational utilities such as compressors, Manufacturing activities, blowers, and DG sets.
10.3.1.2.	Sources of Vibration	construction equipment (excavators, rollers, pile drivers) and operational machinery such as compressors, pumps, furnaces, and material-handling systems.
10.3.1.3.	Details of blasting, if any	No blasting proposed in the project
10.3.1.4.	Other information, if any	N/A
10.3.1.5.	Whether any mitigation measures proposed for Noise & Vibration?	Yes
10.3.1.5.1.	Mitigation measures proposed for control of Noise	use of low-noise machinery, acoustic enclosures for compressors/blowers/DG sets, regular equipment maintenance, provision of ear protection to workers, restricted operation during daytime
10.3.1.5.2.	Mitigation measures proposed for control of vibration	Periodic maintenance. guard covers, isolation of equipment, well-balanced machinery, installing anti-vibration pads and dampers, maintaining equipment regularly, and limiting high-vibration activities
10.3.1.5.3.	Other information, if any	na
10.3.2.	Whether any probable generation of Light and Heat?	No
10.4.	Discharge of pollutants to water and mitigation measures	

10.4.1. Whether any probable water pollutants generated? Yes

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10.4.1.1. Organic Pollutants NA

10.4.1.2. Inorganic pollutants NA

10.4.1.3. Micro-organism NA

10.4.1.4. Sediments NA

10.4.1.5. Heavy metals NA

10.4.1.6. Others (Specify) Characteristics of Wastewater PH 6 – 7 Total Suspended Solids 400 – 600 BOD 200 – 300 COD 450 – 500 PH 6.5 – 7.5, BOD <100 ppm, COD < 250 ppm

10.5. Probable sources of water pollutant No

Details of reuse / recycle of wastewater

Details	Qty / Capacity
---------	----------------

10.6. Quantity of waste water generation per day (KLD)	32625
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10.7. Quantity of treated water proposed to use per day (KLD)	31945
---	-------

10.8. Quantity of treated water proposed to discharge outside the premises (KLD)	0
--	---

10.9. Purpose for which treated water is proposed to use	Industrial process requirements and gardening purposes
--	--

10.10. Whether it is proposed to opt/avail common off-site Sewage Treatment Plant (CSTP)/Effluent Treatment Plant (CETP) facility?	No
--	----

10.11. Whether it is proposed to setup on-site Sewage Treatment Plant (STP)/Effluent Treatment Plant (ETP) facility?	Yes
--	-----

10.11.1. Whether 100% of the waste water generated will be treated?	Yes
---	-----

10.12. Type of treatment plant	Both ETP & STP
--------------------------------	----------------

10.13. ETP/STP Capacity	STP
-------------------------	-----

41.4	MLD
------	-----

ETP

300	KLD
-----	-----

10.14. ETP/STP Technology	STP	ETP
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ZLD (PT+RO+MEE+ATFD)	MBR
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10.15. Whether the adequacy of the Sewage Treatment Plant (STP) or Effluent Treatment Plant certified by an independent expert?	No
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10.15.1. Reasons thereof	Green Field Project
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10.16. Whether any other mitigation measures proposed?	Yes
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10.16.1. Details thereof	Rainwater harvesting using storm water storage pond, efficient water fixtures, leak-detection systems, and minimized losses of treated wastewater to minimize
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10.16.1. Details thereof

10.17. Whether Dual Plumbing System proposed to be implemented?

No

10.17.1. Reasons thereof

NA

10.18. Whether any discharge of treated effluent involved?

No

Water Requirements

11. Ground water intersection and water conservation measures:

11.1. Whether ground water table intersection involved in the project activities?

No

11.2. Area category from Groundwater availability perspective?

Safe

11.3. Whether Rainwater harvesting proposed

Yes

11.3.1. Capacity of facilities provided

90306

11.3.2. Description of facilities provided

Storm water storage pond of 90306 cum capacity is planned to facilitate rainwater harvesting

11.3.3. Description

A storm water storage pond of 90,306 cum capacity is planned to facilitate rainwater harvesting.

11.3.4. Total Quantity of water requirements met from water harvesting in KLD

1

11.3.5. Storage capacity of rain water harvested in cubic meters

90306

11.4. Whether any other water conservation measures proposed?

Yes

11.4.1. Details thereof

Rain water Harvesting to improve ground water levels, reuse of treated wastewater

11.5. Whether the ZLD is proposed?

Yes

11.5.1. Details of ZLD

ZLD proposed

12. Greenbelt

12.1. Area proposed for green belt (in Ha)

68.5

12.2. Width of green belt (in m) along the boundary of the project or activity

10

12.3. Percentage of the total area covered under green belt

20.1

12.4. Details of the species proposed for plantation

Native Species and as per CPCB Manual

12.5. No. of tree saplings to be planted

171250

12.6. Funds allocated for plantation in Lakhs.

2570

Waste Generation

13. Production of wastes during construction or operation or commissioning

120

13.1. Whether any generation of Solid waste (domestic wastes)?

Yes

Name of the waste	Source	Qty (TPA)	Mode of disposal	Mode of Transport
Municipal Solid Waste	Domestic waste	219	sent to Authorized agency of local body	Road

13.2. Whether any generation of plastic waste?

Yes

Name of the waste	Source	Qty (TPA)	Mode of disposal	Mode of Transport
Plastic Waste	Packaging materials and insulation	200	Authorized recyclers	Road

13.3. Whether any generation of e-waste?

Yes

Name of the waste	Source	Qty (TPA)	Mode of disposal	Mode of Transport
E- Waste including production reject	E- Waste	3500	Authorized recyclers	Road

13.4. Whether any generation of batteries waste?

Yes

Name of the waste	Source	Qty (TPA)	Mode of disposal	Mode of Transport
Used Batteries in nos./year	Used Batteries	15000	Sent to Authorized recyclers or returned to seller	Road

13.5. Whether any generation of Bio-medical waste?

Yes

Name of the waste	Source	Qty (TPA)	Mode of disposal	Mode of Transport
Bio-medical waste in kg/month	First-aid activities	200	Sent to authorized CBMWTF	Yellow, White, Red, Blue

13.6. Whether any generation of hazardous wastes (as per Hazardous Waste Management Rules)?

Yes

Name of the waste	Source	Qty (TPA)	Mode of disposal	Mode of Transport
Spent Resin	process	60	Sent to TSDF	Road
Spent Anthracite	Process	5	Sent to TSDF	Road
Waste oils and grease in KLPA	DG sets and others	30	Sent to authorized agencies	Road
ESP waste (Sodium Sulphate/Gypsum) in TPD	ESP	20	Sent to authorized agencies	Road
ETP Sludge (Organic waste) in TPD	ETP	35	Sent to TSDF/Authorized Recycler/Third Party	Road

13.7. Whether any generation of construction or demolition wastes?

Yes

Name of the waste	Source	Qty (TPA)	Mode of disposal	Mode of Transport
Construction and Demolition Waste	During construction and demolition	6155	Reuse to the extent possible followed by disposal to designated C&D waste disposal facility	Road

13.8. Whether any generation of other wastes?

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Name of the waste	Source	Qty (TPA)	Mode of disposal	Mode of Transport
General waste (Cotton, Paper, Wood) in TPM	packing...etc	15	Authorized recyclers	Road
Metal Scrap in TPM	process	200	Sale to outside agencies/ recyclers	Road
Glass Powder in TPM	process	40	Reuse within the facility or will be sent to approved end users.	Road

13.9. Whether any generation of surplus products?

No

13.10. Whether measures for waste minimization proposed?

Yes

13.10.1. Details thereof

Optimised usage of construction materials, Reduce waste generation

Risk Assessment

14. Whether any risks associated with project activities which could affect human health or the environment, -

14.1. From explosions, spillages, fires etc. from storage, handling, use or production of hazardous substances?

Yes

14.1.1. Details thereof

Quantitative Risk Assessment of hazardous chemicals handling and usage in addition to process will be conducted. SOP's for proper handling of hazardous chemicals and processes will be prepared and followed. Safety precautions as required for handling and use will be taken. Fire hydrant system is provided and Fire Extinguisher, Safety wears and OHC is made available wherever necessary

14.2. From any other causes?

Yes

14.2.1. Details thereof

The risk of accidents during construction phase is likely due to the engagement of workers in building

14.3. Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?

No

14.4. Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)

No

14.5. Could project adversely affect the wellbeing of people in project area e.g. by changing living conditions?

No

14.6. Vulnerable groups of people who could be adversely affected by the project e.g. hospital patients, children, the elderly etc.

No

14.6.1. Has cumulative risk assessment been performed?

No

14.6.1.1. Reason thereof

TOR mentions for Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control

14.7. Whether any likely impacts of the proposed activity on the existing facilities adjacent to the proposed site due to generation of dust, smoke, odorous fumes or other hazardous gases?

15. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

15.1. Whether lead to development of supportive facilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: Supportive infrastructure (roads, power supply, waste or waste water treatment, etc.); housing development; industries in supply chain and downstream; any other?

Yes

15.1.1. Details there of

shall lead to MSME development for solar panel installation

15.2. Whether lead to after-use of the site, which could have an impact on the environment? (e.g. mine void, dump sites, etc.)

No

15.3. Whether set a precedent for later developments?

Yes

15.3.1. Details thereof

shall lead to future development in surrounding area of Karedu Village

15.4. Have cumulative effects due to proximity to other existing or planned projects with similar effects?

No

15.5. Whether lead to growth of alien species, if any?

No

15.6. Is there any threat of the project to the biodiversity (including displacement of fauna-both terrestrial and aquatic and avi-fauna or creation of barriers for their movement)?

No

15.7. Will the proposed project in any way result in the obstruction of a view, scenic amenity or landscapes?

No

15.8. Is there any impact on anthropological or archaeological sites or any important site feature in the vicinity of the proposed site have been considered?

No

15.9. Will the proposed project result in any changes to the demographic structure of local population?

Yes

15.9.1. Details thereof

Marginal increase in population due to temporary and permanent employment opportunities.

15.10. Will the project cause adverse effect on local communities, disturbance to sacred sites or other cultural values?

No

16. Building or Construction projects or Area Development projects and Townships Proposals

16.1. Major Project Requirement in terms of the land area, built up area, green belt, parking needs etc.

Existing

Expansion

	Existing	Expansion
16.1.1. STP & Solid Waste Area (sq. m)	179800.48	N/A
16.1.2. Unpaved Area (sq. m)	488597	N/A
16.1.3. Maximum number of floors	5	N/A
16.1.4. Build up area (sq. m)	1231064	N/A
16.1.5. Open Area (sq. m)	761539	N/A
16.1.6. Number of parking Required	308	N/A
16.1.7. Green belt Area (sq. m)	685277	N/A
16.1.8. Paved Area (sq. m)	850706	N/A
16.1.9. Total number of dwelling units	N/A	N/A
16.1.10. Total builtup area in sqm	1231064	N/A
16.1.11. Proposed FAR	N/A	N/A
16.1.12. Surface Parking Area (sq. m)	167034	N/A

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16.2. Whether management of drainage in and around site is proposed as per the Central Public Health & Environment Engineering Organization (CPHEEO) Manual on Storm Water Drainage System, 2019 to avoid flooding or water logging?	Yes
16.2.1. Details thereof	Drainage network with adequate carrying capacity is proposed
16.3. Details regarding measures are taken to prevent the run-off from construction activities polluting land & aquifers? (Give details of quantities and the measures taken to avoid the adverse impacts)	Construction of Storm water drains and roads initially
16.4. Impact of the land use changes occurring due to the proposed project on the runoff characteristics of the area in post construction phase on a long term	No change envisaged as effective storm water management is proposed
16.5. Will there be any significant land disturbance resulting in erosion, subsidence and instability?	No
16.5.1. Reasons thereof	plain site with low relief
16.6. Whether soil erosion control measures proposed to conform to best management practices highlighted in the National Building Code (NBC) of India, 2016?	Yes
16.6.1. Details thereof	Construction of Storm water drains and roads initially

16.7. Breakup of water requirement for various daily uses

Daily Use	Daily quantity (KLD)	
	During Construction	During Operation
Drinking Water	45	150
Green Belt	2	2671
Flushing	N/A	N/A
Dust Suppression	223	0
Daily Use	During Construction	During Operation
45117	300	45117

16.8. Details of traffic management at the entry & exit to the project site in construction and operation phase with comparison to the present level of traffic

manned entry and exit points, vehicle speed restricted to 20 km/h within the site, with traffic signage and rubber speed humps to ensure safe and controlled movement of vehicles..

16.9. Whether buildings or building complexes have a connected load of 100 kW or greater or a contract demand of 120 kVA or greater and are intended to be used for commercial purposes.

Yes

16.10. What is the Energy Performance Index (EPI) of a building in kilowatt-hours per square meter per year of the building and measures to minimize energy consumption?

NA

16.11. Whether Compliance to the ECBC norms is applicable?

No

16.11.1. Reasons thereof

Industrial Sheds Construction Project Not Applicable

16.12. Details for Energy efficiency level

Building envelop

16.12.1. Fenestration

Parameter	Details	Remarks
U-Factor (W/m ² .K)	0	0
Solar Heat Gain Coefficient	0	0
Visual Light Transmittance	0	0

16.12.2. Day lighting

Parameter	Details	Remarks
% Useful daylight illuminance (UDI)	0	0
Area per floor (sq. m) UDI requirement during 90% of the year	0	0
Total daylight area (sq. m) in building meeting UDI requirement during 90% of the year	0	0

Building Envelope Sealing

16.12.3. Roof

Parameter	Details	Remarks
Roof assembly U-factor (W/m ² .K)	0	0
Climate Zone	composite	0

16.12.4. External Wall

Opaque Assembly Maximum U-factor (W/m ² .K)	0	0
Climate Zone	0	0
Material	0	0
R Value	0	0

16.12.5. Energy efficiency in Thermal comfort systems and controls

star rated electrical appliances

16.12.6. Energy efficiency in Lighting and Electrical systems and controls

LED lighting, star rated electrical appliances

16.13. Does the layout of streets & buildings maximize the potential for solar energy devices? Substantiate with details.

yes

16.14. What extent the non-conventional energy technologies are utilized in the overall energy consumption? Provide details of the renewable energy technologies used

Not Applicable

16.15. What are the likely effects of the building activity in altering the microclimates? Provide a self-assessment on the likely impacts of the proposed construction on creation of heat island & inversion effects?

No inversion effects are anticipated. A marginal heat island effect may occur due to the increased built-up and paved areas.

16.16. What precautions & safety measures are proposed against fire hazards? Furnish details of emergency plans

In addition, a comprehensive firefighting system will be installed as part of the proposed fire safety and precautionary measures.

16.17. Details of NOCs available for the project (if any)

Necessary Fire NOC will be obtained if applicable

Enclosures

17. Layout Plan showing the components of the project and green belt proposed; general location and specific location of the project along with coordinates

indosol site plan.pdf

17.1. Conceptual Plan for Building and Construction project

indosol solar cp 04122025_compressed.pdf

18. Schematic representation of the feasibility drawings which give information for EIA purpose

indosol site plan.pdf

19. Additional Information

S. No.	Document Name	Remark	Document
1	Indosol Solar PFR	Pre-Feasibility Report	indosol solar pfr.pdf
2	Indosol 10 km map	Indosol Solar Private Limited (Karedu) 10km radius topomap	indosol 10 km map.pdf
3	Indosol DD	Processing fee DD	indosol dd.pdf
4	Indosol Solar CL	Covering Letter	indosol solar cl.pdf
5	Indosol Solar PPT 04122025	Presentation	indosol solar ppt 04122025.pdf
6	Indosol Solar Forms 04122025	FORM I AND FORM IA	indosol solar forms 04122025.pdf
7	Indosol Solar CP 04122025	CONCEPTUAL PLAN	indosol solar cp 04122025.pdf

20. Document CheckList

20.1. Land-Related Documents	Ownership document	Yes
	Mine lease document (in case of mining)	Not Applicable
	Letter of Intent (in case of mining)	Not Applicable
	Project layout	Yes
	Gazette notification of notified industrial area (if applicable)	Not Applicable
20.2. Public Hearing-Related Details	Public hearing proceedings	Not Applicable
	Advertisements	Not Applicable
	Pre-feasibility report	Yes
	EIA/EMP report (in case of Cat A, B1)	No
20.3. EIA/EMP - Related Details	EMP report (in case of Cat B2)	Not Applicable
	Budgetary provision table for EMP	No

	Mining plan (in case of mining)	Not Applicable
	DSR in case of minor	Not Applicable
20.4. Water Permission-Related Details	Permission for withdrawal of surface water	Yes
	Permission for abstraction of ground water	No
20.5. Compliance and Monitoring Documents	Certified compliance report (in case of Expansion Proposals)	Not Applicable
	Action Taken Report (if any)	Not Applicable
	Closure report from RO (if any)	Not Applicable
20.6. Previous Clearances	Previous TOR granted (if any)	Not Applicable
	Previous EC granted (if any)	Not Applicable
	Previous EC transferred (if any)	Not Applicable
20.7. Wildlife and Forest Related Documents	Conservation plan for Schedule-I species	No
	NBWL/SBWL recommendation	No
	In principle (stage-I) forest clearance	No
	Final (stage-II) forest clearance	No
20.8. NOC from Other Departments/Ministries	Existing CTE/CTO	Not Applicable
	NOC from airport authority on the permissible height of the building (if applicable)	Not Applicable
20.9. Others	Court case details (if any)	No
	Violation details (if any)	No
	Summary of the project	No
21. ☒ I certify that I have uploaded all the required documents and correctly indicated them in the checklist. In case any discrepancy is found, or any required document is missing, the application shall be liable to be rejected at our own risk and cost.		

Undertaking

22. ☒ I hereby give undertaking that the data and information given in the application and enclosures are true to be best of my knowledge and belief and I am aware that if any part of the data and information is found to be false or misleading at any stage, the project will be rejected and clearance given if any to the project will be revoked at our risk and cost. In addition to the above, I hearby give undertaking that no activity/construction/expansion has been taken up

22.1. Name	MANOJ KUMAR REDDY POTHIREDDY
22.2. Designation	Authorised signatory
22.3. Company	MANOJ KUMAR REDDY POTHIREDDY
22.4. Address	Survey No 585/2, 585-5, 593-2A, Near Port Road, Chevuru Village, Gudluru Mandal, Sri Pooti Sriramulu Nellore, Andhra Pradesh- 523291
22.5. Date	04/12/2025



Government of India
Ministry of Environment, Forest and Climate Change
 (Issued by the State Level Expert Appraisal
 Committee(SEAC),
 ANDHRA PRADESH)



**Minutes of The 278th SEAC day 2 General Agenda Part-I State Level Expert
 Appraisal Committee meeting held from 10/12/2025 to 10/12/2025** **Date: 16/12/2025**

MoM ID: EC/MOM/SEAC/314893/12/2025

Agenda ID: EC/AGENDA/SEAC/314893/12/2025

Meeting Venue: The SEIAA , A.P Gol, 3rd Floor Markfed building, APIIC Colony, Auto Nagar, Vijayawada

Meeting Mode: Hybrid

Date & Time:

10/12/2025	10:00 AM	05:30 PM
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1. Opening remarks

At the outset, Shri Batchu Siva Prasad Chairman and and Sri M. Raja Shekar, the Member Secretary of the SEAC, welcomed the Members of the SEAC, AP and initiated the proceedings with the activities of 278 th th day 2 meeting Agenda.

2. Confirmation of the minutes of previous meeting

N/A

3. Details of proposals considered by the committee

Day 1 -10/12/2025

3.1. Agenda Item No 1:

3.1.1. Details of the proposal

Proposed Construction of Industrial Buildings to establish Solar Modules Manufacturing Facility with An

nual Capacity of 10 GW at Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh by M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) by MANOJ KUMAR REDDY POTHIREDDY located at SPSR NELLORE, ANDHRA PRADESH

Proposal For		Fresh ToR	
Proposal No	File No	Submission Date	Activity Sub-Activity (Schedule Item)
SIA/AP/INFRA2/559590/2025	AP INFRA2 TOR NE 12 2025 2046	04/12/2025	Townships/ Area Development Projects / Rehabilitation Centres Area Development (8(b))

3.1.2. Project Salient Features

The Proposal of M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) , is for Construction of Industrial Buildings to Establish Integrated Solar Modules (Ingot, wafer, Cell, Module and Glass) Manufacturing unit with Annual Capacity of 10 GW with Built Up area – 12,31,064 Sq.m in total plot area is 340.9 Ha (842.4 acres) at Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh. The project cost of the proposed project is Rs.18,000 Crs.

The project falls under Item No. 8(b) of the schedule of the EIA Notification 2006 and its amendments thereof - Building and Construction Projects (> 50 Ha and/or built-up area and >1,50,000 sq. m. of built up area).

The Authorized person of the project, and their consultant, M/s. Team labs (P) Ltd, have attended the meeting and presented the case. The SEAC committee observed that:

1. M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) is the first company in India to establish an integrated solar module manufacturing facility, covering ingot, wafer, cell, module, and glass production. At present, India is largely procuring solar modules from China.
2. M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) has proposed to establish an integrated solar module manufacturing facility with a total capacity of 10 GW.
3. The APIIC, Vice-Chairman & Managing Director addressed letter dt. 05-08-2025 to the Member Secretary, APPCB for Initiation of process to grant the EC/CFE to M/s. Indosol Solar Private Limited (ISPL) for establishment of vertically integrated Solar PV manufacturing plant at Chevuru (V) Guduru (M) & Karedu (V), Ulavapadu (M) of SPSR Nellore District - Arrangement of comfort letter.

4. M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) proposes to setup an Integrated Solar PV modules Manufacturing Facility along with in-house Float glass manufacturing unit at Survey Nos. 26, 385, 386, 389 to 392, 394 to 407, 428 to 431, 491, 492, 495 to 501, 510, 511, 535, 726, 802 to 822, 824, 825, 827 to 829, 831, 834, 837 to 844, 850, 855 to 866, 873 to 875, 881, 882, 885, 888, 961, 975, 977 to 981, 983 to 997, 1007 to 1009, 1019, 1024, 1025, 1027 to 1041, 1044, 1056, 1058 to 1073, 1083 to 1087, 1089 to 1098, 1102, 1106, 1118, 1119, 1121 to 1156, 1158 to 1162, 1167, 1174 to 1181, 1183 to 1185, 1187 to 1199, 9882, 11861 and part of the following Survey Nos. 410, 800, 1501, 422, 508, 416, 493, 427, 799, 409, 801, 1080, 408, 502, 509, 797, 432, 1011, 1081, 1010, 433, 1004, 503, 1075, 490, 999, 1001, 1021, 512, 1074, 793, 1082, 1023, 998, 1048, 870, 867, 434, 871, 379, 890, 378, 887, 889, 872, 380, 971, 884, 384, 969, 974, 970, 883, 387, 1042, 1120, 897, 1100, 1043, 1055, 830, 1101, 976, 1116, 853, 1117, 1053, 845, 1168, 880, 1163, 1173, 1054, 1165, 833, 1103, 1166, 849, 836, 1052, 388, 854, 876, 1170, 1200, 1208, 1206, 1207, 1209 Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh.
5. The Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC) has allotted land at Karedu Village, Ulavapadu Mandal, SPSR Nellore District to M/s. Indosol Solar Private Limited (ISPL) for the establishment of an Integrated Solar Modules (Ingots, wafer, Cell, Module and Glass) Manufacturing Facility.
6. The PP proposed to construct the industrial shed with built up area of 12,31,064 Sq.m in an area of 340.9 Ha.
7. M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) proposes to setup Zero Liquid discharge facility.
8. In the solar module manufacturing process, the melting of non-toxic metals is involved. As per MoEF&CC, GoI Notification S.O. 2215(E) dated 07.06.2024, projects using fuel in furnaces exceeding 0.03 MTPA require Environmental Clearance. However, the proposed project requires only 0.026 MTPA, which is below the 0.03 MTPA threshold.

N/A

3.1.4. Deliberations by the SEAC in current meetings

The Committee after examining the project proposals, presentations, MoEF&CC' Notifications & OM, detailed deliberations and recommended to issue **Standard TOR without Public Hearing** with following additional TORs.

1. The project proponent shall submit EIA and EMP.
2. The unit shall submit revised layout plan by increasing green belt plan from 20 % to 25 % as per the OM. 29.10.2025 issued by the MoEF&CC, GoI.
3. The PP shall submit complete process description, material balance, water balance, source of air pollution and control measures proposed source of water pollution and treatment system proposed.
4. As proposed by the PP shall submit proposals for Zero liquid discharge (ZLD) and waste water disposal (in case of ZLD failure and emergency times), odour mitigation measures & solid waste management.
5. The project proponent shall provide a comprehensive wastewater management plan.
6. The unit shall submit storage details of all raw material, hazardous waste etc.
7. The project proponent industry shall submit Estimation of GLCs for **Silicon predicted emissions** from the industry during its peak production.s
8. The project proponent industry shall submit rainwater harvesting pit details.
9. Storm water management details.

The project proponent shall submit traffic density

3.1.5. Recommendation of SEAC

Recommended

3.1.6. Details of Terms of Reference

3.1.6.1. Specific

N/A

3.1.6.2. Standard

8(b)	Townships/ Area Development Projects / Rehabilitation Centres
Land Environment	
1.	Examine details of land use as per Master Plan and land use around 10 km radius of the project site. Analysis should be made based on latest satellite imagery for land use with raw images. Check on flood plain of any river.

3.2. Agenda Item No 2:

3.2.1. Details of the proposal

Proposed to establish 3.0 MLD Common Effluent Treatment Plant (CETP) by utilizing its Existing Effluent Treatment Facility to treat the effluent generated from the SMS group of industries by SMS Utility Services (A Division of SMS Pharmaceuticals Limited) Situated at Sy. No's: 167/p, 168/p, 169/p & 171/p of Kandivalasa Village and Sy. No's.: 72/p, 75/p & 76/p of Kovvada Village, Pusapatirega Mandal, Vizianagar District, Andhra Pradesh - 535 004 by SMS PHARMACEUTICALS LIMITED located at VIZIANAGARAM, ANDHRA PRADESH			
Proposal For		Application for amendment in ToR (for categories A & B 1)/Amendment in EC (for category B2)- Form-3	
Proposal No	File No	Submission Date	Activity Sub-Activity (Schedule Item)
SIA/AP/INFRA2/559848/2025		04/12/2025	Common Effluent Treatment Plants (CETPs) Common Effluent Treatment Plants (CETPs) (7(h))

3.2.2. Project Salient Features

The proposal is to establish 3.0 MLD Common Effluent Treatment Plant (CETP) by utilizing its Existing Effluent Treatment Facility to treat the effluent generated from the SMS group of industries at Sy. No's.: Sy. No's: 167/p, 168/p, 169/p & 171/p of Kandivalasa Village and Sy. No's.: 72/p, 75/p & 76/p of Kovvada Village, Pusapatirega Mandal, Vizianagar District, Andhra Pradesh State in an area of 24.13 Acres.

The proposed CETP falls under Category "B" schedule 7(h) as per the EIA notification, 14th September 2006, and subsequent amendments.

The project proponent and their consultant M/s. Pragathi Labs Pvt., Ltd., attended the meeting and presented their proposal. The SEAC noted that:

- The SEIAA, A.P vide order dt.10.10.2025 granted Standard TOR.
- Now the PP applied for TOR amendment for change of consultant from M/s.



	the Environmental management plan. 2. The project proponent shall develop greenbelt along approach roads & village Roads. 3. The project proponent shall maintain 7.5mt greenbelt in buffer zone and existing buffer zone plantation should not be disturbed. 4. The proponent shall take dust suppression measures to meet the CPCB stipulated ambient air quality standards at any point of time. 5. The proponent shall carryout suppression of dust generated due to transport vehicles by continuous water spraying using tankers. 6. The vehicles carrying the mines material shall be covered with tarpaulin during vehicular movement. 7. The project proponent shall not use village road/ canal bund roads for mineral transportation purpose. 8. The project proponent shall restrict vehicles movement during the peak hours to avoid accidents. 9. The project proponent shall restrict the load of the transport vehicles not more than 21 tons to avoid road damages and dust nuisance to surroundings. 10. The PP shall complete the entire greenbelt development within the first year itself and ensure its maintenance throughout the lease period. 11. The project proponent shall develop green belt in 1:2 ratio.
Agenda Item: 278.16	Proposed Construction of Industrial Buildings to establish Solar Modules Manufacturing Facility with Annual Capacity of 10 GW at Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh by M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) - TOR - Reg.
SIA/AP/I NFRA2/5 59590/2 025	The Proposal of M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) , is for Construction of Industrial Buildings to Establish Integrated Solar Modules (Ingot, wafer, Cell, Module and Glass) Manufacturing unit with Annual Capacity of 10 GW with Built Up area - 12,31,064 Sq.m in total plot area is 340.9 Ha (842.4 acres) at Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh. The project cost of the proposed project is Rs.18,000 Crs. The project falls under Item No. 8(b) of the schedule of the EIA


Member Secretary
SEAC


Chairman
SEAC



Notification 2006 and its amendments thereof - Building and Construction Projects (> 50 Ha and/or built-up area and >1,50,000 sq. m. of built up area).

The Authorized person of the project, and their consultant, M/s. Team labs (P) Ltd, have attended the meeting and presented the case. The SEAC committee observed that:

1. M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) is the first company in India to establish an integrated solar module manufacturing facility, covering ingot, wafer, cell, module, and glass production. At present, India is largely procuring solar modules from China.
2. M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) has proposed to establish an integrated solar module manufacturing facility with a total capacity of 10 GW.
3. The APIIC, Vice-Chairman & Managing Director addressed letter dt. 05-08-2025 to the Member Secretary, APPCB for Initiation of process to grant the EC/CFE to M/s. Indosol Solar Private Limited (ISPL) for establishment of of vertically integrated Solar PV manufacturing plant at Chevuru (V) Guduru (M) & Karedu (V), Ulavapadu (M) of SPSR Nellore District - Arrangement of comfort letter.
4. M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) proposes to setup an Integrated Solar PV modules Manufacturing Facility along with in-house Float glass manufacturing unit at Survey Nos. 26, 385, 386, 389 to 392, 394 to 407, 428 to 431, 491, 492, 495 to 501, 510, 511, 535, 726, 802 to 822, 824, 825, 827 to 829, 831, 834, 837 to 844, 850, 855 to 866, 873 to 875, 881, 882, 885, 888, 961, 975, 977 to 981, 983 to 997, 1007 to 1009, 1019, 1024, 1025, 1027 to 1041, 1044, 1056, 1058 to 1073, 1083 to 1087, 1089 to 1098, 1102, 1106, 1118, 1119, 1121 to 1156, 1158 to 1162, 1167, 1174 to 1181, 1183 to 1185, 1187 to 1199, 9882, 11861 and part of the following Survey Nos. 410, 800, 1501, 422, 508, 416, 493, 427, 799, 409, 801, 1080, 408, 502, 509, 797, 432, 1011, 1081, 1010, 433, 1004, 503, 1075, 490, 999, 1001, 1021, 512, 1074, 793, 1082, 1023, 998, 1048, 870, 867, 434, 871, 379, 890, 378, 887, 889, 872, 380, 971, 884, 384, 969, 974, 970, 883, 387, 1042,


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1120, 897, 1100, 1043, 1055, 830, 1101, 976, 1116, 853, 1117, 1053, 845, 1168, 880, 1163, 1173, 1054, 1165, 833, 1103, 1166, 849, 836, 1052, 388, 854, 876, 1170, 1200, 1208, 1206, 1207, 1209 Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh.

5. The Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC) has allotted land at Karedu Village, Ulavapadu Mandal, SPSR Nellore District to M/s. Indosol Solar Private Limited (ISPL) for the establishment of an Integrated Solar Modules (Ingot, wafer, Cell, Module and Glass) Manufacturing Facility.
6. The PP proposed to construct the industrial shed with built up area of 12,31,064 Sq.m in an area of 340.9 Ha.
7. M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) proposes to setup Zero Liquid discharge facility.
8. In the solar module manufacturing process, the melting of non-toxic metals is involved. As per MoEF&CC, GoI Notification S.O. 2215(E) dated 07.06.2024, projects using fuel in furnaces exceeding 0.03 MTPA require Environmental Clearance. However, the proposed project requires only 0.026 MTPA, which is below the 0.03 MTPA threshold.

The Committee after examining the project proposals, presentations, MoEF&CC' Notifications & OMs, detailed deliberations and recommended to issue **Standard TOR without Public Hearing** with following additional TORs.

1. The project proponent shall submit EIA and EMP.
2. The unit shall submit revised layout plan by increasing green belt plan from 20 % to 25 % as per the OM. 29.10.2025 issued by the MoEF&CC, GoI.
3. The PP shall submit complete process description, material balance, water balance, source of air pollution and control measures proposed source of water pollution and treatment system proposed.
4. As proposed by the PP shall submit proposals for Zero liquid discharge (ZLD) and waste water disposal (in case of ZLD failure and emergency times), odour mitigation measures & solid waste management.
5. The project proponent shall provide a comprehensive

M. K. S. S. S.
Member Secretary
SEAC

B. S. S. S.
Chairman
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	wastewater management plan. 6. The unit shall submit storage details of all raw material, hazardous waste etc. 7. The project proponent industry shall submit Estimation of GLCs for Silicon predicted emissions from the industry during its peak production.s 8. The project proponent industry shall submit rainwater harvesting pit details. 9. Storm water management details. 10. The project proponent shall submit traffic density.			
Agenda Item: 278.17	Proposed to establish 3.0 MLD Common Effluent Treatment Plant (CETP) by utilizing its Existing Effluent Treatment Facility to treat the effluent generated from the SMS group of industries by SMS Utility Services (A Division of SMS Pharmaceuticals Limited) Situated at Sy. No's: 167/p, 168/p, 169/p & 171/p of Kandivalasa Village and Sy. No's.: 72/p, 75/p & 76/p of Kovvada Village, Pusapatirega Mandal, Vizianagaram District, Andhra Pradesh - Amendment to TOR – Reg.			
SIA/AP/1 NFRA2/5 59848/2 025	The proposal is to establish 3.0 MLD Common Effluent Treatment Plant (CETP) by utilizing its Existing Effluent Treatment Facility to treat the effluent generated from the SMS group of industries at Sy. No's.: Sy. No's: 167/p, 168/p, 169/p & 171/p of Kandivalasa Village and Sy. No's.: 72/p, 75/p & 76/p of Kovvada Village, Pusapatirega Mandal, Vizianagaram District, Andhra Pradesh State in an area of 24.13 Acres. The proposed CETP falls under Category "B" schedule 7(h) as per the EIA notification, 14th September 2006, and subsequent amendments. The project proponent and their consultant M/s. Pragathi Labs Pvt., Ltd., attended the meeting and presented their proposal. The SEAC noted that: a. The SEIAA, A.P vide order dt.10.10.2025 granted Standard TOR. b. Now the PP applied for TOR amendment for change of consultant from M/s. Right Source industrial solutions Pvt. Ltd to M/s. Pragathi Labs Pvt., Ltd and for following Configurational change in the utilities of the proposed CETP. <table><tr><td>Activities</td><td>TOR issued for</td><td>Amendment proposed</td></tr></table>	Activities	TOR issued for	Amendment proposed
Activities	TOR issued for	Amendment proposed		


Member Secretary
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D.G sets (KVA)	3 x 500 & 3 x1000	4 x 1500
Coal fired Boiler TPH	8 x 8 TPH	3x8 TPH (set) – 2 Nos, & 3x 12 TPH(set) – 2 Nos
Thermic Fluid Heaters	-	25 lakh kilo/cal/Hr- 4 Nos
Project cost (Rs. In Lakhs)	7560	9860
Consultant	M/s. Right Source industrial solutions Pvt. Ltd	M/s. Pragathi Labs Pvt., Ltd

The Committee after examining the project proposals, presentations, MoEF&CC Notifications & OMs and detailed deliberations, recommended **SEIAA to issue TOR amendment to TOR dt. 10.10.2025 for the above.**

Agenda Item: 278.18 **Expansion of Cancer Hospital and Medicine Allied Block by M/s Alluri Sitarama Raju Educational Society (ASRAM Hospital & Medical College) Malkapuram (V), Eluru (M), West Godavari District, Andhra Pradesh – Expansion of TOR – Reg.**

SIA/AP/I NFRA2/5 60887/2 025 The Proposal of M/s Alluri Sitarama Raju Educational Society (ASRAM Hospital & Medical College), is for the Construction of Proposed Expansion of **CANCER HOSPITAL AND MEDICINE ALLIED BLOCK** with Built Up area – **170922.0 Sq.m. to 200562.0 Sq.m** at **Malkapuram (V), Eluru (M), West Godavari District, Andhra Pradesh** in an area of 87.72 Acres within the existing premises.

The project falls under Item No. 8(b) of the schedule of the EIA Notification 2006 and its amendments thereof - Building and Construction Projects (> 50 Ha and/or built-up area and >1,50,000 sq. m. of built up area). The project cost of the proposed project is 120.0 Crs.

The Authorized person of the project, and their consultant, M/s. SV Environ labs (P) Ltd, have attended the meeting and presented the


Member Secretary
SEAC


Chairman
SEAC

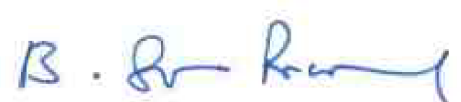
Gravel.

- d. As per the cluster letter dt. 06.10.2025 issued by the Divisional Mines & Geology Officer, there are one existing quarry leases within the radius of 500 mtrs area. The total applicable cluster area is > 5.0 Ha.
- e. As per the approved mining plan dt. 22.11.2025 the total provided mineral reserves are 15,00,196 m³ and the Life of the mine is 3 years. Old working pits details mentioned in the Mining plan and Lol.

The Committee after examining the project proposals, presentations, mining plan, MoEF&CC Notifications & OM's and detailed deliberations, recommended to issue of **Standard Terms of Reference with Public Hearing** for the mining of **Gravel/Ordinary Earth/Morrum** is **500000 m³/Annum**, covering an area of 6.140 hectares, in favor of **M/s Larsen & Toubro Limited, at Sy. No. 708 of Vedurupavuluru Village, Gannavaram Mandal, Krishna District, Andhra Pradesh.** The recommendation is subject to the following additional conditions:

1. The project proponent shall prepare cluster EIA & EMP.
2. The project proponent shall submit surface runoff prevention measures plan and shall estimate the construction cost for the proposed trench along with detailed drawing.
3. The project proponent shall prepare a detailed plantation plan including no. of species and type of species and area of land allocated for greenbelt.
4. The project proponent shall prepare tree enumeration plan.
5. The project proponent shall submit greenbelt development plan in 1:2 ratio.
6. The project proponent shall submit a approach road & mineral transportation plan.


Member Secretary
SEAC


Chairman
SEAC



Government of India
Ministry of Environment, Forest and Climate Change
 (Issued by the State Environment Impact Assessment
 Authority (SEIAA),
 ANDHRA PRADESH)



Minutes of 278th SEIAA AP MEETING-DAY2 State Environment Impact Assessment Authority meeting held from 24/12/2025 to 24/12/2025

Date: 29/12/2025

MoM ID: EC/MOM/SEIAA/663657/12/2025

Agenda ID: EC/AGENDA/SEIAA/663657/12/2025

Meeting Venue: SEIAA OFFICE-APMARKFED ,VIJAYAWADA-520007

Meeting Mode: Hybrid

Date & Time:

24/12/2025	01:30 PM	04:30 PM
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1. Opening remarks

N/A

2. Confirmation of the minutes of previous meeting

N/A

3. Details of proposals considered by the committee

Day 1 -24/12/2025

3.1. Agenda Item No 1:

3.1.1. Details of the proposal

Proposed to establish Bulk Drugs & Drug Intermediates and Speciality Chemicals manufacturing unit by M/s. Sigachi Industries Limited with production capacity of 465.83 TPM in an area of 25.09 Acre (10154 1.91 Sqm) located at Plot No.: A- 10, Sy. No.: 303, Industrial Park at Guttapadu - Orvakal Node, Guttapa

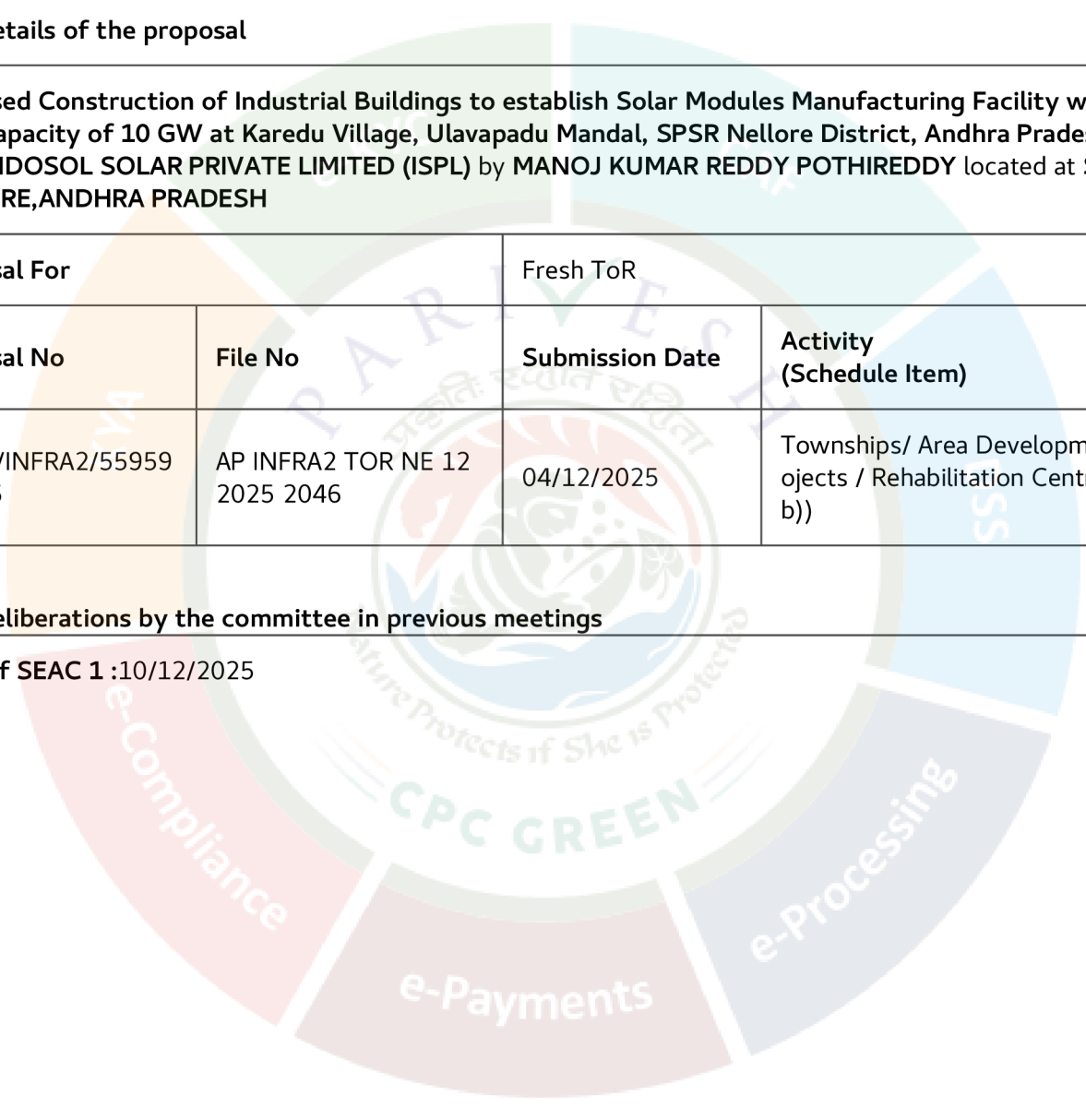
a)	
Miscellaneous	
1.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

3.5. Agenda Item No 5:

3.5.1. Details of the proposal

Proposed Construction of Industrial Buildings to establish Solar Modules Manufacturing Facility with Annual Capacity of 10 GW at Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh by M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) by MANOJ KUMAR REDDY POTHIREDDY located at SPSR NELLORE, ANDHRA PRADESH			
Proposal For		Fresh ToR	
Proposal No	File No	Submission Date	Activity (Schedule Item)
SIA/AP/INFRA2/559590/2025	AP INFRA2 TOR NE 12 2025 2046	04/12/2025	Townships/ Area Development Projects / Rehabilitation Centres (8(b))

3.5.2. Deliberations by the committee in previous meetings

Date of SEAC 1 :10/12/2025 
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Deliberations of SEAC 1 :

The Committee after examining the project proposals, presentations, MoEF&CC' Notifications & OM's, detailed deliberations and recommended to issue **Standard TOR without Public Hearing** with following additional TORs.

1. The project proponent shall submit EIA and EMP.
2. The unit shall submit revised layout plan by increasing green belt plan from 20 % to 25 % as per the OM. 29.10.2025 issued by the MoEF&CC, Gol.
3. The PP shall submit complete process description, material balance, water balance, source of air pollution and control measures proposed source of water pollution and treatment system proposed.
4. As proposed by the PP shall submit proposals for Zero liquid discharge (ZLD) and waste water disposal (in case of ZLD failure and emergency times), odour mitigation measures & solid waste management.
5. The project proponent shall provide a comprehensive wastewater management plan.
6. The unit shall submit storage details of all raw material, hazardous waste etc.
7. The project proponent industry shall submit Estimation of GLCs for **Silicon predicted emissions** from the industry during its peak production.s
8. The project proponent industry shall submit rainwater harvesting pit details.
9. Storm water management details.

The project proponent shall submit traffic density

3.5.3. Deliberations by the SEIAA in current meetings

Recommendations of SEAC on 10.12.2025

The Proposal of **M/s. Indosol Solar Private Limited (ISPL)** , is for Construction of **Industrial Buildings to Establish Integrated Solar Modules (Ingot, wafer, Cell, Module and Glass) Manufacturing unit with Annual Capacity of 10 GW** with Built Up area – **12,31,064 Sq.m** in total plot area is **340.9 Ha (842.4 acres)** at **Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh**. The project cost of the proposed project is **Rs.18,000 Crs.**

The project falls under Item No. 8(b) of the schedule of the EIA Notification 2006 and its amendments thereof - Building and Construction Projects (> 50 Ha and/or built-up area and >1,50,000 sq. m. of built up area).

The Authorized person of the project, and their consultant, M/s. Team labs (P) Ltd, have

attended the meeting and presented the case. The SEAC committee observed that:

1. M/s. Indosol Solar Private Limited (ISPL) is the first company in India to establish an integrated solar module manufacturing facility, covering ingot, wafer, cell, module, and glass production. At present, India is largely procuring solar modules from China.
2. M/s. Indosol Solar Private Limited (ISPL) has proposed to establish an integrated solar module manufacturing facility with a total capacity of 10 GW.
3. The APIIC, Vice-Chairman & Managing Director addressed letter dt. 05-08-2025 to the Member Secretary, APPCB for Initiation of process to grant the EC/CFE to M/s. Indosol Solar Private Limited (ISPL) for establishment of vertically integrated Solar PV manufacturing plant at Chevuru (V) Guduru (M) & Karedu (V), Ulavapadu (M) of SPSR Nellore District - Arrangement of comfort letter.
4. M/s. Indosol Solar Private Limited (ISPL) proposes to setup an Integrated Solar PV modules Manufacturing Facility along with in-house Float glass manufacturing unit at Survey Nos. 26, 385, 386, 389 to 392, 394 to 407, 428 to 431, 491, 492, 495 to 501, 510, 511, 535, 726, 802 to 822, 824, 825, 827 to 829, 831, 834, 837 to 844, 850, 855 to 866, 873 to 875, 881, 882, 885, 888, 961, 975, 977 to 981, 983 to 997, 1007 to 1009, 1019, 1024, 1025, 1027 to 1041, 1044, 1056, 1058 to 1073, 1083 to 1087, 1089 to 1098, 1102, 1106, 1118, 1119, 1121 to 1156, 1158 to 1162, 1167, 1174 to 1181, 1183 to 1185, 1187 to 1199, 9882, 11861 and part of the following Survey Nos. 410, 800, 1501, 422, 508, 416, 493, 427, 799, 409, 801, 1080, 408, 502, 509, 797, 432, 1011, 1081, 1010, 433, 1004, 503, 1075, 490, 999, 1001, 1021, 512, 1074, 793, 1082, 1023, 998, 1048, 870, 867, 434, 871, 379, 890, 378, 887, 889, 872, 380, 971, 884, 384, 969, 974, 970, 883, 387, 1042, 1120, 897, 1100, 1043, 1055, 830, 1101, 976, 1116, 853, 1117, 1053, 845, 1168, 880, 1163, 1173, 1054, 1165, 833, 1103, 1166, 849, 836, 1052, 388, 854, 876, 1170, 1200, 1208, 1206, 1207, 1209 Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh.
5. The Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC) has allotted land at Karedu Village, Ulavapadu Mandal, SPSR Nellore District to M/s. Indosol Solar Private Limited (ISPL) for the establishment of an Integrated Solar Modules (Ingot, wafer, Cell, Module and Glass) Manufacturing Facility.
6. The PP proposed to construct the industrial shed with built up area of 12,31,064 Sq.m in an area of 340.9 Ha.
7. M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) proposes to setup Zero Liquid discharge facility.
8. In the solar module manufacturing process, the melting of non-toxic metals is involved. As per MoEF&CC, GoI Notification S.O. 2215(E) dated 07.06.2024, projects using fuel in furnaces exceeding 0.03 MTPA require Environmental Clearance. However, the proposed project requires only 0.026 MTPA, which is below the 0.03 MTPA threshold. The Committee after examining the project proposals, presentations, MoEF&CC' Notifications & OMs, detailed deliberations and recommended to issue **Standard TOR without Public Hearing** with following additional TORs.
 1. The project proponent shall submit EIA and EMP.
 2. The unit shall submit revised layout plan by increasing green belt plan from 20 % to 25 % as per the OM. 29.10.2025 issued by the MoEF&CC, GoI.
 3. The PP shall submit complete process description, material balance, water balance,

source of air pollution and control measures proposed source of water pollution and treatment system proposed.

4. As proposed by the PP shall submit proposals for Zero liquid discharge (ZLD) and waste water disposal (in case of ZLD failure and emergency times), odour mitigation measures & solid waste management.
5. The project proponent shall provide a comprehensive wastewater management plan.
6. The unit shall submit storage details of all raw material, hazardous waste etc.
7. The project proponent industry shall submit Estimation of GLCs for **Silicon predicted emissions** from the industry during its peak production.
8. The project proponent industry shall submit rainwater harvesting pit details.
9. Storm water management details.

The project proponent shall submit traffic density.

Decision of SEIAA:- It is observed that the SEAC considered the project under Item No. 8(b) of the schedule to the EIA Notification, 2006 and its subsequent amendments, i.e., Building and Construction Projects (> 50 Ha and/or built-up area >1,50,000 sq. m.). However, the present proposal pertains to the establishment of an Integrated Solar Modules Manufacturing Facility (Ingot, wafer, Cell, Module and Glass) with a total site area of about 34,09,030 sq. m, involving multiple unit operations, including silicon recycling processes, and the use of a large number of hazardous & nonhazardous raw materials, as well as the generation of large quantities of hazardous wastes & effluents and emissions. In view of the above it is decided to refer the proposal to the SEAC for re-examination of the categorisation of the project.

3.5.4. Recommendation of SEIAA

Refer-Back to SEAC for Reconsideration

3.6. Agenda Item No 6:

3.6.1. Details of the proposal

Proposed to establish 3.0 MLD Common Effluent Treatment Plant (CETP) by utilizing its Existing Effluent Treatment Facility to treat the effluent generated from the SMS group of industries by SMS Utility Services (A Division of SMS Pharmaceuticals Limited) Situated at Sy. No's: 167/p, 168/p, 169/p & 171/p of Kandivalasa Village and Sy. No's.: 72/p, 75/p & 76/p of Kovvada Village, Pusapatirega Mandal, Vizianagar am District, Andhra Pradesh – 535 004 by SMS PHARMACEUTICALS LIMITED located at VIZIANAGARAM, ANDHRA PRADESH

Proposal For		Application for amendment in ToR (for categories A & B 1)/Amendment in EC (for category B2)- Form-3	
Proposal No	File No	Submission Date	Activity (Schedule Item)
SIA/AP/INFRA2/559848/2025		04/12/2025	Common Effluent Treatment Plants (CETPs) (7(h))

3.6.2. Deliberations by the committee in previous meetings

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	m³/annum, Road Metal – 51,200 m³/annum over a period of 11.0 years, covering an area of 2.00 hectares, in favour of Sri. Kosuru Srikanth at Sy.No. 18, LP No.3 of Gangavaram Village, Rowthulapudi Mandal, Kakinada District, Andhra Pradesh. The recommendation is subject to the following additional conditions: 1. The project proponent shall comply with the proposals furnished in the Environmental management plan. 2. The project proponent shall develop greenbelt along approach roads & village Roads. 3. The project proponent shall maintain 7.5mt greenbelt in buffer zone and existing buffer zone plantation should not be disturbed. 4. The proponent shall take dust suppression measures to meet the CPCB stipulated ambient air quality standards at any point of time. 5. The proponent shall carryout suppression of dust generated due to transport vehicles by continuous water spraying using tankers. 6. The vehicles carrying the mines material shall be covered with tarpaulin during vehicular movement. 7. The project proponent shall not use village road/ canal bund roads for mineral transportation purpose. 8. The project proponent shall restrict vehicles movement during the peak hours to avoid accidents. 9. The project proponent shall restrict the load of the transport vehicles not more than 21 tons to avoid road damages and dust nuisance to surroundings. 10. The PP shall complete the entire greenbelt development within the first year itself and ensure its maintenance throughout the lease period. 11. The project proponent shall develop green belt in 1:2 ratio. Decision of SEIAA:- Agreed with the recommendations of the SEAC to issue the Environmental Clearance, stipulating an additional condition that the project proponent shall prepare the Tree Enumeration Plan and shall develop a greenbelt in a 1:2 ratio. The project proponent shall maintain the greenbelt all around the mine lease area in a 7.5 meter buffer zone, along the approach road, village road, and in public places, so as to achieve the stipulated 1:2 ratio. The proponent shall plant 2 mts height seedlings and shall be responsible for their survival as long as the mine is in-force.
278.16 278.12	Proposed Construction of Industrial Buildings to establish Solar Modules Manufacturing Facility with Annual Capacity of 10 GW at Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh by M/s. Indosol Solar Private Limited (ISPL) - TOR – Reg. SIA/AP/INFRA2/559590/2025

Recommendations of SEAC on 10.12.2025

The Proposal of M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) , is for Construction of Industrial Buildings to Establish Integrated Solar Modules (Ingot, wafer, Cell, Module and Glass) Manufacturing unit with Annual Capacity of 10 GW with Built Up area – 12,31,064 Sq.m in total plot area is 340.9 Ha (842.4 acres) at Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh. The project cost of the proposed project is Rs.18,000 Crs.

The project falls under Item No. 8(b) of the schedule of the EIA Notification 2006 and its amendments thereof - Building and Construction Projects (> 50 Ha and/or built-up area and >1,50,000 sq. m. of built up area).

The Authorized person of the project, and their consultant, M/s. Team labs (P) Ltd, have attended the meeting and presented the case. The SEAC committee observed that:

- a. M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) is the first company in India to establish an integrated solar module manufacturing facility, covering ingot, wafer, cell, module, and glass production. At present, India is largely procuring solar modules from China.
- b. M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) has proposed to establish an integrated solar module manufacturing facility with a total capacity of 10 GW.
- c. The APIIC, Vice-Chairman & Managing Director addressed letter dt. 05-08-2025 to the Member Secretary, APPCB for Initiation of process to grant the EC/CFE to M/s. Indosol Solar Private Limited (ISPL) for establishment of of vertically integrated Solar PV manufacturing plant at Chevuru (V) Guduru (M) & Karedu (V), Ulavapadu (M) of SPSR Nellore District - Arrangement of comfort letter.
- d. M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) proposes to setup an Integrated Solar PV modules Manufacturing Facility along with in-house Float glass manufacturing unit at Survey Nos. 26, 385, 386, 389 to 392, 394 to 407, 428 to 431, 491, 492, 495 to 501, 510, 511, 535, 726, 802 to 822, 824, 825, 827 to 829, 831, 834, 837 to 844, 850, 855 to 866, 873 to 875, 881, 882, 885, 888, 961, 975, 977 to 981, 983 to 997, 1007 to 1009, 1019, 1024, 1025, 1027 to 1041, 1044, 1056, 1058 to 1073, 1083 to 1087, 1089 to 1098, 1102, 1106, 1118, 1119, 1121 to 1156, 1158 to 1162, 1167, 1174 to 1181, 1183 to 1185, 1187 to 1199, 9882, 11861 and part of the following Survey Nos. 410, 800, 1501, 422, 508, 416, 493, 427, 799, 409, 801, 1080, 408, 502, 509, 797, 432, 1011, 1081, 1010, 433, 1004, 503, 1075, 490, 999, 1001, 1021, 512, 1074, 793, 1082, 1023, 998, 1048, 870, 867, 434, 871, 379, 890, 378, 887, 889, 872, 380, 971, 884, 384, 969, 974, 970, 883, 387, 1042, 1120, 897, 1100, 1043, 1055, 830, 1101, 976, 1116, 853, 1117, 1053, 845, 1168, 880, 1163,

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1173, 1054, 1165, 833, 1103, 1166, 849, 836, 1052, 388, 854, 876, 1170, 1200, 1208, 1206, 1207, 1209 Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh.

- e. The Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC) has allotted land at Karedu Village, Ulavapadu Mandal, SPSR Nellore District to M/s. Indosol Solar Private Limited (ISPL) for the establishment of an Integrated Solar Modules (Ingots, wafer, Cell, Module and Glass) Manufacturing Facility.
- f. The PP proposed to construct the industrial shed with built up area of 12,31,064 Sq.m in an area of 340.9 Ha.
- g. M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) proposes to setup Zero Liquid discharge facility.
- h. In the solar module manufacturing process, the melting of non-toxic metals is involved. As per MoEF&CC, GoI Notification S.O. 2215(E) dated 07.06.2024, projects using fuel in furnaces exceeding 0.03 MTPA require Environmental Clearance. However, the proposed project requires only 0.026 MTPA, which is below the 0.03 MTPA threshold.

The Committee after examining the project proposals, presentations, MoEF&CC' Notifications & OMs, detailed deliberations and recommended to issue **Standard TOR without Public Hearing** with following additional TORs.

1. The project proponent shall submit EIA and EMP.
2. The unit shall submit revised layout plan by increasing green belt plan from 20 % to 25 % as per the OM. 29.10.2025 issued by the MoEF&CC, GoI.
3. The PP shall submit complete process description, material balance, water balance, source of air pollution and control measures proposed source of water pollution and treatment system proposed.
4. As proposed by the PP shall submit proposals for Zero liquid discharge (ZLD) and waste water disposal (in case of ZLD failure and emergency times), odour mitigation measures & solid waste management.
5. The project proponent shall provide a comprehensive wastewater management plan.
6. The unit shall submit storage details of all raw material, hazardous waste etc.
7. The project proponent industry shall submit Estimation of GLCs for Silicon predicted emissions from the industry during its peak production.
8. The project proponent industry shall submit rainwater harvesting pit details.

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	9. Storm water management details. 10. The project proponent shall submit traffic density. Decision of SEIAA:- It is observed that the SEAC considered the project under Item No. 8(b) of the schedule to the EIA Notification, 2006 and its subsequent amendments, i.e., Building and Construction Projects (> 50 Ha and/or built-up area >1,50,000 sq. m.). However, the present proposal pertains to the establishment of an Integrated Solar Modules Manufacturing Facility (Ingot, wafer, Cell, Module and Glass) with a total site area of about 34,09,030 sq. m, involving multiple unit operations, including silicon recycling processes, and the use of a large number of hazardous & non-hazardous raw materials, as well as the generation of large quantities of hazardous wastes & effluents and emissions. In view of the above it is decided to refer the proposal to the SEAC for re- examination of the categorisation of the project.
278.17 278.13	Proposed to establish 3.0 MLD Common Effluent Treatment Plant (CETP) by utilizing its Existing Effluent Treatment Facility to treat the effluent generated from the SMS group of industries by SMS Utility Services (A Division of SMS Pharmaceuticals Limited) Situated at Sy. No's: 167/p, 168/p, 169/p & 171/p of Kandivalasa Village and Sy. No's.: 72/p, 75/p & 76/p of Kovvada Village, Pusapatirega Mandal, Vizianagaram District, Andhra Pradesh – TOR Amendment – Reg. SIA/AP/INFRA2/559848/2025
	Recommendations of SEAC on 10.12.2025 The proposal is to establish 3.0 MLD Common Effluent Treatment Plant (CETP) by utilizing its Existing Effluent Treatment Facility to treat the effluent generated from the SMS group of industries at Sy. No's.: Sy. No's: 167/p, 168/p, 169/p & 171/p of Kandivalasa Village and Sy. No's.: 72/p, 75/p & 76/p of Kovvada Village, Pusapatirega Mandal, Vizianagaram District, Andhra Pradesh State in an area of 24.13 Acres. The proposed CETP falls under Category "B" schedule 7(h) as per the EIA notification, 14th September 2006, and subsequent amendments. The project proponent and their consultant M/s. Pragathi Labs Pvt., Ltd., attended the meeting and presented their proposal. The SEAC noted that: - The SEIAA, A.P vide order dt.10.10.2025 granted Standard TOR. - Now the PP applied for TOR amendment for change of consultant from M/s. Right Source industrial solutions Pvt. Ltd to M/s. Pragathi Labs Pvt., Ltd and for following Configurational change in the utilities of the proposed CETP.

	Decision of SEIAA:- Decided to issue the transfer of the Environmental Clearance from M/s. Sai Ram Constructions to M/s. Balaji M-Sand Industries Pvt Ltd.
278.24	1.99 Ha Building stone, Morrum, Gravel & Ordinary earth of Sri Gundu Kailasha Rao, Sy. No. 52 of Akkayyapalem Village, Ranastalam Mandal, Srikakulam District, Andhra Pradesh – Transfer of EC in favour of M/s.Tata Infra, Mg.Partner: Sri T. Tata Rao – Reg. SIA/AP/MIN/561706/2025
	Decision of SEIAA:- Decided to issue the transfer of the Environmental Clearance from Sri Gundu Kailasha Rao to M/s.Tata Infra, Mg. Partner: Sri T. Tata Rao.
278.25	0.809 Ha, Road Metal & Building Stone Mine of M/s Robo Silicon Pvt Ltd, at Sy.No.801 Paritala(V), Kanchikacherla (M), NTR District, Andhra Pradesh - Transfer of EC in favour of M/s. Sri Siva Balaji Stone Crusher, Mg.Pt. Sri K.Srinadh – Reg. SIA/AP/MIN/558499/2025
	Decision of SEIAA:- Decided to issue the transfer of the Environmental Clearance from M/s Robo Silicon Pvt Ltd., to M/s. Sri Siva Balaji Stone Crusher, Mg.Pt. Sri K.Srinadh.

SPECIAL SECRETARY TO GOVT

S. Sri Saravanan, I.F.S.

Dr. Muduru
SrimuraliShri Bandla Siva Sankar
Prasad, I.F.S., (Retired).Special Secretary to Govt.,
Environment, Forests, Sciences
and Technology Department,
Govt. of Andhra Pradesh &
Member Secretary, SEIAA, A.P.Professor of Civil
Engineering,
Sri Venkateswara
University, TirupatiChairman,
SEIAA, A.P



Government of India
Ministry of Environment, Forest and Climate Change
 (Issued by the State Level Expert Appraisal
 Committee(SEAC),
 ANDHRA PRADESH)



Minutes of The 280th SEAC day 3 General Agenda State Level Expert Appraisal Committee meeting held from 07/01/2026 to 07/01/2026

Date: 12/01/2026

MoM ID: EC/MOM/SEAC/797880/12/2025

Agenda ID: EC/AGENDA/SEAC/797880/12/2025

Meeting Venue: The SEIAA , A.P Gol, 3rd Floor Markfed building, APIIC Colony, Auto Nagar, Vijayawada

Meeting Mode: Hybrid

Date & Time:

07/01/2026	10:00 AM	05:30 PM
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1. Opening remarks

At the outset, Shri Batchu Siva Prasad Chairman and and Sri M. Raja Shekar, the Member Secretary of the SEAC, welcomed the Members of the SEAC, AP and initiated the proceedings with the activities of 280th day 3 meeting Agenda.

2. Confirmation of the minutes of previous meeting

N/A

3. Details of proposals considered by the committee

Day 1 -07/01/2026

3.1. Agenda Item No 1:

3.1.1. Details of the proposal

Proposed Construction of Industrial Buildings to establish Solar Modules Manufacturing Facility with An

nual Capacity of 10 GW at Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh by M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) by MANOJ KUMAR REDDY POTHIREDDY located at SPSR NELLORE, ANDHRA PRADESH

Proposal For		Fresh ToR	
Proposal No	File No	Submission Date	Activity Sub-Activity (Schedule Item)
SIA/AP/INFRA2/559590/2025	AP INFRA2 TOR NE 12 2025 2046	04/12/2025	Townships/ Area Development Projects / Rehabilitation Centres Area Development (8(b))

3.1.2. Project Salient Features

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3.1.3. Deliberations by the committee in previous meetings

Date of SEAC 1 : 10/12/2025

Deliberations of SEAC 1 :

The Committee after examining the project proposals, presentations, MoEF&CC' Notifications & OM, detailed deliberations and recommended to issue **Standard TOR without Public Hearing** with following additional TORs.

1. The project proponent shall submit EIA and EMP.
2. The unit shall submit revised layout plan by increasing green belt plan from 20 % to 25 % as per the OM. 29.10.2025 issued by the MoEF&CC, Gol.
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7. The project proponent industry shall submit Estimation of GLCs for **Silicon predicted emissions** from the industry during its peak production.s
8. The project proponent industry shall submit rainwater harvesting pit details.
9. Storm water management details.

The project proponent shall submit traffic density

Date of SEIAA 2 :24/12/2025

Deliberations of SEIAA 2 :

Recommendations of SEAC on 10.12.2025

The Proposal of **M/s. Indosol Solar Private Limited (ISPL)** , is for Construction of **Industrial Buildings to Establish Integrated Solar Modules (Ingot, wafer, Cell, Module and Glass) Manufacturing unit with Annual Capacity of 10 GW** with Built Up area – **12,31,064 Sq.m** in total plot area is **340.9 Ha (842.4 acres)** at **Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh**. The project cost of the proposed project is **Rs.18,000 Crs.**

The project falls under Item No. 8(b) of the schedule of the EIA Notification 2006 and its amendments thereof - Building and Construction Projects (> 50 Ha and/or built-up area and >1,50,000 sq. m. of built up area).

The Authorized person of the project, and their consultant, M/s. Team labs (P) Ltd, have attended the meeting and presented the case. The SEAC committee observed that:

1. M/s. Indosol Solar Private Limited (ISPL) is the first company in India to establish an integrated solar module manufacturing facility, covering ingot, wafer, cell, module, and glass production. At present, India is largely procuring solar modules from China.
2. M/s. Indosol Solar Private Limited (ISPL) has proposed to establish an integrated solar module manufacturing facility with a total capacity of 10 GW.
3. The APIIC, Vice-Chairman & Managing Director addressed letter dt. 05-08-2025 to the Member Secretary, APPCB for Initiation of process to grant the EC/CFE to M/s. Indosol Solar Private Limited (ISPL) for establishment of vertically integrated Solar PV manufacturing plant at Chevuru (V) Guduru (M) & Karedu (V), Ulavapadu (M) of SPSR Nellore District - Arrangement of comfort letter.
4. M/s. Indosol Solar Private Limited (ISPL) proposes to setup an Integrated Solar PV modules Manufacturing Facility along with in-house Float glass manufacturing unit at Survey Nos. 26, 385, 386, 389 to 392, 394 to 407, 428 to 431, 491, 492, 495 to 501, 510, 511, 535, 726, 802 to 822, 824, 825, 827 to 829, 831, 834, 837 to 844, 850, 855 to 866, 873 to 875, 881, 882, 885, 888, 961, 975, 977 to 981, 983 to 997, 1007 to 1009, 1019, 1024, 1025, 1027 to 1041, 1044, 1056, 1058 to 1073, 1083 to 1087, 1089 to 1098, 1102, 1106, 1118, 1119, 1121 to 1156, 1158 to 1162, 1167, 1174 to 1181, 1183 to 1185, 1187 to 1199, 9882, 11861 and part of the following Survey Nos. 410, 800, 1501, 422, 508, 416, 493, 427, 799, 409, 801, 1080, 408, 502, 509, 797, 432, 1011, 1081, 1010, 433, 1004, 503, 1075, 490, 999, 1001, 1021, 512, 1074, 793, 1082, 1023, 998, 1048, 870, 867, 434, 871, 379, 890, 378, 887, 889, 872, 380, 971, 884, 384, 969, 974, 970, 883, 387, 1042, 1120, 897, 1100, 1043, 1055, 830, 1101, 976, 1116, 853, 1117, 1053, 845, 1168, 880, 1163, 1173, 1054, 1165, 833, 1103, 1166, 849, 836, 1052, 388, 854, 876, 1170, 1200, 1208, 1206, 1207, 1209 Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh.
5. The Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC) has allotted land at Karedu Village, Ulavapadu Mandal, SPSR Nellore District to M/s. Indosol Solar Private Limited (ISPL) for the establishment of an Integrated Solar Modules (Ingot, wafer, Cell, Module and Glass) Manufacturing Facility.
6. The PP proposed to construct the industrial shed with built up area of 12,31,064 Sq.m in an area of 340.9 Ha.
7. M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) proposes to setup Zero Liquid

discharge facility.

8. In the solar module manufacturing process, the melting of non-toxic metals is involved. As per MoEF&CC, GoI Notification S.O. 2215(E) dated 07.06.2024, projects using fuel in furnaces exceeding 0.03 MTPA require Environmental Clearance. However, the proposed project requires only 0.026 MTPA, which is below the 0.03 MTPA threshold.

The Committee after examining the project proposals, presentations, MoEF&CC' Notifications & OMs, detailed deliberations and recommended to issue **Standard TOR without Public Hearing** with following additional TORs.

1. The project proponent shall submit EIA and EMP.
2. The unit shall submit revised layout plan by increasing green belt plan from 20 % to 25 % as per the OM. 29.10.2025 issued by the MoEF&CC, GoI.
3. The PP shall submit complete process description, material balance, water balance, source of air pollution and control measures proposed source of water pollution and treatment system proposed.
4. As proposed by the PP shall submit proposals for Zero liquid discharge (ZLD) and waste water disposal (in case of ZLD failure and emergency times), odour mitigation measures & solid waste management.
5. The project proponent shall provide a comprehensive wastewater management plan.
6. The unit shall submit storage details of all raw material, hazardous waste etc.
7. The project proponent industry shall submit Estimation of GLCs for **Silicon predicted emissions** from the industry during its peak production.
8. The project proponent industry shall submit rainwater harvesting pit details.
9. Storm water management details.

The project proponent shall submit traffic density.

Decision of SEIAA:- It is observed that the SEAC considered the project under Item No. 8(b) of the schedule to the EIA Notification, 2006 and its subsequent amendments, i.e., Building and Construction Projects (> 50 Ha and/or built-up area >1,50,000 sq. m.). However, the present proposal pertains to the establishment of an Integrated Solar Modules Manufacturing Facility (Ingots, wafer, Cell, Module and Glass) with a total site area of about 34,09,030 sq. m, involving multiple unit operations, including silicon recycling processes, and the use of a large number of hazardous & nonhazardous raw materials, as well as the generation of large quantities of hazardous wastes & effluents and emissions. In view of the above it is decided to refer the proposal to the SEAC for re-examination of the categorisation of the project.

3.1.4. Deliberations by the SEAC in current meetings

Decision of SEIAA: - It is observed that the SEAC considered the project under Item No. 8(b) of the schedule to the EIA Notification, 2006 and its subsequent amendments, i.e., Building and Construction Projects (> 50 Ha and/or built-up area >1,50,000 sq. m.). However, the present proposal pertains to the establishment of an Integrated Solar Modules Manufacturing Facility (Ingots, wafer, Cell, Module and Glass) with a total site area of about 34,09,030 sq. m, involving multiple unit operations, including silicon recycling processes, and the use of a large number of

hazardous & non-hazardous raw materials, as well as the generation of large quantities of hazardous wastes & effluents and emissions.

In view of the above it is decided to refer the proposal to the SEAC for re- examination of the categorisation of the project.

Again, this proposal was placed in 280th SEAC meeting and noted that:

- Ø The Project Proponent (PP) informed that no chemical reactions are involved in the process. They also stated that captive storage of 50 KL tanks for dilution purposes, including HFC, H₂SO₄, and HF with a storage duration of up to five days.

It is informed to SEIAA that Environmental Clearance is not required for 6 (b) Isolated storage & handling of hazardous chemicals (as per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000), in accordance with S.O. 1960(E) dated 13.06.2019 issued by the MoEF&CC, Government of India. The committee further observed that EC is not required for generation of large quantities of hazardous waste & effluents and emissions.

The Committee after re-examining the project proposals, presentations, MoEF&CC Notifications & OMs, detailed deliberations and recommended to issue **Standard TOR without Public Hearing** with above conditions stipulated in the S.No. (i).

3.1.5. Recommendation of SEAC

Recommended

3.1.6. Details of Terms of Reference

3.1.6.1. Specific

N/A

3.1.6.2. Standard

8(b)	Townships/ Area Development Projects / Rehabilitation Centres
Project Details	
1.	Need and benefits of the project.

3.2. Agenda Item No 2:

3.2.1. Details of the proposal

Sri.T. Raja Sekhar Reddy by thambila raja sekhar reddy located at ANNAMAYYA,ANDHRA PRADESH			
Proposal For		Mining EC Under 5 Ha	
Proposal No	File No	Submission Date	Activity Sub-Activity (Schedule Item)
SIA/AP/MIN/56279/2025	AP MIN EC AN 12 202 5 2106	23/12/2025	Mining of minerals Non-Coal Mining (Minor Minerals- river bed mining) (1(a))

3.6.2. Project Salient Features

null

3.6.3. Deliberations by the committee in previous meetings

N/A

3.6.4. Deliberations by the SEAC in current meetings

The project proponent and also their consultant have not attended the meeting, and the committee recommend to defer as the PP not attended the meeting.
--

3.6.5. Recommendation of SEAC

Deferred for PP not attending the meeting

3.7. Agenda Item No 7:

3.7.1. Details of the proposal

M/s. Indosol Solar Private Limited - Quartz mine - 32.777 ha by INDOSOL SOLAR PRIVATE LIMITED located at SPSR NELLORE,ANDHRA PRADESH			
Proposal For		Fresh EC	
Proposal No	File No	Submission Date	Activity Sub-Activity (Schedule Item)
SIA/AP/MIN/562871/2025	AP MIN EC NE 12 2025 2107	23/12/2025	Mining of minerals Non-Coal Mining (Major Minerals)- Op encast (1(a))

3.7.2. Project Salient Features

The proposed project is for mining of **Quartz** in an area of **32.777 Ha.** with a proposed production quantity of **Quartz - 99,900 TPA** with a condition that the total production during a scheme should be limited to the approved quantity as per Mining scheme/ plan.

The proposed project falls under Item No. 1(a) of the schedule of the EIA Notification 2006 and its amendments thereof - (i). Mining of minerals (≤ 250 ha of mining lease area in respect of non-coal mine lease).

The authorized person and their consultant, M/s. TEAM Labs and Consultants have attended the meeting and presented their proposal. The SEAC Committee noted that:

- a. The Department of Mines and Geology submitted DSR of SPSR Nellore District and the mineral details available at Page No 77 of DSR Report.
- b. The Department of Mines and Geology issued letter of Intent (LOI) vide order dt. 08.10.2024 for a period of 20 years subject to submission of Approved Mining Plan, EC and CFE within a period upto 03 years from date of issue of Lol.
- c. As per the approved mining plan dt. 14.02.2025, the total available mineral reserves are 20,54,700 T and the Life of the mine is 20.62 years.
- d. The project proponent has obtained Standard TOR with public hearing letter on 05.09.2025 and public hearing was held on 11.11.2025.
- e. Issues raised in PH: Crop Damages, wild animals and Grazing issues are specific issues raised during the PH. The committee directed the Project proponent to develop palatable grasses for cattle grazing in surrounding vacant lands in the hillocks.
- f. The base line data was collected from March, 25 to May 25 and the predominant wind direction is observed to be East to West. The maximum concentration of SPM(PM10) is observed to be $40 \mu\text{g}/\text{m}^3$. The incremental concentration for individual mine is $4.17 \mu\text{g}/\text{m}^3$ and GLC of SPM will fall within the unit.
- g. The committee directed the project proponent not to use the road existing towards the forest area and the Kothapalli village. Further, the committee directed the proponent to use the other main road existing for mineral transportation purposes.
- h. The project proponent demarked 1.0 Ha area for waste disposal in the lease area.
- i. The committee observed water tanks on the southern and northern sides of the mine lease area. Accordingly, the committee directed the project proponent to provide trenches with rocky bunds towards the water tank sides to avoid silt content entering into the water tanks and also to strengthen the water tanks.
- j. The project proponent informed that they have allocated Rs. 19.58 Lakhs as capital cost and Rs. 8.98 Lakhs as a recurring cost budget for the EMP.

The industry volunteered to provide Rs.6.0 Lakhs as a part of Corporate Social Responsibility (CSR) activity and shall maintain till the life of the unit.

3.7.3. Deliberations by the committee in previous meetings

N/A

3.7.4. Deliberations by the SEAC in current meetings

The Committee after examining the project proposals, presentations, mining plan, MoEF&CC Notifications & Oms, EIA report, PH minutes and detailed deliberations, Recommended **SEIAA to issue Environmental Clearance** for the mining of **Quartz - 99,900 TPA** over a period of 20.62 years, covering an area of **32.777 hectares**, in favour of **M/s. Indosol Solar Private Limited at Survey No. 616/P & 624/P, Bandaganipalli Village, Udayagiri Mandal, S.P.S.R Nellore District, Andhra Pradesh**. The recommendation is subject to the following additional conditions:

1. The proponent shall comply with the proposals furnished in the Environmental management plan and EIA report.
2. The project proponent shall develop greenbelt of 1km along approach roads & village Roadsides.
3. The project proponent shall maintain 7.5mt greenbelt in buffer zone and existing buffer zone plantation should not be disturbed.
4. The proponent shall take dust suppression measures to meet the CPCB stipulated ambient air quality standards at any point of time.
5. The proponent shall carryout suppression of dust generated due to transport vehicles by continuous water spraying using tankers.
6. The vehicles carrying the mines material shall be covered with tarpaulin during vehicular movement.
7. The project proponent shall restrict vehicles movement during the peak hours to avoid accidents.
8. The project proponent shall restrict the load of the transport vehicles not more than 21 tons to avoid road damages and dust nuisance to surroundings.
9. The project proponent shall comply with the commitments made during public hearing.
10. The PP shall complete the entire greenbelt development within the first year itself and ensure its maintenance throughout the lease period.
- 11. The project proponent shall comply with the conditions stipulated in the Forest NOC dt.24.07.2025.**

12. The project proponent shall not use village road & Forest Road for mineral transportation purpose.

13. The PP shall use other main road existing for mineral transportation purpose.

14. The Project proponent shall provide trenches with rocky bunds towards water tank sides to avoid silt content entering into water tanks and also strengthen existing water tanks bunds and water tanks.

15. The project proponent shall develop palatable grasses for cattle grazing in the surrounding government vacant lands in the hillocks.

The project proponent shall provide fencing around mine lease area to avoid cattle entering into the mine area

3.7.5. Recommendation of SEAC

Recommended

3.7.6. Details of Environment Conditions

3.7.6.1. Specific

N/A

3.7.6.2. Standard

1(a)	Mining of minerals
Miscellaneous	
1.	The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEFCC & its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.

3.8. Agenda Item No 8:

3.8.1. Details of the proposal

M/s. Sri Ganga Blue Metal by PRAMEELA M V located at CHITTOOR, ANDHRA PRADESH			
Proposal For		Mining EC Under 5 Ha	
Proposal No	File No	Submission Date	Activity Sub-Activity (Schedule Item)
SIA/AP/MIN/5629	AP MIN EC CH 12 2	24/12/2025	Mining of minerals





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File No: AP INFRA2 TOR NE 12 2025 2046

Annexure - A13

Government of India

Ministry of Environment, Forest and Climate Change

(Issued by the State Environment Impact Assessment Authority(SEIAA),
ANDHRA PRADESH)



Dated: 06/02/2026



To,

MANOJ KUMAR REDDY POTHIREDDY
MANOJ KUMAR REDDY POTHIREDDY

Survey No 585/2, 585-5, 593-2A, Near Port Road, Chevuru Village, Gudluru Mandal, Sri Pooti
Sriramulu Nellore, Andhra Pradesh- 523291, SPSR NELLORE, ANDHRA PRADESH, 523291
saidiwakar.gundram@indosolsolar.com

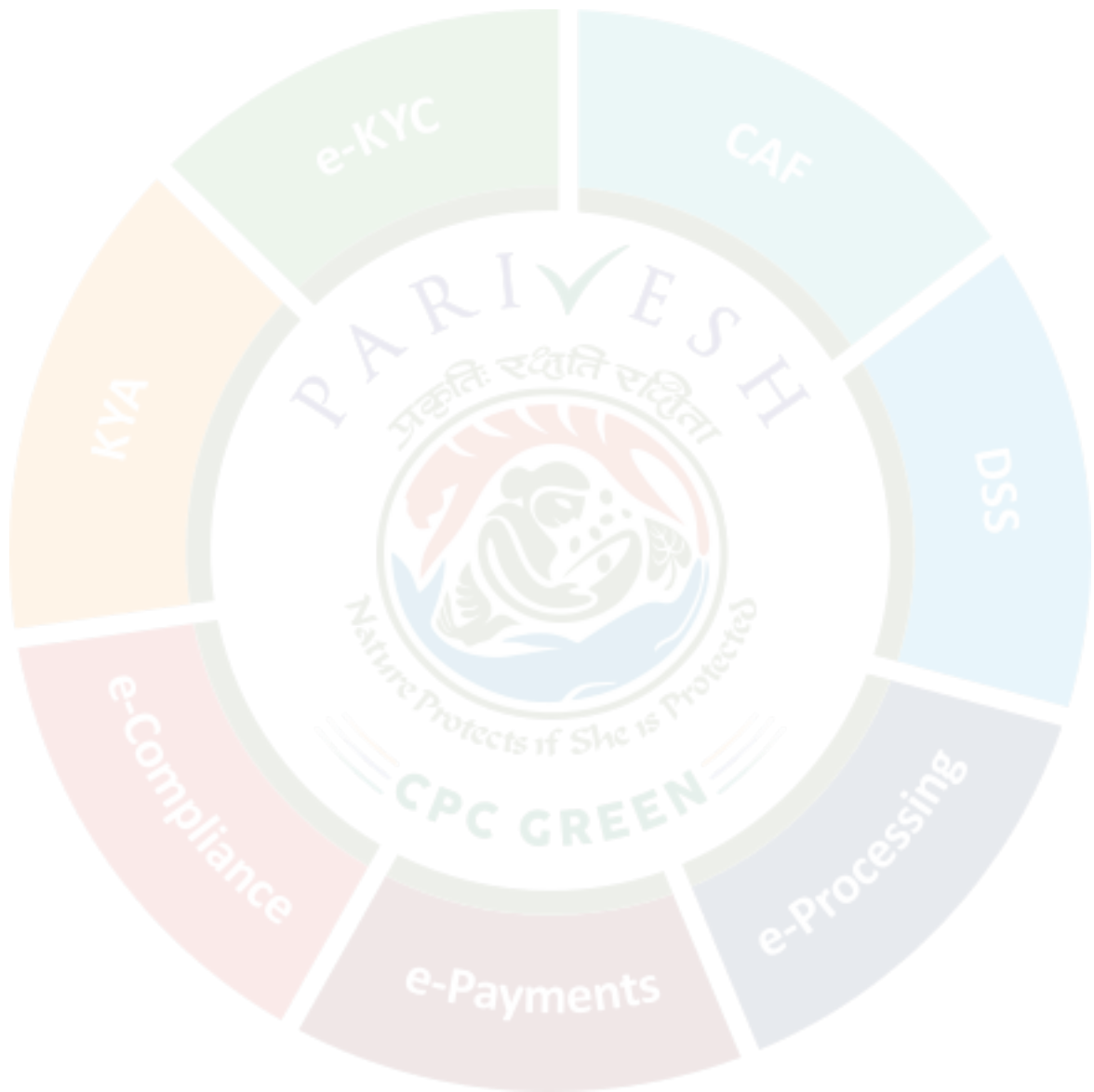
Subject: Grant of Terms of Reference under the provision of the EIA Notification 2006-regarding.

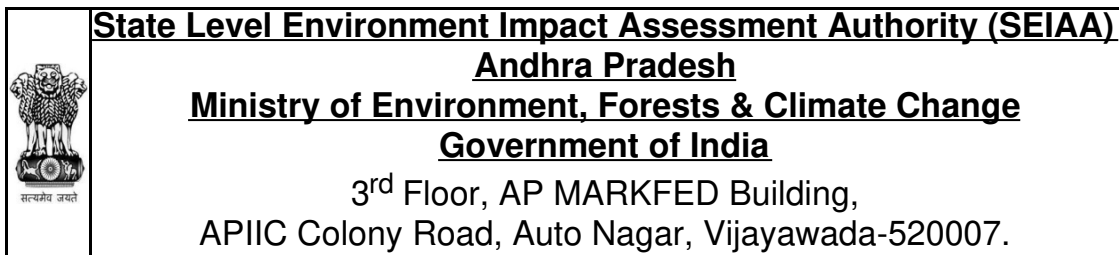
Sir/Madam,

This is in reference to your application for Grant of Terms of Reference under the provision of the EIA Notification 2006-regarding in respect of project Proposed Construction of Industrial Buildings to establish Solar Modules Manufacturing Facility with Annual Capacity of 10 GW at Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh by M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) submitted to Ministry vide proposal number SIA/AP/INFRA2/559590/2025 dated 04/12/2025.

2. The particulars of the proposal are as below:

(i) TOR Identification No.	TO25B3813AP5488318N
(ii) File No.	AP INFRA2 TOR NE 12 2025 2046
(iii) Clearance Type	TOR
(iv) Category	B1
(v) Project/Activity Included Schedule No.	8(b) Townships/ Area Development Projects / Rehabilitation Centres Proposed Construction of Industrial Buildings to establish Solar Modules Manufacturing Facility with Annual Capacity of 10 GW at Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh by M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL)
(vii) Name of Project	MANOJ KUMAR REDDY POTHIREDDY SPSR NELLORE, ANDHRA PRADESH
(viii) Name of Company/Organization	SEIAA
(ix) Location of Project (District, State)	no
(x) Issuing Authority	
(xi) Applicability of General Conditions	





Lr No. SEIAA/AP/INFRA2/TOR/NE/12/2025/2046/280.01&280.01

Sub: SEIAA, A.P. – Construction of Industrial Buildings to establish an Integrated Solar Modules Manufacturing Facility by M/s. Indosol Solar Private Limited (ISPL), Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh – Standard TOR - Issued – Reg.

- Ref: 1. Application dt:04.12.2025 submitted through online vide Proposal No. SIA/AP/INFRA2/559590/2025.
 2. SEAC meeting held on 07.01.2026.
 3. SEIAA meeting held on 30.01.2026.

With reference to the above, it is to inform that your application was examined by the State Expert Appraisal Committee (SEAC), A.P in its 280th meeting held on 07.01.2026. The Authorized person of the project, and their consultant, M/s. Team labs (P) Ltd, have attended the meeting and presented the case. The SEAC committee noted the following:

- The Proposal of M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL), is for Construction of Industrial Buildings to Establish Integrated Solar Modules (Ingot, wafer, Cell, Module and Glass) Manufacturing unit with Annual Capacity of 10 GW with Built Up area – 12,31,064 Sq.m in total plot area is 340.9 Ha (842.4 acres) at Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh. The project cost of the proposed project is Rs.18,000 Crs.
- The project falls under Item No. 8(b) of the schedule of the EIA Notification 2006 and its amendments thereof (> 50 Ha and/or built-up area and >1,50,000 sq. m. of built-up area).
- M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) is the first company in India to establish an integrated solar module manufacturing facility, covering ingot, wafer, cell, module, and glass production. At present, India is largely procuring solar modules from China.
- M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) has proposed to establish an integrated solar module manufacturing facility with a total capacity of 10 GW.
- The APIIC, Vice-Chairman & Managing Director addressed letter dt. 05-08-2025 to the Member Secretary, APPCB for Initiation of process to grant the EC/CFE to M/s. Indosol Solar Private Limited (ISPL) for establishment of vertically integrated Solar PV manufacturing plant at

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Chevuru (V) Guduru (M) & Karedu (V), Ulavapadu (M) of SPSR Nellore District - Arrangement of comfort letter.

- f. M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) proposes to setup an Integrated Solar PV modules Manufacturing Facility along with in-house Float glass manufacturing unit at Survey Nos. 26, 385, 386, 389 to 392, 394 to 407, 428 to 431, 491, 492, 495 to 501, 510, 511, 535, 726, 802 to 822, 824, 825, 827 to 829, 831, 834, 837 to 844, 850, 855 to 866, 873 to 875, 881, 882, 885, 888, 961, 975, 977 to 981, 983 to 997, 1007 to 1009, 1019, 1024, 1025, 1027 to 1041, 1044, 1056, 1058 to 1073, 1083 to 1087, 1089 to 1098, 1102, 1106, 1118, 1119, 1121 to 1156, 1158 to 1162, 1167, 1174 to 1181, 1183 to 1185, 1187 to 1199, 9882, 11861 and part of the following Survey Nos. 410, 800, 1501, 422, 508, 416, 493, 427, 799, 409, 801, 1080, 408, 502, 509, 797, 432, 1011, 1081, 1010, 433, 1004, 503, 1075, 490, 999, 1001, 1021, 512, 1074, 793, 1082, 1023, 998, 1048, 870, 867, 434, 871, 379, 890, 378, 887, 889, 872, 380, 971, 884, 384, 969, 974, 970, 883, 387, 1042, 1120, 897, 1100, 1043, 1055, 830, 1101, 976, 1116, 853, 1117, 1053, 845, 1168, 880, 1163, 1173, 1054, 1165, 833, 1103, 1166, 849, 836, 1052, 388, 854, 876, 1170, 1200, 1208, 1206, 1207, 1209 Karedu Village, Ulavapadu Mandal, SPSR Nellore District, Andhra Pradesh.
- g. The Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC) has allotted land at Karedu Village, Ulavapadu Mandal, SPSR Nellore District to M/s. Indosol Solar Private Limited (ISPL) for the establishment of an Integrated Solar Modules (Ingot, wafer, Cell, Module and Glass) Manufacturing Facility.
- h. The PP proposed to construct the industrial shed with built up area of 12,31,064 Sq.m in an area of 340.9 Ha.
- i. M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) proposes to setup Zero Liquid discharge facility.
- j. In the solar module manufacturing process, the melting of non-toxic metals is involved. As per MoEF&CC, GoI Notification S.O. 2215(E) dated 07.06.2024, projects using fuel in furnaces exceeding 0.03 MTPA require Environmental Clearance. However, the proposed project requires only 0.026 MTPA, which is below the 0.03 MTPA threshold.
- k. The Committee after examining the project proposals, presentations, MoEF&CC' Notifications & OMs, detailed deliberations and recommended to issue **Standard TOR without Public Hearing** with following additional TORs.
 1. The project proponent shall submit EIA and EMP.
 2. The unit shall submit revised layout plan by increasing green belt plan from 20 % to 25 % as per the OM. 29.10.2025 issued by the MoEF&CC, GoI.
 3. The PP shall submit complete process description, material balance, water balance, source of air pollution and control measures proposed source of water pollution and treatment system proposed.
 4. As proposed by the PP shall submit proposals for Zero liquid discharge

- (ZLD) and wastewater disposal (in case of ZLD failure and emergency times), odour mitigation measures & solid waste management.
5. The project proponent shall provide a comprehensive wastewater management plan.
 6. The unit shall submit storage details of all raw material, hazardous waste etc.
 7. The project proponent industry shall submit Estimation of GLCs for **Silicon predicted emissions** from the industry during its peak production.
 8. The project proponent industry shall submit rainwater harvesting pit details.
 9. Storm water management details.
 10. The project proponent shall submit traffic density.

Decision of SEIAA: - It is observed that the SEAC considered the project under Item No. 8(b) of the schedule to the EIA Notification, 2006 and its subsequent amendments, i.e., Building and Construction Projects (> 50 Ha and/or built-up area >1,50,000 sq. m.). However, the present proposal pertains to the establishment of an Integrated Solar Modules Manufacturing Facility (Ingot, wafer, Cell, Module and Glass) with a total site area of about 34,09,030 sq. m, involving multiple unit operations, including silicon recycling processes, and the use of a large number of hazardous & non-hazardous raw materials, as well as the generation of large quantities of hazardous wastes & effluents and emissions.

In view of the above it is decided to refer the proposal to the SEAC for re-examination of the categorisation of the project.

Again, this proposal was placed in 280th SEAC meeting and noted that:

- The Project Proponent (PP) informed that no chemical reactions are involved in the process. They also stated that captive storage of 50 KL tanks for dilution purposes, including HFC, H₂SO₄, and HF with a storage duration of up to five days.

It is informed to SEIAA that Environmental Clearance is not required for 6 (b) Isolated storage & handling of hazardous chemicals (as per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000), in accordance with S.O. 1960(E) dated 13.06.2019 issued by the MoEF&CC, Government of India. The committee further observed that EC is not required for generation of large quantities of hazardous waste & effluents and emissions.

The Committee after re-examining the project proposals, presentations, MoEF&CC Notifications & OMs, detailed deliberations and recommended to issue **Standard TOR without Public Hearing** with above conditions stipulated in the S.No. (k).

The issue was placed before the SEIAA, A.P., in its 280th meeting held on

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30.01.2026, and the Authority noted that the SEIAA has received a representation dt.22.01.2026 from Sri Dasuri Venka Reddy, Karedu Village, Ulavapadu Mandal, Prakasam District, requesting to reject the proposal. After discussions, **the Authority agreed with the recommendations of the SEAC to issue the Standard Terms of Reference without public hearing**, as the project involves use of solid / liquid fuel and the melting capacity is < 0.03 million TPA (nontoxic metals).

In view of the above, **you are requested to prepare the EIA report accordingly, based on the Standard TOR, incorporating the above recommended additional TORs / Conditions** and submit to the SEAC, A.P., for appraisal. The Terms of reference shall be valid for a period of Four years.

GOVT

SPECIAL SECRETARY TO

**MEMBER SECRETARY,
SEIAA, A.P**

To

M/s. Indosol Solar Private Limited (ISPL),
Authorised signatory: Manoj Kumar Reddy Pothireddy,
Survey No 585/2, 585-5, 593-2A, Near Port Road,
Chevuru Village, Gudluru Mandal,
Sri Pooti Sriramulu Nellore,
Andhra Pradesh- 523291.

**ANDHRA PRADESH POLLUTION CONTROL BOARD**

Paryavaran Bhavan, APIIC Colony Road, Gurunanak Colony,
Autonagar, Vijayawada- 520007.

**CONSENT TO ESTABLISHMENT (CTE) & CTE AMENDMENT ORDER****Order No.302/APPCB/CTE/RO-NLR/HO/2026****Dt.19-03-2026**

Sub:APPCB – CTE – **M/s. Indosol Solar Pvt. Ltd.**, Chevuru Village, Gudluru Mandal, SPSR Nellore District – **Consent to Establishment (CTE)** order to establish 6 MLD Marine outfall discharge through pipe-line into sea for laying of pipeline into Sea and Amendment to Consent to Establishment (CTE) order dt.01.06.2025 of the Board under Sec.25 of Water (P&C of P) Act, 1974 and under Sec.21 of Air (P&C of P) Act, 1981 -Order- Issued - Reg.

- Ref:
1. CTE order dt.01.06.2025.
 2. CTE (NOC) order dt.23.08.2025.
 3. MoEF&CC, GoI order dt.12.12.2025 for releasing 6 MLD treated effluent into sea at Ramayyapatnam, Nellore District.
 4. Industry's CTE application dt. 29.12.2025.
 5. ZO: Tirupati report dt.18.02.2026.
 6. CTE Committee meeting held on 20.02.2026.
 7. APPCB Board office Ir dt.06.03.2026.
 8. Industrys reply Ir dt.09.03.2026.
 9. CTE Committee meeting held on 11.03.2026.
 10. Industrys reply Ir dt.12.03.2026.
 11. CTE Committee meeting held on 13.03.2026.

1. **M/s. Indosol Solar Private Limited.**, vide ref 1st cited, had obtained CTE of the Board vide dt.01.06.2025 for manufacturing of Solar Photovoltaic (PV) modules - **9,09,091 Nos./annum**; Solar Photovoltaic (PV) Cells- **14,02,59,740 Nos./annum** & Solar Photovoltaic (PV) Wafers - **14,72,72,727 Pcs/annum** at Sy. Nos. 584/9, 10,11, 585/2, 3, 4, 5, 6, 7, 8, 592/1, 2, 593/1, 2, 3, 594/1A, 1B, 2A, 2B, 595/2, 2B, 3B, 4A, 4B, 5A, 5B, 585/2, 585-5, 593-2A, Chevuru Village, Gudluru Mandal, Prakasam District (Erstwhile SPSR Nellore District) with an investment of Rs.2000 Crores with a condition that

“The effluent generation in the process shall be treated in ETP, RO, MEE followed by ATFD to meet ZLD for treatment and disposal of trade effluents”.

2. Subsequently, the industry vide ref 2nd cited, has obtained CTE (NOC) for development of marine outfall for discharge of effluents from the industry manufacturing Solar Photovoltaic Modules, Cells and Wafers unit located at Chevuru Village, Gudluru Mandal, SPSR Nellore District under CRZ Rules for the following project. The details are given below:

S. No.	Name of the product	Applied Capacity
1.	Proposed marine outfall to discharge 6 MLD of treated effluent into sea	6 MLD
Development of treated effluent discharge through marine outfall system of M/s. Indosol Solar Pvt. Ltd as follows:		

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- Laying of outfall pipeline to discharge 6 MLD treated effluent to a distance of 8062.29 m on land from plant guard pond to LFP and 1000m into the sea from LFP to outfall diffuser location at offshore.
- Crossing of effluent pipeline in the Buckingham canal as indicated in the CRZ map.
- Construction of outfall diffuser in sea at a depth of 8.5 m w.r.t Chart Datum to discharge of 6 MLD treated effluent with diameter 400 mm into the Sea, upto outfall diffuser.
- The outfall diffuser is proposed at 1.75 km south of existing break water placed with multi-port arrangement of 4 nos. of 140 mm diameter.
- Pipeline will cross the CRZ zone in CRZ-IVB (Buckingham Canal), CRZ-III(NDZ), CRZ-IB (intertidal zone) and CRZ-IV A (LTL to 12 Nautical mile) as per CRZ Notification 2011
- Nandemmapuram village is existing at a distance of about 680m towards West direction from the Land fall point and Peddapattapupalem village is existing at a distance of about 980m towards South-west direction from the Land fall point.
- Hatchery is existing at a distance of about 850m towards North -west direction from the Land fall point.
- The proposed effluent pipeline crosses Buckingham Canal at 15° 0' 42.91"- N & 80° 2' 40.93"- E and 15° 0' 42.88"- N & 80° 2' 42.30"- E.

The geo-coordinates of Land Fall Point LFP & Outfall diffuse into the Sea are as follows:

Location	Latitude	Longitude
LFP	14° 59' 26.0" N	80° 03' 23.2" E
Outfall diffuser	14° 59' 26.6" N	80° 03' 56.6" E

- Later, the proponent has obtained CRZ from APCZMA issued by the MoEF&CC, Gol vide dt.12.12.2025 for releasing 6 MLD treated effluent through marine outfall into sea at Ramayyapatnam, Nellore District.
- Now, the proponent vide ref 4th cited, has applied for CTE to establish 6 MLD Marine outfall discharge through pipe-line into sea for laying of pipeline into Sea (about 8 Km with diameter of 400 mm to Land Fall Point (LFP) from the industry and about 1 Km with diameter of 400 mm into Sea) with an additional investment of Rs.6 Cr and Amendment to CTE order dt.01.06.2025 issued by the Board for changing the details of Water consumption, Waste water generation & disposal and Solid waste generation & its disposal. The ZO: Tirupati submitted report on 18.02.2026 vide ref 5th cited.

A. The source water from **Chevuru Lake-4 MLD & Chennayapalem -3 MLD** obtain **permission** from Irrigation department.

B. **Water consumption details: -**

S.N.	Purpose	Quantity as per CTE order dt.01.06.2025 (KLD)			Proposed Quantity in CTE Amendment (KLD)
		Fresh	Recycled	Total	
1	Process & Washings	394.08	3448.70	3842.78	3911 KLD
2	Scrubbers	132.23	107.77	240.00	240 KLD
3	Cooling	396.47	750.73	1147.20	1560 KLD

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4	DM plant	1119.77	646.63	1766.40	912 KLD
5	Domestic	206.40	---	206.40	120 KLD
6	Green belt	163.20	95.00	258.20	212 KLD
	Total	2412.14	5048.84	7460.98	6955.0

C) Waste Water Generation: (Proposed)

Sl. No	Source	Quantity	Mode of disposal
1	Process & Washings	3911 KLD	The industry has proposed to establish an Effluent Treatment Plant (ETP) consisting of an Inorganic ETP with a capacity of 4.37 MLD and an Organic ETP with a capacity of 1.45 MLD for pre-treatment of industrial effluents.
2	Scrubbers	96 KLD	
3	Cooling tower	900 KLD	
4	PUW	912 KLD	After pre-treatment, the industry proposes to lay a pipeline of approximately 8 km length with 400 mm diameter from the industry premises to the Land Fall Point (LFP) at the seashore. Further, a marine outfall pipeline of 1000 m length with 400 mm diameter is proposed to be laid into the sea up to the outfall diffuser at a depth of 8.5 m, for discharge of treated effluent with a total marine outfall capacity of 6 MLD.
5	Domestic	100 KLD	Sewage Treatment Plant of 120 KLD proposed to provide. After treatment, shall be recycled back into process.

D. Solid/Hazardous Waste and its disposal:

S. No	Source of solid waste	As per CTE order dt. 01.06.2025	After CTE Amendment	Method of disposal
1	ETP sludge (Inorganic)	36.44 TPD	2.62 TPD	Shall be sent to TSDF/Authorised Recyclers
2	ETP sludge (Organic)	16.80 TPD	0.73 TPD	
3	Evaporation Salts	15.84 TPD	---	
4	Silica recovered from ETP	44.00 TPD	44.00 TPD	Shall be sent to reuse
5	STP Sludge	0.3 TPD	0.3 TPD	Shall be used as manure/Horticulture
6	Oily waste	1.0 TPA	1.0 TPA	Shall be sent to Authorized Agencies/Recyclers/Vendors
7	Waste oils & Grease	500 KLPA	500 KLPA	
8	Detoxified containers & bags	300 Nos./month	300 Nos./month	
9	Used PPE	0.5 TPM	0.5 TPM	
10	E-Waste including production reject	321.5 TPA	321.5 TPA	
11	Plastic Waste	10 TPA	10 TPA	Shall be sent to TSDF
12	Metal Scrap	20.0 TPM	20.0 TPM	
13	Used / Discarded RO Membranes Cartridge	4.0 TPA	4.0 TPA	
14	Spent Resin	6.0 TPA	6.0 TPA	
15	Spent Anthracite	0.5 TPA	0.5 TPA	

16	Discorded / Broken Solar Cells/ wafers	0.5% of production	0.5% of production	Shall be sent to authorised re-cyclers, as per E-Waste (Management) Rules, 2022.
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5. Earlier, the issue was placed before the CTE Committee meeting held on 20.02.2026. After detailed discussions, the Committee recommended to seek clarification from the project proponent on the certain points. In this regard, a letter was communicated to the industry vide dt.06.03.2026. The industry has submitted the information vide Ir dt.09.03.2026.
6. The issue was again placed before the CTE Committee meeting held on 11.03.2026. After detailed discussions, the Committee recommended to seek clarification from the project proponent on the certain points. The project proponent has submitted the information on 12.03.2026. The issue was again placed before the CTE Committee meeting held on 13.03.2026. After detailed discussions, **the Committee recommended to issue CTE amendment for laying of pipeline to the project with the following conditions:** 1. *To obtain EC from SEIAA to the entire project before applying for CTO of the Board.* 2. *Shall comply with the outcome of Hon'ble NGT directions in matter of OA No. of 22 of 2026.*
7. The Board, after careful scrutiny of the application, verification report of Zonal Office: Tirupati, based on the recommendations of the CTE Committee & information submitted by the industry, hereby issues:

- i. **Consent to Establishment (CTE) to establish 6 MLD Marine outfall discharge through pipe-line into sea for laying of pipeline into Sea and**
- ii. **Amendment to Consent to Establishment (CTE) order dt.01.06.2025 for changing the Water consumption, Waste water generation & disposal and Solid waste generation & its disposal.**

under Section 25 of Water (Prevention & Control of Pollution) Act 1974 and Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and the rules made thereunder. This order is issued to the activity as mentioned at para (4) only.

8. **The industry shall obtain EC from SEIAA to the entire project before applying for CTO of the Board.**
9. **The industry shall comply with the outcome of Hon'ble NGT directions in matter of OA No. of 22 of 2026.**
10. All the other conditions mentioned in CTE order dt: 06.01.2025 & CTE (NOC) order dt.23.08.2025 shall remains the same.
11. This Consent Order now issued is subject to the conditions mentioned in the Annexure.
12. This order is issued from pollution control point of view only. Zoning and other regulations are not considered.
13. **This order is valid for a period of 7 years from the date of issue.**

Encl: Annexure

S SRISARAVANAN, I.F.S
Member Secretary

To
M/s. Indosol Solar Pvt. Ltd.
Chevuru Village, Gudluru Mandal,

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Prakasam District (Erstwhile SPSR Nellore District)

Copy to: 1. The SEE, Z.O., APPCB, Tirupati for information and necessary action.
2. The E.E., R.O, APPCB, Nellore for information and necessary action.

Annexure

1. **The industry shall obtain EC from SEIAA to the entire project before applying for CTO of the Board.**
2. **The industry shall comply with the outcome of Hon'ble NGT directions in matter of OA No. of 22 of 2026.**
3. All the other conditions mentioned in CTE order dt: 06.01.2025 & CTE (NOC) order dt.23.08.2025 shall remains the same.
4. The proponent shall obtain Consent to Operate (CTO) from APPCB, as required Under Sec.25/26 of the Water (P&C of P) Act, 1974 and under sec. 21/22 of the Air (P&C of P) Act, 1981.
5. Effluents shall not be discharged onland or into any surface water bodies or aquifers under any circumstances.
6. The proponent shall regularly monitor the flora and fauna of the marine aquatic life. The trend analysis of the monitoring reports shall be compared with the base line data. If it is found any negative impacts, immediate restorative measures shall be implemented duly submitting a report to Board.
7. The proponent shall provide continuous online effluent monitoring system for Flow, pH, TSS, COD, BOD, TOC, Ammonia and oil & grease at the outlet marine disposal system. It shall be connected to the website of CPCB and APPCB.
8. The proponent shall provide magnetic flow meter with the digital totalizer with recording facility for the purpose of quantification of treated effluent discharged through marine outfall.
9. The facility shall comply with all the SOPs issued by APPCB w.r.t. marine outfalls.
10. **Guard ponds, monitoring facilities, etc. of adequate capacity shall be provided. The treated wastewater shall be stored in the guard ponds, after conforming to the marine discharge standards notified by the MoEF&CC, Gol, New Delhi, shall be discharged through marine outfall into the Bay of Bengal under the supervision of APPCB officials.**
11. The proponent shall comply with all the directions issued by the Board from time to time.
12. Concealing the factual data or submission of false information / fabricated data and failure to comply with any of the conditions mentioned in this order may result in withdrawal of this order and attracts action under the provisions of relevant pollution control Acts.
13. Notwithstanding anything contained in this conditional letter or consent, the Board hereby reserves its right and power Under Sec.27(2) of Water (Prevention and Control of Pollution) Act, 1974 and Under Sec.21(4) of Air (Prevention and Control of Pollution) Act, 1981 to review any or all the conditions imposed herein and to make such alternation as deemed fit and stipulate any additional conditions by the Board.
14. Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules, 1976 and Air Rules,1982, to such authority (hereinafter referred to as the Appellate

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Authority) constituted under Section 28 of Water (Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air (Prevention and Control of Pollution) Act, 1981.

S SRISARAVANAN, I.F.S
Member Secretary

To

M/s. Indosol Solar Pvt. Ltd.

Chevuru Village, Gudluru Mandal,
Prakasam District (Erstwhile SPSR Nellore District)

**GOVERNMENT OF ANDHRA PRADESH
FOREST DEPARTMENT**

From
Sri K. Mahaboob Basha, IFS,
District forest officer,
SPSR Nellore.

✓ To
The M/s Indosol Solar Pvt. Ltd.,
Chevuru village, Gudluru Mandal,
Prakasam district.

Rc. No.214/2026-F11, Dt.26.03.2026.

Sir,

Sub: Request for issuance of distance certificate of Chevuru RF from Indosol Solar Pvt., Ltd, Chevuru village, SPSR Nellore District- NOC requested –NOC issued -Reg.

Ref: 1.M/s Indolso Solar Pvt, Ltd, Ref.ISPL/IGW-Chevuru/2025-26/2008, dt.19.03.2026.
2.DFO, Nellore Rc.No.214/2026 F11, dt.24.03.2026.
3.FRO, Kavali Rc.No.24/2026, dt.25.03.2026.

In the reference 1st cited, the M/s Indosol Solar, Pvt., Ltd, Chevuru village, SPSR Nellore District authority has requested for issuance of a No objection certificate (NOC) indicating the distance from their project site boundary to Chevuru Reserved Forest at Chevuru Village, as per the MoEF&CC guidelines, for processing the environment clearance.

In this regard, it is informed that in the reference 3rd cited, the Forest Range Officer, Kavali reported that the proposed Integrated Solar Photovoltaic (PV), Modules Manufacturing Unit area at Chevuru village is abutting with the Chevuru RF (Compartment No.394) eastern boundary for a length of 875 Mts towards north to south direction.

Further, after verification of forest records, it is found that Sy.no.595, 594, 593, 592, 585, and 584 of Chevuru village, Gudluru mandal, as referred to by the applicant, do not fall within the Reserved Forest and are outside the Chevuru Reserved Forest. Hence, the NOC is issued subject to the following conditions to be fulfilled by the applicant:

1. The User Agency shall not enter into the Reserved Forest area for collection or utilization of forest produce or for using internal forest paths/ roads for transportation of materials under any circumstances. Forest land shall not be used for any purpose whatsoever.
2. The User Agency shall clearly demarcate the boundary of the proposed area and chain-link fencing shall be erected along the entire boundary to prevent any extension of the project area into the adjoining RF area.
3. No labour camps shall be provided with fuel for cooking or other purposes from nearby Reserved Forest areas.
4. Labour camps, machinery, and dumping sites shall be kept away from the Reserved Forest area.
5. The User Agency shall not undertake blasting activities during night time in areas nearer to Chevuru RF.

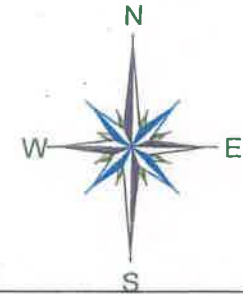
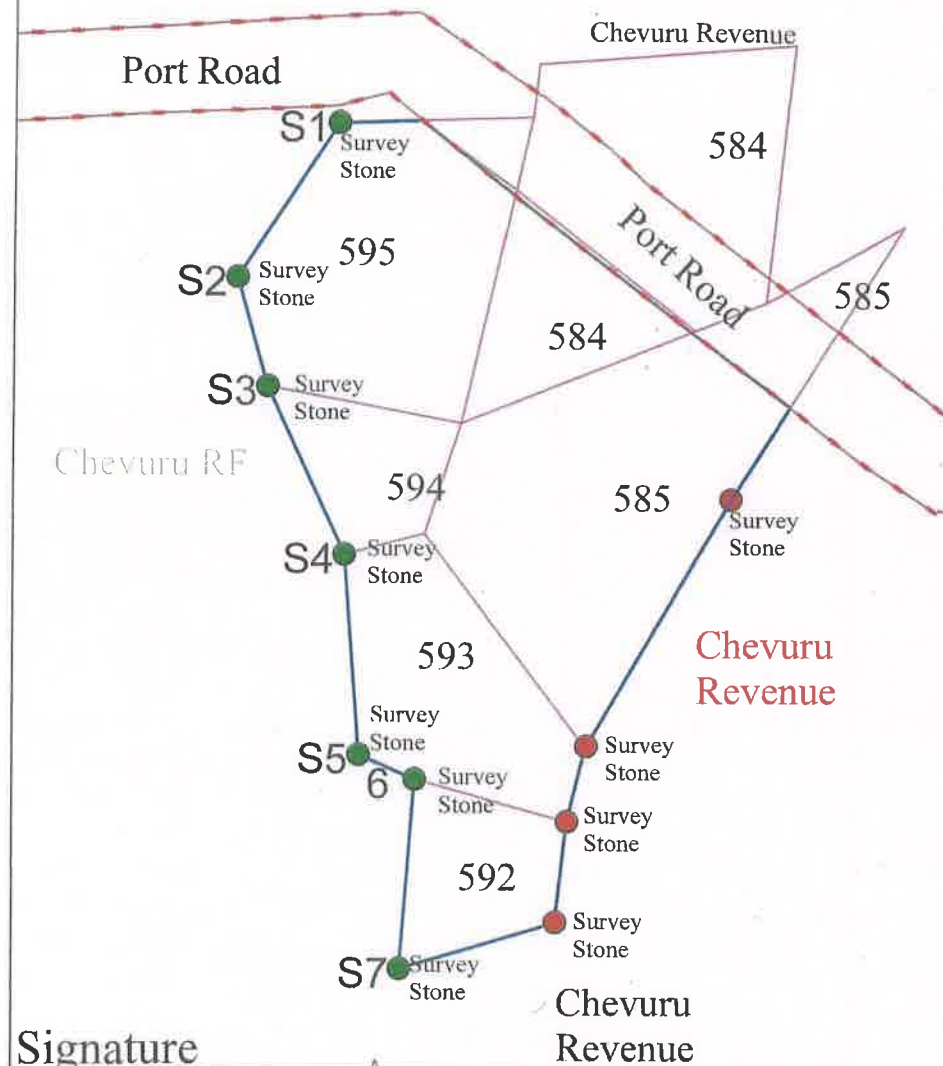
6. At the time of commencement of work, during execution, and after completion of the work, the User Agency and its labourers shall not indulge in any forest offences and shall strictly abide by the provisions of the AP Forest Act, 1967, Forest (Conservation) Act, 1980, Wildlife (Protection) Act, 1972, and other forest laws in force.
7. The User Agency shall not disturb the natural ecosystem, flora and fauna in the nearby forest areas.
8. The User Agency shall not alter or disturb any rivers, nalas, streams, paths, or rights of way leading to nearby forest areas under any circumstances.
9. In the event of any forest fire in the nearby forest area, the User Agency and its staff shall extend full cooperation to the Forest Department in controlling and extinguishing the fire.
10. The Forest Range Officer, Kavali shall inspect the proposed Integrated Solar Photovoltaic (PV), Modules Manufacturing Unit area once in every quarter and ensure that all the above conditions are implemented by the User Agency without any violations.
11. The User Agency shall abide by all the above conditions and any additional conditions imposed by the Forest Department from time to time in the interest of protection of the adjacent forest. Failing which, the NOC issued to the applicant will be liable for cancellation.
12. The applicant shall plant tall tree species in between the forest boundary and the Integrated Solar Photovoltaic (PV), Modules Manufacturing Unit area to protect the forest.

Yours faithfully,
Sd/-K.Mahaboob Basha
District Forest Officer,
SPSR Nellore.

Copy to the Forest Range Officer, Kavali with a request to see that all the above conditions be implemented by the user agency. He is also requested to inspect the notified Chevuru Reserved Forest and also adjacent RF areas frequently and see that the user agency/their representative should not enter into any RF areas under any circumstances.

// T C B O //
K. Mahaboob Basha
 Technical Officer 26/3/26

Revenue Boundary Map of Survey no 584,585,592,593,594 And 595 of Indosol Solar PVT Ltd.



Revenue Boundary Map of Survey no 584,585,592,593,594 And 595 of Indosol Solar PVT Ltd.

Sno	Northing	Easting	Latitude	Longitude
S1	1658632.951	392858.9366	15.00059414	80.00344924
S2	1658490.111	392765.0277	14.99929906	80.00258185
S3	1658388.307	392794.0517	14.99837995	80.00285604
S4	1658230.893	392866.185	14.99695989	80.00353348
S5	1658044.192	392880.0628	14.99527271	80.00367036
S6	1658021.208	392932.0569	14.99506705	80.00415487
S7	1657846.073	392918.3345	14.99348329	80.00403458

Signature

[Signature]
Deputy Range Officer
Thettu Section

[Signature]
FOREST RANGE OFFICER
KAVALL



Project Name:	EC application for Construction of Industrial Buildings to establish Solar photovoltaic module (Ingot, Wafer, Cell, and Module) manufacturing facility at Chevuru Village, Gudluru Mandal, Prakasam District (Erstwhile SPSR Nellore District), Andhra Pradesh by M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL)	Single Window Number:	SW/280461/2026
State:	ANDHRA PRADESH	Proposal Number:	SIA/AP/INFRA2/574789/2026
Submission Date:	06/04/2026	Current Status:	EC Granted
Sector:	INFRA2	Project Category:	B2
Project Proponent Name:	MANOJ KUMAR REDDY POTHIREDDY	Proposal For:	Fresh EC

Common Application Form

Project Details

1. Details of Project

1.1. Name of the Project

EC application for Construction of Industrial Buildings to establish Solar photovoltaic module (Ingot, Wafer, Cell, and Module) manufacturing facility at Chevuru Village, Gudluru Mandal, Prakasam District (Erstwhile SPSR Nellore District), Andhra Pradesh by M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL)

1.2. Project Proposal For

New

1.3. Project ID (Single Window Number)

SW/280461/2026

1.4. Description of Project

Construction of Industrial Buildings to establish Solar photovoltaic modules (Ingot, Wafer, Cell, and Module) manufacturing facility with Site area – 252534 Sq.m.; Total Built up area – 118646 Sq.m., located Survey Nos. 584-6, 584-6B1, 584-7, 584-8, 584-9, 584-10, 584-11, 585-2, 585-2A, 585-3, 585-3A, 585-3B, 585-3C, 585-3D, 585-4, 585-4A, 585-5, 585-6, 585-6A, 585-6B, 585-7, 585-7A, 585-8, 585-8A, 585-8B, 592-1, 592-1A, 592-2, 592-2A, 593-1, 593-1A, 593-2, 593-2A, 593-3, 593-3A, 594-1, 594-1A, 594-2, 594-2A, 595-1, 595-2, 595-3, 595-4, 595-4/a, 595-4B, 595-5, 595-5A, 850 (part), and 855 in Chevuru Village, Gudluru Mandal, Prakasam District (erstwhile SPSR Nellore District), Andhra Pradesh by M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL).

2. Details of the Company/Organization/User Agency making application

2.1. Legal Status of the Company/Organization/User Agency

Individual

2.2. Name of the Company/ Organization/User agency

MANOJ KUMAR REDDY POTHIREDDY

Registered address

2.3. Address

Survey No 585/2, 585-5, 593-2A, Near Port Road, Chevuru Village, Gudluru Mandal, Sri Pooti Sriramulu Nellore, Andhra Pradesh- 523291

2.4. State

ANDHRA PRADESH

2.5. District

PRAKASAM

2.6. Pin Code

523291

2.7. E-mail address

saidiwakar.gundram@indosolsolar.com

2.8. Mobile number

xxxxxx0828

3. Details of the person making application

3.1. Name

MANOJ KUMAR REDDY POTHIREDDY

3.2. Designation

Head - Downstream & Glass

Correspondence address

3.3. Address

Survey No 585/2, 585-5, 593-2A, Near Port Road, Chevuru Village, Gudluru Mandal, Prakasam (Erstwhile Sri Pooti Sriramulu Nellore), Andhra Pradesh- 523291

3.4. State

ANDHRA PRADESH

3.5. District

PRAKASAM

3.6. Pin Code

523291

3.7. E-mail address

saidiwakar.gundram@indosolsolar.com

3.8. Mobile number

xxxxxx0828

Project Location

4. Location of the Project or Activity

4.1. Upload KML

indosol solar final 06.04.2026.kml

4.2. Whether the project/activity falling in the state/UT sharing international borders

NO

5. Shape of the Project

Non - Linear

Toposheet No	State/UT	District	Sub District	Village	Plot/Survey/Khasra No.
D44C4	ANDHRA PRADESH	Sri Potti Sriramulu Nelli*	Gudluru	CHEVURU	Survey Nos. 584-6, 584-6B1, 584-7, 584-8, 584-9, 584-10, 584-11, 585-2, 585-2A, 585-3, 585-3A, 585-3B, 585-3C, 585-3D, 585-4, 585-4A, 585-5, 585-6, 585-6A, 585-6B, 585-7, 585-7A, 585-8, 585-8A, 585-8B, 592-1, 592-1A, 592-2, 592-2A, 593-1, 593-1A, 593-2, 593-2A, 593-3, 593-3A, 594-1, 594-1A, 594-2, 594-2A, 595-1, 595-2, 595-3, 595-4, 595-4/a, 595-4B, 595-5, 595-5A, 850 (part), and 855 in Chevuru Village, Gudluru Mandal, Prakasam District (erstwhile SPSR Nellore District), Andhra Pradesh

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Remarks

N/A

6. Land Requirement (in Ha) of the project or activity

6.1. Nature of Land involved 1

6.2. Non-Forest Land [A]	25.25
6.3. Forest Land [B]	0
6.4. Total Land [A+B]	25.25

Project Activity Cost

7. Project/Activity Cost

7.1. Total Cost of the Project at current price level	200000
7.2. Amount in words	Two Lakh Lakh(s) Only

8. Employment likely to be generated

8.1. During construction phase

Permanent employment

8.1.1. No. of permanent employment (No.s) [A]	150
8.1.2. Period of employment (No. of days) [B]	1320
8.1.3. No. of man-days [X] = [A]*[B]	198000

Temporary employment

8.1.4. Temporary / Contractual employment (No. of Man days) [Y]	90000
8.1.5. Total [X] + [Y]	288000

8.2. During operational phase

Permanent employment

8.2.1. No. of permanent employment (No.s) [A]	50
8.2.2. Period of employment (No. of days) [B]	330
8.2.3. No. of man-days [X] = [A]*[B]	16500

Temporary employment

8.2.4. Temporary / Contractual employment (No. of Man days) [Y]	4500
8.2.5. Total [X] + [Y]	21000

Others

9. Whether Rehabilitation and Resettlement (R&R) involved?	NO
10. Whether project area involves shifting of watercourse/road/rail/Transmission line/water pipeline, etc. required?	NO
11. Whether any alternative site(s) examined or part thereof for the non-site-specific component?	Not applicable as the project or activity is site specific
12. Whether there is any Government Order or Policy/ Court order relevant or restricting to the site?	NO
13. Whether there is any litigation pending against the project and/or land in which the project is proposed to be set up?	NO
14. Whether the proposal involves violation of Act/Rule/Regulation/Notification of Central/State Government?	NO



Government of India

Ministry of Environment, Forest and Climate Change

(Issued by the State Level Expert Appraisal Committee(SEAC),
ANDHRA PRADESH)



The 287th SEAC day 2 Additional Agenda

Agenda ID	EC/AGENDA/SEAC/840019/4/2026
Agenda Creation Date	09/04/2026
Title of Meeting	The 287th SEAC day 2 Additional Agenda
Meeting Mode	Hybrid
Meeting Venue	The SEIAA Office, A.P
Meeting Date	Start Date : 10/04/2026 End Date : 10/04/2026
State	ANDHRA PRADESH

	Meeting Date	Meeting Mode	Start Time	End Time
Day 1	10/04/2026	Hybrid	10:30 AM	05:30 PM

List of Proposals

Sr. No.	Proposal Details	Location	Meeting Date	Proponent
1	Proposal No : SIA/AP/INFRA2/574789/2026 File No : AP INFRA2 EC PR 04 2026 2508 Project Name : EC application for Construction of Industrial Buildings to establish Solar photovoltaic module (Ingot, Wafer, Cell, and Module) manufacturing facility at Chevuru Village, Gudluru Mandal,	State: ANDHRA PRADESH District: PRAKASAM	10/04/2026	MANOJ KUMAR REDDY POTHIREDDY

	Prakasam District (Erstwhile SPSR Nellore District), Andhra Pradesh by M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) Proposal For: Fresh EC Activity: 8(a) Building / Construction Sector: INFRA2			
2	Proposal No : SIA/AP/INFRA2/574892/2026 File No : AP INFRA2 EC TR 04 2026 2509 Project Name : Construction of Residential High rise Building by M/s. Sumanth Homes Proposal For: Fresh EC Activity: 8(a) Building / Construction Sector: INFRA2	State: ANDHRA PRADESH District: TIRUPATI	10/04/2026	KATTA SUMANTH
3	Proposal No : SIA/AP/INFRA2/575126/2026 File No : AP INFRA2 EC AKP 04 2026 2516 Project Name : M/s. Vizag Rambilli Data Center Park Limited Proposal For: Fresh EC Activity: 8(a) Building / Construction Sector: INFRA2	State: ANDHRA PRADESH District: ANAKAPALLI	10/04/2026	VIZAG RAMBILLI DATA CENTER PARK LIMITED
4	Proposal No : SIA/AP/INFRA2/575243/2026 File No : AP INFRA2 EC VSP 04 2026 2517 Project Name : M/s Vizag Mega Data Center Park Limited Proposal For: Fresh EC Activity: 8(a) Building / Construction Sector: INFRA2	State: ANDHRA PRADESH District: VISAKHAPATANAM	10/04/2026	VIZAG MEGA DATA CENTER PARK LIMITED

Any Other Item(s)

Sr. No.	Proposal Name.	Proposal Details	Location
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SEAC Members Details

Sr. No.	Name	Designation	Email ID
1	Shri Batchu Siva Prasad	Chairman, SEAC	siv*****@gmail.com
2	Shri Chenchugarla Krishna Moorthy	SEAC MEMBER	moo*****@gmail.com
3	Dr Thummala Chandrasekhar	SEAC MEMBER	tcs*****@gmail.com
4	Prof Kondra Sudhakar Babu	SEAC MEMBER	drk*****@gmail.com
5	Prof Gonuguntla Venkata Naidu	SEAC MEMBER	gvn*****@gmail.com
6	Prof Guntuku Girija Sankar	SEAC MEMBER	pro*****@andhrauniversity.edu.in
7	Shri Godavathi Veera Venkata Satyanarayana Chowdary	SEAC MEMBER	cho*****@gmail.com

8	Prof Peela Sujatha	SEAC MEMBER	drp*****@gmail.com
9	Dr Ponnekanti Joseph Ratnakar	SEAC MEMBER	jrp*****@gmail.com
10	Dr Muvva Vijayalakshmi	SEAC MEMBER	pro*****@gmail.com
11	Dr Billa Sarath Babu	SEAC MEMBER	bsa*****@gmail.com
12	Dr Ramannagari Bhavani	SEAC MEMBER	rbh*****@jntua.ac.in
13	Prof Chalamcherla Vijaya	SEAC MEMBER	drv*****@vsu.ac.in
14	Dr Arza Veera Venkata Satyanarayana Swamy	SEAC MEMBER	arz*****@gmail.com
15	Sri Mohan Rajashekar	Member Secretary, SEAC	mss*****@gmail.com

Remarks

The 287th SEAC meeting Scheduled on 9th & 10th , April 2026 at SEIAA, Office, Vijayawada, A.P



Government of India
Ministry of Environment, Forest and Climate Change
 (Issued by the State Level Expert Appraisal
 Committee(SEAC),
 ANDHRA PRADESH)



Minutes of The 287th SEAC day 2 Additional Agenda State Level Expert Appraisal Committee meeting held from 10/04/2026 to 10/04/2026

Date: 13/04/2026

MoM ID: EC/MOM/SEAC/840019/4/2026

Agenda ID: EC/AGENDA/SEAC/840019/4/2026

Meeting Venue: The SEIAA Office, A.P

Meeting Mode: Hybrid

Date & Time:

10/04/2026	10:30 AM	05:30 PM
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1. Opening remarks

At the outset, Shri Batchu Siva Prasad Chairman and Sri M. Raja Shekar, the Member Secretary of the SEAC, welcomed the Members of the SEAC, AP and initiated the proceedings with the activities of 287th meeting Agenda.

2. Confirmation of the minutes of previous meeting

N/A

3. Details of proposals considered by the committee

Day 1 -10/04/2026

3.1. Agenda Item No 1:

3.1.1. Details of the proposal

EC application for Construction of Industrial Buildings to establish Solar photovoltaic module (Ingot, Wa

fer, Cell, and Module) manufacturing facility at Chevuru Village, Gudluru Mandal, Prakasam District (Erst while SPSR Nellore District), Andhra Pradesh by M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) by MAN OJ KUMAR REDDY POTHIREDDY located at PRAKASAM, ANDHRA PRADESH

Proposal For		Fresh EC	
Proposal No	File No	Submission Date	Activity Sub-Activity (Schedule Item)
SIA/AP/INFRA2/574789/2026	AP INFRA2 EC PR 04 2026 2508	06/04/2026	Building / Construction Industrial sheds (8(a))

3.1.2. Project Salient Features

The Proposal of **M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL)**, is for Construction of **Industrial Buildings to Establish Integrated Solar Modules (Ingot, wafer, Cell, Module and Glass) Manufacturing unit** with Built Up area - **1,18,646 Sq.m** in total plot area is **252534 Sq.m (62.41 acres)** at **Chevuru Village, Gudluru Mandal, Prakasam District, Andhra Pradesh**. The project cost of the proposed project is **Rs.2,000 Crs.**

The project falls under Item No. 8(a) of the schedule of the EIA Notification 2006 and its amendments thereof - Building and Construction Projects ($\geq 20,000$ Sq.mtrs and $\leq 1,50,000$ sq. m. of built up area).

The project proponent, along with their consultant, M/s TEAM Labs and Consultants, have attended the meeting and presented the proposal. The SEAC Committee noted the following:

- M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) proposes to setup an Integrated Solar PV modules Manufacturing Facility along with in-house Float glass manufacturing unit at Survey Nos. 584-6, 584-6B1, 584-7, 584-8, 584-9, 584-10, 584-11, 585-2, 585-2A, 585-3, 585-3A, 585-3B, 585-3C, 585-3D, 585-4, 585-4A, 585-5, 585-6, 585-6A, 585-6B, 585-7, 585-7A, 585-8, 585-8A, 585-8B, 592-1, 592-1A, 592-2, 592-2A, 593-1, 593-1A, 593-2, 593-2A, 593-3, 593-3A, 594-1, 594-1A, 594-2, 594-2A, 595-1, 595-2, 595-3, 595-4, 595-4/a, 595-4B, 595-5, 595-5A, 850(part), and 855 in Chevuru Village, Gudluru Mandal, Prakasam District, Andhra Pradesh.
- The unit applied for EC as per the Hon'ble Supreme Court Order dated 05.08.2025 and the Office Memorandum dated 25.08.2025, which mandates prior environmental clearance for industrial sheds also.
- M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) proposed to establish an integrated solar module manufacturing facility, covering ingot, wafer, cell, module, and glass production.

- d. The PP proposed to construct the industrial shed with built up area of 1,18,646 Sq.m in an area of 25.25 Ha.
- e. The source of water is Chevuru Tank (4 MLD) and Chennayyapalem Tank (3 MLD). The Total water requirement of water is 6955 KLD.
- f. The wastewater generation from the project is 5919 KLD will be treated in Organic ETP: 1.45 MLD & Inorganic ETS: 4.37 MLD. The domestic sewage will be treated in STP of capacity 1 x 120 KLD. The treated sewage will be utilized for greenbelt development. The PP proposed to develop greenbelt is 20.1% of the proposed site.
- g. The total treated wastewater is 5919 KLD. The MoEF&CC, GoI vide order dt.12.12.2025 issued CRZ clearance for discharging 6 MLD treated effluent into the sea at Ramayapatnam, Nellore district.
- h. The committee appraised the application from the Environmental point of view only with respect to liquid, solid and air pollution management.
- i. The PP vide letter dt. 26.03.2026 submitted Forest NoC issued by the DFO, SPSR Nellore.

The project proponent allocated Rs. 600 Lakhs as capital cost and Rs. 1465 lakhs/annum as a recurring cost budget for the EMP. The proponent volunteered to develop avenue plantation in **Prakasam District** by indicating their company sign Boards as a part of Corporate Social Responsibility (CSR) activity and shall maintain till it grows.

3.1.3. Deliberations by the committee in previous meetings

N/A

3.1.4. Deliberations by the SEAC in current meetings

The Committee, after examining the project proposals, presentations, MoEF&CC' Notifications & OM's, detailed deliberations, recommended to issue Environmental Clearance with the following additional conditions:

1. The proponent shall comply with the proposals furnished in the Environmental management plan.
- 2. The PP shall strictly follow CRZ conditions dt.12.12.2025.**
3. The construction debris shall be used for back filling of the project site to the maximum extent possible and the remaining shall be disposed duly complying with the construction and demolition waste management rules 2016.
4. The project proponent shall implement solid waste management as per the Solid Waste Management Rules, 2016 applicable for

constructions projects.

5. The PP shall construct organic ETP of 1.45 MLD and inorganic effluent treatment system (ETS) of 4.37 MLD to treat the effluents. The treated effluents shall be discharged into Sea through marine outfall.
6. The proponent shall construct and commission STP- 120 KLD along with commissioning of project, treat the domestic sewage to meet irrigation standards at any point of time before using for greenbelt development.
7. The project proponent shall implement the solid waste management as per the Solid Waste Management Rules, 2016 applicable for constructions projects.
8. The parking area shall be in compliance with NBC/MoEF&CCGoI / Local Govt regulations as applicable whichever, is higher.
9. The project proponent shall develop the avenue plantation along the approach roads leading to the proposed project site.
10. The project proponent shall treat the effluents to meet the standards stipulated by MoEF&CC GoI vide notification G.S.R 1265 (E) 13.07.2017 for discharge into Sea.
11. The project proponent shall install organic waste converter for the treatment and disposal of wet garbage in a scientific manner.
12. Solar Energy Systems shall be installed to utilize at least one third of the roof area.
13. The project proponent shall use only LED lights in the common areas and internal roads and shall provide timer-based lighting management in common area, Light levels shall be selected to suit the functional requirements, shall use high efficiency low-e glass type for windows, automatic timer controls for external lighting, ETC for energy conservation.
14. The building shall be designed for compliance with earth quake resistance and resisting other natural hazards.
15. The proponent shall construct rainwater harvesting pit and storm water drains for collection, usage and also for groundwater table maintenance within the premises.

The project proponent shall obtain all statutory permissions if any from all the regulatory departments including Fire Department.

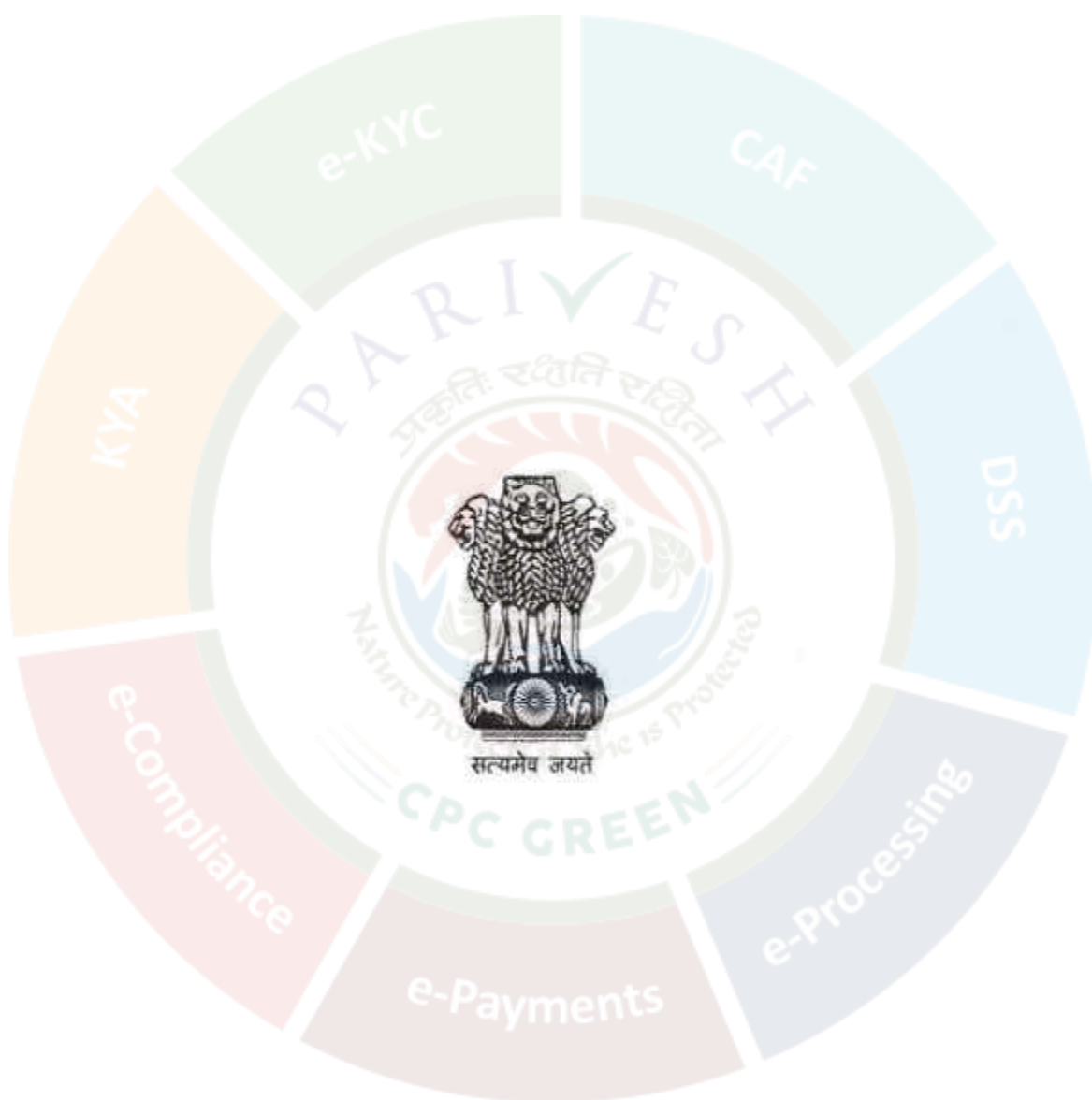
3.1.5. Recommendation of SEAC

Recommended

287th SEAC, A.P.

Day 2

10.04.2026



Minutes of 287th Meeting of the State Expert Appraisal Committee (SEAC), Andhra Pradesh held on 10.04.2026, at State Level Environment Impact Assessment Authority (SEIAA) Andhra Pradesh Government of India Ministry of Environment Forests & Climate Change 3rd Floor, A.P. Markfed Building, APIIC Colony, Jawahar Auto Nagar, Vijayawada - 520007.

M. S. Sankar
Member Secretary
SEAC

B. S. Ramesh
Chairman
SEAC

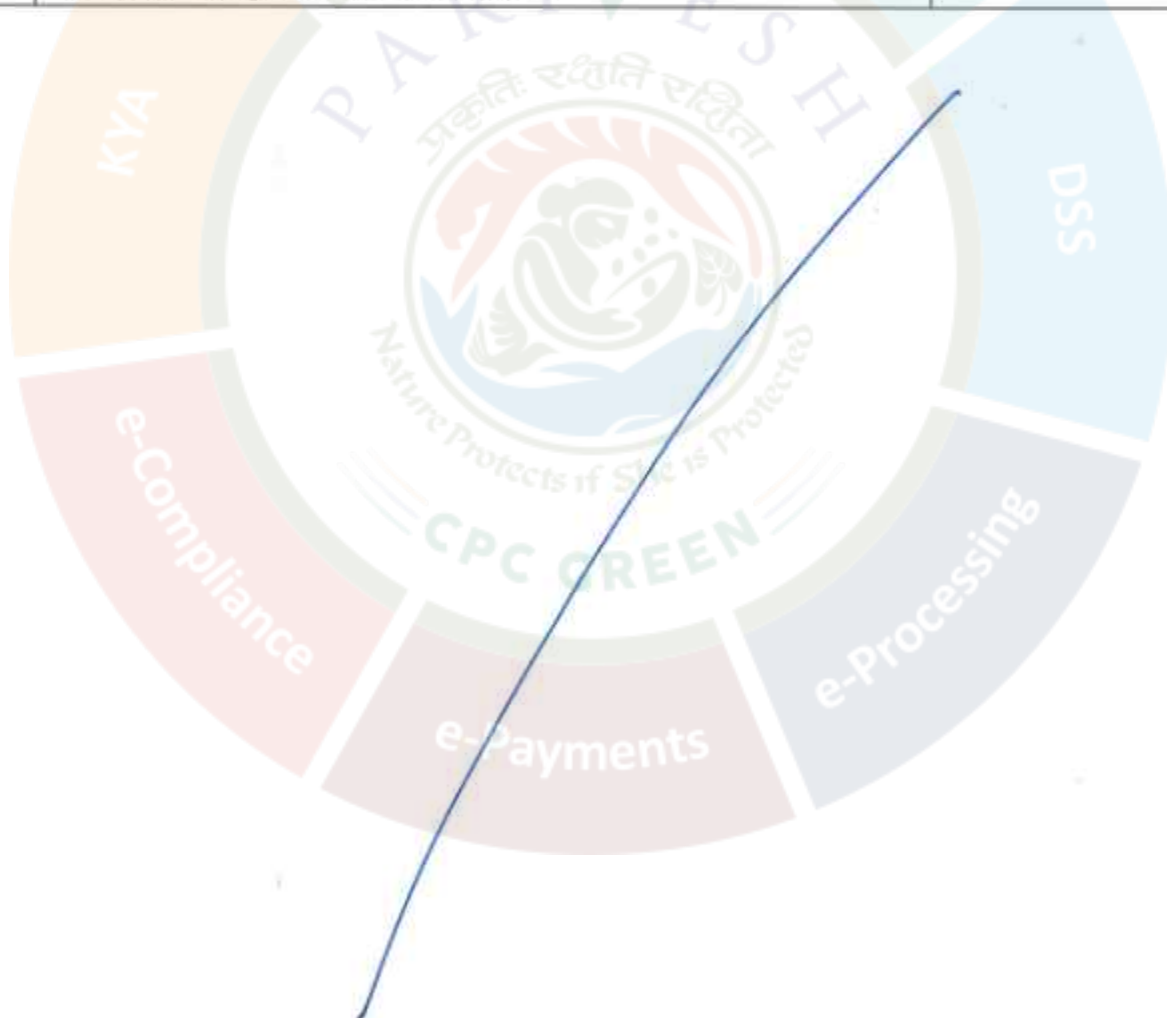
	Minutes OF THE 287th MEETING OF STATE EXPERT APPRAISAL COMMITTEE (SEAC), A.P., HELD ON 9th & 10th April 2026 AT VIJAYAWADA, A.P.
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1.	Shri Batchu Siva Prasad , Flat No. 102, Trinethra Apartments, Dasari Lingaiah Street, Mogalrajapuram, Vijayawada.	Chairperson
2.	Shri Chenchugarla Krishna Moorthy , Flat Number: G-01, Padmavathi Towers, Thirumalareddy Nagar, Tirupathi 517 501.	Member
3.	Dr. Thummala Chandrasekhar , H. No. 79/71-81, Shri Raghavendra Township Near Sakshi Office, Kadapa.	Member
4.	Prof. Kondra Sudhakar Babu , Flat No. 405, 5th Floor, Mahaboob Towers, Georgepet, Near More Market, Ananthapuramu 515004.	Member
5.	Prof. Gonuguntla Venkata Naidu , Door No.28-3-168, Tarakanath Colony, Sarada Nagar, Jawaharlal Nehru Technological University Engineering College Road, Anantapur.	Member
6.	Prof. Guntuku Girija Sankar , 6-21-11/2, Flat No. 401, Skyline Vaibhavam Apartment, East Point Colony, Visakhapatnam-17.	Member
7.	Shri Godavathi Veera Venkata Satyanarayana Chowdary , SL-04/7, Paramount Towers, Panorama Hills, Nyaya Vidya Parishad Law College Road, Yendada, Visakhapatnam 530045.	Member
8.	Prof. Peela Sujatha , W/o PVLN Murthy, D. No. 1-51-8/2, Sector-1, Near Sanjeevi Hospital, Muvvala Vani Palem Colony, Lawsons Bay Colony, Visakhapatnam - 530017.	Member
9.	Dr. Ponnekanti Joseph Ratnakar , D. No. 18-52/4, Kolakalur, Tenali 522307, Guntur District, Andhra Pradesh.	Member
10.	Dr. Muvva Vijayalakshmi , D.No. 4-19-13/1, Sai Nilayam, Vijayapuri 1st lane, Jagarlamudi Kuppaswamy Choudary College Road, Guntur - 522 006.	Member
11.	Dr. Billa Sarath Babu , D. No. 18-23, Military colony, Near Upparapalli Highway, Arch,	Member


Member Secretary
SEAC


Chairman
SEAC

	Tirupati 517502.	
12.	Dr. Ramannagari Bhavani, D.No.13-2-426, Ramachandra Nagar, Anantapur.	Member
13.	Prof. Chalamcherla Vijaya, Flat No. 102, Leela Roses Apartments, Srinagar Colony, Magunta Layout, Nellore - 524001.	Member
14.	Dr. Arza Veera Venkata Satyanarayana Swamy, 103A, Pinnamaneni Residency, Goli Krishna Street, Ramavarapadu, Vijayawada-521108.	Member
15.	Sri M. Raja Shekar , Andhra Pradesh Pollution Control Board, Paryavaran Bhavan, Andhra Pradesh Industrial Infrastructure Corporation Limited Colony Road, Gurunanak Colony, Auto Nagar, Vijayawada -520007.	Member Secretary.



M. Raja Shekar
Member Secretary
SEAC

B. S. R. R.
Chairman
SEAC



	measures to ensure compliance with the CPCB prescribed ambient air quality standards at any point of time. 5. The proponent shall carryout suppression of dust generated due to transport of vehicles through continuous water sprinkling using tankers. 6. The vehicles carrying the mines material shall be covered with tarpaulin during transit. 7. The project proponent shall not use village roads for transportation of minerals. 8. The project proponent shall restrict vehicular movement during the peak hours to avoid accidents. 9. The project proponent shall restrict the load of the transport vehicles not more than 21 tons, in order to prevent road damages and minimize dust nuisance to the surrounding areas. 10. The project proponent shall comply with the commitments made during the public hearing. 11. The PP shall complete the development of the entire greenbelt (1000 plants) within the first year and ensure its maintenance throughout the lease period.
Agenda Item: 287.15	Construction of Industrial Buildings to establish Solar photovoltaic module (Ingot, Wafer, Cell, and Module) manufacturing facility of M/s. Indosol Solar Private Limited (ISPL) at Survey Nos. 584-6, 584-6B1, 584-7, 584-8, 584-9, 584-10, 584-11, 585-2, 585-2A, 585-3, 585-3A, 585-3B, 585-3C, 585-3D, 585-4, 585-4A, 585-5, 585-6, 585-6A, 585-6B, 585-7, 585-7A, 585-8, 585-8A, 585-8B, 592-1, 592-1A, 592-2, 592-2A, 593-1, 593-1A, 593-2, 593-2A, 593-3, 593-3A, 594-1, 594-1A, 594-2, 594-2A, 595-1, 595-2, 595-3, 595-4, 595-4/a, 595-4B, 595-5, 595-5A, 850(part), and 855 in Chevuru Village, Gudluru Mandal, Prakasam District (erstwhile SPSR Nellore District), Andhra Pradesh - EC - Reg.
SIA/AP/I NFRA2/5 74789/2 026	The Proposal of M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) , is for Construction of Industrial Buildings to Establish Integrated Solar Modules (Ingot, wafer, Cell, Module and Glass) Manufacturing unit with Built Up area – 1,18,646 Sq.m in total plot area is 252534 Sq.m (62.41 acres) at Chevuru Village, Gudluru Mandal, Prakasam District, Andhra Pradesh. The project cost of the proposed project is Rs.2,000 Crs.

M. Lijesh
Member Secretary
SEAC

B. S. R. R.
Chairman
SEAC



The project falls under Item No. 8(a) of the schedule of the EIA Notification 2006 and its amendments thereof - Building and Construction Projects ($\geq 20,000$ Sq.mtrs and $\leq 1,50,000$ sq. m. of built up area).

The project proponent, along with their consultant, M/s TEAM Labs and Consultants, have attended the meeting and presented the proposal. The SEAC Committee noted the following:

- a. M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) proposes to setup an Integrated Solar PV modules Manufacturing Facility along with in-house Float glass manufacturing unit at Survey Nos. 584-6, 584-6B1, 584-7, 584-8, 584-9, 584-10, 584-11, 585-2, 585-2A, 585-3, 585-3A, 585-3B, 585-3C, 585-3D, 585-4, 585-4A, 585-5, 585-6, 585-6A, 585-6B, 585-7, 585-7A, 585-8, 585-8A, 585-8B, 592-1, 592-1A, 592-2, 592-2A, 593-1, 593-1A, 593-2, 593-2A, 593-3, 593-3A, 594-1, 594-1A, 594-2, 594-2A, 595-1, 595-2, 595-3, 595-4, 595-4/a, 595-4B, 595-5, 595-5A, 850(part), and 855 in Chevuru Village, Gudluru Mandal, Prakasam District, Andhra Pradesh.
- b. The unit applied for EC as per the Hon'ble Supreme Court Order dated 05.08.2025 and the Office Memorandum dated 25.08.2025, which mandates prior environmental clearance for industrial sheds also.
- c. M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) proposed to establish an integrated solar module manufacturing facility, covering ingot, wafer, cell, module, and glass production.
- d. The PP proposed to construct the industrial shed with built up area of 1,18,646 Sq.m in an area of 25.25 Ha.
- e. The source of water is Chevuru Tank (4 MLD) and Chennayyapalem Tank (3 MLD). The Total water requirement of water is 6955 KLD.
- f. The wastewater generation from the project is 5919 KLD will be treated in Organic ETP: 1.45 MLD & Inorganic ETS: 4.37 MLD. The domestic sewage will be treated in STP of capacity 1 x 120 KLD. The treated sewage will be utilized for greenbelt development. The PP proposed to develop greenbelt is 20.1% of the proposed site.
- g. The total treated wastewater is 5919 KLD. The MoEF&CC, GoI vide order dt.12.12.2025 issued CRZ clearance for discharging 6 MLD treated effluent into the sea at Ramayapatnam, Nellore district.


Member Secretary
SEAC


Chairman
SEAC

- h. The committee appraised the application from the Environmental point of view only with respect to liquid, solid and air pollution management.
- i. The PP vide letter dt. 26.03.2026 submitted Forest NoC issued by the DFO, SPSR Nellore.
- j. The project proponent allocated Rs. 600 Lakhs as capital cost and Rs. 1465 lakhs/annum as a recurring cost budget for the EMP. The proponent volunteered to develop avenue plantation in **Prakasam District** by indicating their company sign Boards as a part of Corporate Social Responsibility (CSR) activity and shall maintain till it grows.

The Committee, after examining the project proposals, presentations, MoEF&CC' Notifications & OMs, detailed deliberations, recommended to issue Environmental Clearance with the following additional conditions:

1. The proponent shall comply with the proposals furnished in the Environmental management plan.
2. **The PP shall strictly follow CRZ conditions dt12.12.2025.**
3. The construction debris shall be used for back filling of the project site to the maximum extent possible and the remaining shall be disposed duly complying with the construction and demolition waste management rules 2016.
4. The project proponent shall implement solid waste management as per the Solid Waste Management Rules, 2016 applicable for constructions projects.
5. The PP shall construct organic ETP of 1.45 MLD and inorganic effluent treatment system (ETS) of 4.37 MLD to treat the effluents. The treated effluents shall be discharged into Sea through marine outfall.
6. The proponent shall construct and commission STP- 120 KLD along with commissioning of project, treat the domestic sewage to meet irrigation standards at any point of time before using for greenbelt development.
7. The project proponent shall implement the solid waste management as per the Solid Waste Management Rules, 2016 applicable for constructions projects.
8. The parking area shall be in compliance with NBC/MoEF&CCGoI / Local Govt regulations as applicable whichever, is higher.

m. f. j. s. k. v.
Member Secretary
SEAC

B. S. R. R. a. n. d.
Chairman
SEAC



	9. The project proponent shall develop the avenue plantation along the approach roads leading to the proposed project site. 10. The project proponent shall treat the effluents to meet the standards stipulated by MoEF&CC GoI vide notification G.S.R 1265 (E) 13.07.2017 for discharge into Sea. 11. The project proponent shall install organic waste converter for the treatment and disposal of wet garbage in a scientific manner. 12. Solar Energy Systems shall be installed to utilize at least one third of the roof area. 13. The project proponent shall use only LED lights in the common areas and internal roads and shall provide timer-based lighting management in common area, Light levels shall be selected to suit the functional requirements, shall use high efficiency low-e glass type for windows, automatic timer controls for external lighting, ETC for energy conservation. 14. The building shall be designed for compliance with earth quake resistance and resisting other natural hazards. 15. The proponent shall construct rainwater harvesting pit and storm water drains for collection, usage and also for groundwater table maintenance within the premises. 16. The project proponent shall obtain all statutory permissions if any from all the regulatory departments including Fire Department.
Agenda Item: 287.16	Construction of Residential High Rise Building of M/s. Sumanth Homes, at S.No. 276/1A, 276/2, 279, 279/B & 280, Ward no 22, Block no 1, Thimminaidupalem village, Tirupati Municipal Corporation, Tirupati District, Andhra Pradesh - EC - Reg.
SIA/AP/I NFRA2/5 74892/2 026	The Proposal of M/s. Sumanth Homes, is for construction of Residential High Rise Building with a Built-up area of 36379.41 Sqm at S. No. 276/1A, 276/2, 279, 279/B & 280, Ward no 22, Block no 1, Thimminaidupalem village, Tirupati Municipal Corporation, Tirupati District, Andhra Pradesh. The project falls under Item No. 8(a) of the schedule of the EIA Notification 2006 and its amendments thereof - Building and Construction Projects ($\geq 20,000$ Sq.mtrs and $\leq 1,50,000$ sq. m. of built up area).


**Member Secretary
SEAC**


**Chairman
SEAC**



Government of India

Ministry of Environment, Forest and Climate Change

(Issued by the State Environment Impact Assessment
Authority (SEIAA), ANDHRA PRADESH)



285th SEIAA AP MEETING-DAY2

Agenda ID	EC/AGENDA/SEIAA/642431/4/2026
Agenda Creation Date	15/04/2026
Title of Meeting	285th SEIAA AP MEETING-DAY2
Meeting Mode	Hybrid
Meeting Venue	SEIAA-OFFICE APMARKFED AUTO NAGAR-VIJAYAWADA
Meeting Date	Start Date : 15/04/2026 End Date : 15/04/2026
State	ANDHRA PRADESH

	Meeting Date	Meeting Mode	Start Time	End Time
Day 1	15/04/2026	Hybrid	02:02 PM	07:02 PM

List of Proposals

Sr. No.	Proposal Details	Location	Meeting Date	Proponent
1	Proposal No :SIA/AP/IND2/560670/2026 File No :AP IND2 EC WG 01 2026 2232 Project Name :ADDITIONAL EXPLORATORY DRILLING OF45 WELLS IN WEST GODAVARI, MALLESWARAM AND NANDIGAMA PML BLOCKS FALLING IN KRISHNA, ELURU AND WEST GODAVARI DISTRICTS OF ANDHRA PRADESH	State: ANDHRA PRADESH District: WEST GODAVARI	15/04/2026	OIL AND NATURAL GAS CORPORATION LIMITED

	Proposal For: Fresh EC Activity: 1(b) Off-shore and onshore oil and gas exploration, development and production Sector: IND2			
2	Proposal No : SIA/AP/INFRA2/572682/2026 File No : AP INFRA2 EC VS 03 2026 2427 Project Name : Construction of Residential Apartment by M/s. MK Builders & Developers at Sy No 428/2, Rushikonda Layout, Madhurawada village, Zone -II, Div No 6, GVMC Limits, Visakhapatnam District, Andhra Pradesh Proposal For: Fresh EC Activity: 8(b) Townships/ Area Development Projects / Rehabilitation Centres Sector: INFRA2	State: ANDHRA PRADESH District: VISAKHAPATANAM	15/04/2026	MK BUILDERS AND DEVELOPERS
3	Proposal No : SIA/AP/INFRA2/575126/2026 File No : AP INFRA2 EC AKP 04 2026 2516 Project Name : M/s. Vizag Rambilli Data Center Park Limited Proposal For: Fresh EC Activity: 8(a) Building / Construction Sector: INFRA2	State: ANDHRA PRADESH District: ANAKAPALLI	15/04/2026	VIZAG RAMBILLI DATA CENTER PARK LIMITED
4	Proposal No : SIA/AP/INFRA2/575243/2026 File No : AP INFRA2 EC VSP 04 2026 2517 Project Name : M/s Vizag Mega Data Center Park Limited Proposal For: Fresh EC Activity: 8(a) Building / Construction Sector: INFRA2	State: ANDHRA PRADESH District: VISAKHAPATANAM	15/04/2026	VIZAG MEGA DATA CENTER PARK LIMITED
5	Proposal No : SIA/AP/MIN/489113/2024 File No : AP MIN TOR AM 07 2024 421 Project Name : M/s Fig Enterprise LLP-Colour Granite Mine-2.450 Hect Proposal For: Fresh ToR Activity: 1(a) Mining of minerals Sector: MIN	State: ANDHRA PRADESH District: ANNAMAYYA	15/04/2026	FIG ENTERPRIS LLP
6	Proposal No : SIA/AP/MIN/489194/2024 File No : AP MIN TOR AM 07 2024 422 Project Name : M/s Abudantia Enterprise LLP-Colour Granite Mine-2.064Hect Proposal For: Fresh ToR Activity: 1(a) Mining of minerals Sector: MIN	State: ANDHRA PRADESH District: ANNAMAYYA	15/04/2026	ABUDANTIA ENTERPRISE LL
7	Proposal No : SIA/AP/MIN/563418/2026 File No : AP MIN TOR EG 02 2026 2251 Project Name : SMT. SATHI RAJESWARI Proposal For: Fresh ToR Activity: 1(a) Mining of minerals Sector: MIN	State: ANDHRA PRADESH District: EAST GODAVARI	15/04/2026	SATHI RAJESWARI
8	Proposal No : SIA/AP/MIN/566706/2026 File No : AP MIN EC EG 01 2026 2226 Project Name : M/s Sri Sessa Sai Metal Suppliers; Mg.P: Sri Meda Gangadharam Proposal For: Fresh EC Activity: 1(a) Mining of minerals	State: ANDHRA PRADESH District: EAST GODAVARI	15/04/2026	SRI SESHASAI METAL SUPPLIERS

	Sector: MIN			
9	Proposal No : SIA/AP/MIN/568744/2026 File No : AP MIN TOR NTR 02 2026 2305 Project Name : M/s Modern Crushers Proposal For: Fresh ToR Activity: 1(a) Mining of minerals Sector: MIN	State: ANDHRA PRADESH District: NTR	15/04/2026	MODERN CRUSHERS
10	Proposal No : SIA/AP/MIN/569065/2026 File No : AP MIN TOR AKP 03 2026 2350 Project Name : M/s Sai Aditya Stone Crusher Proposal For: Fresh ToR Activity: 1(a) Mining of minerals Sector: MIN	State: ANDHRA PRADESH District: ANAKAPALLI	15/04/2026	VENKATA SATY SURYA ALLURI
11	Proposal No : SIA/AP/MIN/569108/2026 File No : AP MIN EC NTR 02 2026 2310 Project Name : Smt Pasupuleti Devi – 3.500 Ha Proposal For: Fresh EC Activity: 1(a) Mining of minerals Sector: MIN	State: ANDHRA PRADESH District: NTR	15/04/2026	DEVI PASUPULETI
12	Proposal No : SIA/AP/MIN/570287/2026 File No : AP MIN TOR AKP 03 2026 2351 Project Name : Sri Babulu Naidu Surla Proposal For: Fresh ToR Activity: 1(a) Mining of minerals Sector: MIN	State: ANDHRA PRADESH District: ANAKAPALLI	15/04/2026	SURLA BABULU NAIDU
13	Proposal No : SIA/AP/MIN/570805/2026 File No : AP MIN TOR AKP 03 2026 2360 Project Name : M/s Netcomm IT Solutions Private Limited Proposal For: Fresh ToR Activity: 1(a) Mining of minerals Sector: MIN	State: ANDHRA PRADESH District: ANAKAPALLI	15/04/2026	netcomm it solutions private limited
14	Proposal No : SIA/AP/MIN/570941/2026 File No : AP MIN TOR NTR 03 2026 2364 Project Name : M/s Narayana Swamy Stone Crushers; Mg.P: Sri M.S.Narayana Rao Proposal For: Fresh ToR Activity: 1(a) Mining of minerals Sector: MIN	State: ANDHRA PRADESH District: NTR	15/04/2026	MUPPA SETHU NARAYANA RAO
15	Proposal No : SIA/AP/MIN/571112/2026 File No : AP MIN EC AK 03 2026 2355 Project Name : Sri Uppalapati Satyanarayana Raju Proposal For: Mining EC Under 5 Ha Activity: 1(a) Mining of minerals Sector: MIN	State: ANDHRA PRADESH District: ANAKAPALLI	15/04/2026	UPPALAPATI SATYANARAYAN RAJU
16	Proposal No : SIA/AP/MIN/571208/2026 File No : SEIAA/AP/MIN/VIO/VSP/05/2022/4334/219.18/220.14 Project Name : M/s R.K Minerals, Mg.P: Sri Sathi Subba Reddy Proposal For: Application for Validity Extension of EC- Form-6 Activity: 1(a) Mining of minerals Sector: MIN	State: ANDHRA PRADESH District: ANAKAPALLI	15/04/2026	R K MINERALS

17	Proposal No : SIA/AP/MIN/571247/2026 File No : AP MIN TOR KK 03 2026 2402 Project Name : M/S HILL ROCK MINERALS, MG.P: SRI BODIREDDY GOPALA KRISHNA Proposal For: Fresh ToR Activity: 1(a) Mining of minerals Sector: MIN	State: ANDHRA State: ANDHRA District: KAKINADA	15/04/2026	BODIREDDI GOPALAKRISHN
18	Proposal No : SIA/AP/MIN/571367/2026 File No : AP MIN TOR AKP 03 2026 2451 Project Name : M/s R. K. Minerals Proposal For: Fresh ToR Activity: 1(a) Mining of minerals Sector: MIN	State: ANDHRA State: ANDHRA District: ANAKAPALLI	15/04/2026	R K MINERALS
19	Proposal No : SIA/AP/MIN/571373/2026 File No : AP MIN EC ASR 03 2026 2382 Project Name : M/s Sri Sri Sri Gangamma Thalli Stone Crusher Proposal For: Mining EC Under 5 Ha Activity: 1(a) Mining of minerals Sector: MIN	State: ANDHRA State: ANDHRA District: ALLURI SITHARAMA RAJU	15/04/2026	janni jagannadha
20	Proposal No : SIA/AP/MIN/571382/2026 File No : AP MIN EC AKP 03 2026 2366 Project Name : Sri Nakka Yerri Naidu Proposal For: Mining EC Under 5 Ha Activity: 1(a) Mining of minerals Sector: MIN	State: ANDHRA State: ANDHRA District: ANAKAPALLI	15/04/2026	NAKKA YERRI NAIDU
21	Proposal No : SIA/AP/MIN/571455/2026 File No : AP MIN EC NTR 03 2026 2378 Project Name : M/s Sri Saradha Stone Crusher, Prop: Sri N.Jaya Prakash_5.0 Hectares Proposal For: Mining EC Under 5 Ha Activity: 1(a) Mining of minerals Sector: MIN	State: ANDHRA State: ANDHRA District: NTR	15/04/2026	JAYA PRAKASH NIMMAGADDA
22	Proposal No : SIA/AP/MIN/572349/2026 File No : AP MIN TOR TR 03 2026 2434 Project Name : Quarry Lease area over an extent of 18.092 Hects. of Sree Vari Blue Metal LLP Proposal For: Fresh ToR Activity: 1(a) Mining of minerals Sector: MIN	State: ANDHRA State: ANDHRA District: TIRUPATI	15/04/2026	SREE VARI BLU METAL LLP
23	Proposal No : SIA/AP/MIN/572355/2026 File No : AP MIN EC VS 03 2026 2423 Project Name : M/s AA Minerals Proposal For: Mining EC Under 5 Ha Activity: 1(a) Mining of minerals Sector: MIN	State: ANDHRA State: ANDHRA District: VISAKHAPATANAM	15/04/2026	sainadh
24	Proposal No : SIA/AP/MIN/572819/2026 File No : AP MIN EC KR 03 2026 2450 Project Name : M/s Larsen & Toubro Limited Proposal For: Fresh EC Activity: 1(a) Mining of minerals Sector: MIN	State: ANDHRA State: ANDHRA District: KRISHNA	15/04/2026	MUTHUKUMAR RAMANATHAN
25	Proposal No : SIA/AP/MIN/573396/2026 File No : AP MIN EC NTR 03 2026 2458	State: ANDHRA State: ANDHRA	15/04/2026	VEJANDLA ANJAMMA

	Project Name : Smt Vejandla Anjamma-Gravel/Ordinary Earth over an extent of 0.464hect located in Sy No: 108/6B,7B,8B (Patta Land) of P.Nainavaram Village, Vijayawada Rural Mandal, NTR District, Andhra Pradesh State. Proposal For: Mining EC Under 5 Ha Activity: 1(a) Mining of minerals Sector: MIN	District: NTR		
26	Proposal No : SIA/AP/INFRA2/574789/2026 File No : AP INFRA2 EC PR 04 2026 2508 Project Name : EC application for Construction of Industrial Buildings to establish Solar photovoltaic module (Ingot, Wafer, Cell, and Module) manufacturing facility at Chevuru Village, Gudluru Mandal, Prakasam District (Erstwhile SPSR Nellore District), Andhra Pradesh by M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) Proposal For: Fresh EC Activity: 8(a) Building / Construction Sector: INFRA2	State: ANDHRA PRADESH District: PRAKASAM	15/04/2026	MANOJ KUMAR REDDY POTHIREDDY

Any Other Item(s)

Sr. No.	Proposal Name.	Proposal Details	Location
1	M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL)	Proposal For : N/A Proposal No. : SIA/AP/INFRA2/574789/2026 File No : AP INFRA2 EC PR 04 2026 2508	State : N/A District : N/A Village : N/A

SEIAA Members Details

Sr. No.	Name	Designation	Email ID
1	S Sri Saravanan	Member Secretary, SEIAA	aps*****@gmail.com
2	Shri Bandla Siva Sankar Prasad	Chairman, SEIAA	bss*****@gmail.com
3	Dr Muduru Srimurali	SEIAA Member	msr*****@gmail.com

Remarks	285th SEIAA AP MEETING-DAY2
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File No: AP INFRA2 EC PR 04 2026 2508

Annexure - A20

Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment Authority(SEIAA),
ANDHRA PRADESH)



Dated: 18/04/2026



To,

MANOJ KUMAR REDDY POTHIREDDY
MANOJ KUMAR REDDY POTHIREDDY
Survey No 585/2, 585-5, 593-2A, Near Port Road, Chevuru Village, Gudluru Mandal, Sri Pooti
Sriramulu Nellore, Andhra Pradesh- 523291, PRAKASAM, ANDHRA PRADESH, 523291
saidiwakar.gundram@indosolsolar.com

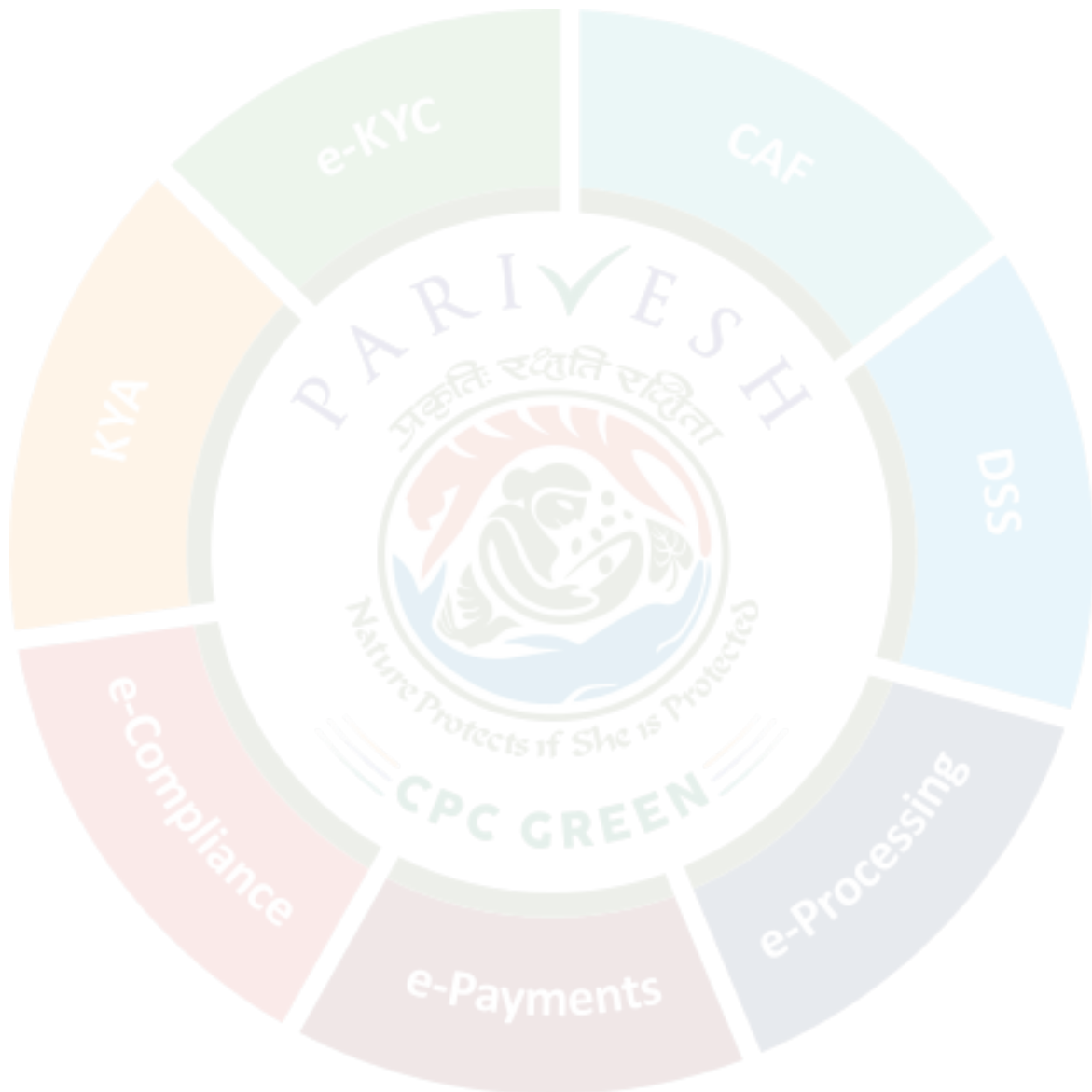
Subject: Grant of EC under the provision of the EIA Notification 2006-regarding.

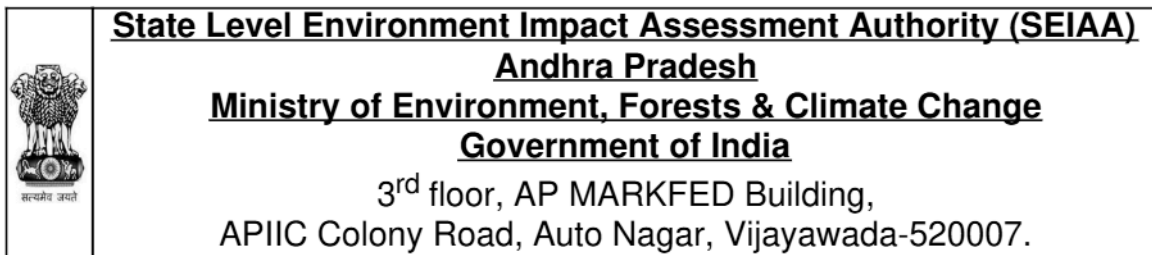
Sir/Madam,

This is in reference to your application for Grant of EC under the provision of the EIA Notification 2006-regarding in respect of project EC application for Construction of Industrial Buildings to establish Solar photovoltaic module (Ingot, Wafer, Cell, and Module) manufacturing facility at Chevuru Village, Gudluru Mandal, Prakasam District (Erstwhile SPSR Nellore District), Andhra Pradesh by M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) submitted to Ministry vide proposal number SIA/AP/INFRA2/574789/2026 dated 06/04/2026.

2. The particulars of the proposal are as below:

(i) EC Identification No.	EC26C3806AP5556979N
(ii) File No.	AP INFRA2 EC PR 04 2026 2508
(iii) Clearance Type	EC
(iv) Category	B2
(v) Project/Activity Included Schedule No.	8(a) Building / Construction EC application for Construction of Industrial Buildings to establish Solar photovoltaic module (Ingot, Wafer, Cell, and Module) manufacturing facility at Chevuru Village, Gudluru Mandal, Prakasam District (Erstwhile SPSR Nellore District), Andhra Pradesh by M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL)
(vi) Name of Project	MANOJ KUMAR REDDY POTHIREDDY PRAKASAM, ANDHRA PRADESH
(vii) Name of Company/Organization	SEIAA
(viii) Location of Project (District, State)	no
(ix) Issuing Authority	
(x) Applicability of General Conditions	





Order No. SEIAA/AP/INFRA2/EC/PR/04/2026/2508/287.15&285.26

Sub: SEIAA, A.P. – M/s. Indosol Solar Private Limited (ISPL), Sy.Nos. 584-6, 584-6B1, 584-7, 584-8, 584-9, 584-10, 584-11, 585-2, 585-2A, 585-3, 585-3A, 585-3B, 585-3C, 585-3D, 585-4, 585-4A, 585-5, 585-6, 585-6A, 585-6B, 585-7, 585-7A, 585-8, 585-8A, 585-8B, 592-1, 592-1A, 592-2, 592-2A, 593-1, 593-1A, 593-2, 593-2A, 593-3, 593-3A, 594-1, 594-1A, 594-2, 594-2A, 595-1, 595-2, 595-3, 595-4, 595-4/a, 595-4B, 595-5, 595-5A, 850(part), and 855 in Chevuru Village, Gudluru Mandal, Prakasam District (Erstwhile SPSR Nellore District), Andhra Pradesh – Environmental Clearance Issued – Reg.

- I. This has reference to the application submitted by the proponent through online on 06.04.2026 (SIA/AP/INFRA2/574789/2026), seeking Environmental Clearance for the proposed Construction of Industrial Buildings to establish an integrated Solar photovoltaic module (Ingot, Wafer, Cell, and Module) manufacturing facility at Sy. Nos 584-6, 584-6B1, 584-7, 584-8, 584-9, 584-10, 584-11, 585-2, 585-2A, 585-3, 585-3A, 585-3B, 585-3C, 585-3D, 585-4, 585-4A, 585-5, 585-6, 585-6A, 585-6B, 585-7, 585-7A, 585-8, 585-8A, 585-8B, 592-1, 592-1A, 592-2, 592-2A, 593-1, 593-1A, 593-2, 593-2A, 593-3, 593-3A, 594-1, 594-1A, 594-2, 594-2A, 595-1, 595-2, 595-3, 595-4, 595-4/a, 595-4B, 595-5, 595-5A, 850(part), and 855 of Chevuru Village, Gudluru Mandal, Prakasam District (erstwhile SPSR Nellore District), Andhra Pradesh, in favour of M/s. Indosol Solar Private Limited (ISPL). The capital investment of the project is Rs. 2,000 Crores.
- II. As seen from the application and EMP submitted by the proponent the following aspects are noted:
 - i. The project proponent proposed Construction of Industrial Buildings to establish integrated Solar photovoltaic module (Ingot, Wafer, Cell, and Module) manufacturing facility in a total land area of 25.25 Ha, (Plant area 6.22 Ha, Common Utilities & Support Infrastructure 2.42 Ha, Parking area 1.25 Ha, Road Area 4.55 Ha, Open area 5.74 Ha, Green area 5.08 Ha). Total built up area is 1,18,646 Sq.mt. The details of the Built-up area of the project are as follows:

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Land Use	No. of Blocks	No. of floors	Total Site Area (Sq.m.)	Total Built up area Sq.m.
Ingot & wafer Plant	1	G + 2	13860	33020
Cell Plant	1	G + 1	21720	28522
Module Plant	2	Ground	11615	11615
Warehouse	2	Ground	14450	14450
SI kerf recycling	1	Ground	555	555
Stores and Storage	8	Ground	9621	9621
Utility Buildings	20	Ground	10168	10168
Other Utility Buildings	2	G + 1	2406	4812
Gowning building/OHC/Staff block	3	Ground & G+2	474	906
Canteen block	1	G + 1	500	1000
Admin building	1	G + 2	875	2625
Gate complex & Security room	3	Ground	169	169
Weigh bridge	2	Ground	18	18
Car & Bike Parking	2	Ground	1165	1165
Parking area			11335	
Road Area			45456	
Open area			57365	
Green area			50782	
Total	49		252534	1,18,646

- ii. The source of water is Chevuru Tank (4 MLD) and Chennayyapalem Tank (3 MLD). The total water requirement is 6955 KLD. The wastewater generation from the project is 5919 KLD and is proposed to be treated in Organic ETP: 1.45 MLD & Inorganic ETS: 4.37 MLD. The treated effluents are proposed to be sent to guard ponds followed by discharge through marine outfall. The domestic sewage will be treated in STP of capacity 120 KLD. The treated sewage will be utilized for greenbelt development.
- iii. The solid waste generation i.e., Construction and Demolition (C&D) waste is approximately 4750 Tons. The other solid wastes to be generated from the PV modules manufacturing facility includes ETP Sludge, STP Sludge, used PPE, waste oil and grease, metal scrap, E-waste, Plastic waste etc., are proposed to be segregate at the source and disposed as per the Waste Management Rules issued under the Environment (Protection) Act, 1986. D.G sets of capacities 2 x 2500 kVA, 2 x 2000 kVA, 1 x 1250 kVA and 1 x 1500 kVA are proposed to be used

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during power failure.

The proposal has been examined and processed in accordance with EIA Notification, 2006, & its amendments thereof. The State Level Expert Appraisal Committee (SEAC) examined the proposal in its meeting held on **10.04.2026**.

Minutes of the SEAC Meeting:-

The Proposal of M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL), is for Construction of Industrial Buildings to Establish Integrated Solar Modules (Ingot, wafer, Cell, Module and Glass) Manufacturing unit with Built Up area – 1,18,646 Sq.m in total plot area is 252534 Sq.m (62.41 acres) at Chevuru Village, Gudluru Mandal, Prakasam District, Andhra Pradesh. The project cost of the proposed project is Rs.2,000 Crs.

The project falls under Item No. 8(a) of the schedule of the EIA Notification 2006 and its amendments thereof - Building and Construction Projects ($\geq 20,000$ Sq.mtrs and $\leq 1,50,000$ sq. m. of built up area).

The project proponent, along with their consultant, M/s TEAM Labs and Consultants, have attended the meeting and presented the proposal. The SEAC Committee noted the following:

- a. M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) proposes to setup an Integrated Solar PV modules Manufacturing Facility along with in-house Float glass manufacturing unit at Survey Nos. 584-6, 584-6B1, 584-7, 584-8, 584-9, 584-10, 584-11, 585-2, 585-2A, 585-3, 585-3A, 585-3B, 585-3C, 585-3D, 585-4, 585-4A, 585-5, 585-6, 585-6A, 585-6B, 585-7, 585-7A, 585-8, 585-8A, 585-8B, 592-1, 592-1A, 592-2, 592-2A, 593-1, 593-1A, 593-2, 593-2A, 593-3, 593-3A, 594-1, 594-1A, 594-2, 594-2A, 595-1, 595-2, 595-3, 595-4, 595-4/a, 595-4B, 595-5, 595-5A, 850(part), and 855 in Chevuru Village, Gudluru Mandal, Prakasam District, Andhra Pradesh.
- b. The unit applied for EC as per the Hon'ble Supreme Court Order dated 05.08.2025 and the Office Memorandum dated 25.08.2025, which mandates prior environmental clearance for industrial sheds also.
- c. M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL) proposed to establish an integrated solar module manufacturing facility, covering ingot, wafer, cell, module, and glass production.
- d. The PP proposed to construct the industrial shed with built up area of 1,18,646 Sq.m in an area of 25.25 Ha.
- e. The source of water is Chevuru Tank (4 MLD) and Chennayyapalem Tank (3 MLD). The Total water requirement of water is 6955 KLD.
- f. The wastewater generation from the project is 5919 KLD will be treated

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in Organic ETP: 1.45 MLD & Inorganic ETS: 4.37 MLD. The domestic sewage will be treated in STP of capacity 1 x 120 KLD. The treated sewage will be utilized for greenbelt development. The PP proposed to develop greenbelt is 20.1% of the proposed site.

- g. The total treated wastewater is 5919 KLD. The MoEF&CC, GoI vide order dt.12.12.2025 issued CRZ clearance for discharging 6 MLD treated effluent into the sea at Ramayapatnam, Nellore district.
- h. The committee appraised the application from the Environmental point of view only with respect to liquid, solid and air pollution management.
- i. The PP vide letter dt. 26.03.2026 submitted Forest NoC issued by the DFO, SPSR Nellore.
- j. The project proponent allocated Rs. 600 Lakhs as capital cost and Rs. 1465 lakhs/annum as a recurring cost budget for the EMP. The proponent volunteered to develop avenue plantation in Prakasam District by indicating their company sign Boards as a part of Corporate Social Responsibility (CSR) activity and shall maintain till it grows.

The Committee, after examining the project proposals, presentations, MoEF&CC' Notifications & OMs, detailed deliberations, recommended to issue Environmental Clearance with the following additional conditions:

- 1. The proponent shall comply with the proposals furnished in the Environmental management plan.
- 2. The PP shall strictly follow CRZ conditions dt.12.12.2025.
- 3. The construction debris shall be used for back filling of the project site to the maximum extent possible and the remaining shall be disposed duly complying with the construction and demolition waste management rules 2016.
- 4. The project proponent shall implement solid waste management as per the Solid Waste Management Rules, 2016 applicable for constructions projects.
- 5. The PP shall construct organic ETP of 1.45 MLD and inorganic effluent treatment system (ETS) of 4.37 MLD to treat the effluents. The treated effluents shall be discharged into Sea through marine outfall.
- 6. The proponent shall construct and commission STP- 120 KLD along with commissioning of project, treat the domestic sewage to meet irrigation standards at any point of time before using for greenbelt development.
- 7. The project proponent shall implement the solid waste management as per the Solid Waste Management Rules, 2016 applicable for constructions projects.
- 8. The parking area shall be in compliance with NBC/MoEF&CCGoI / Local Govt regulations as applicable whichever, is higher.

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9. The project proponent shall develop the avenue plantation along the approach roads leading to the proposed project site.
10. The project proponent shall treat the effluents to meet the standards stipulated by MoEF&CC GoI vide notification G.S.R 1265 (E) 13.07.2017 for discharge into Sea.
11. The project proponent shall install organic waste converter for the treatment and disposal of wet garbage in a scientific manner.
12. Solar Energy Systems shall be installed to utilize at least one third of the roof area.
13. The project proponent shall use only LED lights in the common areas and internal roads and shall provide timer-based lighting management in common area, Light levels shall be selected to suit the functional requirements, shall use high efficiency low-e glass type for windows, automatic timer controls for external lighting, ETC for energy conservation.
14. The building shall be designed for compliance with earth quake resistance and resisting other natural hazards.
15. The proponent shall construct rainwater harvesting pit and storm water drains for collection, usage and also for groundwater table maintenance within the premises.
16. The project proponent shall obtain all statutory permissions if any from all the regulatory departments including Fire Department.

The State Level Environment Impact Assessment Authority (SEIAA), in its meeting held on 15.04.2026, examined the proposal and the recommendations of the SEAC. The Authority noted that the SEAC vide mail dt.15.04.2026 requested the SEIAA to note that the Glass manufacturing facility is not included in the proposal. Accordingly, the recommendation of the SEAC is for the establishment of an integrated solar module manufacturing facility, covering only ingot, wafer, cell and module production.

The SEIAA agreed with the recommendations of the SEAC and decided to accept aforesaid recommendations of the SEAC for strict compliance by the proponent **and to issue the Environmental Clearance for the establishment of an integrated solar module manufacturing facility, covering ingot, wafer, cell and module production.**

The SEIAA, A.P., hereby accords the Environmental Clearance to the project as mentioned at Para No. I & II under the provisions of the EIA Notification, 2006, and its subsequent amendments issued under Environment (Protection) Act, 1986 subject to compliance of the following conditions.

PART-A: SPECIAL CONDITIONS:

1. The proponent shall not violate the provisions of the following Acts &

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Rules and subsequent amendments:

- a. Forest Conservation Act, 1980,
 - b. Wild Life (Protection) Act, 1972;
 - c. CRZ Notification, 2011;
 - d. The Eco sensitive areas as notified under Environment (Protection) Act, 1986;
 - e. Critically polluted areas as notified by CPCB and also shall not harm livestock and human beings and disturb their activities.
2. The proponent shall comply with the proposals furnished in Environmental management plan.
 3. The project proponent shall allocate Rs. 67.13 Crores as capital cost and Rs. 27.61 Crores/annum as recurring cost budget for the EMP. The proponent volunteered to develop avenue plantation in Prakasam District by indicating their company sign Boards as a part of Corporate Social Responsibility (CSR) activity and the same shall be fulfilled.
 4. The project proponent shall scrupulously comply with the conditions stipulated by the MoEF&CC, in the CRZ Clearance dt12.12.2025, for discharge of treated effluent into Sea.
 5. The construction debris shall be used for back filling of the project site to the maximum extent possible and the remaining shall be disposed duly complying with the Construction and Demolition Waste Management Rules 2016.
 6. The project proponent shall implement solid waste management as per the Solid Waste Management Rules, 2016 applicable for constructions projects.
 7. The proponent shall construct and commission STP of 120 KLD along with commissioning of project. The effluents shall be treated to meet irrigation standards at any point of time before using for gardening purpose or disposal into municipal drain. As the treated effluents is proposed for recycle, suitable disinfection system shall be provided in addition to the STP.
 8. The parking area shall be in compliance with NBC/MoEF&CC, GoI / Local Govt regulations as applicable whichever, is higher.
 9. The project proponent shall develop the avenue plantation along the approach roads leading to the proposed project site.
 10. The project proponent shall treat the effluents to meet the standards stipulated by MoEF&CC, GoI vide notification G.S.R 1265 (E) 13.07.2017 for discharge into water bodies as well as for land disposal/applications.

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11. The project proponent shall install organic waste converter for the treatment and disposal of wet garbage in a scientific manner.
12. The proponent shall ensure sustainable environmental management of solid and liquid wastes and comply with the provisions of relevant rules notified under EIA Notification 2006 and its amendments thereof.
13. Solar Energy Systems shall be installed to utilize at least one third of the roof area.
14. The project proponent shall use only LED lights in the common areas and internal roads and shall provide timer-based lighting management in common areas. Light levels shall be selected to suit the functional requirements. The proponent shall use high efficiency low-e glass type for windows, automatic timer controls for external lighting, etc., for energy conservation.
15. The building shall be designed for compliance with earth quake resistance and resisting other natural hazards.
16. The proponent shall use ash-based bricks, tiles, sintered ash aggregate or other ash-based products in all the Construction activities, duly complying with the MoEF&CC, GoI, Notification S.O. 5481(E) dated 31.12.2021 & its amendments thereof.
17. The proponent shall construct rainwater harvesting pit and storm water drains within the premises for collection & usage of rain water and also for maintenance of ground water table.
18. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
19. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM10 and PM2.5) covering upwind and downwind directions during the construction period.
20. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/wind breaking walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.

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21. Solar Energy systems to be planned in appropriate space as stipulated by the concerned regulatory authority.
22. The building shall be designed for compliance with earth quake resistance and resisting other natural hazards. Appropriate necessary action must be taken with prior concurrence of the concerned Regulatory Authority.
23. The proponent shall obtain required clearances if any from all regulatory Departments including Fire Department, before starting the construction.
24. The proponent shall develop green belt in an area not less than 20% of plot area in addition to green belt in set-back areas.
25. The proponent will be squarely responsible for proper implementation of solid waste management plan, prevention of air pollution, water pollution, and any other kind of pollution/health hazard.
26. The proponent shall comply with Conceptual Plan, Form 1A and EMP.
27. The proponent is advised to ensure safety to animal and public life.

PART-B SPECIFIC CONDITIONS:

I. CONSTRUCTION PHASE:

- i. Provision shall be made for the housing of the construction labour within the site with all necessary infrastructure and facilities such as safe drinking water, fuel for cooking, mobile toilets, mobile STP, medical health care, crèche etc., The housing may be in the form of temporary structures to be removed after the completion of the project. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured. Appropriate necessary action must be taken with prior concurrence of the concerned Regulatory Authority.
- ii. A First Aid Room shall be provided in the project both during construction and operation of the project.
- iii. All the topsoil excavated during construction activities should be stored for use in horticulture/landscape development within the project site.
- iv. Disposal of muck during construction phase should not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- v. Soil and ground water samples will be tested at regular interval to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants. Appropriate necessary action must be taken with prior concurrence of the concerned Regulatory Authority.

- vi. Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water. Appropriate necessary action must be taken with prior concurrence of the concerned Regulatory Authority.
- vii. Any hazardous waste including biomedical waste, if any, should be disposed of as per applicable Rules & norms with necessary approvals of the Andhra Pradesh Pollution Control Board.
- viii. The diesel generator sets to be used during construction phase should conform to E (P) Rules prescribed for air and noise emission standards.
- ix. Vehicles hired for bringing construction material to the site should be in good condition and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.
- x. Ambient noise levels should conform to the residential standards both during day and night as notified by the MoEF&CC, GOI from time to time. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by the CPCB.
- xi. Ready mixed concrete must be used in building construction in consultation with concerned regulatory authority.
- xii. Storm water control and its re-use shall be as per CGWB and BIS standards for various applications.
- xiii. Permission to draw ground water shall be obtained from the competent Authority prior to construction/operation of the project.
- xiv. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices in consultation with concerned regulatory authority.
- xv. Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices of sensor-based control. Appropriate necessary action must be taken with prior concurrence of the concerned Regulatory Authority.
- xvi. Use of glass may be reduced by up to 40% to reduce the electricity consumption and load on air-conditioning. If necessary, high quality double glass with special reflective coating in window is to be used. Appropriate necessary action must be taken with prior concurrence of the concerned Regulatory Authority.

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- xvii. Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirement. Appropriate necessary action must be taken with prior concurrence of the concerned Regulatory Authority.
- xviii. Adequate measures to reduce air and noise pollution during construction keeping in mind CPCB norms on noise limits.
- xix. Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code which is proposed to be mandatory for all air conditioned spaces while it is aspirational for non-air conditioned spaces by use of appropriate thermal insulation material to fulfil requirement in consultation with concerned regulatory authority.
- xx. The approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake, adequacy of fire-fighting equipment's, etc. as per National Building Code including protection measures from lightening etc. Appropriate necessary action must be taken with prior concurrence of the concerned Regulatory Authority.
- xxi. No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).
- xxii. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.
- xxi. Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings.

II. Occupational Phase:

- i. The installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard should be submitted to the SEIAA before the project is commissioned for operation. Discharge of treated sewage shall conform to the norms & standards of the Andhra Pradesh Pollution Control Board. Sewage Treatment Plant should be monitored on a regular basis. No waste water shall be discharged outside the premises until outlet is connected to public sewer line. Appropriate necessary action must be taken with prior concurrence of the concerned Regulatory Authority.
- ii. Rain water harvesting for roof run-off and surface run-off, as plan

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submitted should be implemented. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease. Appropriate necessary action must be taken with prior concurrence of the concerned Regulatory Authority.

- iii. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- iii. The solid waste generated should be properly collected & segregated before disposal to the Facility. The organic waste shall be composted. Appropriate necessary action must be taken with prior concurrence of the concerned Regulatory Authority.
- iv. The D.G. Sets shall be provided with acoustic enclosures and adequate stack height as per CPCB norms. The fuel used for the diesel generator sets should be low sulphur diesel and should conform to E (P) Rules prescribed for air and noise emission standards.
- v. Any hazardous waste should be disposed of as per the Hazardous and other Wastes (Management and Transboundary movement) Rules, 2016 and its amendments thereof & Biomedical waste Management Rules, with necessary approvals of the Andhra Pradesh Pollution Control Board.
- vi. The green belt design along the periphery of the plot shall achieve attenuation factor conforming to the day and night noise standards prescribed for residential land use by the MoEF&CC, GOI/CPCB. The open spaces inside the plot should be suitably landscaped and covered with vegetation of indigenous variety. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations. Appropriate necessary action must be taken with prior concurrence of the concerned Regulatory Authority.
- vii. Incremental pollution loads on the ambient air quality, noise and water quality should be periodically monitored after commissioning of the project. Appropriate necessary action must be taken with prior concurrence of the concerned Regulatory Authority.
- viii. Application of solar energy should be incorporated for illumination of common areas, lighting for gardens and street lighting in addition to provision for solar water heating. A hybrid systems or fully solar system for a portion of the apartments should be provided by utilizing appropriate space for solar energy system as stipulated by the concerned regulatory authority.

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- ix. Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized. Appropriate necessary action must be taken with prior concurrence of the concerned Regulatory Authority.
- x. Adequate number of parking spaces shall be provided for visitor vehicles. Rest room facilities should be provided for service population. The proponent shall provide public convenience facilities such as toilets, bathrooms, waiting rooms etc. for the drivers, workers etc. so as to maintain cleanness/hygienic conditions in the surroundings of the project. Appropriate necessary action must be taken with prior concurrence of the concerned Regulatory Authority.
- xi. The proponent shall comply with Energy Conservation Practices, Energy efficient practices and energy audit practices. Wherever feasible, green building concepts shall be adopted. Use of solar panels may be done to the extent possible. Appropriate necessary action must be taken with prior concurrence of the concerned Regulatory Authority.
- xii. Adequate measures should be taken to prevent odour problem from solid waste processing plant and STP. Appropriate necessary action must be taken with prior concurrence of the concerned Regulatory Authority.

PART – C. GENERAL CONDITIONS:

- 1. **This Environmental Clearance order is valid for a period of 10 years.**
- 2. The proponent shall scrupulously follow any conditions stipulated by Revenue department/ Panchayat Raj/ Municipal administration/local self-government bodies (Gram panchayat /Gram secretariat) in ensuring safety to human and animal life. The APPCB to ensure the same while according CTE/CTO.
- 3. Proponent shall ensure that there is no disturbance to flora and fauna. Serenity of nature must be protected at any cost.
- 4. "Consent to Establish" shall be obtained from Andhra Pradesh Pollution Control Board under Air and Water Act before the start of any activity /construction work at site.
- 5. The project proponent shall submit Half-yearly reports on the status of compliance of the stipulated Environmental Clearance Conditions

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including results of monitored data to the Sub-Office, MoEF&CC, Vijayawada; SEIAA, A.P., and A.P. Pollution Control Board and also shall upload in the Proponent's website.

6. Post Environment Clearance Monitoring: It shall be mandatory for the project manager to upload half yearly compliance reports in respect of the stipulated prior Environment Clearance terms and conditions in PARIVESH portal on 1st June and 1st December of each calendar year.
7. The APPCB shall monitor the EC conditions stipulated by SEIAA as per GO Ms No 120 dated 01.11.2018 of EFS&T Dept., and ensure the compliance.
8. The proponent shall obtain prior permissions and continued guidance from regulatory authorities for all the above conditions wherever it is required.
9. All safety norms as stipulated in various laws and statutes shall be scrupulously followed by the proponent. PCB shall ensure compliance to the conditions stipulated by SEIAA.
10. Officials from the Sub-Office of MoEF&CC, Vijayawada / The SEIAA, Andhra Pradesh through Andhra Pradesh Pollution Control Board, who would be monitoring the implementation of environmental safeguards should be given full co-operation, facilities and documents/data by the project proponents during their inspection. A complete set of all the documents shall be submitted to the CCF, Sub-Office, MoEF&CC Vijayawada.
11. In the case of any change (s) in the scope of the project, the project would require a fresh appraisal by this SEIAA. No further expansion or modifications in the project shall be carried out without prior approval of the SEIAA, AP.
12. The project proponent shall submit the copies of the environmental clearance to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn have to display the same for 30 days from the date of receipt.
13. The proponent shall obtain clearance from Fire Department. All other statutory clearances shall be obtained, as applicable by project proponents from the competent authorities.
14. The project proponent should advertise in at least two local Newspapers, widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded environmental clearance and copies of clearance letters are available

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with the Andhra Pradesh Pollution Control Board. The advertisement should be made within 7 days from the day of issue of the clearance letter and a copy of the same should be forwarded to the Sub-Office of this Ministry at Vijayawada.

15. The funds earmarked for environmental protection measures (Capital Cost Rs. 67.13 Crores and recurring Cost Rs. 27.61 Crores /annum) should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the SEIAA and Ministry's Sub-Office located at Vijayawada.
16. Any appeal against this Environmental Clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
17. The SEIAA may revoke or suspend the order, if implementation of any of the above conditions is not satisfactory. The SEIAA reserves the right to alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
18. This Environmental clearance shall be subject to orders of the Hon'ble Supreme Court of India, Hon'ble High Courts, NGT and any other Court of Law, from time to time, and as applicable to the project.
19. SEIAA also reserves the right to cancel the EC issued at anytime, if EC has been obtained by the proponent through suppression of any information or furnishing false information.
20. Concealing the factual data or failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986 without any prior notice.
21. These stipulations would also be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006 and related Acts.

SPECIAL SECRETARY TO GOVT		
MEMBER SECRETARY, SEIAA, A.P.	MEMBER, SEIAA, A.P.	CHAIRMAN, SEIAA, A.P.

To

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M/s. Indosol Solar Private Limited (ISPL),
Sri. Manoj Kumar Reddy Pothireddy,
Survey No 585/2, 585-5, 593-2A,
Near Port Road, Chevuru Village,
Gudluru Mandal, Prakasam
(Erstwhile Sri Potti Sriramulu Nellore),
Andhra Pradesh- 523291 .

Copy to:

1. The Chairman, SEAC, A.P. for kind information.
2. The Member Secretary, APPCB for kind information.
3. The Secretary, MoEF&CC, GoI New Delhi for kind information.
4. The District Collector, Prakasam District, Andhra Pradesh for kind information.
5. The EE, RO: Ongole, APPCB for information.
6. The MoEF&CC, GoI, Sub-Office, Vijayawada for information.
7. Monitoring cell, MoEF&CC, GoI, New Delhi for information.



**Construction of Industrial Buildings to Establish
Integrated Solar Modules (Ingot, wafer, Cell and
Module) Manufacturing Facility at
Chevuru Village, Gudluru Mandal,
Prakasam District
(Erstwhile SPSR Nellore District), Andhra Pradesh**

By

M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL)



CONCEPTUAL PLAN

**Submitted To
STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY
ANDHRA PRADESH
GOVERNMENT OF INDIA**

PROJECT DESCRIPTION / CONCEPTUAL PLAN

1.0 Introduction

M/s. Indosol Solar Private Limited (ISPL) initially obtained Consent to Establish (CTE) for module assembling unit vide Receipt No. PCB/RO NELLORE/3129891 dated 23.02.2024. Subsequently, the unit obtained Consent to Establish (CTE) vide order No. 302/PCB/CTE/RO-NLR/HO/2025 dated 01.06.2025 for establishing integrated solar photovoltaic module (Ingots, Wafer, Cell and Module) manufacturing facility. Further, an amendment to Consent to Establish (CTE) obtained vide order No. 302/APAPCB/CTE/RO-NLR/HO/2026 dt. 19.03.2026 for disposal of treated wastewater to marine outfall system.

The project falls under the purview of Schedule 8(a) of the EIA Notification, 2006, pertaining to Building and Construction Projects, in view of the Hon'ble Supreme Court Order dated 05.08.2025 and the Office Memorandum dated 25.08.2025, which mandates prior environmental clearance for industrial sheds also. The consent for establishment under air and water acts was issued in February 2024, and June 2025, well before the release of the above-mentioned office memorandum, and the civil works were initiated based on the consent for establishment from APPCB.

The present proposal seeking environmental clearance for the industrial sheds, is in compliance of the direction of APPCB while issuing the amendment to the CFE for inclusion of marine outfall for treated wastewater vide order No. 302/APAPCB/CTE/RO-NLR/HO/2026 dt. 19.03.2026.

1.1 Present Proposal

The unit is located at Survey Nos. 584-6, 584-6B1, 584-7, 584-8, 584-9, 584-10, 584-11, 585-2, 585-2A, 585-3, 585-3A, 585-3B, 585-3C, 585-3D, 585-4, 585-4A, 585-5, 585-6, 585-6A, 585-6B, 585-7, 585-7A, 585-8, 585-8A, 585-8B, 592-1, 592-1A, 592-2, 592-2A, 593-1, 593-1A, 593-2, 593-2A, 593-3, 593-3A, 594-1, 594-1A, 594-2, 594-2A, 595-1, 595-2, 595-3, 595-4, 595-4/a, 595-4B, 595-5, 595-5A, 850 (part), and 855 in Chevuru Village, Gudluru Mandal, Prakasam District (erstwhile SPSR Nellore District), Andhra Pradesh in an area of 25.25 ha (62.4 acres). The project comprises of industrial

construction activity with a total built-up area of 118646 sqm. The capital cost of the project is Rs. 2000 crores.

The project site is allotted by Government of Andhra Pradesh through AP Maritime Board (APMB), after acquiring it from private land owners, and the land parcel does not have any forest land. The site was partly mango grove, and the balance used for other crops. It may be noted that the initial plan for land acquisition for this project was 8348 acres and the same was reduced to 49.27 acres, as BPCL project was subsequently envisaged in the allotted area by Government of Andhra Pradesh. AP maritime board handed over 52.2 acres of land to ISPL, subsequently on the request, they have additionally allotted 10.2 acres, making a total of 62.4 acres.

1.1 Need for the Project

India has set an ambitious goal to achieve 300 GW of solar power capacity by 2030, as part of its broader commitment to generate 500 GW of electricity from non-fossil fuel sources. This includes a significant increase from its current installed capacity of around 60 GW. This goal is a key part of India's strategy to transition to a low-carbon economy and reduce its carbon footprint. India has growing need for domestic solar PV module manufacturing facilities to reduce import dependence, boost local manufacturing, and meet its ambitious renewable energy targets. While India has significantly increased its solar PV capacity, it still relies heavily on imports for solar cells and modules. Government initiatives like the Production-Linked Incentive (PLI) scheme are aimed at fostering domestic manufacturing and attracting investments in this sector.

The proposed project aims to:

- Develop an end-to-end solar manufacturing ecosystem within India, thereby reducing import dependency.
- Support the Government of India's Atmanirbhar Bharat initiative and National Solar Mission.
- Generate direct and indirect employment opportunities during both construction and operation phases.
- Promote regional industrial development and contribute to sustainable energy infrastructure.

Thus, the project is of strategic national importance, aligning with India's renewable energy vision and contributing significantly toward the transition to a clean, self-reliant energy future.

1.2 Project Connectivity and Surroundings

The project site is surrounded by agricultural lands in the east and south directions, while Ramayapatnam Port Road is located along the northern side of the site, followed by agricultural lands, and Chevuru Reserve Forest (RF) is located to the west of the site. The connecting road between Ramayapatnam port and Kolkata–Chennai (NH-16) highway, located at a distance of approximately 0.47 km towards the west direction is the main approach road to the site. The nearest railway station is Tettu Railway Station, located about 4.7 km in the north direction. The location map is presented in [Fig. 1.1](#).

Salient features of the Impact area within 10 km radius

The project site is located at the intersection of 14°59'52.50"N latitude and 80°0'17.42"E longitude. The project site is surrounded by agricultural lands in the east and south directions, while Ramayapatnam Port Road is located along the northern side of the site, followed by agricultural lands, and Chevuru Reserve Forest (RF) is located to the west of the site. The approach to the site is Ramayapatnam port and Kolkata–Chennai (NH-16) highway, situated at a distance of approximately 0.47 km towards the west direction. The nearest railway station is Tettu Railway Station, located about 4.7 km in the north direction and the nearest airport is Kadapa Airport, located approximately 143.1 km in the southwest direction. Chevuru Cheruvu is located at a distance of 0.25 km from the site in north direction. The Elieru River is located at 8.6 km from the site towards the northeast direction. Buckingham Canal is located at a distance of 4.0 km from the site in east direction. Bay of Bengal is at 5.08 km to the east direction. Chevuru Reserve Forest (RF) is adjacent to the site in the west direction, Rudrakota RF is located at a distance of 0.69 km in southwest direction, Ravuru RF is at 2.05 km in north direction, Mocherla Chalamcherla RF is at 2.57 km northwest direction, Muddurupadu RF is at 3.1 km in southwest direction, Chalamcherla Extension RF is at 4.18 km in northwest, Tummalapenta North RF is at 4.86 km in southeast, Potluru RF is at 5.63 km in northwest, Ramayapatnam RF is at 5.6 km in northeast, Narayanapuram RF is at 6.36 km in southwest, Potluru Extension RF is at 6.5 km in northwest,

Kavali Extension RF is at 6.84 km in southwest, Chalamcherla RF is at 7.18 km in southwest, Mocherla RF is at 7.9 km in north, Jammalapalem RF is at 8.3 km in southwest, Virapalle RF is at 9.2 km in northwest, Pajarla RF is at 9.3 km in northwest, Chimidithapadu RF is at 9.5 km in northwest. There are no national park, sanctuary, biosphere reserve, ecologically sensitive area, and critically polluted area within 10 km from the project site.

Site Location



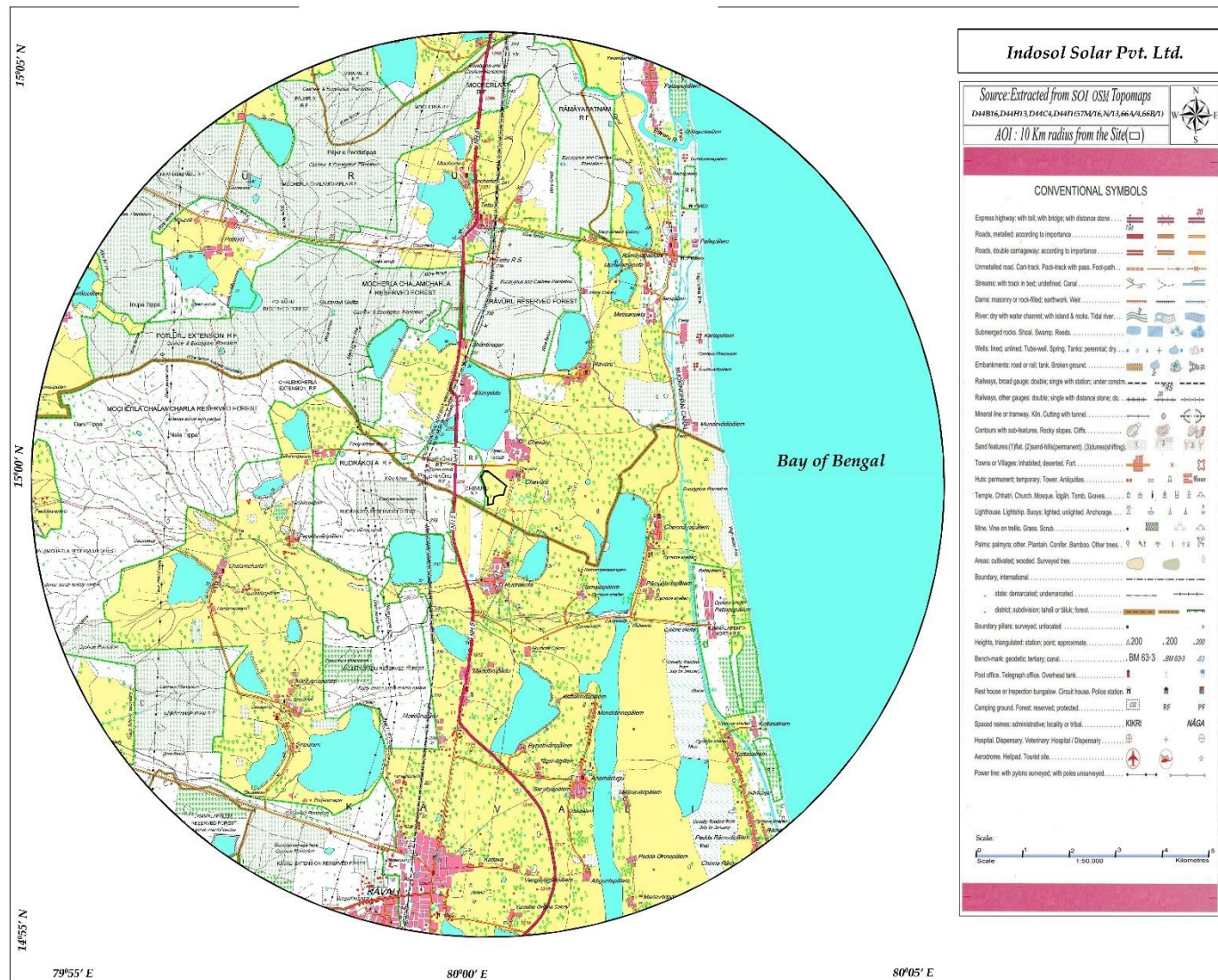


Fig 1.1 Location of M/s. Indosol Solar Private Limited (ISPL)

2.0 Project Description

M/s. Indosol Solar Private Limited (ISPL) is establishing an Integrated Solar Modules (Ingot, wafer, Cell, and Module) Manufacturing Facility at Chevuru Village, Gudluru Mandal, Prakasam District (Erstwhile SPSR Nellore District), Andhra Pradesh subsequently the unit obtained Consent to Establish (CTE) for the module assembling unit vide Receipt No. PCB/RO NELLORE/3129891 dated 23.02.2024 and further unit obtained Consent to Establish (CTE) vide order No. 302/PCB/CTE/RO-NLR/HO/2025 dated 01.06.2025 for establishing integrated solar photovoltaic module (Ingot, Wafer, Cell and Module) manufacturing facility. Further, an amendment to Consent to Establish (CTE) obtained vide order No. 302/APAPCB/CTE/RO-NLR/HO/2026 dt. 19.03.2026 for disposal of treated wastewater to marine outfall system.

The project envisages the development of multiple industrial buildings comprising Ingot, wafer, Cell, and Modules manufacturing units. The Land use Breakup Analysis is presented in [Table 2.1](#). The detailed breakup of the proposed built-up area, including the number and type of buildings, is presented in [Table 2.2](#). The site layout is shown in [Fig 2.1](#). The built-up area statement includes certain facilities that are grouped under common building categories. The Module Plant comprises Module Line–1 and Module Line–2. The Warehouse includes the main warehouse along with Finished Goods (FG) and Raw Material (RM) storage areas. The Stores and Storage category comprises stores, IBC storage, ammonia storage, hazardous waste storage, argon storage area, scrap yard, packaging stores, and diesel storage area. The Utility Buildings consist of multiple infrastructure facilities including cooling towers and chillers, ASU power distribution room, ASU workshop, gas yard and its control room, ETP chemical room, STP building, STP electrical and sludge storage room, argon control and recovery buildings, switchyard control buildings (1 & 2) with corresponding 33 kV switchyards, reliability lab, fire control room, fire water pump house, STP for module, UF-RO system for module, and cable yard. The Other Utility Buildings include the PUW building and ETP control room. Further, the Gate Complex & Security Room consists of the main gate complex along with Security Room–1 and Security Room–2. The site has 18 m width main gate accommodating both entry and exit of vehicles, 7 m width internal roads to facilitate movement of men and materials, with 4 m width road along the site boundary to facilitate site protection and maintenance.

Table 2.1 Land use Breakup Analysis

S. No.	Land use	Area in ha	%
1	Plant area	6.22	24.6
2	Common Utilities & Support Infrastructure	2.42	9.6
3	Parking area	1.25	4.9
4	Road Area	4.55	18.0
5	Open area	5.74	22.7
6	Green area	5.08	20.1
	Total	25.25	100

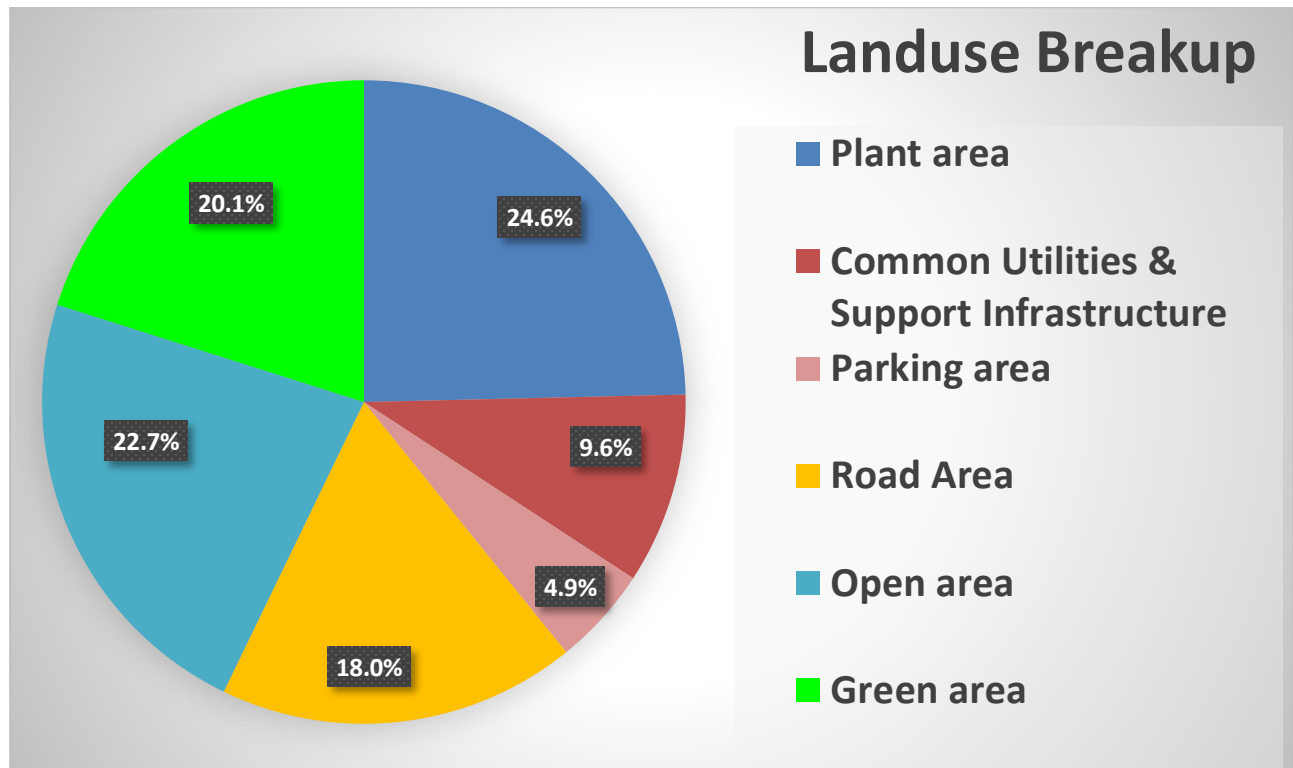
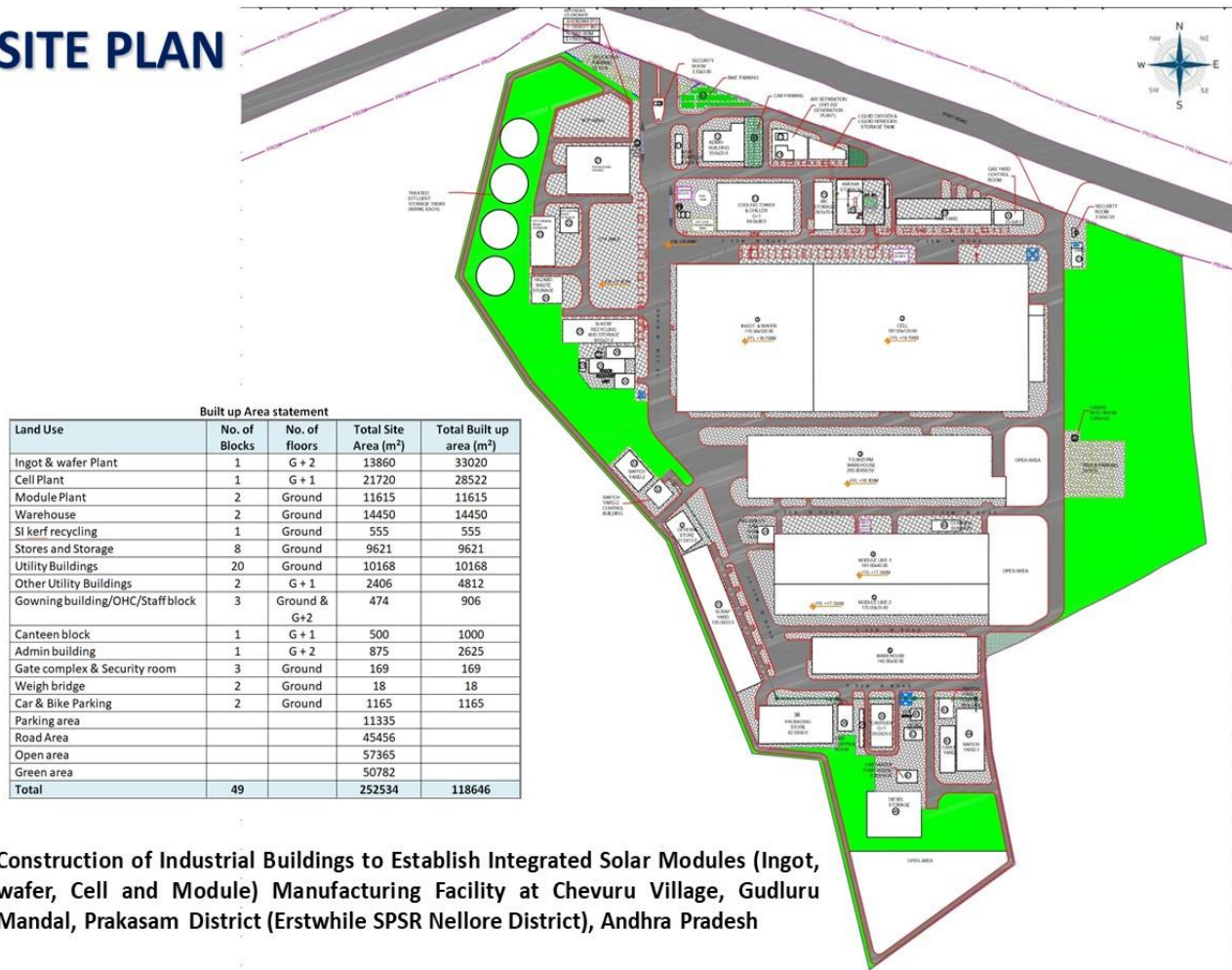


Table 2.2 Built up Area statement

Land Use	No. of Blocks	No. of floors	Total Site Area (m ²)	Total Built up area (m ²)
Ingot & wafer Plant	1	G + 2	13860	33020
Cell Plant	1	G + 1	21720	28522
Module Plant	2	Ground	11615	11615
Warehouse	2	Ground	14450	14450
SI kerf recycling	1	Ground	555	555
Stores and Storage	8	Ground	9621	9621
Utility Buildings	20	Ground	10168	10168
Other Utility Buildings	2	G + 1	2406	4812
Gowning building/OHC/Staff block	3	Ground & G+2	474	906
Canteen block	1	G + 1	500	1000
Admin building	1	G + 2	875	2625
Gate complex & Security room	3	Ground	169	169
Weigh bridge	2	Ground	18	18
Car & Bike Parking	2	Ground	1165	1165
Parking area			11335	
Road Area			45456	
Open area			57365	
Green area			50782	
Total	49		252534	118646

Fig 2.1 Layout of M/s. Indosol Solar Private Limited (ISPL)

SITE PLAN



2.1.2 Parking

The manufacturing facility has common parking area to provide parking space for trucks, 4-Wheeler, 2-Wheeler, Bus Parking, Ambulance, and Fire Tender. The parking provision follows the guideline of Municipal Administration and Urban Development Department (MAUD), Government of AP vide Memo No. 2924061/M2/2025 dated 07.08.2025 which mandates 10% of the built-up area for parking. Accordingly, 12500 m² of area is allocated for parking consisting of 1165 m² of covered parking and 11335 m² of open parking. The truck parking area shall be provided with rest rooms. Details of parking spaces is presented in [Table 2.3](#).

Table 2.3 Parking nos. provided

Description	Parking Nos.
Truck and bus Parking	39
4-Wheeler	30
2-Wheeler	250
Ambulance	1
Fire Tender	2
Bicycle	100

Note: Parking nos. includes covered parking

2.1.3 Storm Water Drains

Conservation of water resource is most important aspect of the proposed project during construction and operation phases. Storm water drainage planning, domestic water planning, sewerage transfer, and sewage treatment planning are critical aspects of construction and operation phases of project.

Storm water drains will be provided along all internal roads to handle the expected increase in runoff during the rainy season due to the impervious nature of paved surfaces. The project site has an uneven topography, and the existing natural slope will be largely maintained during site development. Accordingly, storm water movement from the site will follow the natural drainage pattern of the area. Proper storm water drains will be provided along all internal roads to ensure smooth flow and to prevent any waterlogging or erosion during the rainy season. The expected runoff is calculated for the design of the storm water runoff and presented in following [Table 2.4](#).

Calculation for Storm Water Drain

Quantity of storm water:

(a) With out project

Area of Catchment, 'A' : 25.2534 Ha

Run off Coefficient, 'C' : 0.6
 Maximum intensity of rainfall, 'I' : 100 mm/hr
 Therefore Q : 4.209 m³/sec

(b) With project

Area for catchment for roof and road : 13.3 Ha
 Area of Catchment, 'A' : 13.3 Ha
 Run off Coefficient, 'C' : 0.9
 Maximum intensity of rainfall, 'I' : 100.0 mm/hr
 Therefore Q = : 3.3 m³/sec
 Area for catchment for open areas : 11.9 Ha
 Run off Coefficient, 'C' : 0.6
 Maximum intensity of rainfall, 'I' : 100.0 mm/hr
 Therefore Q = : 2.0 m³/sec
Total Discharge : 5.3 m³/sec

But, Discharge, Q = A/V

Where,

A= Area of the Drain,

V= Max. Permissible Velocity : 20 m/sec for concrete drain

Area of drain, 'A' = Q/V : 0.266 m²

Taking depth of drain as 2.5 m at the starting point: : 2.5 m

Width of drain = Area/depth = : **0.106 m 106 mm**

Width of the drain is to taken 10.1 m and depth varies according to the slope of ground.

Table 2.4 Storm water Management

Land Use	Area in Hectares	Vol./hr after developm ent C=0.8	Vol./hr before Developme nt C=0.6	Difference in Discharges	Remarks
Roof Area	8.8	7008	5256	1752	Stored in 150 KL sump and is used for domestic purpose
Road Area	4.5	3636	2727	909	30 nos. of RWH pits are provided of size 1.5m X 1.5m X 2.0 m
Open Area	11.9	3584	7169	-3584	
TOTAL	25.2			-923	

* C=0.3 after development for greenery

2.2 Product Profile

The manufacturing capacity is presented in [Table 2.5](#). Material specification with annual requirement for module and cell, wafer and ingot are presented in [Table 2.6](#), [Table 2.7](#) and [Table 2.8](#) respectively.

Table 2.5 Manufacturing Capacity

Name of the product	Unit	Quantity
Solar Photovoltaic (PV) modules	Nos./year	22,22,000
Solar Photovoltaic (PV) Cells	Nos./year	10,46,57,700
Solar Photovoltaic (PV) Wafers	Pcs/year	10,99,90,000

Note: Even though Solar Photovoltaic (PV) modules are the intended products, Solar Photovoltaic (PV) Cells and Solar Photovoltaic (PV) Wafers may also be marketed based on supply chain dynamics.

Table 2.6 Material Requirement – Module

Raw Material	Units	Quantity
Solar Cells	pcs/day	44,45,345
Ribbon (Cell Connector)	TPD	2.0
Ribbon (String Connector)	TPD	0.3
Ribbon (String Connector)	TPD	0.3
Front side Glass	pcs/day	6735
EPE & Encapsulant	m ² /day	36010
Rear side Glass	pcs/day	6735
Junction box	set/day	6735
Frame	set/day	6740
Frame Sealant	pcs/day	3146
Flux	KLD	0.2
Junction Box potting material-A white	TPD	0.3
Junction Box potting material-B transport	TPD	0.2
CELL FIX TAPE	meters/day	6735
EDGE SEALING TAPE	meters/day	49376
RTV	TPD	0.2
RFID, 90X6MM	pcs/day	7137
LAMINATE LABEL, BLANK 55x15mm	pcs/day	13803
BACK MES LABEL, BLANK 55x15mm	pcs/day	6935
DATA LABEL, BLANK 25x200mm	pcs/day	6935
CORNER CAPS, 30x32mm	pcs/day	27203

Table 2.7 Material Requirement – Cell

Raw Material	Unit	Quantity
Wafer	pcs/day	3,33,836
Front Busbar Ag Paste	TPD	0.004
Front Finger Ag Paste	TPD	0.02
Rear Busbar Ag Paste	TPD	0.004
Rear finger Ag/Al Paste	TPD	0.02
HF - Hydrofluoric Acid (49%)	KLD	1.9
HCl - Hydrochloric Acid (37%)	KLD	0.5
KOH - Potassium Hydroxide (40%)	KLD	1.6
H2O2 - Hydrogen Peroxide (31%)	KLD	3.6
Phosphine (PH3) (92%H3 and 8%PH3)	m ³ /day	3.3
Boron Trichloride (BCl3) (5N)	Kg/day	0.17
Texturization Additive	KLD	0.1
Polishing Additive	KLD	0.1
SiH4 - Silane (5N)	TPD	0.1
NH3 - Ammonia (5N)	TPD	0.1
N2O - Nitrous Oxide (5N)	TPD	0.1
TMA – trimethyl aluminum	Kg/day	0.1
N2 (5N)	TPD	1.0
O2 (5N)	TPD	0.5
H2 (5N)	m ³ /day	66.8

Table 2.8 Material Requirement – Ingot and Wafer

Raw Material	Unit	Quantity
Polysilicon- Virgin size small	TPD	5.2
Polysilicon- Virgin big size	TPD	1.7
Seed	pcs/day	24.7
Dopant	TPD	0.01
Argon (Makeup)	TPD	1.7
Glue A	Kg/day	4.7
Glue B	Kg/day	4.7
C ₃ H ₆ O ₃ - lactic acid	TPD	0.1
NaOH – Solid Sodium Hydroxide	Kg/day	3.3
H2O2 - Hydrogen Peroxide (%26-28) IBC	KLD	0.3
Cleaning agent A	KLD	0.3
Cleaning agent B	KLD	0.1
HF - Hydrofluoric Acid	KLD	0.1
HNO3 - Nitric Acid	KLD	0.4
N2	TPD	0.9
Polyurethane	TPD	0.02

2.3 Process Description

The process flow for the CZ method-based mono c-Si ingot growing and wafer production & process steps can be divided into two main stages;

- CZ method-based mono c-Si ingot crystallization and pulling and
- Cutting of bricks followed by slicing into wafer.

The process flow diagram of CZ mono c-Si Ingot and Wafer Production is presented in [Fig 2.2](#).

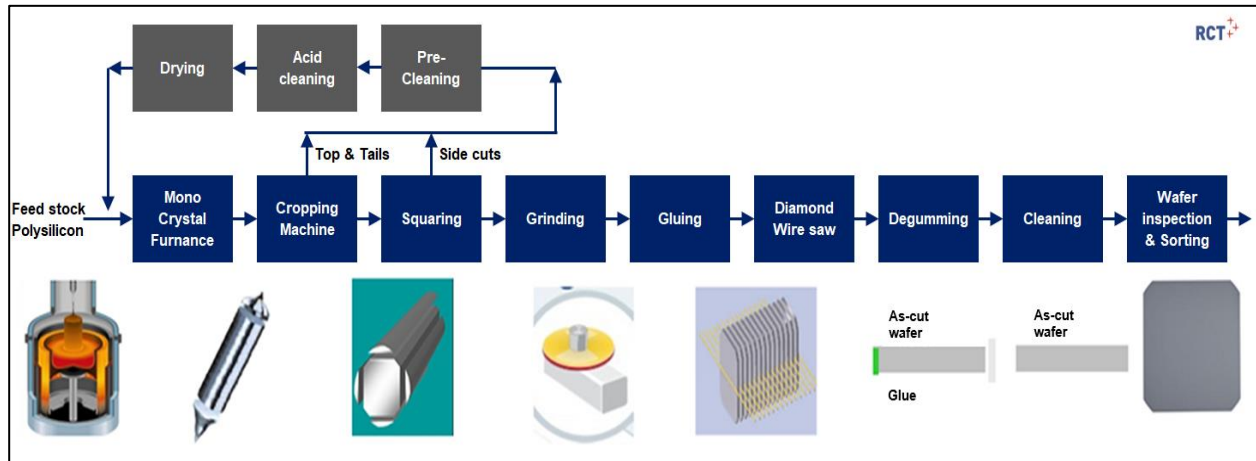


Fig 2.2 CZ mono c-Si Ingot and Wafer Production Process Steps

2.3.1 Process Description of Ingot

In the Czochralski process, polysilicon along with dopants is melted in a high-purity quartz crucible under a controlled argon atmosphere. A seed crystal is slowly pulled to form a single-crystal silicon ingot, while most impurities remain in the molten phase due to segregation, thereby improving purity. Dopants are incorporated to achieve the required electrical properties with uniform distribution along the ingot. Recycled silicon from ingot cut-offs can also be reused, whereas impurity-rich residues are discarded. Additionally, recharging of silicon enables multiple ingots to be produced from a single crucible, improving material utilization and process efficiency. The process flow diagram of ingot pulling is presented in [Fig 2.3](#).

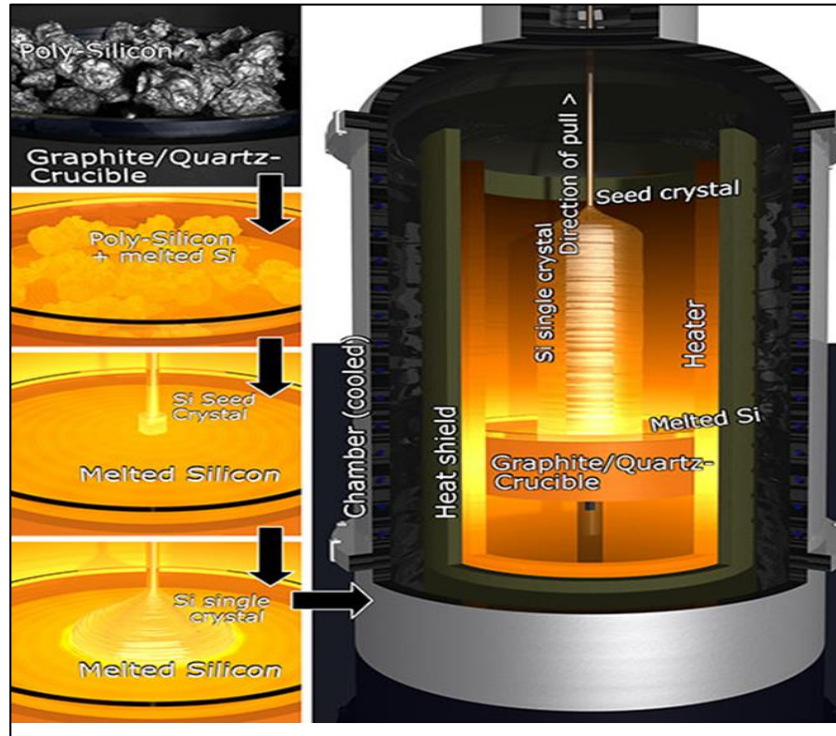


Fig 2.3 The Process Flow Diagram of Ingot Pulling

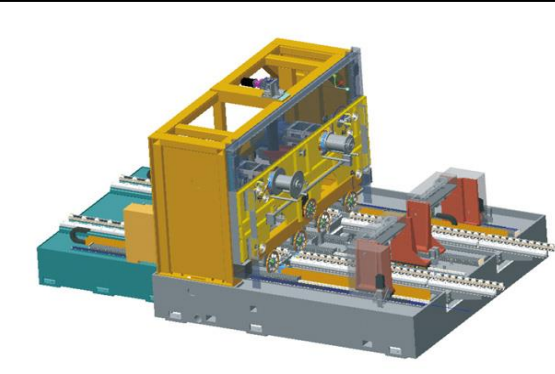
The defective head and tail portions of the ingot are removed, and the remaining ingot is cut into smaller rods. These rods are then squared using a squaring saw, followed by grinding to obtain a smooth and polished brick surface.



CZ method based mono c-Si ingot

Cutting (Cropping) of Mono c-Si Ingot (Brick Production)

The cropping process cuts ingots into suitable lengths (rods) and also provides samples for quality control. Rods are typically 750–900 mm long and are cut using thin diamond wire. Cropping can be done using multi-station machines with multiple blades for faster cutting, or single-station machines with continuous feeding for better efficiency. The main consumables in this process are diamond wire and running wheels.

	
Multi-Station Cropper	Single-Station Cropper with continuous feeding and two parallel blades.

Squaring

After cropping, the rod is squared by guiding it through diamond wires while being clamped at both ends. Cutting fluid is used for cooling, lubrication, and removal of kerf loss, and along with diamond wires, it is a key consumable. The removed slabs are recycled, and the process takes about 20–25 minutes. Schematic diagram showing wire cutting is presented in [Fig 2.4](#).

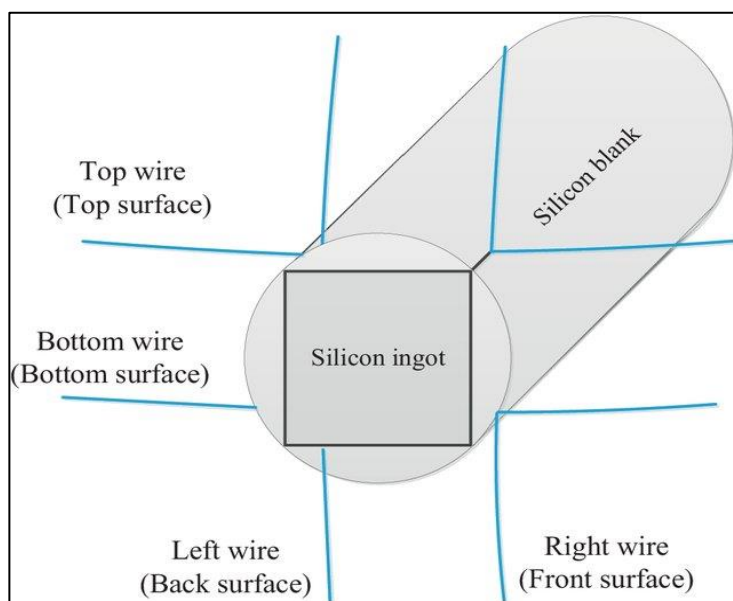


Fig 2.4 Wires Cutting Through Rod

Grinding and Chamfering

The process involves grinding and chamfering of bricks to remove surface defects and prevent breakage during slicing. Grinding is done in stages using coarse and fine wheels to achieve a

smooth finish, improving slicing yield (up to ~96%). The brick is rotated to treat all sides and edges, and the process typically takes about 40–50 minutes.

Recycling Process

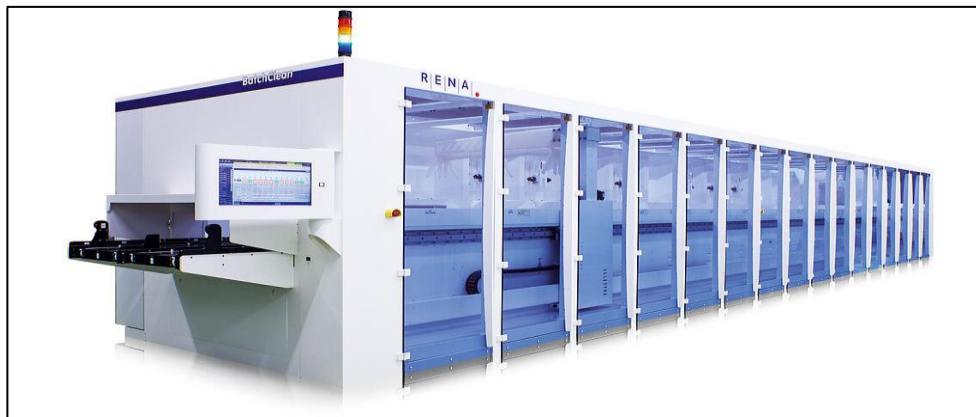
In ingot production, silicon cut-offs from cropping and squaring are recycled to reduce material loss and improve efficiency. About 38–45% of material can be reused after quality checks. The recycling process involves crushing, chemical cleaning, and packaging, using materials like heads, tails, slabs, and other rejected silicon.

Silicon Crushing

Silicon crushing reduces polysilicon chunks into usable sizes for recycling, meeting standard quality requirements. It can be done manually, mechanically, or using advanced methods like high voltage or microwaves. Mechanical methods are commonly used but may introduce contamination due to contact. In contrast, advanced contact-free techniques reduce contamination risk, though they involve higher capital cost (CAPEX).

Chemical Cleaning

Due to the segregation effect, ingots have much lower impurity levels than raw polysilicon. During processing, surface impurities are removed through batch chemical cleaning using acids (HF and HNO_3), followed by water rinsing and ultrasonic cleaning. The material is then dried, packed, and sent for reuse in ingot production.



Batch-type Cleaning Machine

Kerf loss recycling

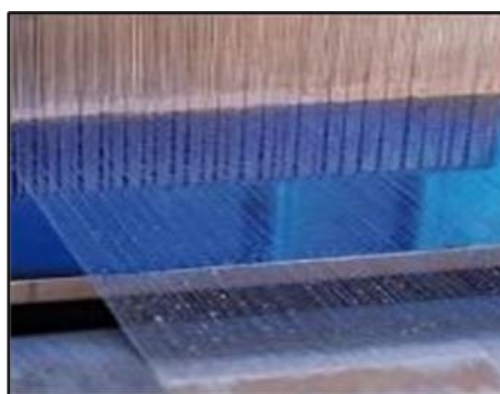
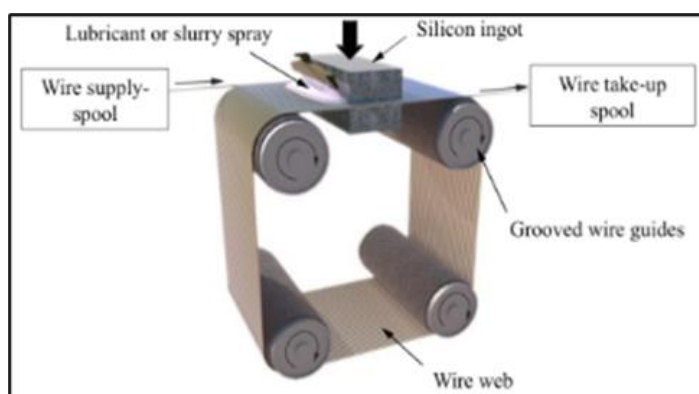
Various methods have been developed to recover kerf loss, but they are not yet economically viable due to high cost and low yield. However, improvements such as thinner wires and integrated manufacturing are helping to reduce kerf loss. The Mass balance of Ingot and wafer is presented in [Table 2.9](#).

Table 2.9: Mass balance of Ingot and wafer

Input	Quantity (TPD)	Output	Quantity (TPD)	Remarks
Virgin Polysilicon	7	Wafer	5.54	Sent to cell production
Recycled Polysilicon	3	Ingot cuttings	3	Recycled
Dopant (master alloy)	0.005	Kerf loss	1.4	Recovered and sold
Recycled Argon	19.83	Slag	0.06	Shall be sold
Fresh Argon	1.72	Argon - 92% recovered	19.83	Reused
		Loss	1.72	PEX/Exhaust
Total Input	31.55	Total Output	31.55	

2.3.2 Process Description of Wafer

Diamond Wire Sawing (DWS) is used to slice silicon bricks into thin wafers (~160–170 μm) using a moving diamond wire with cooling fluid. Using special adhesives, the brick is glued to a hollow plate and a brick holder. After slicing, wafers remain attached to the holder and are separated through degumming, followed by cleaning. The wafers are then inspected and sorted based on quality. Both p-type (B or Ga doped) and n-type (P doped) wafers are produced.



Diamond Wire-Based Sawing of Brick

2.3.3 Process Description of Solar Cell Production

The crystalline silicon solar cell production flow depends on the technology used to achieve the desired cell structure. Independent of the technology, over 85% of modern Si solar cells production lines include following basic process steps is in [Fig 2.5](#).

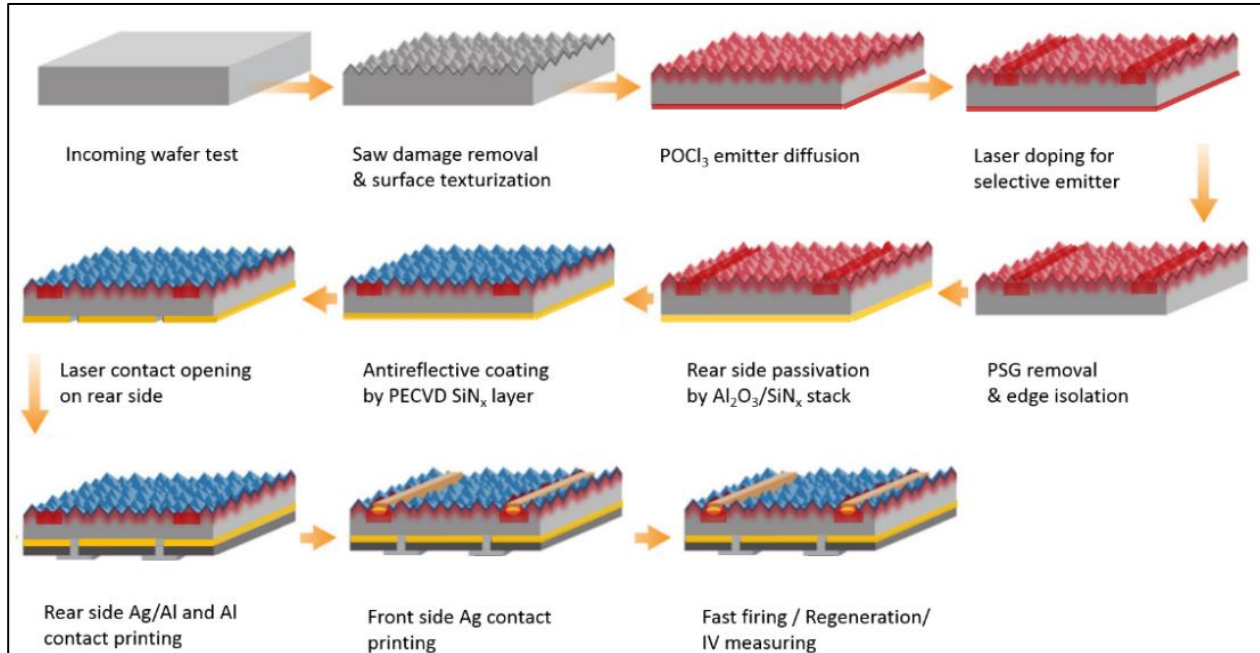


Fig 2.5 PEC Solar Cell Production Process Steps

Incoming Wafer Inspection

Incoming wafer inspection is essential to improve yield and quality in solar cell production. It includes unstacking, optical breakage detection, geometrical and surface inspection, microcrack detection, mechanical stability testing, and contactless measurements of thickness, resistivity, and carrier lifetime, followed by wafer loading.

Surface damage removal / Texturing

Wafers are chemically textured using alkaline solutions (KOH/NaOH) to create pyramid-like structures that reduce light reflection and enhance absorption. This step also removes surface damage from slicing. The process is carried out in batch-type wet chemical systems with sequential cleaning and drying. Batch-type wet chemical systems are typically used, combining saw damage removal, texturing, cleaning, and drying in a continuous process. Wafers are processed in carriers through multiple chemical baths, handling about 200–400 wafers per batch.

Junction Formation

The process of p-n junction formation consists of two phases: dopant application and drive-in (diffusion) of dopant atoms into volume of silicon substrate. The emitter diffusion refers to the deposition of a thin dopant material-containing coating on the wafer by passing the wafers through a diffusion coating furnace. Wafers that have already been pre-doped with p-type boron during the Cz crystal growth process are diffused with n-type dopant (Phosphorus) at a high temperature to create a p-n junction.

This junction of electron deficiency in the p-type and high electron concentration in the n-type allows for excess electrons from the n-type region to jump into the p-type region, creating an electron field at the junction. By this way, the electrons and holes generated by sun light in the volume of Si wafer can be separated and transferred to opposite wafer surfaces resulting in creation of electric potential and hence the name 'Photo Voltaic'.

The preferred way in the PV industry for p-n junction formation is batch diffusion furnaces. The wafers are collected in a quartz carrier, which is then loaded into a quartz diffusion tube. Dopant is deposited as Phosphor Silicate Glass (PSG) from gas phase (POCl_3 bubbler source). A temperature profile is used to achieve the right distribution of the dopant in the surface-near layer.



High-capacity diffusion boot with back-to-back loaded wafers

Edge Isolation and Rear Polishing

During diffusion, phosphorus diffuses not only on the front surface but also along the edges and rear side of the wafer, creating unwanted electrical pathways between front and back surfaces. Edge isolation removes these conductive paths and eliminates the remaining phosphosilicate glass (PSG) after diffusion. Rear side polishing improves surface quality, enhances back passivation, increases open-circuit voltage, and thereby improves overall solar cell efficiency. Edge isolation in PERC/Al-BSF cells is carried out using an inline HF/HNO₃ wet etching process. The rear side is etched while the front side is protected by a DI water film, followed by rinsing, cleaning, and drying. The process also removes PSG and typically handles 4,000–8,000 wafers per hour. [Fig 2.6](#) presents Si wafers in the edge isolation etching bath.



Fig 2.6 Rear Side Etching for Edge Isolation in main Etching Bath of 5-lane Industrial Inline

Alkaline Etching

Alkaline chemistry avoids the sharp edges of acidic texturing, improving passivation quality. It also eliminates HNO₃, making the process more environmentally friendly. Alkaline rear-side polishing is done by two methods: (a) inline process and (b) batch process.

Inline alkaline polishing: The entire wet process is done in a single inline tool with wafers moving on a conveyor. Key steps include HF single-side etching, alkaline etching with KOH, PSG removal, cleaning, and drying. The wafer front side is protected by water capping, while chemicals act on the back surface for single-side processing.

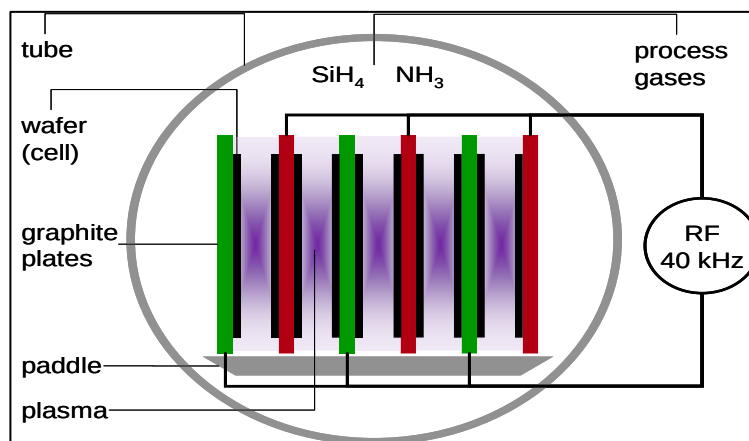
Alkaline batch polishing: This process uses a cluster setup where initial PSG removal from the rear is done inline, while PSG on the front is retained for emitter masking. Wafers are then transferred from the conveyor to carriers using automated handling before batch processing.

The wafers are fully immersed in an alkaline solution. The rear surface, with exposed silicon, reacts with KOH for etching, while the front surface has an oxide layer that slows the reaction and protects the emitter. Protecting the sub-micron front emitter in selective emitter structures is challenging in alkaline batch polishing. This is addressed by adding an oxidation step after SE laser to form an oxide layer over PSG and SE features, and by using amphiphilic additives. These additives adhere to the front oxide layer, enhancing emitter protection and enabling longer processing times. They also accelerate etching and reduce KOH consumption. The cluster-based batch alkaline polishing approach is widely used in the PERC process.

Anti-Reflective Coating

Anti-reflective coating is applied on the front surface of the wafer to further reduce reflection and increase light absorption. Bare silicon reflects over 30% of incident light, which is reduced to about 10% using a silicon nitride (SiN_x) coating, and to nearly 3% when combined with texturing.

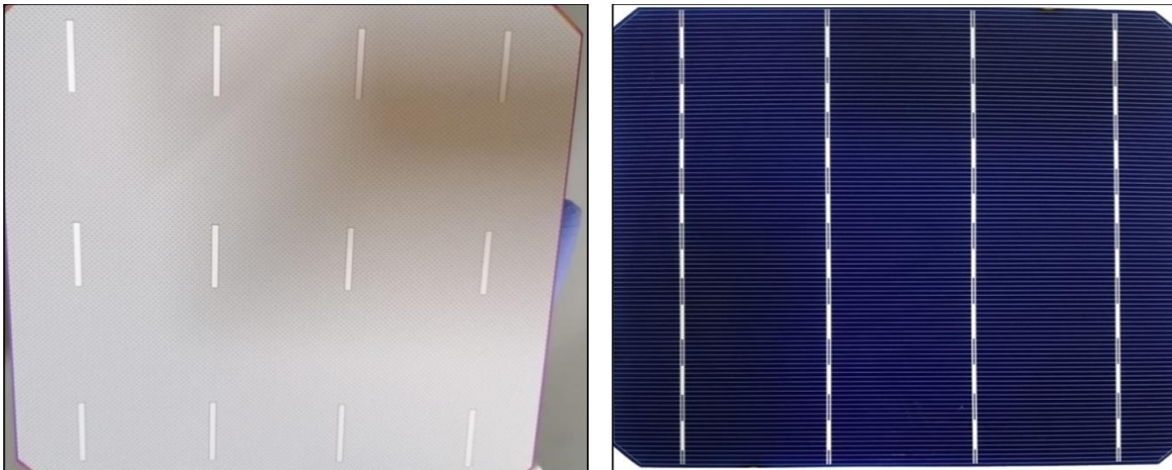
SiN_x ARC also improves short-circuit current and reduces surface recombination through passivation of dangling bonds, increasing cell voltage. It is commonly deposited using Plasma Enhanced Chemical Vapor Deposition (PECVD), where precursor gases form plasma under controlled conditions to deposit the coating on the wafer.



Principle of Direct PECVD Process for Deposition of SiN_x ARC Layer

Screen Printing of Front and Rear Contact System

Metal contacts are formed on the wafer using screen printing to create ohmic contacts on the front and rear surfaces. Metal paste is printed on FS and RS, followed by drying. After printing and drying both sides, the wafers are sintered in a furnace to solidify the contacts, then cooled to form finished solar cells as shown.



Screen Printed Solar Cell Metallization on Front (left) and Rear (right) Side

Testing and Sorting

In the final step, solar cells are tested under simulated sunlight and classified based on efficiency. Automated systems measure IV curves and perform optical inspection using visible and IR cameras. Based on the results, cells are sorted into performance bins, then packaged and sent for module production.

2.3.4. Process Description of Solar Photovoltaic (PV) modules

The production process of solar module is tightly connected to the module design and used module components. Standard c-Si solar module consists of 5 layers is presented in [Fig 2.7](#).

- Stringed solar cells
- Encapsulation foil 1 on the FS
- Encapsulation foil 2 on the RS
- Back sheet and cover glass

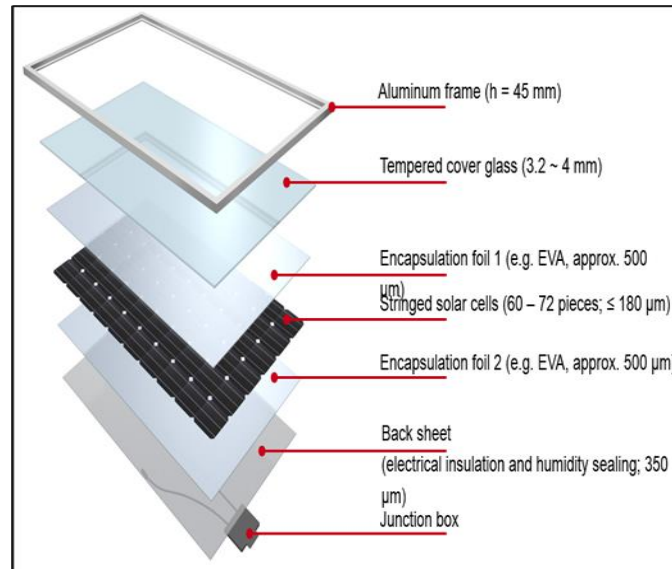


Fig 2.7 Standard c-Si Solar Module

In module production, solar cells are aligned and interconnected through tabbing and stringing. A stringer machine solder flat metal ribbons to the cell contacts, forming series connections. The process joins the front-side busbar of one cell to the rear-side contact of the next cell. Series interconnection principle of solar cells to strings is presented in [Fig 2.8](#).

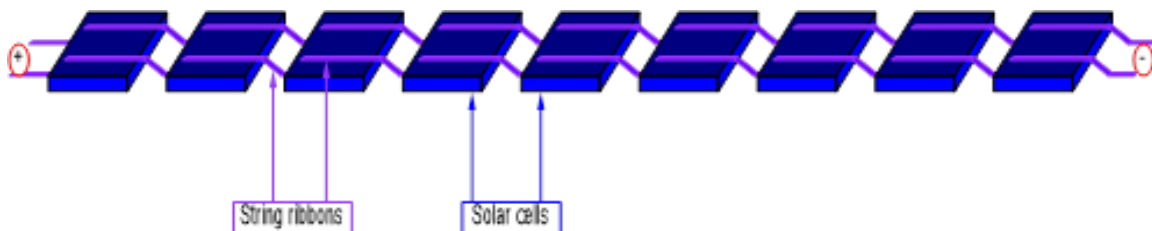


Fig 2.8 Series Interconnection Principle of Solar Cells to Strings

Six strings, each containing 8 or 13 solar cells, are placed face down on the glass and top encapsulation layer. After lay-up, the strings are connected in series by soldering cross-connection ribbons. Schematic design of solar cell interconnections in the module is presented in [Fig 2.9](#).

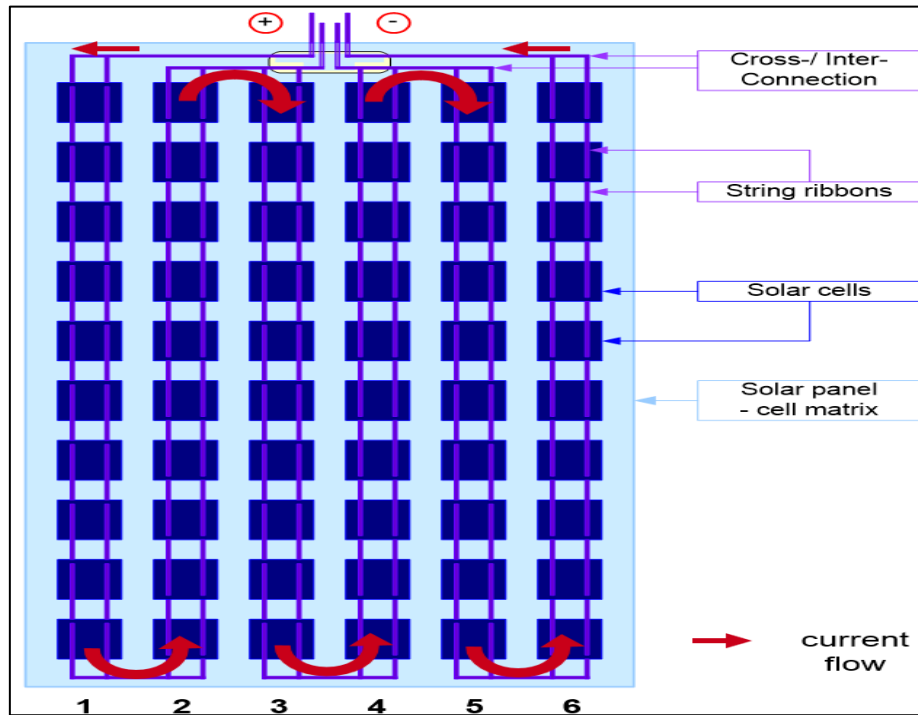


Fig 2.9 Schematic Design of Solar Cell Interconnections in the Module

Cells are connected in series and laminated by placing them between EVA or POE films and glass sheets under high temperature and humidity. This encapsulation protects the cells from harsh environmental conditions.

After lamination, trimming, and framing, a junction box is mounted on the rear side of the module. It connects ribbon interconnections to external cables and improves output during partial shading using bypass diodes. Finally, electrical and quality tests are conducted, and compliant modules are packaged and stored. A simplified module production process schematic diagram is presented in [Fig 2.10](#).

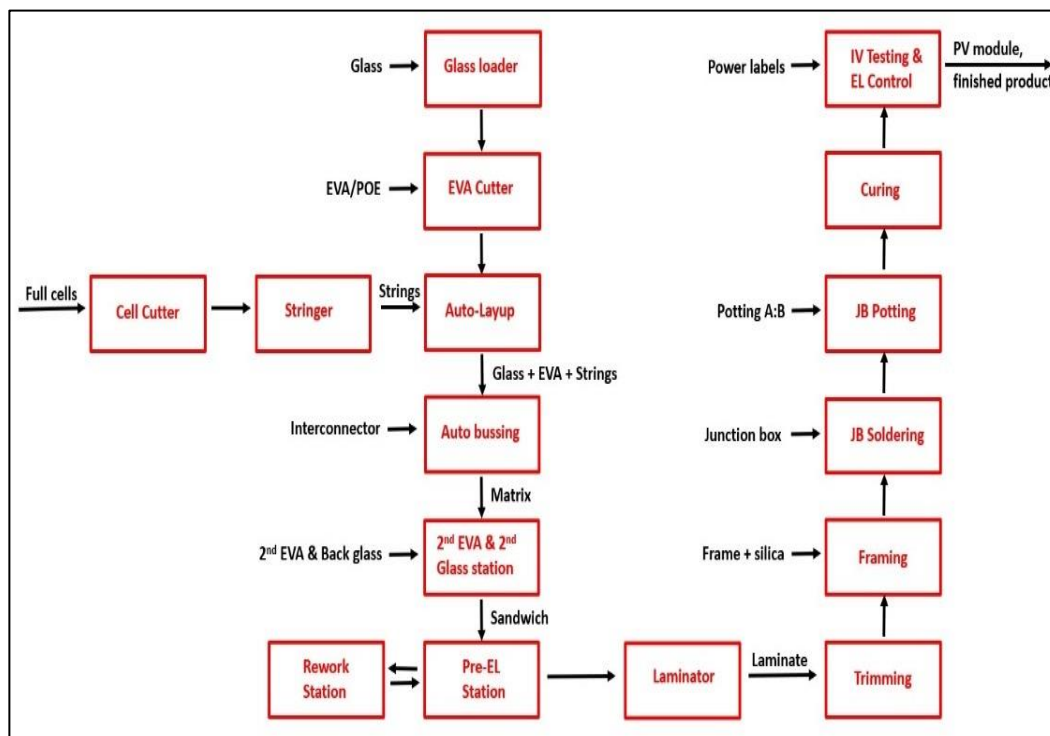


Fig 2.10 Schematic Diagram of Simplified Module Production Process

Recycling Process

The aim is to reuse silicon removed during cropping and squaring. After recycling, it is reused for new ingot growth thereby reducing losses. Recycled material contributes 38–45%, depending on ingot quality. Some silicon is removed during quality control if impurities or defects are found. Heads, tails, slabs, and rejected material are suitable for recycling.

2.4 Utilities

The required utilities are chillers, compressed air system and standby DG sets. List of utilities is presented in [Table 2.10](#).

Table 2.10 List of Utilities

S. No	Description	Unit	Capacity
1	Chillers, and associated ancillaries, pumps, AHUs	TR	15000
2	Compressed air system (Air cooled)	CMH	5200
3	DG Set (standby)	kVA	1 x 1250 1 x 1500 2 x 2500 2 x 2000

2.5 Water Requirement

Water is mainly used for dilution of few raw materials used in manufacturing process and washings, scrubbers, cooling towers, domestic purposes, and gardening. Total water requirement is 6955 KLD. The water requirement shall be met from Chevuru Tank (4 MLD) and Chennayyapalem Tank (3 MLD). The unit obtained permission from water resources department, Govt. of A.P. vide Lr.No. CE/CDO/EE2/DEE4/AEE10/INDOSOL SOLAR PH/10/2025/97/25 dt. 28.10.2025 for with drawl of 7 MLD of water from both Chevuru and Chennayyapalem tanks. The total water balance is presented **Table 2.11**. The schematic diagram of water balance flow is presented in **Fig 2.11**.

Table 2.11 Total Water Balance

Description	Input (KLD)	Output (KLD)	
		Loss	Effluent
Process, washings, and scrubber	4151	144	4007
Cooling Tower	1560	660	900
DM Plant	912	--	912
Domestic	120	20	100
Gardening	212	212	--
Total	6955	1036	5919

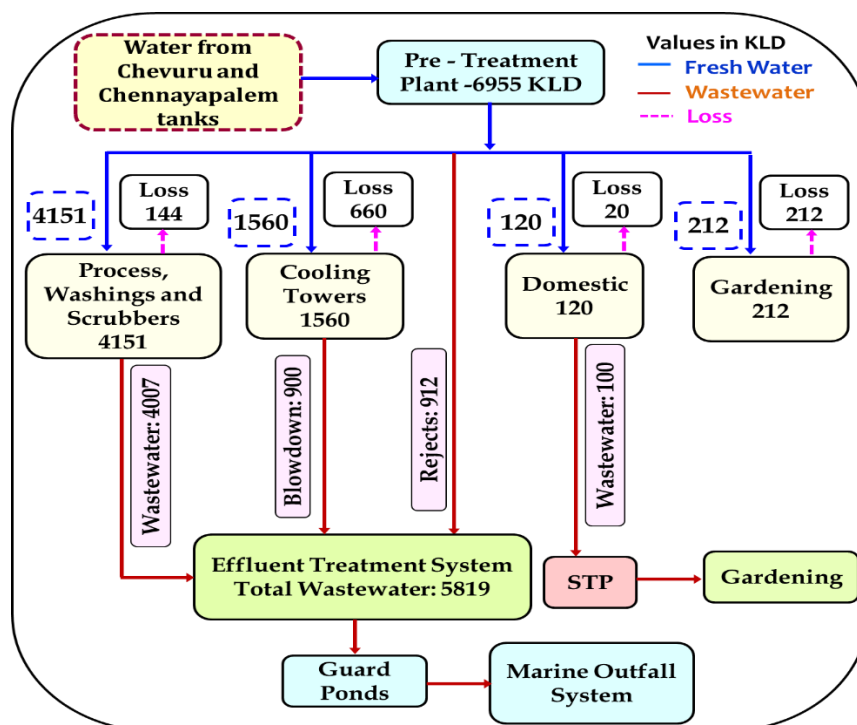


Fig 2.11 Schematic Diagram of Total Water Balance

2.6 Pollution Control Facilities

Liquid Effluents, air emissions and solid wastes are the major pollutants from process operations of integrated solar photovoltaic module (Ingot, Wafer, Cell and Module) manufacturing facility. The pollution control measures proposed to treat/mitigate the emissions and effluents are described as follows;

2.6.1 Water Pollution

The main sources of wastewater generation during operation phase are from process, washings, and scrubbers, cooling towers blowdowns and domestic wastewater. The effluents generated from process, washings, and scrubbers, cooling towers blowdowns sent to effluent treatment system (ETS) and treated wastewater will be stored in Guard Ponds and conduct the test for Bioassay before disposal to Marine Disposal system. The unit obtained CRZ clearance from MoEFCC vide file no. 11/11/118/2025-IA.III dated 12.12.2025. Quantity of effluents generated and mode of treatment is presented in [Table 2.12](#).

Table 2.12 Total Effluent Generated and Mode of Treatment

Purpose	Quantity (KLD)	Mode of Treatment
Process, Washings and Scrubber	4007	Sent to Effluent treatment system (ETS) consisting of a biological treatment system based on UASB for treating wastewater containing organic compounds with a capacity of 1.45 MLD, and precipitation and filtration based effluent treatment plant for treating wastewater containing inorganic compounds with a capacity of 4.37 MLD. The treated effluents are sent to guard ponds followed by discharge through marine outfall. The industry proposes to lay a pipeline of approximately 8 km length with 400 mm diameter from the industry premises to the Land Fall Point (LFP) at the seashore. Further, a marine outfall pipeline of 1000 m length with 400 mm diameter is proposed to be laid into the sea up to the outfall diffuser at a depth of 8.5 m, for discharge of treated effluent with a total marine outfall capacity of 6 MLD.
Cooling Tower	900	
DM Rejects	912	
Domestic	100	Sent to sewage treatment plant (STP) and treated wastewater is used for on land irrigation to develop greenery.
Total	5919	

2.6.1.1 Effluent Treatment System (ETS)

The effluents are segregated into two streams: organic and inorganic. Organic effluents are sent to the Organic Effluent Treatment System (ETS), while inorganic effluents are directed to the Inorganic Effluent Treatment System (ETS).

Organic ETS

Effluents containing organics are sent to Effluent treatment system (ETS) consisting of a biological treatment system based on UASB technology with a capacity of 1.45 MLD. The treated effluents are sent to guard ponds followed by discharge through marine outfall. The organic effluent along with silicon kerf recycled effluent is collected in an organic waste collection tank and transferred to a buffer tank, where pH correction, nutrient dosing, and equalization are carried out. The equalized effluent is treated in a Upflow Anaerobic Sludge Blanket (UASB), where biological treatment reduces organic load (BOD and COD). The partially treated wastewater is clarified in a tube settler and further treated in an aeration tank for aerobic degradation. The effluent is passed through a clarifier, where sludge is settled and partly recirculated, while excess sludge is sent to sludge holding tank. The clarified water is disinfected by hypochlorite dosing and filtered through a multi-grade filter. The treated water is stored for disposal, and sludge is dewatered using a decanter centrifuge and stored for safe disposal. Schematic diagram of organic ETS is presented in

Fig 2.12.

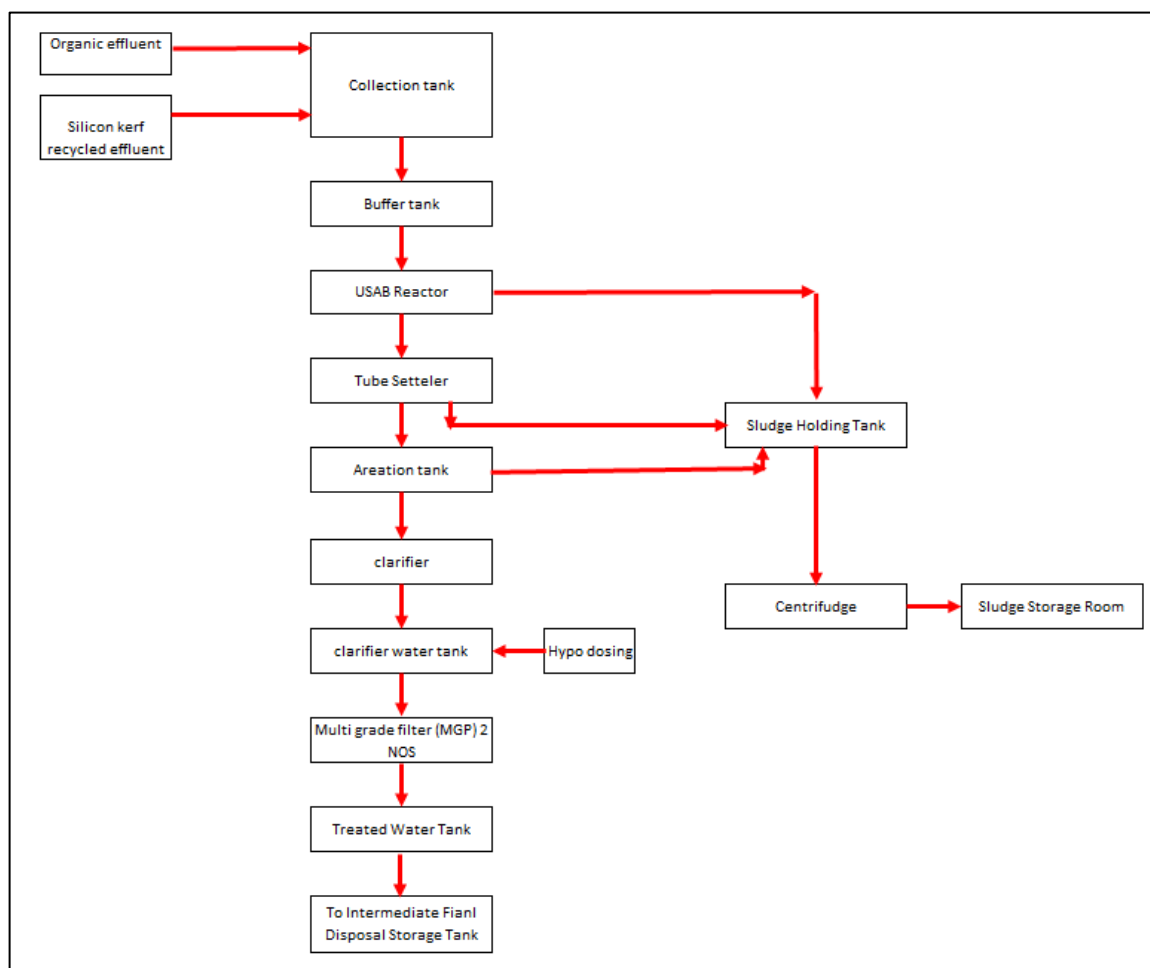


Fig 2.12 Organic ETS flow diagram

Inorganic ETS

Precipitation and filtration based effluent treatment plant is proposed for treating wastewater containing inorganic compounds with a capacity of 4.37 MLD. The treated effluents are sent to guard ponds followed by discharge through marine outfall. The inorganic effluent treatment system handles multiple influent streams, including acid stream, alkaline wastewater, and scrubber effluents, which are first collected in dedicated collection tanks and then sent to an equalization tank. The equalization tank ensures homogenization of flow. From the equalization stage, the effluent undergoes a series of physicochemical treatments in multiple reaction tanks (Reaction Tank–1A, 1B, 1C, 2A, 2B, 2C), where chemicals such as lime, caustic, acids, coagulants are dosed to facilitate neutralization, coagulation, and flocculation. These processes help in removing suspended solids, heavy metals, and other contaminants. The treated water then passes

through clarification units (HRSCC tanks), where sludge settles and clarified water overflows. The generated sludge is further processed using a filter press, producing dry sludge suitable for disposal, while filtrate is recycled back into the system. The clarified effluent is routed through a multigrade filter to remove finer suspended particles, followed by storage in a clear water tank followed by discharge through marine outfall. Schematic diagram of inorganic ETS is presented in

Fig 2.13.

Characteristics of Wastewater Before treatment – Organic and Inorganic ETS

Source	pH	COD (mg/l)	BOD (mg/l)	TDS (mg/l)	TSS (mg/l)
Inorganic ETS	3-11	---	---	7342	---
Organic ETS	5-11	900	600	190	173
Cooling Tower	7.5	---	---	1500	---
DM Rejects	7.5	---	---	8000	---

Characteristics of Wastewater After treatment

Parameter	After treatment
pH	6.5-8.5
BOD (mg/l)	<100
COD (mg/l)	<225
Oil and grease	10
Total Suspended Solids (mg/l)	<100

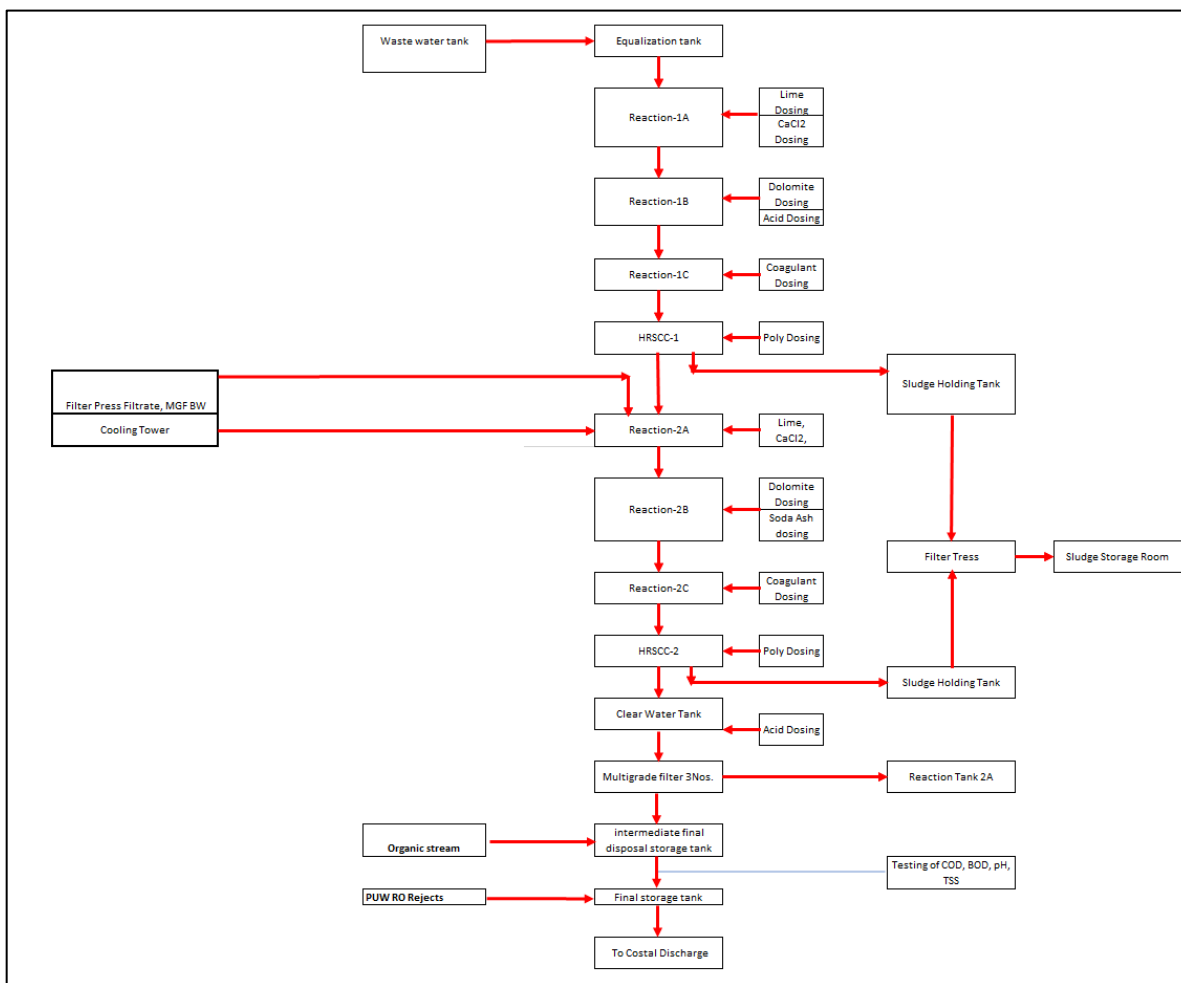


Fig 2.13 Inorganic ETS flow diagram

2.6.1.2 Process Description and Technical Specification of Sewage Treatment Plant

Process description

MBR based biological treatment system is proposed for treating domestic wastewater. Schematic diagram of STP is presented in [Fig 2.14](#).

The Membrane Bio Reactor Technology is the most advanced development in the field of biological treatment providing treated wastewater for recycling in smaller footprint and under stringent discharge norms. Membrane bioreactors for wastewater treatment is a combination of a suspended growth biological treatment method, usually activated sludge, with membrane filtration equipment, typically low-pressure microfiltration (MF) or ultrafiltration (UF) membranes. The membranes are used to perform the critical solid-liquid separation function. In activated sludge facilities, this is traditionally accomplished using secondary and tertiary clarifiers along with

tertiary filtration. The two general types of MBR systems are vacuum (or gravity-driven) and pressure-driven systems. Vacuum or gravity systems are immersed and normally employ hollow fiber or flat sheet membranes installed in either the bioreactors or a subsequent membrane tank.

Primary Treatment

The Primary treatment comprises of the Screen Chamber and Collection Sump. The Effluent enters screen where the Solid particles are removed from the Effluent. Thereafter the Effluent enters Collection Sump by gravity. The Effluent from the Collection Sump is pumped to the Fine Screen.

Secondary Treatment

Secondary treatment consists of Membrane Bioreactor. The sewage after the Collection Sump enters into the Anoxic Chamber where it overflows further to Aeration tank for biological Treatment and further over flow to MBR basin. Hollow Fiber membranes are introduced to mixed liquor to separate treated Sewage from mixed liquor. Membrane being the absolute physical barriers ensures complete removal of suspended impurities. MBR applications include even retrofits of existing systems as well as installation of new systems, for both meeting the most stringent discharge norms and reuse. Treated wastewater from MBR can be even reused for cooling tower make-up, to generate high purity water through Reverse Osmosis and other non-potable applications. This process can help environment protection by treating wastewater and making it suitable for variety of application and thus conserve precious drinking water. Biological system designed for MBR process operates at higher MLVSS concentration with higher sludge retention time thus produces a low quantum of biological sludge thus reducing the sludge dewatering cost.

MBR technology combines the skills of our membrane specialists to deliver integrated treatment solutions with firm process guarantees such as BOD and TSS less than 10 mg/l and also removal of nutrient (nitrogen & phosphorous) and coliforms etc.

Biological process fluid (mixed liquor) is pumped/Overflow to the Membrane Operating System (“MOS”). The mixed liquor is introduced to membrane, along with air, evenly across the bottom of

the tank through a unique two-phase jet system. This mixed liquor fills the membrane tank and flows upward through the membrane sub modules, creating cross-flow dynamics across the membrane surface. This cross-flow continuously scours the membrane surface and prevent solids dehydration at the membrane surface. Applying a low-pressure vacuum to the inside of the membrane fiber pulls water through the membranes and pumps the filtered water to the next process step. Solids, including organics, bacteria, and most viruses, are rejected by the membrane system and retained in the mixed liquor, which overflows the MOS back to the aeration tank. The Membrane Operating System is an assembly with integral membrane modules arranged in rack assemblies, inserted into the membrane tank.

MOS Mixed Liquor Distribution & Recirculation Jets are designed to distribute the air scour and mixed liquor flow evenly across the membrane sub modules. This feature eliminates potential polarization (concentration) of suspended solids around the membrane fibers which could be main cause for the failure and damage of individual fibers thus sub modules. Additionally, this feature provides even distribution of mixed liquor solids to each membrane unit, critical so that all membranes see the same process conditions. The return recirculation of mixed liquor ensures influent comes in intimate contact with the concentrated biomass, offering better organism selection and added flexibility in the anoxic cycle for advanced nitrogen removal, when required. This same jet system also acts as an integral part of the membrane cleaning system, providing an efficient scouring of the membranes with chlorine cleaning solution. The integrated cleaning system allows the sub modules to be quickly cleaned in place. Additionally, the clean and efficient procedure eliminates the need for membrane removal from process tanks that can damage membranes and present risks to plant-operators. Relaxation, Maintenance and in site CIP are exclusive features of this MBR Process to ensure consistent water quality and complete membrane life. The entire operation is PLC controlled.

Specifications of 120 KLD STP
STP - 120 cum/day.

S.No	Name of the Unit	Size in m.
1	Bar Screen Chamber	0.8mX0.8 mx 0.6m
2	Oil & Grease trap	2.5 m x 0.8m x 1.0m
3	Equalization Tank	4.8m x 3.5m x3.0m
4	Anoxic Tank	1.0m x 2.0m x 4.1m
5	Aeration Tank	3.4mx2.0m x 4.0m
6	MBR Tank	1.5m x 2.2m x 3.0m
7	Treated Water tank	3.88m Dia x 5.0 m HOS

Characteristics of Wastewater Before and After Treatment

Parameter	Before	After
pH	6.5 – 7.5	6.5 – 8.5
BOD (mg/l)	250 – 350	<10
COD (mg/l)	500 – 600	< 50
Total Suspended Solids (mg/l)	400 – 600	< 1
Total Nitrogen (mg/l)	30 - 35	<10
Oil & grease (mg/l)	10 - 25	Nil

Disposal of Treated Waste Water: The wastewater is treated and reused for flushing the toilets.

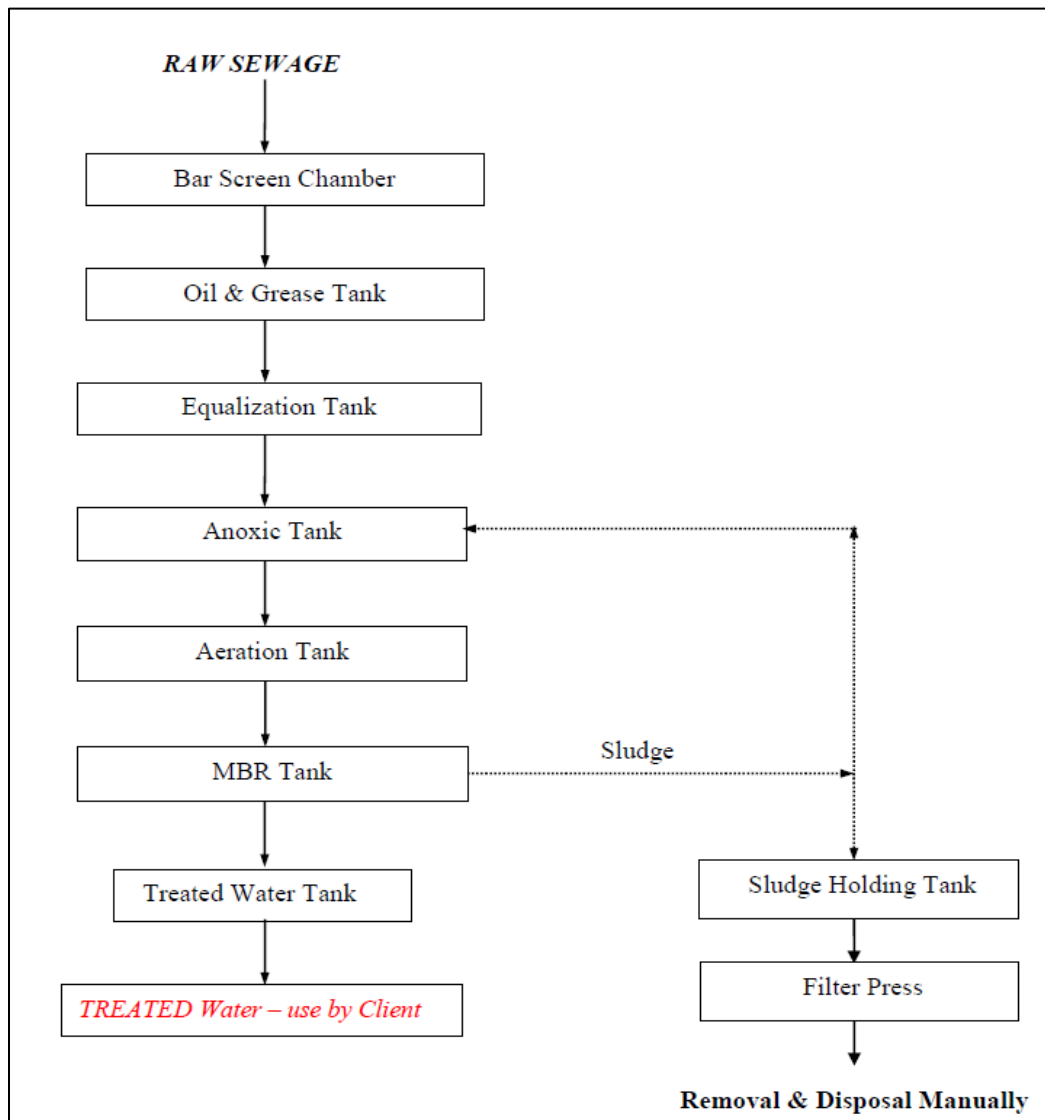


Fig 2.14 Schematic Diagram of Sewage Treatment Plant

2.6.2 Air Pollution

In the manufacturing process of photovoltaic solar cells, dilute Hydrofluoric acid and dilute Hydrochloric Acid are used. During process some of the acid vapors escape the machine and enter environment. Scrubber is used as air pollution control equipment to mitigate these emissions. Scrubbers utilize dilute alkali as scrubbing medium, which converts the dilute acid vapors to respective salt solution. Scrubbers are provided with online pH meters to ensure continuous feed of scrubbing media for effective mitigation/control of dilute acid vapor. The PP fab media is filled in the scrubber to increase the reaction area.

2.6.2.1 Emissions from Utilities

The sources of air pollution are from integrated solar photovoltaic module (Ingot, Wafer, Cell and Module) manufacturing facility is from process and standby DG sets. Dust emissions, HF emission from Ingot and wafer division and HCl and HF emissions are from cell division. Bag filters will be provided as air pollution control equipment to control and mitigate dust emission followed by stacks, while scrubbers will be provided for HCl and HF emissions. Thermal exhausts vents connected to 6 common vents will be provided at various unit operations for reducing the temperature in work room areas of Ingot & Wafer, Cell and module division. DG sets shall be provided with stack heights based on the CPCB formula for effective stack height. The emission details of stacks and DG sets are presented in [Table 2.13](#).

Table 2.13 Emission Details – Process

Stack Connected to	APC	Stack Ht (m)	Dia of stack at top (m)	Temp. of exhaust gases (°C)	Exit Velocity (m/sec)	Pollutant Emission Rate (g/sec)		
						PM	HCl	HF
Ingot & Wafer division								
Stack - 1 no. (1 Common stack connected to 2 nos. scrubbers)	Wet Scrubber	13.5	0.35	80	5	--	--	0.006
Stack - 3 nos. (3 nos. stacks connected to 7 nos. dust exhaust)	Bag Filter	11.5	0.25	65	7	0.02	--	--
Cell Division								
Stack - 5 nos. (5 nos. stacks connected to 5 nos. scrubbers)	Wet Scrubber	15	1.35	45	15	--	0.22	0.06

Emission Details – Standby DG Sets

Stack Connected to	Stack Ht (m)	Dia of stack at top (m)	Temp. of exhaust gases (°C)	Exit Velocity (m/sec)	Pollutant Emission Rate (g/sec)		
					PM	SO ₂	NO _x
2 X 2500 kVA DG set*	30	0.5	180	10	0.02	0.15	0.2
2 X 2000 kVA DG set*	30	0.5	180	10	0.02	0.1	0.15
1 X 1500 kVA DG set*	30	0.5	180	10	0.01	0.07	0.074
1 X 1250 kVA DG set*	30	0.5	180	8.8	0.01	0.04	0.05

* Shall be kept as standby

Table 2.14 Technical Specifications of Bag Filter

S.No	Application	Unit	Value
1	Gas Volume	m ³ /hr@65°C	1767
	Gas Temperature	Deg C	65
	Outlet emission	mg/Nm ³	<115
2	No. of Bags		171
	Filter area per bag	m ²	1.53
	Total filter area	m ²	261.6
	Air to cloth ratio	m ³ /min/m ²	0.11
3	Bags		
	Diameter	ID, mm	120-160
	Length	mm	2000-3000
	Material	Polyester / Nomex / PTFE Coated Ex	
	Filter Type	Needle punched bag	

Description of Scrubbing System

Scrubber has various parts mention below;

1. Inlet Ducting: The acidic vapors from production delivered to acidic scrubber via overhead polypropylene duct. The polypropylene is ideal material used for this type of application. The structure of polypropylene does not react with acidic vapors.

The polypropylene granules are available for various applications. Sheet is made from these granules and these sheets welded along its length at once with special plastic machine to form ducts.

2. Blower and Chimney: The blower is used to create suction in the PP ducts and Scrubber. The acidic vapors pull in the duct and goes to the scrubber. The same blower is used to vent scrubbed air the environment via chimney.

The rotor and the body of blower is made with PPH Plastic. It is non-reactive material used for acidic applications. Schematic diagram of scrubbing system and technical specifications of scrubber are presented in [Fig 2.15](#) and [Table 2.15](#).

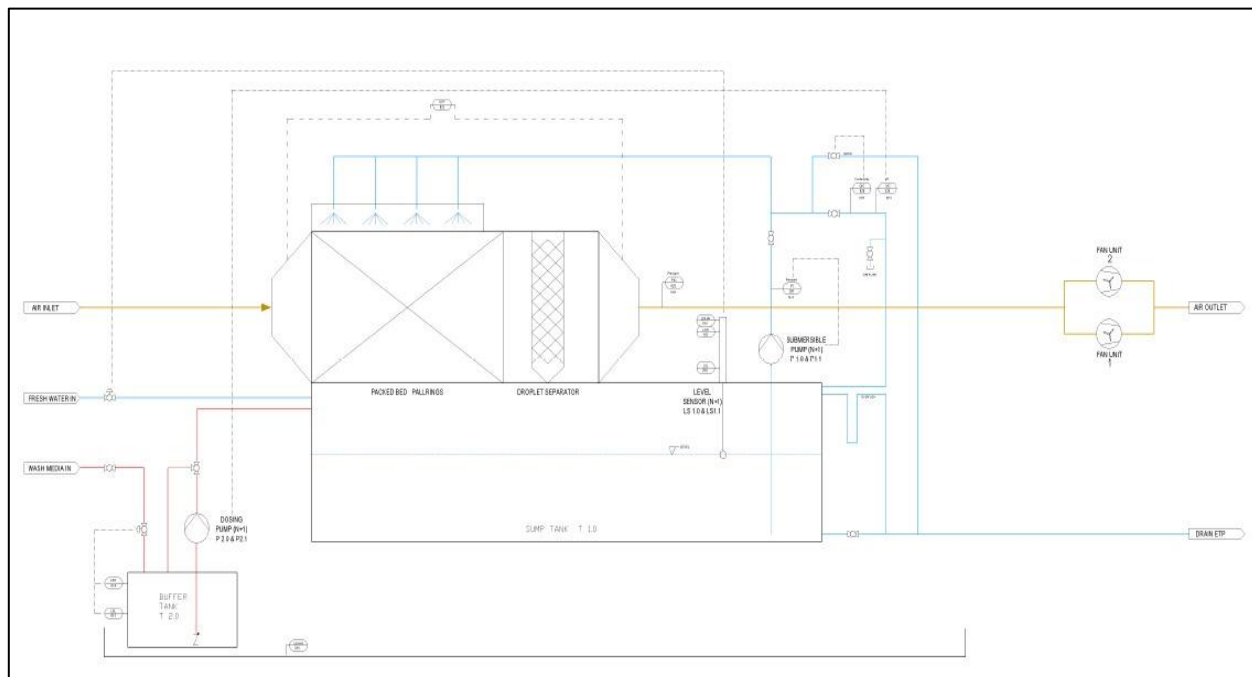


Fig 2.15 Schematic Diagram of Scrubbing System

Table 2.15 Technical Specifications of Single Stage Scrubbing System

Type	Packed Tower Scrubber Single Stage
MOC	PPH
Air Flow Rate	73000MCH x 5 nos.
Inlet Temp.	45-55
Inlet Gas Pressure	-15 to -30 mmWC
Batch	Not Applicable – Continuous Operation
Scrubbing medium for 1 st Stage	Alkali solution (NaOH)
Scrubbing medium for 2 nd Stage	Acidic water / fresh water
Blower	
MOC	FRVE
Capacity	73000CFM x 5 nos.
Suction Pressure	-30 mmWC
Discharge Pressure	+120 to +180 mmWC
Circulation System	
Flow Rate	30 m ³ /hr
Head	18 m
Motor Make	CG Power and Industrial Solution limited
MOC	PPH

2.6.3 Solid Waste

Solid wastes are generated from the process, wastewater treatment, and utilities. The effluent treatment system generates ETP sludge. Manufacturing process generates Discarded/Broken Solar Cell/wafer. The utilities i.e., DG sets generate waste oil. Waste oil is sold to authorized recyclers. Discarded RO Membranes cartridge, and ETP sludge are sent to TSDF facility. E- waste shall be disposed to authorized Recyclers. The other non-hazardous wastes are containers, packing material, and bags etc. are sent to authorized recyclers. The containers are detoxified before disposing to authorized buyers. Spent Resin and Spent Anthracite are sent to TSDF facility. The total solid waste generated and the mode of disposal is presented in [Table 2.16](#).

Table 2.16 Total Solid Waste and Mode of Disposal

S. No	Description	Unit	Quantity	Mode of Disposal
1	ETS Sludge (Inorganic)	TPD	2.62	Sent to TSDF/ Authorized recyclers
2	ETS Sludge (Organic)	TPD	0.73	Sent to TSDF/ Authorized recyclers
3	Silica recovered from ETP	TPD	1.4	Sold to recyclers
4	STP sludge	TPD	0.3	Used as manure/Horticulture
5	Oily waste	TPA	1	Sent to Authorized Agencies/Recyclers/Vendors
6	Waste oils and grease	LPA	500	Sent to Authorized Agencies/Recyclers/Vendors
7	Detoxified containers & bags	Nos./ Month	300	Sent to Authorized Agencies/Recyclers/Vendors
8	Used PPE	TPM	0.5	Sent to Authorized Agencies/Recyclers/Vendors
9	E- Waste including production reject	TPA	321.5	Store solar photo-voltaic modules or panels or cells waste generated upto the year 2034-2035 as per the guidelines laid down by the Central Pollution Control Board.
10	Plastic Waste	TPA	10	Sent to Authorized Recyclers
11	Metal Scrap	TPM	20	Sent to Authorized Recyclers
12	Used / Discarded RO Membranes cartridge	TPA	4	Sent to TSDF
13	Spent Resin	TPA	6	Sent to TSDF
14	Spent Anthracite	TPA	0.5	Sent to TSDF
15	Bio medical waste	Kg/ Month	5	Sent to authorized CBMWTF
16	Used Batteries	TPA	35	Sent to Authorized recyclers or returned to seller
17	Municipal solid waste	TPA	198	Municipal solid waste disposal
18	Construction and Demolition (C&D) waste	Tons	4750	Reuse to the extent possible followed by disposal to designated C&D waste disposal facility.

2.6.4 Noise Pollution

Noise is anticipated from motors, compressors, chillers, cooling towers, and DG set. The DG set shall be kept in a separate enclosed room with acoustic enclosure. The motors and compressors shall be provided with guards and shall be mounted adequately to ensure the reduction of noise and vibration. The employees working in noise generating areas shall be provided with earmuffs. The employees shall be trained in the mitigation measures and personal protection measures to be taken to avoid noise related health impacts.

2.7 Construction Stage**2.7.1 Description of Pre-Engineered Building (PEB) Structures**

The proposed industrial buildings shall be constructed using Pre-Engineered Building (PEB) systems, designed to optimize material usage, reduce construction time, and minimize environmental impacts.

2.7.1.1 Structural System**Primary Members**

Primary structural framing shall consist of transverse rigid frames, columns, corner columns, end wall wind columns, beams, truss members, and base plates. These components shall be factory-fabricated to ensure precision, reduced material wastage, and improved structural efficiency.

Secondary Members

Secondary structural components shall include purlins, girts, eave struts, bracing systems, flange bracing, base angles, clips, flashings, and other ancillary members. Adequate wind bracing and sag rods shall be incorporated in the design to ensure structural stability under design loads.

2.7.1.2 Cladding and Sealant

Wall and roof cladding shall be fixed using suitable sealants such as butyl-based, two-part polysulphide or equivalent approved non-staining materials. These sealants shall provide effective weatherproofing, prevent leakages, and accommodate thermal expansion without affecting panel integrity.

2.7.1.3 Closures

Solid or closed-cell closures conforming to the panel profiles shall be provided at eaves, ridges, rakes, and other junctions to prevent ingress of dust, moisture, and pests, thereby enhancing environmental protection.

2.7.1.4 Flashing and Trim

Flashing and trims shall be installed at corners, eaves, ridges, openings, and other critical junctions to ensure weather tightness and durability. The material shall be 26-gauge thick, matching the cladding specifications, and coated to resist corrosion and environmental degradation.

2.7.1.5 Gutters and Downcomers

Gutters shall be fabricated from the same material as the roof sheeting to maintain uniformity and durability. Downcomers shall be constructed using galvanized steel or PVC pipes and designed to ensure efficient stormwater drainage. The drainage system shall be integrated with the site's rainwater management plan to prevent waterlogging and soil erosion.

2.7.2 Sustainability and Environmental Benefits of PEB structures

Aspect	Description
Material Efficiency	Use of optimized steel sections reduces overall material consumption.
Recyclability	Structural steel components are 100% recyclable, minimizing construction waste and supporting circular economy principles.
Reduced Construction Impact	Prefabrication significantly reduces on-site noise, dust generation, and labor-intensive activities.
Energy Efficiency	Provision for insulated panels, skylights, and ventilators reduces artificial lighting and HVAC loads.
Lower Carbon Footprint	Reduced construction time and efficient material usage result in lower embodied carbon compared to RCC structures.

2.7.3 Environmental Mitigation Measures during construction phase

Environmental Aspect	Mitigation Measures
Dust Control	Water sprinkling and proper material storage shall be implemented to minimize fugitive dust emissions.
Noise Control	Use of prefabricated components reduces heavy on-site fabrication activities and associated noise levels.
Waste Management	Steel scrap generated during erection shall be collected and sent for recycling. Minimal construction waste generation is expected.
Water Management	No significant wastewater generation from structural works is anticipated; runoff shall be managed through proper drainage systems.
Occupational Health & Safety	Use of personal protective equipment (PPE), safe erection practices, and compliance with industrial safety standards shall be ensured.

The adoption of PEB technology for the proposed industrial development ensures a structurally efficient, environmentally sustainable, and regulation-compliant construction approach. The system significantly reduces environmental impacts during both construction and operational phases while supporting long-term durability and resource conservation.

Material Specification Table

Sl No	Component	Specification Details	Thickness / Grade
1	Primary Members (e.g., frames, columns, beams)	IS2062 min grade E350 (350 MPa) or ASTM A572 Gr50 (345 MPa); built-up sections	6–7 mm general; gussets 8–10 mm
2	Secondary Members (purlins, girts, eave struts)	Cold formed IS 801, min yield 345 MPa; galvanized 275 gsm; others IS2062 250 MPa	1.75 mm cold form
3	Roof Sheeting	Standing seam galvalume, 0.55 mm BMT, AZ200 coating, SDP paint, SRI >76	0.60 mm TCT
4	Wall Cladding	Galvalume panels, 0.55 mm BMT, 550 MPa yield, AZ200, SDP paint, SRI >76	0.60 mm TCT
5	Roof/Wall Insulation	Rock wool, non-combustible IS 8183, 48 kg/m ³ density, WMP facing, GI mesh	50 mm thick
6	Liner Panels	Galvalume 0.45 mm BMT, 550 MPa, AZ200, SMP paint RAL 9002	0.51 mm total coated
7	Connections (Bolts)	Primary: HSFG 8.8 (20 mm dia, ASTM A325M); Secondary: 4.6 (12 mm dia, 150 gsm)	Min weld throat 6 mm
8	Painting (Shop)	Sa2 blast; epoxy zinc primer 75 µm; epoxy finish 150 µm (low VOC)	Not applicable

2.8 Roof Insulation & Type

The proposed industrial buildings shall have a **metal sheet roofing system** with integrated thermal insulation, designed for energy efficiency, durability, and effective stormwater management.

Roof Composition and Insulation:

- Both roof sheets shall include under-insulation with a minimum thickness of 50 mm, density $48 \pm 2 \text{ kg/m}^3$, and thermal conductivity of 0.033–0.050 W/(m·K) at 10°C.
- Gutters and down-take pipes shall be provided along the roof edges, integrated with flashing and top caps of appropriate size and colour. All necessary hardware for secure installation shall be included.
- The roof shall project at least 300 mm beyond the walls to prevent water ingress and facilitate drainage.

Structural Features for Durability:

- Roof sheets shall include stiffening ribs or subtle fluting for effective water shedding.
- Side laps shall have special male/female ends with full return legs to support purlins and prevent water seepage through anti-capillary flutes.
- Upper and lower sheets shall be separated with spacers to prevent thermal bridging and condensation.

Fastening and Installation:

- Sheets shall be fastened using zinc or zinc-tin coated self-drilling screws, with sizes determined according to manufacturer recommendations to ensure structural integrity and corrosion resistance.

Environmental Considerations:

- The insulated roofing system contributes to reduced energy consumption by minimizing heat gain and improving indoor thermal comfort.
- Materials used are durable and recyclable, minimizing long-term environmental impact.

ENVIRONMENT MANAGEMENT PLAN

Introduction

Environment management plan can be effectively implemented to mitigate the pollution levels by observing the following; avoidance, source reduction, on site recycling, and offsite recycling as first choice followed by treatment, release, and disposal. The management plan elucidates the measures adopted as part of the project design, and mitigation measures, which include modification to engineering design, inclusion of new technology, change in work practices during operations and required personal protection equipment to minimize the residual impacts that are predicted in the previous chapters. The management plan is drawn in consultation with the project team and environmental consultants.

Environment Management Plan

Environment management plan can be effectively implemented to mitigate the pollution levels by observing the following;

- i. Pollution will be prevented or reduced at source,
- ii. Pollution that cannot be prevented will be recycled in an environmentally safe manner,
- iii. Pollution that cannot be prevented or recycled will be treated in environmentally safe manner and
- iv. Disposal and other releases into the environment will be used “only as a last resort” and will be conducted in an environmentally safe manner.

The environment management plan is a description of the administrative aspects of responsibility for implementing, monitoring, and establishing feedback loops for adaptive management. The environment management shall be entrusted to the Environment, Health and Safety (EHS) department of Indosol Solar Pvt. Ltd. during operation phase and by a small team of environment, health and safety during construction phase.

Environmental Management Measures Proposed

A description of the various management measures during the various stages of the project is provided in the following sections.

Pre-Construction Phase

- Conduct geotechnical & hydrological studies.
- Secure permissions for bore wells.
- Finalize design integrating green infrastructure.

Construction Phase

- Monitor dust and noise levels regularly.
- Recycle/reuse construction debris.
- Train workers in safety & environmental practices.
- Appoint environmental officer for compliance oversight.

Operation Phase

- Maintenance of ETS and STP
- Implement water conservation measures
- Implement energy conservation measures
- Conduct periodic air, water, and noise quality monitoring.
- Ensure waste segregation and tie-up with authorized recyclers

Construction Stage**Description of Pre-Engineered Building (PEB) Structures**

The proposed industrial buildings shall be constructed using Pre-Engineered Building (PEB) systems, designed to optimize material usage, reduce construction time, and minimize environmental impacts.

Structural System**Primary Members**

Primary structural framing shall consist of transverse rigid frames, columns, corner columns, end wall wind columns, beams, truss members, and base plates. These components shall be factory-fabricated to ensure precision, reduced material wastage, and improved structural efficiency.

Secondary Members

Secondary structural components shall include purlins, girts, eave struts, bracing systems, flange bracing, base angles, clips, flashings, and other ancillary members. Adequate wind bracing and sag rods shall be incorporated in the design to ensure structural stability under design loads.

Cladding and Sealant

Wall and roof cladding shall be fixed using suitable sealants such as butyl-based, two-part polysulphide or equivalent approved non-staining materials. These sealants shall provide effective weatherproofing, prevent leakages, and accommodate thermal expansion without affecting panel integrity.

Closures

Solid or closed-cell closures conforming to the panel profiles shall be provided at eaves, ridges, rakes, and other junctions to prevent ingress of dust, moisture, and pests, thereby enhancing environmental protection.

Flashing and Trim

Flashing and trims shall be installed at corners, eaves, ridges, openings, and other critical junctions to ensure weather tightness and durability. The material shall be 26-gauge thick, matching the cladding specifications, and coated to resist corrosion and environmental degradation.

Gutters and Downcomers

Gutters shall be fabricated from the same material as the roof sheeting to maintain uniformity and durability. Downcomers shall be constructed using galvanized steel or PVC pipes and designed to ensure efficient stormwater drainage. The drainage system shall be integrated with the site's rainwater management plan to prevent waterlogging and soil erosion.

Sustainability and Environmental Benefits of PEB structures

Aspect	Description
Material Efficiency	Use of optimized steel sections reduces overall material consumption.
Recyclability	Structural steel components are 100% recyclable, minimizing construction waste and supporting circular economy principles.
Reduced Construction Impact	Prefabrication significantly reduces on-site noise, dust generation, and labor-intensive activities.
Energy Efficiency	Provision for insulated panels, skylights, and ventilators reduces artificial lighting and HVAC loads.
Lower Carbon Footprint	Reduced construction time and efficient material usage result in lower embodied carbon compared to RCC structures.

Environmental Mitigation Measures during construction phase

Environmental Aspect	Mitigation Measures
Dust Control	Water sprinkling and proper material storage shall be implemented to minimize fugitive dust emissions.
Noise Control	Use of prefabricated components reduces heavy on-site fabrication activities and associated noise levels.
Waste Management	Steel scrap generated during erection shall be collected and sent for recycling. Minimal construction waste generation is expected.
Water Management	No significant wastewater generation from structural works is anticipated; runoff shall be managed through proper drainage systems.
Occupational Health & Safety	Use of personal protective equipment (PPE), safe erection practices, and compliance with industrial safety standards shall be ensured.

The adoption of PEB technology for the proposed industrial development ensures a structurally efficient, environmentally sustainable, and regulation-compliant construction approach. The system significantly reduces environmental impacts during both construction and operational phases while supporting long-term durability and resource conservation.

Material Specification Table

SI No	Component	Specification Details	Thickness / Grade
1	Primary Members (e.g., frames, columns, beams)	IS2062 min grade E350 (350 MPa) or ASTM A572 Gr50 (345 MPa); built-up sections	6–7 mm general; gussets 8–10 mm
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3	Roof Sheeting	Standing seam galvalume, 0.55 mm BMT, AZ200 coating, SDP paint, SRI >76	0.60 mm TCT
4	Wall Cladding	Galvalume panels, 0.55 mm BMT, 550 MPa yield, AZ200, SDP paint, SRI >76	0.60 mm TCT
5	Roof/Wall Insulation	Rock wool, non-combustible IS 8183, 48 kg/m ³ density, WMP facing, GI mesh	50 mm thick
6	Liner Panels	Galvalume 0.45 mm BMT, 550 MPa, AZ200, SMP paint RAL 9002	0.51 mm total coated
7	Connections (Bolts)	Primary: HSFG 8.8 (20 mm dia, ASTM A325M); Secondary: 4.6 (12 mm dia, 150 gsm)	Min weld throat 6 mm
8	Painting (Shop)	Sa2 blast; epoxy zinc primer 75 µm; epoxy finish 150 µm (low VOC)	Not applicable

Roof Insulation & Type

The proposed industrial buildings shall have a **metal sheet roofing system** with integrated thermal insulation, designed for energy efficiency, durability, and effective stormwater management.

Roof Composition and Insulation:

- Both roof sheets shall include under-insulation with a minimum thickness of 50 mm, density 48 ± 2 kg/m³, and thermal conductivity of 0.033–0.050 W/(m·K) at 10°C.
- Gutters and down-take pipes shall be provided along the roof edges, integrated with flashing and top caps of appropriate size and colour. All necessary hardware for secure installation shall be included.
- The roof shall project at least 300 mm beyond the walls to prevent water ingress and facilitate drainage.

Structural Features for Durability:

- Roof sheets shall include stiffening ribs or subtle fluting for effective water shedding.
- Side laps shall have special male/female ends with full return legs to support purlins and prevent water seepage through anti-capillary flutes.
- Upper and lower sheets shall be separated with spacers to prevent thermal bridging and condensation.

Fastening and Installation:

- Sheets shall be fastened using zinc or zinc-tin coated self-drilling screws, with sizes determined according to manufacturer recommendations to ensure structural integrity and corrosion resistance.

Environmental Considerations:

- The insulated roofing system contributes to reduced energy consumption by minimizing heat gain and improving indoor thermal comfort.
- Materials used are durable and recyclable, minimizing long-term environmental impact.

Mitigation measures and Responsibility

The environment management department shall be responsible for monitoring the compliance and provide feedback to top management and to the respective division. The responsibility of implementing the mitigation measures lies with respective division during operation phase, and project management division and contractors during construction phase. Salient features of mitigation measures proposed are presented in below [Table 1.1](#) for both construction and operation phases.

Table 1.1: Implementation and Monitoring of Mitigation Measures

Environmental Impacts	Mitigation/ Control Measures	Implementation Responsibility	Monitoring Responsibility
Construction Phase			
Air pollution: <i>Dust generation from leveling/excavation, vehicle movement, material handling and construction equipment</i>	Water sprinkling, road construction first DG stack height Tarpaulin covered material transport trucks Reduction of drop height Avoidance of engine idling PPE provision for construction workers PUC certification of all transport vehicles Barricading the site where ever possible with 3 m height MS sheets. Confining the excavated material within a barricaded area to avoid dust raise	Respective contractors	Project management group to ensure the same in contract documents. EHS department to ensure compliance, and handhold, if necessary, by providing guidance and training.
Water pollution: <i>Wastewater from labor camps, runoff with sediments</i>	Temporary toilets Provision of storm water drains in the first stage of construction Water conservation Design and maintenance of drains Schedule excavation during non-monsoon season Cover disturbed soils as quickly as possible Locate storage areas for fuels and lubricants away from any drainage leading to water bodies Store wastes generated from construction activities in designated location	Respective contractors and project management department	EHS department to ensure compliance, and handhold, if necessary, by providing guidance and training.
Noise levels: <i>Noise from construction equipment and vehicles</i>	Silencers/mufflers to equipment. Acoustic enclosures for DG sets. Periodic maintenance of all equipment PPE for workers Rubber padding at discharge point	Respective contractors. Project management department to include in	EHS department to ensure compliance, and handhold, if necessary, by providing guidance

Environmental Impacts	Mitigation/ Control Measures	Implementation Responsibility	Monitoring Responsibility
	and at the impact point of construction materials like aggregate, sand etc, Isolation of equipment. Antivibration pads. Attenuating screens between operators and sources	contract documents.	and training.
Land Environment Solid waste: <i>Soil disturbance, construction debris</i>	Construction and demolition waste storage and disposal Provision of storm water drains in the first stage of construction Avoid stockpiling any excess spoils Excess excavated soils stored in designated areas. Storage of hazardous materials like fuels, paints on paved area. Hazardous wastes such as oils, and lubricants shall be disposed to authorized recyclers Storage of wastes in labelled containers Recyclables like paper, steel, plastics to recyclers Reuse of concrete wastes for road construction. Avoidance of burning waste on site. Biomedical waste disposal to CBMWTF.	Sanitation contractor Respective contractor	Project management group to ensure the same in contract documents. EHS department to ensure compliance, and handhold, if necessary, by providing guidance and training.
Impact on traffic	Staggering material transport to site. Avoidance of material receipt and dispatch during shift changes hours. Avoidance of truck loading and movement during peak hours. Temporary sheds for driver. Provision of dedicated parking facility. TREM cards to vehicle drivers.	Respective contractors. Project management department to include in contract documents.	EHS department to ensure compliance, and handhold, if necessary, by providing guidance and training.

Environmental Impacts	Mitigation/ Control Measures	Implementation Responsibility	Monitoring Responsibility
	Regular training program for drivers.		
Impacts on Socio-Economic Environment: <i>Influx of labor, pressure on local resources</i>	Contract labor and construction labor to be sourced from surrounding villages. Development of internal roads. Provision of employment. Building labor insurance. Provision of basic amenities (water, sanitation, housing).	Respective contractors. Project management department to include in contract documents.	Environment Health and Safety (EHS) department to ensure compliance, and handhold, if necessary, by providing guidance and training.
Biological Environment <i>Loss of vegetation (if any)</i>	Compensatory plantation, minimizing clearing activities.	Respective contractors and project management department	EHS department to ensure compliance, and handhold, if necessary, by providing guidance and training.
Occupational health and safety	Personal protective equipment, First Aid Room, Standard operating procedure, Engineering controls like closed transfer, hoods etc. Education, training, and periodic mock drill for workers.	EHS department	EHS department to ensure compliance, and handhold, if necessary, by providing guidance and training.
Operation Phase			
Air pollution: <i>solar photovoltaic module (Ingot, Wafer, Cell, and Module) manufacturing facility process and standby DG sets</i>	Dust suppression measures, Ventilation system, Air pollution control equipment – Bag filters, and scrubbers. House-keeping Other engineering controls. Effective stack height. Personal Protective Equipment (PPE) for all.	Respective department and EHS department	EHS department to monitor and ensure the same
Water pollution: <i>process, washings, and scrubbers,</i>	Operation of Effluent Treatment System (ETS) and Sewage Treatment Plant (STP).	EHS department and maintenance department	EHS department to monitor and ensure the same.

Environmental Impacts	Mitigation/ Control Measures	Implementation Responsibility	Monitoring Responsibility
<i>cooling towers blowdowns and domestic wastewater.</i>	Transfer of effluents and treated waste water by closed pipeline. Storm water management, and reuse treated wastewater from STP Rain water harvesting/Storage plan.		
Noise and vibration control: <i>Motors, compressors, chillers, cooling towers, and DG set</i>	Acoustic enclosures. Attenuating screens between operators and sources. Casing and guards, anti-vibration pads to motors. Avoidance of noisy activity during night time. Vibration monitoring. Periodic maintenance. PPE to employees.	Respective department along with EHS department	EHS department to monitor and ensure the same.
Solid waste: <i>process, wastewater treatment, and utilities</i>	Designated covered storage. Labeled containers. Garland drains to storage facility connected to effluent collection tank. PPE to workers. Reuse of Ingot cuttings in process. Plastic waste disposal to recyclers. Waste oil disposal to authorized recyclers. Biomedical waste disposal to CBMWTF.	EHS department	EHS department to monitor and ensure the same.
Impact on Traffic Raw material, employee movement and product transport	Dedicated parking area. Avoidance of material receipt and dispatch during shift change hours. Avoidance of truck loading and movement during peak hours. Provision of dedicated parking facility, with basic services. TREM cards to vehicle drivers Regular training program for drivers.	Respective contractors. Project management department to include in contract documents.	EHS department to ensure compliance, and handhold, if necessary, by providing guidance and training.
Socio- Economic	Dedicated housing facility will be	Respective	Environment

Environmental Impacts	Mitigation/ Control Measures	Implementation Responsibility	Monitoring Responsibility
Environment: <i>Employment generation</i> <i>Community development</i> <i>Skill enhancement</i>	provided for employees in future Provision of employment. No child labor is used by the project authorities or its contractors. All employees are provided with PF and ESI facility. Fair wages as mandated and ensured for all employees including contract labor. Gender discrimination is avoided in recruitment unless the role dictates the same.	contractors. Project management department to include in contract documents.	Health and Safety (EHS) department to ensure compliance, and handhold, if necessary, by providing guidance and training.
Biological Environment: <i>Reduction in vegetation</i> <i>Ecological disturbance</i>	Development of greenbelt (minimum 20% area) Plantation of native species, and compensatory plantation	Horticulturist	EHS department to ensure compliance and monitor
Occupational health and safety <i>Chemical exposure (HF, HCl, silane gas)</i> <i>Fire/explosion risk</i> <i>Worker safety</i>	Establishment of dispensary, and provision of ambulance, Occupational Health Centre Standard operating procedure for handling hazardous chemicals. Periodic health checkup during employment. Engineering controls like closed transfer, hoods, thermal exhaust etc. Employee rotation; Personal protective equipment, Education, training, and periodic mock drill of employees and other workers.	EHS department	EHS department to ensure compliance, and handhold, if necessary, by providing guidance and training.
Others	In house laboratory for monitoring and calibration	EHS department	EHS department
	Housekeeping	EHS department	EHS department

Water Pollution

Construction stage

The water requirement during the construction phase is estimated to be about 15 cum/day, with a peak demand of 30 cum/day. The proposed Integrated Solar PV Manufacturing Facility (Ingot, Wafer, Cell and Module) will meet its construction water requirement through groundwater abstraction from borewells within the project site, ensuring that such extraction is carried out in a controlled manner. During the construction phase, potential sources of water pollution may include surface runoff carrying sediments, soil, and construction debris; and domestic wastewater generated from temporary sanitation facilities provided for construction workers. To mitigate these impacts, appropriate measures will be implemented, including the provision of temporary drainage systems and sedimentation pits to control runoff; installation of mobile toilets with septic tanks and soak pits for workers; and strict prohibition of discharge of untreated wastewater into surrounding land or water bodies. With the adoption of these measures, the impact on water resources during the construction phase is expected to be minimal and manageable.

Operation Stage

The main sources of wastewater generation during operation phase are from process, washings, and scrubbers, cooling towers blowdowns and domestic wastewater. The effluents generated from process, washings, and scrubbers, cooling towers blowdowns sent to effluent treatment system (ETS) and treated wastewater will be stored in Guard Ponds and conduct the test for Bioassay before disposal to Marine Disposal system. The unit obtained CRZ clearance from MoEFCC vide file no. 11/11/118/2025-IA.III dated 12.12.2025. The treated effluents are sent to guard ponds followed by discharge through marine outfall. The total effluent generated and mode of treatment presented in below [Table.1.2](#)

Table: 1.2 Total Effluent Generated and Mode of Treatment

Purpose	Quantity (KLD)	Mode of Treatment
Process, Washings and Scrubber	4007	Sent to Effluent treatment system (ETS) consisting of a biological treatment system based on UASB for treating wastewater containing organic compounds with a capacity of 1.45 MLD, and precipitation and filtration based effluent treatment plant for treating wastewater containing inorganic compounds with a capacity of 4.37 MLD. The treated effluents are sent to guard ponds followed by discharge through marine outfall. The industry proposes to lay a pipeline of approximately 8 km length with 400 mm diameter from the industry premises to the Land Fall Point (LFP) at the seashore. Further, a marine outfall pipeline of 1000 m length with 400 mm diameter is proposed to be laid into the sea up to the outfall diffuser at a depth of 8.5 m, for discharge of treated effluent with a total marine outfall capacity of 6 MLD.
Cooling Tower	900	
DM Rejects	912	
Domestic	100	Sent to sewage treatment plant (STP) and treated wastewater is used for on land irrigation to develop greenery.
Total	5919	

Process Description and Technical Specification of Effluent Treatment System

The effluents are segregated into two streams: organic and inorganic. Organic effluents are sent to the Organic Effluent Treatment System (ETS), while inorganic effluents are directed to the Inorganic Effluent Treatment System (ETS).

Organic ETS

Sent to Effluent treatment system (ETS) consisting of a biological treatment system based on UASB for treating wastewater containing organic compounds with a capacity of 1.45 MLD. The treated effluents are sent to guard ponds followed by discharge through marine outfall.

The organic effluent along with silicon kerf recycled effluent is collected in an organic waste collection tank and transferred to a buffer tank, where pH correction, nutrient dosing, and

equalization are carried out. The equalized effluent is treated in a Upflow Anaerobic Sludge Blanket (UASB), where biological treatment reduces organic load (BOD and COD). The partially treated wastewater is clarified in a tube settler and further treated in an aeration tank for aerobic degradation. The effluent then passes through a clarifier, where sludge is settled and partly recirculated, while excess sludge is sent to a sludge holding tank. The clarified water is disinfected by hypochlorite dosing and filtered through a multi-grade filter. The treated water is stored for disposal, and sludge is dewatered using a decanter centrifuge and stored for safe disposal. Schematic diagram of organic ETS is presented in below **Fig.1.1**

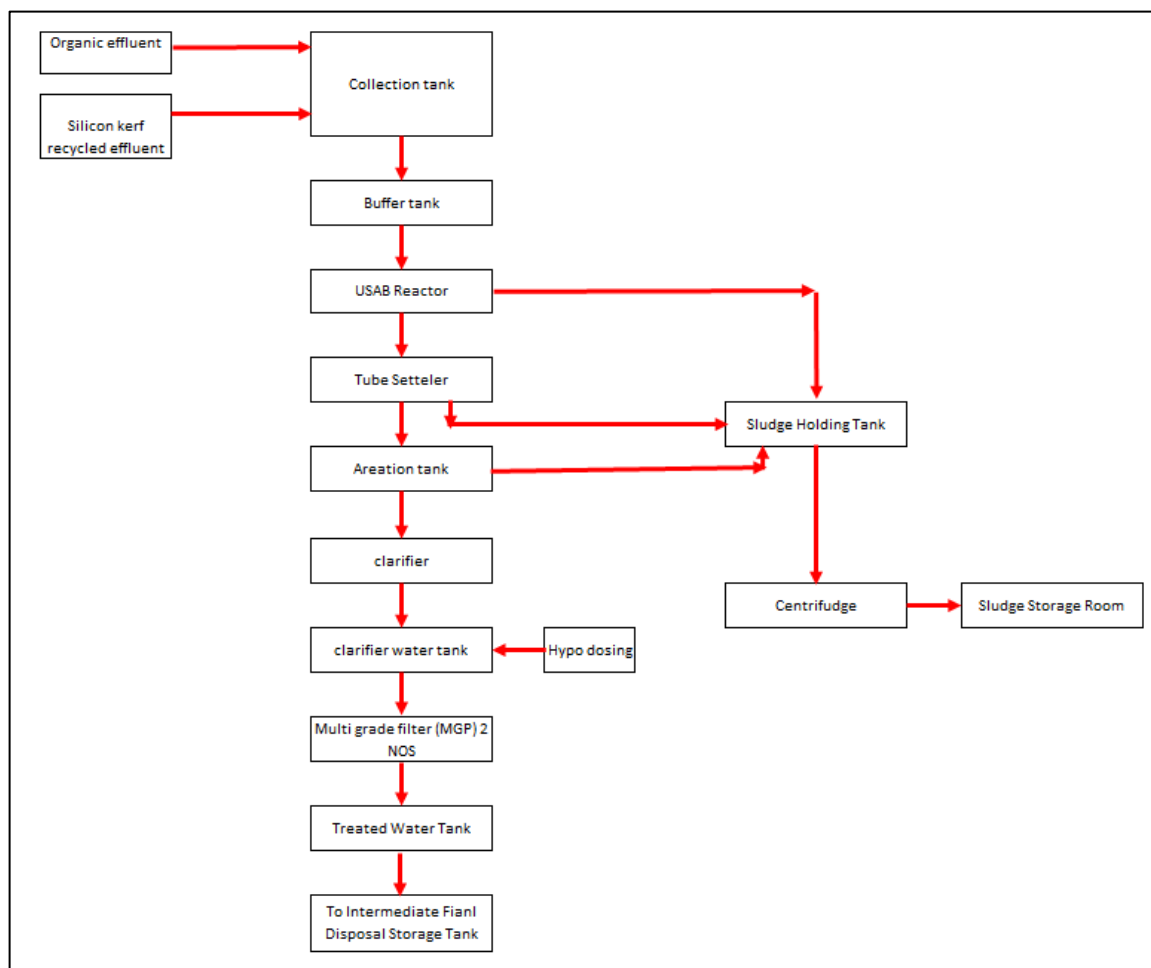


Fig:1.1 Organic ETS flow diagram

Inorganic ETS

Precipitation and filtration based effluent treatment plant for treating wastewater containing inorganic compounds with a capacity of 4.37 MLD. The treated effluents are sent to guard ponds followed by discharge through marine outfall.

The inorganic effluent treatment system handles multiple influent streams, including acid stream, alkaline wastewater, and scrubber effluents, which are first collected in dedicated collection tanks and then sent to an equalization tank. The equalization tank ensures homogenization of flow. From the equalization stage, the effluent undergoes a series of physicochemical treatments in multiple reaction tanks (Reaction Tank–1A, 1B, 1C, 2A, 2B, 2C), where chemicals such as lime, caustic, acids, coagulants are dosed to facilitate neutralization, coagulation, and flocculation. These processes help in removing suspended solids, heavy metals, and other contaminants. The treated water then passes through clarification units (HRSCC tanks), where sludge settles and clarified water overflows. The generated sludge is further processed using a filter press, producing dry sludge suitable for disposal, while filtrate is recycled back into the system. The clarified effluent is routed through a multigrade filter to remove finer suspended particles, followed by storage in a clear water tank followed by discharge through marine outfall. Schematic diagram of inorganic ETS is presented in below [Fig.1.2](#)

Characteristics of Wastewater Before treatment – Organic and Inorganic ETS

Source	pH	COD (mg/l)	BOD (mg/l)	TDS (mg/l)	TSS (mg/l)
Inorganic ETS	3-11	---	---	7342	---
Organic ETS	5-11	900	600	190	173
Cooling Tower	7.5	---	---	1500	---
DM Rejects	7.5	---	---	8000	---

Characteristics of Wastewater After treatment

Parameter	After treatment
pH	6.5-8.5
BOD (mg/l)	<100
COD (mg/l)	<225
Oil and grease	10
Total Suspended Solids (mg/l)	<100

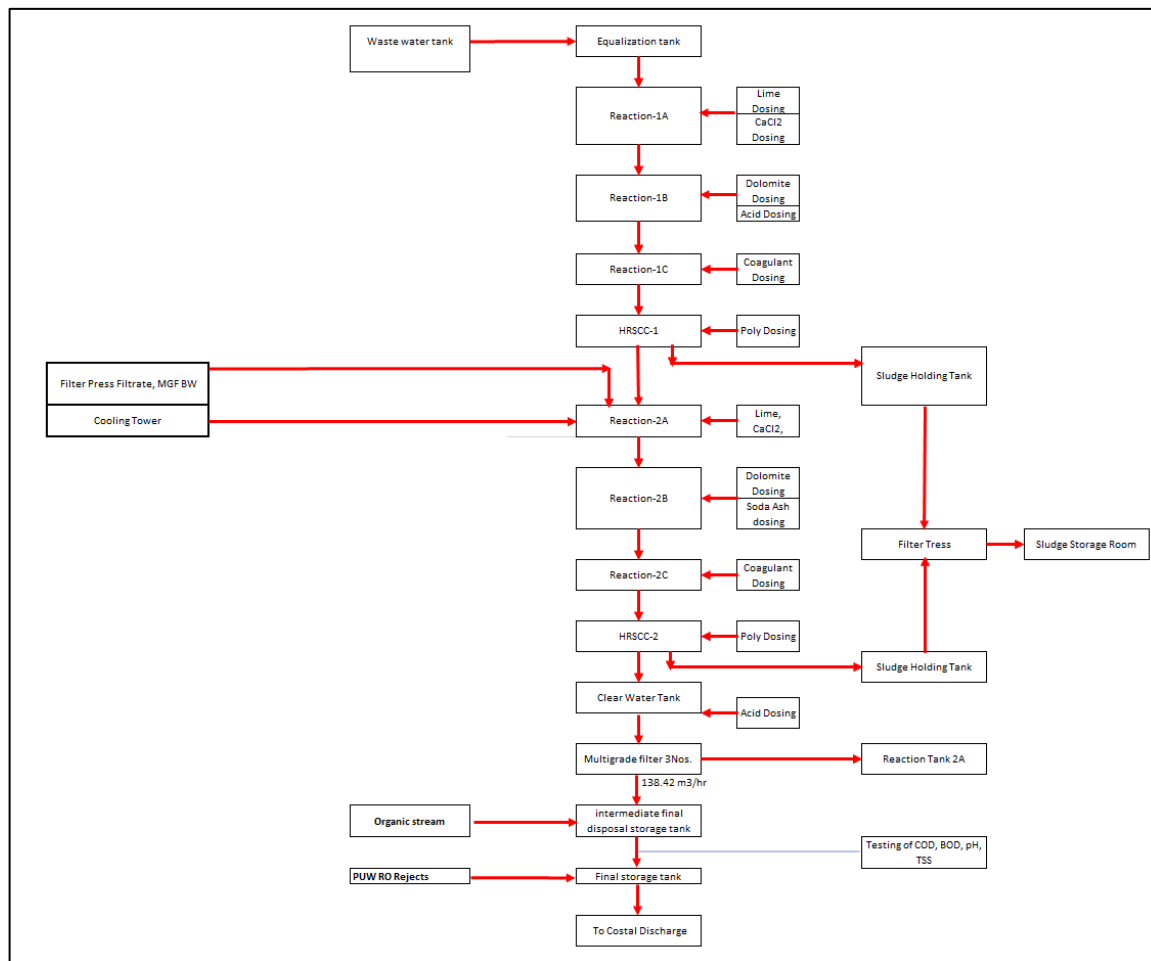


Fig:1.2 Inorganic ETS flow diagram

Process Description and Technical Specification of Sewage Treatment Plant

Process description

MBR based biological treatment system is proposed for treating domestic wastewater. Schematic diagram of STP is presented in below [Fig.1.3](#)

The Membrane Bio Reactor Technology is the most advanced development in the field of biological treatment providing treated wastewater for recycling in smaller footprint and under stringent discharge norms. Membrane bioreactors for wastewater treatment is a combination of a suspended growth biological treatment method, usually activated sludge, with membrane filtration equipment, typically low-pressure microfiltration (MF) or ultrafiltration (UF) membranes. The membranes are used to perform the critical solid-liquid separation function. In activated sludge facilities, this is traditionally accomplished using secondary and tertiary clarifiers along with tertiary filtration. The two general types of MBR systems are vacuum (or gravity-driven) and pressure-driven systems.

Vacuum or gravity systems are immersed and normally employ hollow fiber or flat sheet membranes installed in either the bioreactors or a subsequent membrane tank.

Primary Treatment

The Primary treatment comprises of the Screen Chamber and Collection Sump. The Effluent enters screen where the Solid particles are removed from the Effluent. Thereafter the Effluent enters Collection Sump by gravity. The Effluent from the Collection Sump is pumped to the Fine Screen.

Secondary Treatment

Secondary treatment consists of Membrane Bioreactor. The sewage after the Collection Sump enters into the Anoxic Chamber where it overflows further to Aeration tank for biological Treatment and further over flow to MBR basin. Hollow Fiber membranes are introduced to mixed liquor to separate treated Sewage from mixed liquor. Membrane being the absolute physical barriers ensures complete removal of suspended impurities. MBR applications include even retrofits of existing systems as well as installation of new systems, for both meeting the most stringent discharge norms and reuse. Treated wastewater from MBR can be even reused for cooling tower make-up, to generate high purity water through Reverse Osmosis and other non-potable applications. This process can help environment protection by treating wastewater and making it suitable for variety of application and thus conserve precious drinking water. Biological system designed for MBR process operates at higher MLVSS concentration with higher sludge retention time thus produces a low quantum of biological sludge thus reducing the sludge dewatering cost.

MBR technology combines the skills of our membrane specialists to deliver integrated treatment solutions with firm process guarantees such as BOD and TSS less than 10 mg/l and also removal of nutrient (nitrogen & phosphorous) and coliforms etc.

Biological process fluid (mixed liquor) is pumped/Overflow to the Membrane Operating System ("MOS"). The mixed liquor is introduced to membrane, along with air, evenly across the bottom of the tank through a unique two-phase jet system. This mixed liquor fills the membrane tank and flows upward through the membrane sub modules, creating cross-flow dynamics across the membrane surface. This cross-flow continuously scours the membrane surface and prevent solids

dehydration at the membrane surface. Applying a low-pressure vacuum to the inside of the membrane fiber pulls water through the membranes and pumps the filtered water to the next process step. Solids, including organics, bacteria, and most viruses, are rejected by the membrane system and retained in the mixed liquor, which overflows the MOS back to the aeration tank. The Membrane Operating System is an assembly with integral membrane modules arranged in rack assemblies, inserted into the membrane tank.

MOS Mixed Liquor Distribution & Recirculation Jets are designed to distribute the air scour and mixed liquor flow evenly across the membrane sub modules. This feature eliminates potential polarization (concentration) of suspended solids around the membrane fibers which could be main cause for the failure and damage of individual fibers thus sub modules. Additionally, this feature provides even distribution of mixed liquor solids to each membrane unit, critical so that all membranes see the same process conditions. The return recirculation of mixed liquor ensures influent comes in intimate contact with the concentrated biomass, offering better organism selection and added flexibility in the anoxic cycle for advanced nitrogen removal, when required. This same jet system also acts as an integral part of the membrane cleaning system, providing an efficient scouring of the membranes with chlorine cleaning solution. The integrated cleaning system allows the sub modules to be quickly cleaned in place. Additionally, the clean and efficient procedure eliminates the need for membrane removal from process tanks that can damage membranes and present risks to plant-operators. Relaxation, Maintenance and in site CIP are exclusive features of this MBR Process to ensure consistent water quality and complete membrane life. The entire operation is PLC controlled.

Specifications of 120 KLD STP

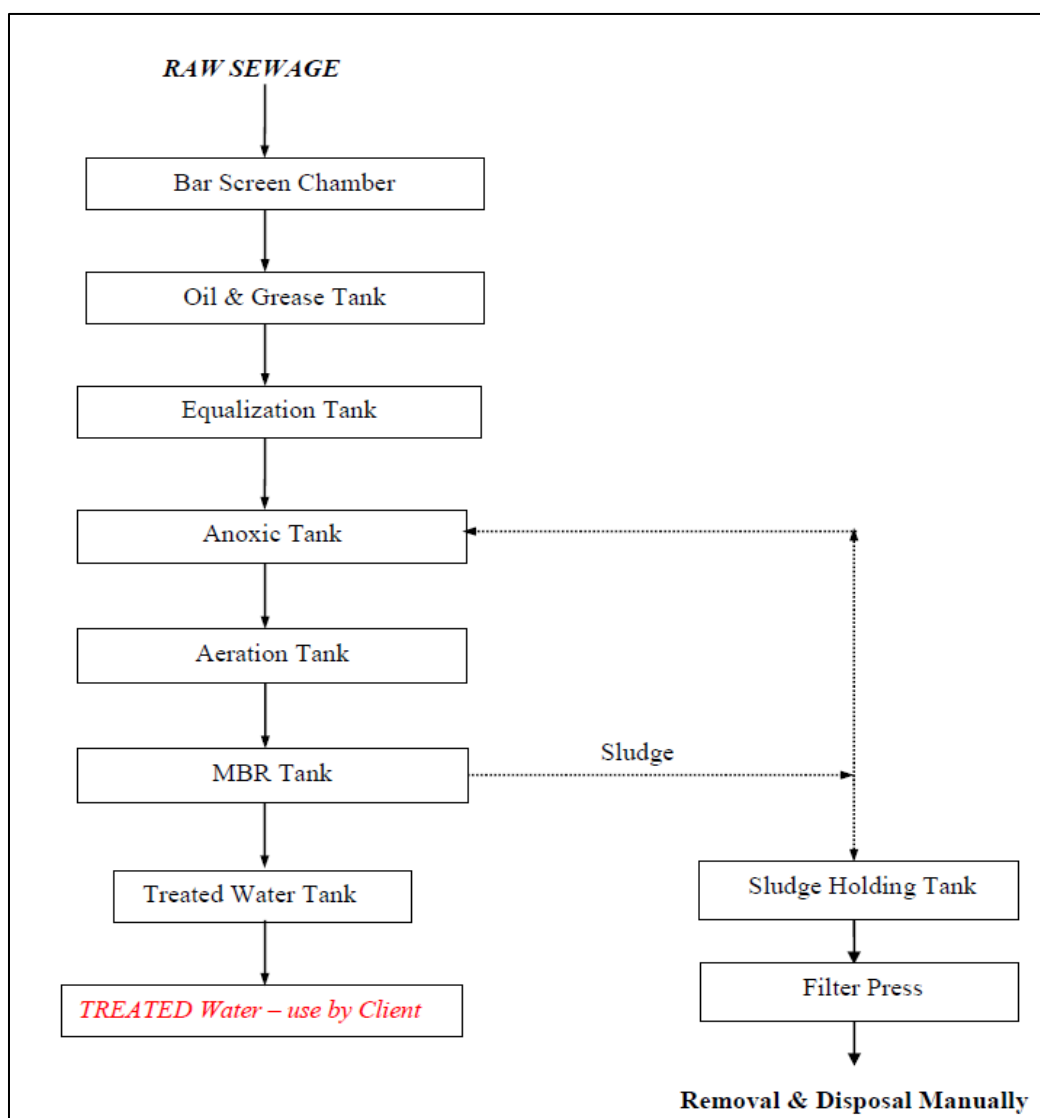
STP - 120 cum/day.

S.No	Name of the Unit	Size in m.
1	Bar Screen Chamber	0.8mX0.8 mx 0.6m
2	Oil & Grease trap	2.5 m x 0.8m x 1.0m
3	Equalization Tank	4.8m x 3.5m x3.0m
4	Anoxic Tank	1.0m x 2.0m x 4.1m
5	Aeration Tank	3.4mx2.0m x 4.0m
6	MBR Tank	1.5m x 2.2m x 3.0m
7	Treated Water tank	3.88m Dia x 5.0 m HOS

Characteristics of Wastewater Before and After Treatment

Parameter	Before	After
pH	6.5 – 7.5	6.5 – 8.5
BOD (mg/l)	250 – 350	<10
COD (mg/l)	500 – 600	< 50
Total Suspended Solids (mg/l)	400 – 600	< 1
Total Nitrogen (mg/l)	30 - 35	<10
Oil & grease (mg/l)	10 - 25	Nil

Disposal of Treated Waste Water: The wastewater is treated and reused for flushing the toilets.

**Fig 1.3 Schematic Diagram of Sewage Treatment Plant**

Water conservation measures

Treated water from the Sewage Treatment Plant (STP) shall be reused for greenbelt development. DM plant rejects shall be treated through a Reverse Osmosis (RO) system and reused in cooling towers. Collected stormwater shall be utilized for floor washing and other non-potable purposes.

Air Pollution**Construction stage**

Air quality impacts during the construction phase of the proposed Integrated Solar PV Manufacturing Facility (Ingot, Wafer, Cell and Module) are expected mainly from construction activities such as operation of equipment, movement of trucks, and fugitive dust generation from excavation and material handling. During the operational phase, air dispersion modeling indicates only a marginal increase in pollutant concentrations, which remain within the project site and comply with National Ambient Air Quality Standards (NAAQS), indicating no significant impact on surrounding areas. To mitigate construction phase impacts, measures such as regular water sprinkling, covering of material transport vehicles, proper maintenance of machinery, and development of greenbelt will be implemented. With these measures, the impact on air quality is expected to be temporary, localized, and within permissible limits. Mitigation measures to address air quality impacts are outlined in the **Implementation and Monitoring of Mitigation Measures /** (Table 1).

Operation Stage

In the manufacturing process of photovoltaic solar cells, dilute Hydrofluoric acid and dilute Hydrochloric Acid are used. During process some of the acid vapors escape the machine and enter into environment. Scrubber is used as air pollution control equipment to mitigate these emissions. Scrubbers utilize dilute alkali as scrubbing medium, which converts the dilute acid vapors to respective salt solution. Scrubbers are provided with online pH meters to ensure continuous feed of scrubbing media for effective mitigation/control of dilute acid vapor. The PP fab media is filled in the scrubber to increase the reaction area.

Emissions from Utilities

The sources of air pollution are from integrated solar photovoltaic module (Ingot, Wafer, Cell and Module) manufacturing facility is from process and standby DG sets. Dust emissions, HF emission from Ingot and wafer division and HCl and HF emissions are from cell division. Bag filters will be provided as air pollution control equipment to control and mitigate dust emission followed by stacks, while scrubbers will be provided for HCl and HF emissions. Thermal exhausts vents connected to 6 common vents will be provided at various unit operations for reducing the temperature in work room areas of Ingot & Wafer, Cell and module division. DG sets shall be provided with stack heights based on the CPCB formula for effective stack height. The emission details of stacks and DG sets are presented in below [Table.1.3](#)

Table.1.3 Emission Details – Process

Stack Connected to	APC	Stack Ht (m)	Dia of stack at top (m)	Temp. of exhaust gases (°C)	Exit Velocity (m/sec)	Pollutant Emission Rate (g/sec)		
						PM	HCl	HF
Ingot & Wafer division								
Stack - 1 no. (1 Common stack connected to 2 nos. scrubbers)	Wet Scrubber	13.5	0.35	80	5	--	--	0.006
Stack - 3 nos. (3 nos. stacks connected to 7 nos. dust exhaust)	Bag Filter	11.5	0.25	65	7	0.02	--	--
Cell Division								
Stack - 5 nos. (5 nos. stacks connected to 5 nos. scrubbers)	Wet Scrubber	15	1.35	45	15	--	0.22	0.06

Emission Details – Standby DG Sets

Stack Connected to	Stack Ht (m)	Dia of stack at top (m)	Temp. of exhaust gases (°C)	Exit Velocity (m/sec)	Pollutant Emission Rate (g/sec)		
					PM	SO ₂	NO _x
2 X 2500 kVA DG set*	30	0.5	180	10	0.02	0.15	0.2
2 X 2000 kVA DG set*	30	0.5	180	10	0.02	0.1	0.15
1 X 1500 kVA DG set*	30	0.5	180	10	0.01	0.07	0.074
1 X 1250 kVA DG set*	30	0.5	180	8.8	0.01	0.04	0.05

* Shall be kept as standby

Table:1.4. Technical Specifications of Bag Filter

S.No	Application	Unit	Value
1	Gas Volume	m ³ /hr@65°C	1767
	Gas Temperature	Deg C	65
	Outlet emission	mg/Nm ³	<115
2	No. of Bags		171
	Filter area per bag	m ²	1.53
	Total filter area	m ²	261.6
	Air to cloth ratio	m ³ /min/m ²	0.11
3	Bags		
	Diameter	ID, mm	120-160
	Length	mm	2000-3000
	Material	Polyester / Nomex / PTFE Coated Ex	
	Filter Type	Needle punched bag	

Description of Scrubbing System

Scrubber has various parts mention below;

1. Inlet Ducting: The acidic vapors from production delivered to acidic scrubber via overhead polypropylene duct. The polypropylene is ideal material used for this type of application. The structure of polypropylene does not react with acidic vapors.

The polypropylene granules are available for various applications. Sheet is made from these granules and these sheets welded along its length at once with special plastic machine to form ducts.

2. Blower and Chimney: The blower is used to create suction in the PP ducts and Scrubber. The acidic vapors pull in the duct and goes to the scrubber. The same blower is used to vent scrubbed air the environment via chimney.

The rotor and the body of blower is made with PPH Plastic. It is non-reactive material used for acidic applications. Schematic diagram of scrubbing system and technical specifications of scrubber are presented in below [Fig.1.4](#) and [Table.1.5](#)

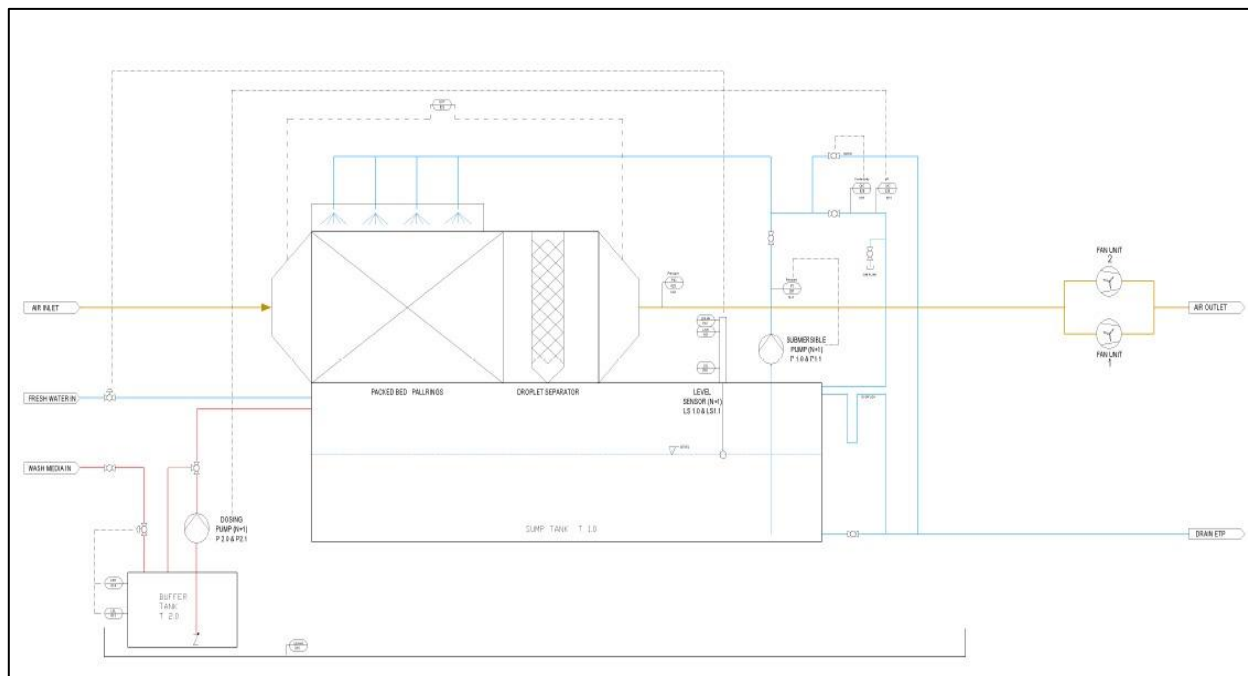


Fig:1.4 Schematic Diagram of Scrubbing System

Table:1.5 Technical Specifications of Single Stage Scrubbing System

Type	Packed Tower Scrubber Single Stage
MOC	PPH
Air Flow Rate	73000MCH x 5 nos.
Inlet Temp.	45-55
Inlet Gas Pressure	-15 to -30 mmWC
Batch	Not Applicable – Continuous Operation
Scrubbing medium for 1 st Stage	Alkali solution (NaOH)
Scrubbing medium for 2 nd Stage	Acidic water / fresh water
Blower	
MOC	FRVE
Capacity	73000CFM x 5 nos.
Suction Pressure	-30 mmWC
Discharge Pressure	+120 to +180 mmWC
Circulation System	
Flow Rate	30 m ³ /hr
Head	18 m
Motor Make	CG Power and Industrial Solution limited
MOC	PPH

Solid Waste**Construction stage**

Solid waste impacts during the construction phase of the proposed Integrated Solar PV Manufacturing Facility (Ingot, Wafer, Cell and Module) are mainly associated with the generation of construction and demolition (C&D) waste such as excavated soil, concrete debris, metal scrap, packaging materials, and small quantities of domestic waste from construction workers. Improper handling of these wastes may lead to land contamination, blockage of drainage systems, and aesthetic issues; however, these impacts are temporary and localized. The proposed project involves construction of Pre-Engineered Buildings (PEB), which generally results in lower waste generation due to prefabrication and efficient material utilization. To mitigate impacts, excavated soil will be reused within the site for leveling and backfilling, recyclable materials such as steel scrap will be sold to authorized recyclers, and non-recyclable waste will be disposed of as per applicable C&D Waste Management Rules 2016. Domestic waste generated from workers will be collected, segregated, and disposed of through authorized agencies. Overall, construction waste generation will be minimal and effectively managed through maximum reuse and authorized disposal, ensuring no significant adverse environmental impact.

Operation Stage

Solid wastes are generated from the process, wastewater treatment, and utilities. The effluent treatment system generates ETP sludge. Manufacturing process generates Discarded/Broken Solar Cell/wafer. The utilities i.e., DG sets generate waste oil. Waste oil is sold to authorized recyclers. Discarded RO Membranes cartridge, and ETP sludge are sent to TSDF facility. E- waste shall be disposed to authorized Recyclers. The other non-hazardous wastes are containers, packing material, and bags etc are sent to authorized recyclers. The containers are detoxified before disposing to authorized buyers. Spent Resin and Spent Anthracite are sent to TSDF facility. The total solid waste generated and the mode of disposal is presented in below [Table.1.6](#)

Table:1.6 Total Solid Waste and Mode of Disposal

S. No	Description	Unit	Quantity	Mode of Disposal
1	ETS Sludge (Inorganic)	TPD	2.62	Sent to TSDF/ Authorized recyclers
2	ETS Sludge (Organic)	TPD	0.73	Sent to TSDF/ Authorized recyclers
3	Silica recovered from ETP	TPD	1.4	Sold to recyclers
4	STP sludge	TPD	0.3	Used as manure/Horticulture
5	Oily waste	TPA	1	Sent to Authorized Agencies/Recyclers/Vendors
6	Waste oils and grease	LPA	500	Sent to Authorized Agencies/Recyclers/Vendors
7	Detoxified containers & bags	Nos./ Month	300	Sent to Authorized Agencies/Recyclers/Vendors
8	Used PPE	TPM	0.5	Sent to Authorized Agencies/Recyclers/Vendors
9	E- Waste including production reject	TPA	321.5	Store solar photo-voltaic modules or panels or cells waste generated upto the year 2034-2035 as per the guidelines laid down by the Central Pollution Control Board.
10	Plastic Waste	TPA	10	Sent to Authorized Recyclers
11	Metal Scrap	TPM	20	Sent to Authorized Recyclers
12	Used / Discarded RO Membranes cartridge	TPA	4	Sent to TSDF
13	Spent Resin	TPA	6	Sent to TSDF
14	Spent Anthracite	TPA	0.5	Sent to TSDF
15	Bio medical waste	Kg/ Month	5	Sent to authorized CBMWTF
16	Used Batteries	TPA	35	Sent to Authorized recyclers or returned to seller
17	Municipal solid waste	TPA	198	Municipal solid waste disposal
18	Construction and Demolition (C&D) waste	Tons	4750	Reuse to the extent possible followed by disposal to designated C&D waste disposal facility.

Noise Pollution

Construction stage

The primary sources of noise during the construction phase of the proposed Integrated Solar PV Manufacturing Facility (Ingot, Wafer, Cell and Module) will include transportation of materials, material handling activities, and operation of construction equipment such as batching plants and DG sets. Noise levels during this phase may be relatively high, especially near work zones; however, the

impacts will be temporary and localized. To minimize disturbances, construction activities will be restricted to daytime hours. Further, noise control measures such as installation of acoustic enclosures and silencers for equipment and DG sets will be implemented. Construction workers will also be provided with appropriate personal protective equipment (PPE), such as earplugs and earmuffs, to protect them from occupational noise exposure. With these measures in place, noise impacts are expected to be within acceptable limits.

Operation Stage

Noise is anticipated from motors, compressors, chillers, cooling towers and DG set. The DG set shall be kept in a separate enclosed room with acoustic enclosure. The motors and compressors shall be provided with guards and shall be mounted adequately to ensure the reduction of noise and vibration. The employees working in noise generating areas shall be provided with earmuffs. The employees shall be trained in the mitigation measures and personal protection measures to be taken to avoid noise related health impacts.

Measures to Control Noise Pollution

The following engineering control measures are identified for implementation to reduce noise levels/exposure;

- The noise generating sources like motors and compressors will be provided with Casings and guard to reduce noise levels
- Proactive periodic maintenance to correct vibrations and other imbalances.
- Training would be imparted to plant personnel to generate awareness about the damaging effects of noise.
- Personal protective equipment: ear plugs and muffs consisting of fine glass wool, ear muffs consisting of ear cups with a soft seal, fitted with a spring or adjustable headband. Comfort, maintenance and cleaning are important aspects of use.

Plantation of tall as well as short trees around the plant will protect the outside environment from any noise.

Management of Solar Photovoltaic (PV) Waste

The management of solar photovoltaic (PV) modules, panels, and cells shall be carried out in accordance with the provisions of the *E-Waste (Management) Rules, 2022*. The project management shall ensure compliance with the following:

- Registration on the designated portal as mandated under the Rules.
- Storage of solar PV waste generated up to the year 2034–2035 in accordance with the guidelines issued by the Central Pollution Control Board (CPCB).
- Filing of annual returns in the prescribed format on the portal on or before the end of the relevant financial year up to 2034–2035.
- Management and processing of waste other than solar PV modules/panels/cells as per applicable prevailing rules and guidelines.
- Maintenance of a separate and distinct inventory of solar PV modules, panels, and cells on the designated portal.
- Compliance with Standard Operating Procedures (SOPs) and guidelines issued by CPCB for handling and storage of solar PV waste.

Further, authorized recyclers of solar PV modules, panels, and cells shall ensure recovery of materials in accordance with CPCB-prescribed norms and guidelines.

Environment, Health, and Safety Division

The operation phase shall require a larger department for safety health and environment headed by a Chief Operating Officer (COO) who would report to the Director Technical / Director HR. The COO will be a senior person with post-graduation in engineering with at least 20 years of experience in safety, health, and environment divisions of similar industries or large-scale industries. Senior managers, Deputy manager, Assistant managers, and engineers should have at least 5 years of experience in their respective department. Fitters should have ITI certificate in fitter engineering, pump operator, or mechanical instrument engineering. Chemists should have a B.Sc., with chemistry

as a subject or post-graduation in chemistry (preferably analytical chemistry). The organogram of Environment, Health, and Safety department is presented in below [Fig.1.6](#)

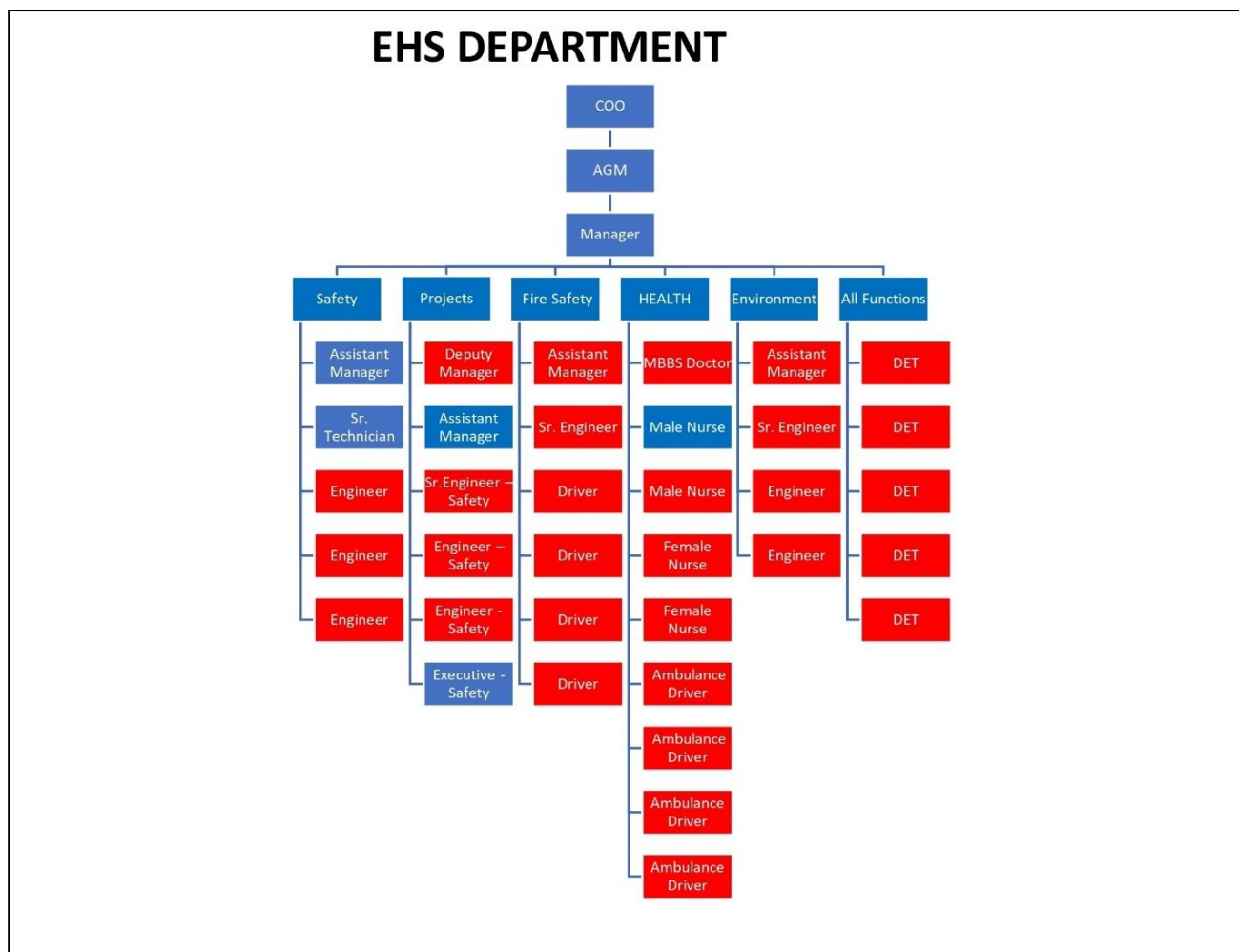


Fig:1.6 Organogram of the Environment, Health and Safety (EHS) Department

The responsibility of Environment, Health, and Safety department includes;

- Supervision and monitoring of all environment management measures,
- Preparation of monitoring reports,
- Conducting environmental audit reports,
- Preparation of GHG emission inventory and reports on contribution to achieving sustainable development goals.
- Identification of innovative management measures for reducing wastes, recycling wastes, and or avoiding the wastes.
- Obtaining statutory approvals and submission of periodic compliance reports.

- Monitoring of compliance of consents, and other authorizations.
- Co-ordinate in obtaining ISO 14001, and ISO 45001 certification
- Implementation of ISO 14001 and ISO 45001
- Conducting training programs of environment management to various divisions.
- Co-ordination with other divisions in ISO 9001 implementation
- Liaisoning with statutory organizations like APPCB.
- Co-ordinating with Director (operations) and Managing Director during plant upsets due to failure of pollution control measures.
- Co-ordinate with third party environmental consultants for expansion activities.

Other Management Practices

Proper housekeeping practices are adopted to maintain cleanliness and to minimize wastes and reduce pollution. Adequate parking place is provided within the site in an area of 12500 m² for the heavy vehicles to avoid any congestion or blocking of the roads. Road safety signage will be erected within the plant site to avoid road accidents. The drivers of vehicles transporting materials to and from the site are trained in defensive driving, and also managing exigencies due to spillage or accidents, immediately after informing the competent authorities.

Indosol Solar Pvt. Ltd. obtained consent for establishment (CFE), and amendment in CFE from APPCB. The manufacturing facility will maintain records of hazardous waste disposal as per hazardous waste regulations and EPA regulations, ETS and STP operation, emission, and ambient air quality monitoring results will be maintained for inspection by statutory bodies. The industry shall obtain consent for operation (CFO) as required under section 25/26 of the Water Act, 1974 and under section 21/22 of Air Act, 1981 before trial production and commissioning from the State Pollution Control Board. The industry will obtain the necessary permissions under Hazardous Waste (Management and Handling) Rules 1989, and Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, issued by the Ministry of Environment and Forest and climate change, New Delhi. The industry will submit environmental statement every year before September 30. The management ensures that it will comply with all the directions and regulations issued by the Ministry of Environment, Forest and Climate change (MoEFCC), New Delhi, State Pollution Control

Boards (SPCB), and Central Pollution Control Boards. The Consent for Establishment, Consent for Operation will be displayed in a conspicuous location for the information of the inspecting authorities of different departments.

Project Monitoring Plan and Environmental Monitoring Budget

The monitoring plan along with environmental parameters and the time frame is presented in the below [Table.1.7](#) The environmental monitoring budget for monitoring air, water, soil, and noise levels is presented in below [Table.1.8](#)

Table:1.7 Environmental Monitoring Plan – Operation Phase

S.No.	Particulars	Monitoring Frequency	Standards	Duration of Sampling	Important monitoring parameters and Monitoring methods
Ambient Air Quality Monitoring					
1	Industry main gate	Quarterly	NAAQ standards	24 hrs	PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , and other parameters prescribed by CPCB/SPCB recommended methods of CPCB.
2	Work Place Monitoring – 6 locations	Quarterly		8 hr	PM, HF, HCl and other parameters prescribed by CPCB/SPCB recommended methods of CPCB.
3	Chevuru, Rudrakota and Elurupadu – 3 Locations	Quarterly		24 hrs	PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , Silane recommended methods of CPCB.
Stack Emissions Monitoring					
1	Stacks Connected to Plant facilities – 9 no.	Quarterly	GSR 277E dt. 31.03.2012	--	PM, HF, HCl recommended methods of CPCB.
2	DG Sets stacks – 6 nos.	Quarterly		--	PM ₁₀ , PM _{2.5} , SO ₂ , and NO _x recommended methods of CPCB.
Water Quality Monitoring					
1	Raw water – 2 sample	Daily	IS 10500	Grab	all parameters of IS 10500 standards, using APHA or BIS analytical methods.
2	Raw effluent – trade effluent (wastewater containing organic and inorganic compounds) – 2 samples	Daily	CPCB standards	Grab	pH, TDS, SS, BOD, COD and Oil and Grease Hardness, chlorides, using APHA or BIS analytical methods.
3	Domestic wastewater before and after treatment	Weekly			
4	Treated effluent – trade effluent after treatment in Organic ETS and inorganic ETS – 2 samples	Daily	CPCB standards	Grab	pH, TDS, TSS, COD, BOD and Oil and Grease using APHA or BIS analytical methods and bioassay test

Noise Level Monitoring					
1	Noise Levels within the plant at the boundary - 1 location	Quarterly	The noise pollution (regulation and control rules), 2000 and its amendments	24 hrs	Equivalent Noise levels in dB(A)
2	Noise levels at 4 locations outside the plant site Chevuru, Rudrakota and Elurupadu and Ravuru	Quarterly	The noise pollution (regulation and control rules), 2000 and its amendments	24 hrs	Equivalent Noise levels in dB(A)
3	Noise levels within the plant area and workroom areas – 6 locations	Quarterly		8 hourly for 3 shifts	Equivalent Noise levels in dB(A)
Soil Quality Monitoring					
1	Soil - 2 locations within the site and 2 locations outside the plant; Chevuru and Rudrakota	Annual		Annual	pH, EC, CEC, Lead, Moisture, Texture, Bulk Density, etc.

Table:1.8 Environmental Monitoring Budget – Operation Phase

Component	Item	Monitoring Frequency	Unit Cost, Rs	Total Cost/ Year, Rs.
Air	Main gate	Quarterly	5000	20000
	Workplace monitoring in 6 locations	Quarterly	10500	252000
	Ambient Air Quality at 3 locations	Quarterly	5000	60000
	Main stacks - 9	Quarterly	5000	180000
	Vents / stacks - 6	Quarterly	2500	60000
Water Quality	Raw water	Daily	500	330000
	Raw effluent - 2	Daily	900	297000
	Treated effluent - 2	Daily	900	297000
	Domestic effluent - 1	Weekly	600	28200
	Treated Domestic water - 1	Weekly	600	28200
Noise	At 1-locations specified in the monitoring plan	Quarterly	1000	4000
	At 4 locations specified in the monitoring plan	Quarterly	1000	16000
	At 6 locations specified in the monitoring plan	Quarterly	1000	24000
Soil	At locations specified in the monitoring plan – 4 locations	Yearly	2000	8000
Total				1604400

Cost Estimate for Environment Management Plan

It is estimated that capital cost for implementing the Environment Management plan is Rs. 9895 lakhs with annual recurring expenditure of Rs. 551 lakhs/annum during operation phase. The cost estimate presented in below [Table.1.9](#)

Table:1.9. Environment Management Cost estimate

S. NO.	Description	Capital cost in Rs. Lakhs		Recurring cost in Rs. Lakhs	
		Construction Phase	Occupation Phase	Construction Phase	Occupation Phase
1	Air Pollution Control	659.6	-----	2.8	107.4
2	Water Pollution Control	3376.5	-----	1212.8	1152.4
3	Noise Pollution Control	37.8	-----	12.6	7.7
4	Environmental Monitoring & Management	37.8	594.0	4.6	16.8
5	Green belt & Open area development	19.0	5.7	0.3	65.7
6	Solid Waste	24.5	0.5	0.7	6.0
7	Others	1957.6	----	61.9	109.5
	Total	6112.8	600.2	1295.7	1465.6

Note: Value in Rs. Lakhs

**Proposed Construction of Industrial Buildings to
Establish Integrated Solar Modules (Ingot, wafer,
Cell and Module) Manufacturing Facility at
Chevuru Village, Gudluru Mandal,
Prakasam District
(Erstwhile SPSR Nellore District), Andhra Pradesh**

By

M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL)

STUDIES AND DOCUMENTATION BY

TEAM Labs and Consultants

Accredited by NABET, QCI for EIA Studies

An ISO 9001:2015, ISO 14001:2015 & ISO 45001: 2018 Certified Organization)

Laboratory Recognized by CPCB & Accredited by NABL

B-115 - 117 & 509, Annapurna Block, Aditya Enclave

Ameerpet, Hyderabad-500 038.

Phone: 040-23748 555/616

Fax : 91-040-23748666

e-mail: teamlabs@gmail.com

SITE PLAN

Land Use	No. of Blocks	No. of floors	Total Site Area (m ²)	Total Built up area (m ²)
Ingot & wafer Plant	1	G + 2	13860	33020
Cell Plant	1	G + 1	21720	28522
Module Plant	2	Ground	11615	11615
Warehouse	2	Ground	14450	14450
SI kerf recycling	1	Ground	555	555
Stores and Storage	8	Ground	9621	9621
Utility Buildings	20	Ground	10168	10168
Other Utility Buildings	2	G + 1	2406	4812
Gowning building/OHC/Staff block	3	Ground & G+2	474	906
Canteen block	1	G + 1	500	1000
Admin building	1	G + 2	875	2625
Gate complex & Security room	3	Ground	169	169
Weigh bridge	2	Ground	18	18
Car & Bike Parking	2	Ground	1165	1165
Parking area			11335	
Road Area			45456	
Open area			57365	
Green area			50782	
Total	49		252534	118646

Total Site Area (m ²)	Total Built up area (m ²)
13860	33020
21720	28522
11615	11615
14450	14450
555	555
9621	9621
10168	10168
2406	4812
474	906
500	1000
875	2625
169	169
18	18
1165	1165
11335	
45456	
57365	
50782	
252534	118646

INDOSOL SOLAR PRIVATE LIMITED

**CHEVURU VILLAGE, GUDLURU MANDAL,
PRAKASAM DISTRICT, ANDHRA PRADESH**

**PRESENTATION FOR ESTABLISHMENT OF
INDUSTRIAL BUILDINGS FOR INTEGRATED SOLAR MODULES
(INGOT, WAFER, CELL, AND MODULE) MANUFACTURING FACILITY
TO THE
STATE EXPERT APPRAISAL COMMITTEE
ANDHRA PRADESH**

Environmental Consultant : **TEAM LABS AND CONSULTANTS, HYDERABAD**

NABET Accreditation No. : **NABET/EIA/25-28/RA 0396**

PROJECT DETAILS

PROPOSAL NAME	: Construction of Industrial Buildings to Establish Integrated Solar Modules (Ingot, wafer, Cell, and Module) manufacturing facility - M/s. INDOSOL SOLAR PRIVATE LIMITED (ISPL)
LOCATION	: Chevuru, Gudluru, Prakasam District (erstwhile SPSR Nellore District), Andhra Pradesh
PROPOSAL FOR	: Fresh EC
PROPOSAL NO.	: SIA/AP/INFRA2/574789/2026
FILE NO.	:
SUBMISSION DATE	:
ACTIVITY (SCHEDULE ITEM)	: 8(a) 'Building and Construction projects' of the Schedule to the EIA Notification, 2006 and its amendments
NATURE OF PROPOSAL	: New

Project Summary

- ❖ **Project Proponent:** M/s. Indosol Solar Private Limited (ISPL)
- ❖ **Project Type:** Integrated Solar Modules (Ingot, Wafer, Cell, and Module) Manufacturing Facility
- ❖ **Location:** Chevuru Village, Gudluru Mandal, Prakasam District (erstwhile SPSR Nellore District), Andhra Pradesh
- ❖ **Project Area:** 25.25 Ha (**62.4 acres**)
- ❖ **Total Built-up Area:** **118646 sq.m**
- ❖ **Capital Cost:** ₹ **2000 Crores**
- ❖ **Land Allotted By:** AP Maritime Board
- ❖ **Employment Potential:** 2000 nos.

Requirement for Environmental Clearance (EC)

- ❖ The project falls under the purview of Schedule **8(a)** of the EIA Notification, 2006, pertaining to Building and Construction Projects, in view of the Hon'ble Supreme Court Order dated 05.08.2025 and the Office Memorandum dated 25.08.2025, which mandates prior environmental clearance for industrial sheds also. The consent for establishment under air and water acts was issued in February 2024, and June 2025, well before the release of the above-mentioned office memorandum, and the civil works were initiated based on the consent for establishment from APPCB.
- ❖ The present proposal seeking environmental clearance for the industrial sheds, is in compliance of the direction of APPCB while issuing the amendment to the CFE for inclusion of marine outfall for treated wastewater vide order No. 302/APAPCB/CTE/RO-NLR/HO/2026 dt. 19.03.2026.

SALIENT FEATURES OF THE PROJECT

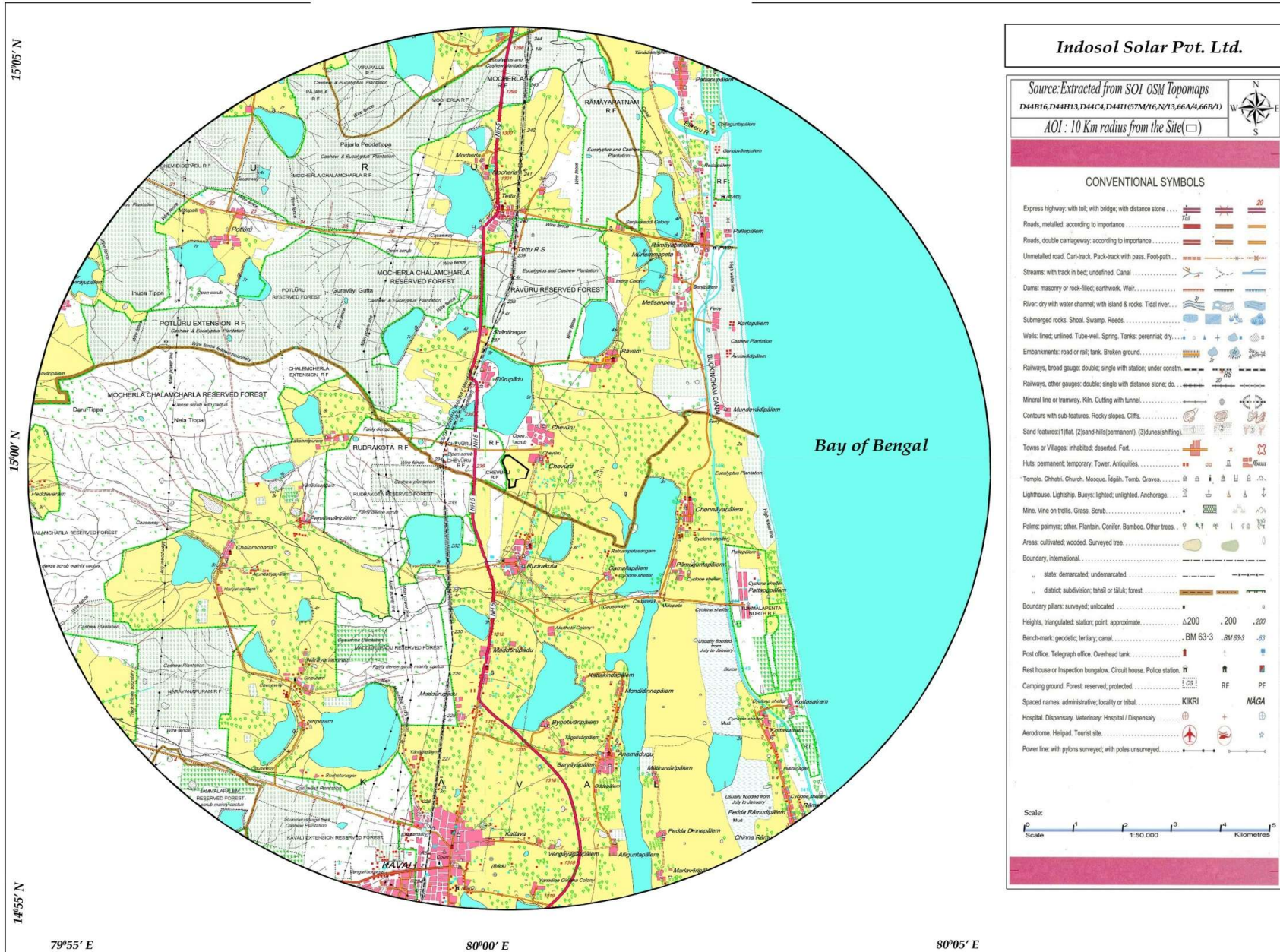
NAME OF THE PROJECT	: CONSTRUCTION OF INDUSTRIAL BUILDINGS TO ESTABLISH INTEGRATED SOLAR MODULES (INGOT, WAFER, CELL, AND MODULE) MANUFACTURING FACILITY - M/S. INDOSOL SOLAR PRIVATE LIMITED (ISPL)
OBJECTIVE	: INDUSTRIAL BUILDINGS TO ESTABLISH INTEGRATED SOLAR MODULES (INGOT, WAFER, CELL, AND MODULE) MANUFACTURING FACILITY
LOCATION	: Survey Nos. 584-6, 584-6B1, 584-7, 584-8, 584-9, 584-10, 584-11, 585-2, 585-2A, 585-3, 585-3A, 585-3B, 585-3C, 585-3D, 585-4, 585-4A, 585-5, 585-6, 585-6A, 585-6B, 585-7, 585-7A, 585-8, 585-8A, 585-8B, 592-1, 592-1A, 592-2, 592-2A, 593-1, 593-1A, 593-2, 593-2A, 593-3, 593-3A, 594-1, 594-1A, 594-2, 594-2A, 595-1, 595-2, 595-3, 595-4, 595-4/a, 595-4B, 595-5, 595-5A, 850(part), and 855 in Chevuru Village, Gudluru Mandal, Prakasam District (erstwhile SPSR Nellore District), Andhra Pradesh .
SITE AREA	: 25.25 Hectares
BUILT UP AREA	: 118646 m ²
LATITUDE	: 14°59'52.50"
LONGITUDE	: 80° 0'17.42"E
PROJECT COST	: Rs. 2000 Crores
PLANNING AUTHORITY	: NELLORE URBAN DEVELOPMENT AUTHORITY (NUDA)
WATER SUPPLY	: Chevuru Tank (4 MLD) and Chennayyapalem Tank (3 MLD)
ELECTRICITY	: AP TRANSCO

THE PROJECT

✚ SITE AREA	:	252534 m ²
✚ GREEN AREA	:	Required 20% of net site area as per OM dated 29th October, 2025 by MoEF&CC Provided - 50782 m ² (20.1%)
✚ TOTAL BUILT UP AREA	:	118646 m ²
✚ PARKING	:	Surface Parking
✚ WIDTH OF CONNECTING ROAD	:	21 m
✚ WATER SUPPLY	:	Chevuru Tank (4 MLD) and Chennayapalem Tank (3 MLD)
✚ WATER REQUIREMENT	:	6955 KLD
✚ WASTEWATER GENERATION	:	5919 KLD
✚ STP CAPACITY	:	120 KLD
✚ ETS CAPACITY	:	Organic ETS: 1.45 MLD Inorganic ETS: 4.37 MLD
✚ TREATED WASTEWATER DISPOSAL	:	Marine discharge ➤ CRZ clearance from MoEFCC vide file no. 11/11/118/2025-IA.III dated 12.12.2025. ➤ Consent to Establish (CTE) amendment obtained vide order No. 302/APAPCB/CTE/RO-NLR/HO/2026 dt. 19.03.2026 for disposal of treated wastewater to marine outfall system.
✚ DG SET	:	2 x 2500 kVA, 2 x 2000 kVA, 1 x 1250 kVA and 1 x 1500 kVA

SITE LOCATION

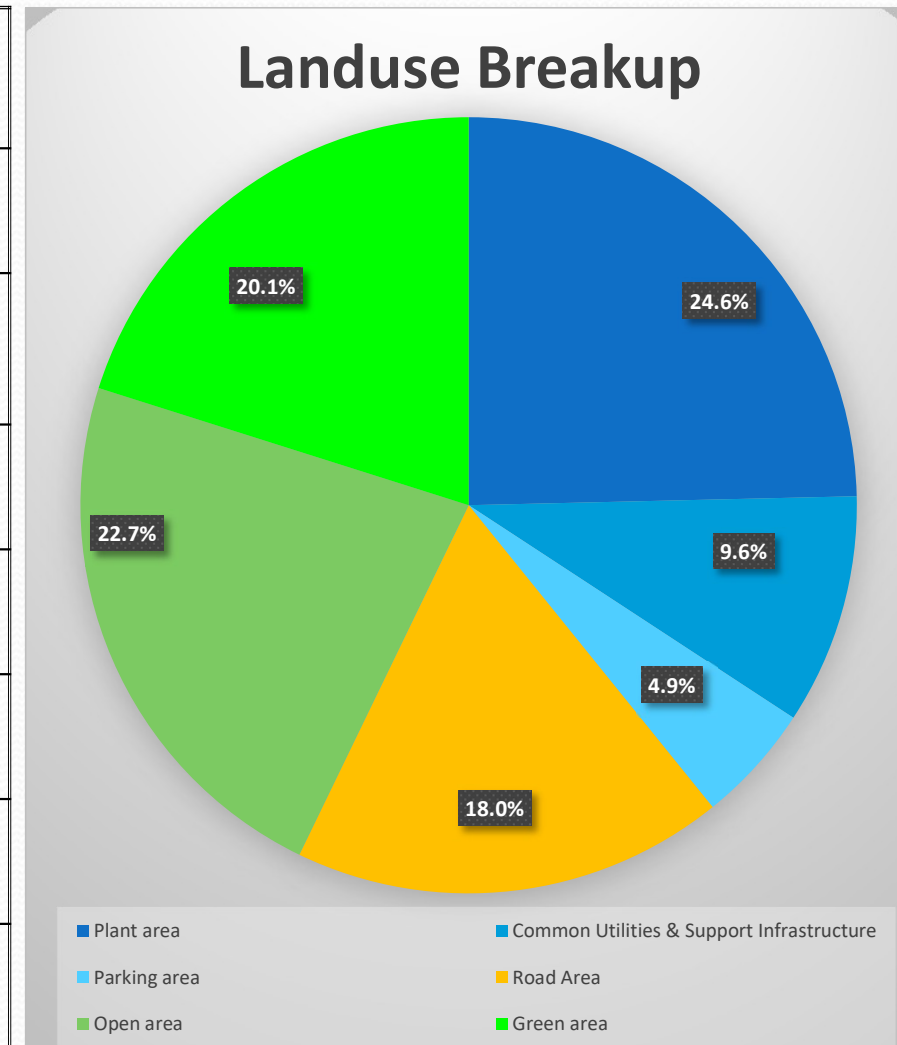
SITE LOCATION



SITE LOCATION

LAND USE BREAKUP

S. No.	Land use	Area in Hectares	%
1	Plant area	6.22	24.6
2	Common Utilities & Support Infrastructure	2.42	9.6
3	Parking area	1.25	4.9
4	Road Area	4.55	18.0
5	Open area	5.74	22.7
6	Green area	5.08	20.1
	Total	25.25	100

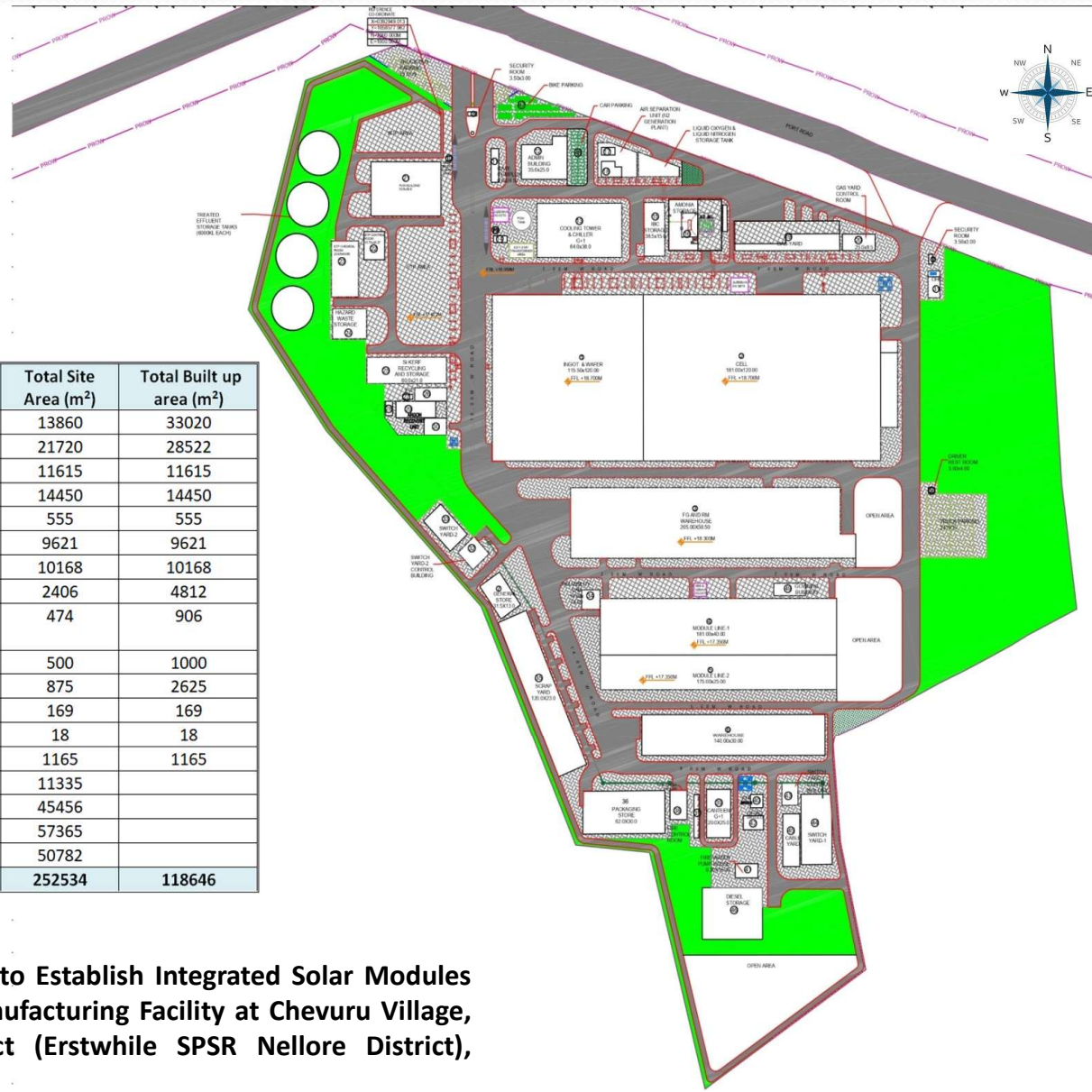


BUILT UP AREA

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Ingot & wafer Plant	1	G + 2	13860	33020
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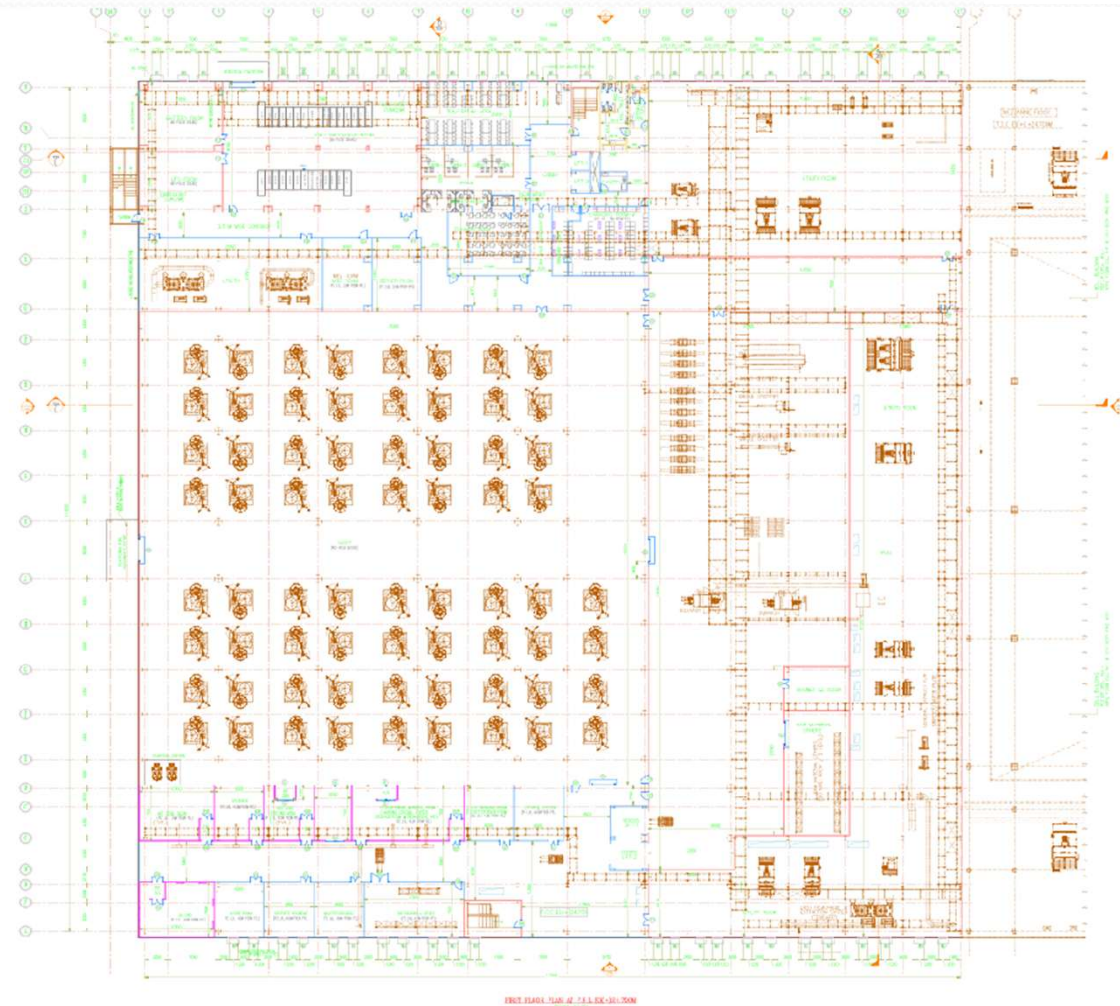
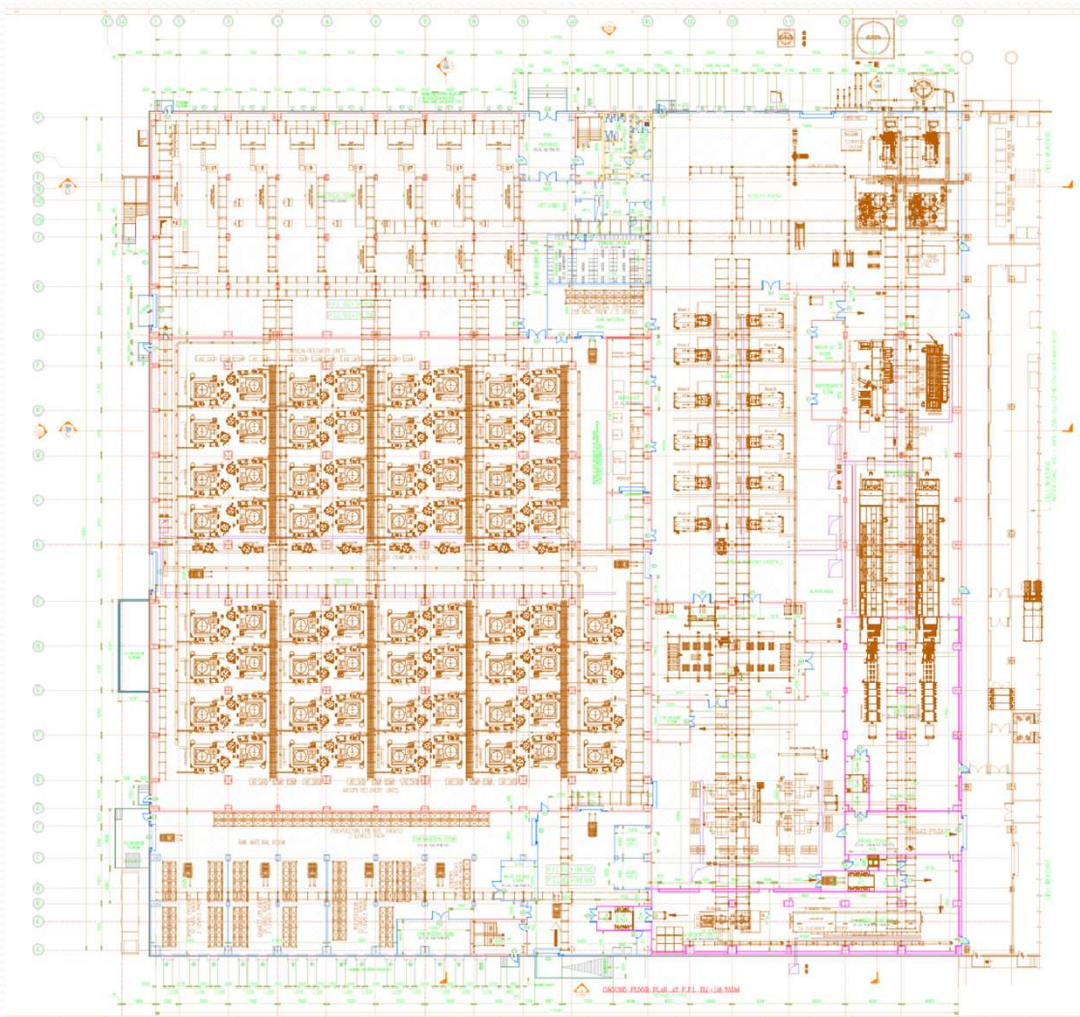
Built up Area statement

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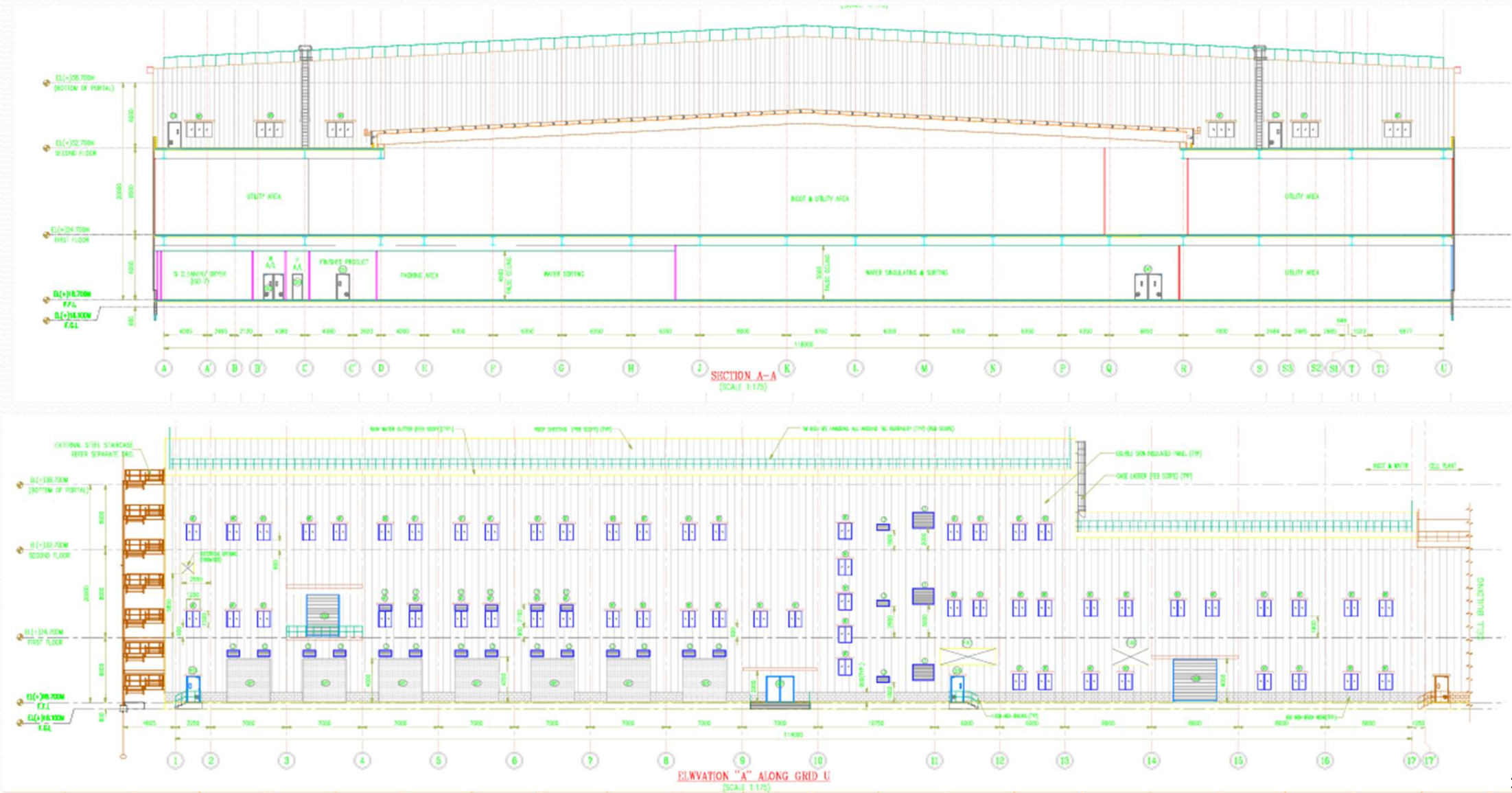


Construction of Industrial Buildings to Establish Integrated Solar Modules (Ingot, wafer, Cell and Module) Manufacturing Facility at Chevuru Village, Gudluru Mandal, Prakasam District (Erstwhile SPSR Nellore District), Andhra Pradesh

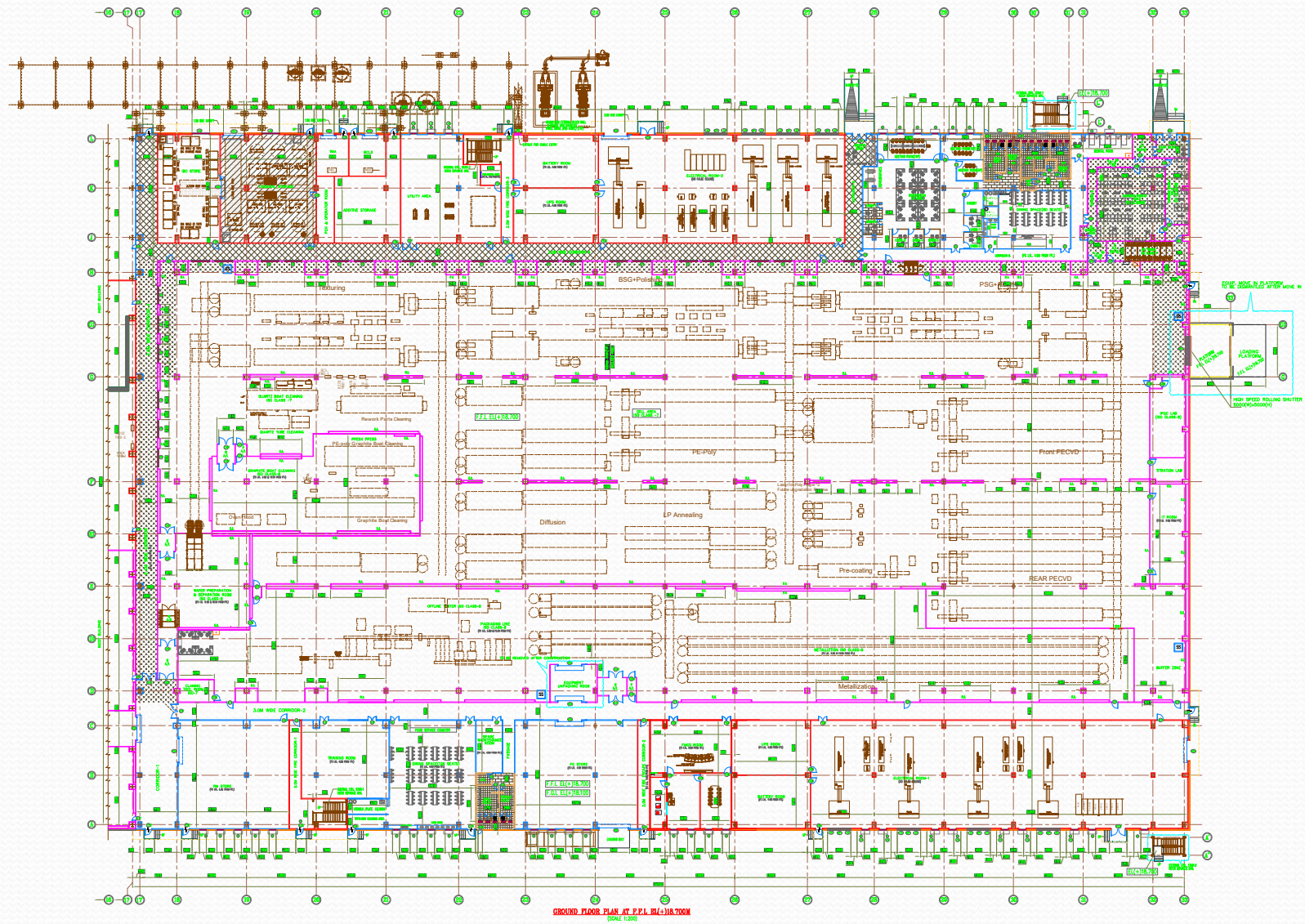
INGOT WAFER BUILDING FLOOR PLANS



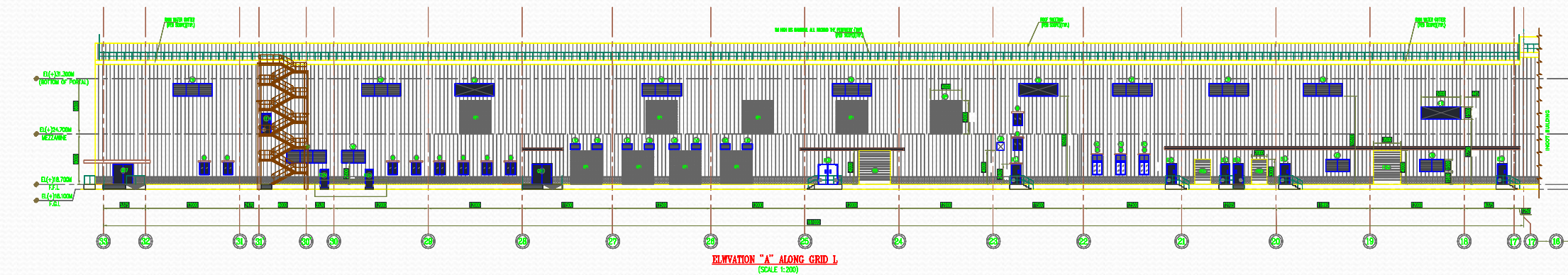
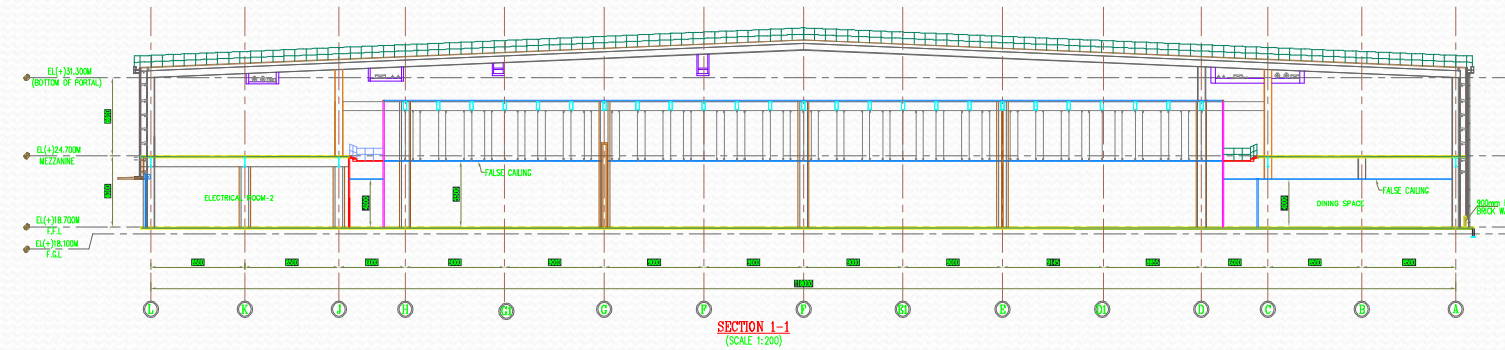
INGOT WAFER BUILDING SECTION AND ELEVATION



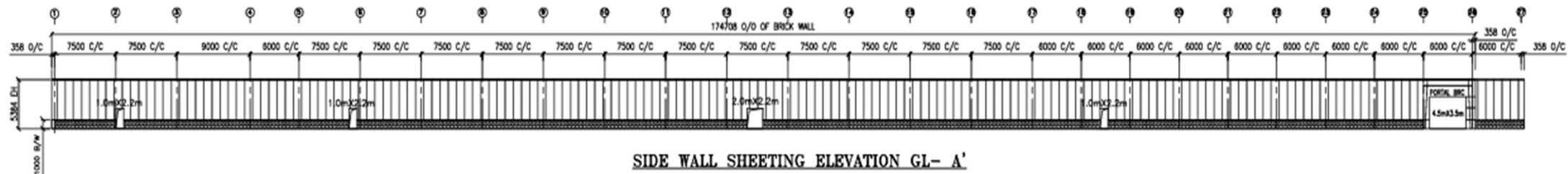
CELL BUILDING FLOOR PLAN



CELL BUILDING SECTION AND ELEVATION







PARKING

Description	Parking Nos.
Truck and bus Parking	39
4-Wheeler	30
2-Wheeler	250
Ambulance	1
Fire Tender	2
Bicycle	100
Parking Details:	
Parking Area Provided <i>consisting of both 1165 m² of covered parking and 11335 m² of open/surface parking.</i>	12500 (10.5%)

**GOVERNMENT OF ANDHRA PRADESH
MUNICIPAL ADMINISTRATION & URBAN DEVELOPMENT DEPARTMENT**

Memo.No.2924061/M2/2025

Dated:07-08-2025

Sub:MA&UD Dept. - Reducing Compliance Burden and Deregulation – Rationalizing Parking norms – Remarks Submitted – Request for instructions – Orders - Issued - Reg.

Ref: e-file.no.2889492 received from the DT&CP.,Mangalagiri.

In the reference cited, the DT&CP., Mangalagiri has submitted that in the meeting held on the Reducing compliance burden and deregulation between Secretary (Coordination), Cabinet Secretariat and Chief Secretary, Govt. of Andhra Pradesh along with officers of concerned departments from Govt. of Andhra Pradesh, 23 Priority Areas have been identified in Phase I where States could undertake systematic deregulation. Under the Building and Construction sector, Priority Areas 5 and 6, it is emphasized that, the constraints in AP include productive land loss for MSMEs, stunted development, high cost of regulations due to low height threshold for high rise buildings and high entry barrier due to minimum plot requirements. Andhra Pradesh may consider amending building regulations to reduce land loss in industrial and commercial plots, reduction/ removal of side/ rear setbacks, removal of minimum plot requirements for industrial purposes, removing/ modifying the height restrictions and rationalizing parking norms.

2. Further, the Department of Expenditure, Public Finance, State Division, Ministry of Finance have issued Scheme Guidelines for reform based parts of the "Scheme for Special Assistance to States for Capital Investment(SASCI) 2025-26". Under this guidelines, Part-X specifies about the Urban Planning reforms which consists of two parts Part X(A)and Part X(B). Under Part X(B), a reform component is mandated which emphasizes on amending building regulations to reduce land loss in industrial and commercial plots, including the rationalization of parking norms for such developments.

3. In this context, a comparative study of parking norms adopted in various States has been undertaken and after a comparative analysis of development control regulations across various States, the DT&CP., has made certain recommendations.

4. Government after careful examination of the proposal, hereby, issue orders rationalizing the parking provision in the case of industrial areas reducing it from 20% to 10% on par with the norms followed in Telangana State for standalone industrial units. Further, for layouts approved by APIIC, Common pooled parking facilities shall be mandated at the layout planning stage. In such cases, individual units within the layout need not provide separate parking, as the shared parking infrastructure will sufficiently cater to their requirements.

5. The Director of Town & Country Planning is, therefore, requested to take necessary action in the matter accordingly.

**S SURESH KUMAR IAS
PRINCIPAL SECRETARY**

To
The Director of Town & Country Planning, Mangalagiri
The Commissioner & Director of Municipal Administration,
Vaddeswaram
The Commissioner, A.P. Capital Region Development Authority, Vijayawada.

AMENITIES

Amenity	Nos. or description
Occupation phase	
Garbage segregation point	1
STP	1
ETS	2
Green Area	50782 m ²
DG Sets	1 x 1250 kVA 1 x 1500 kVA 2 x 2500 kVA 2 x 2000 kVA
Chillers, and associated ancillaries, pumps, AHUs	15000 TR
Compressed air system (Air cooled)	5200 CMH

Office of the Superintending Engineer
Irrigation Circle, Ongole

Endt.No.DW/AEE.2/W/138/ 402-06L Dated: 14/11/2025

Copy forwarded to the Executive Engineer, Irrigation Division, Ongole for information and is requested to inform the agency that all the terms and conditions mentioned above shall be strictly adhered during the execution of works and also to depute concerned design personnel to the o/o the Chief Engineer, Central Designs Organization, Vijayawada for incorporations the corrections and to submit fair copies.

Sd/-D.Varalakshmi,
Superintending Engineer,
Irrigation Circle, Ongole.

To
The Executive Engineer,
Irrigation Division, Ongole

//t.c.f.//
Deputy Executive Engineer (DW)

**GOVERNMENT OF ANDHRA PRADESH
WATER RESOURCES DEPARTMENT**

From

Sri. A.Vijaya Bhaskar, M.E.,
Chief Engineer,
Central Designs Organization,
Water Resources Department,
Sai Balaji Complex,
Near Iron Yard, Bhavanipuram,
Vijayawada - 520012.

To

The Chief Engineer,
Minor & Medium Irrigation,
Hanumanpeta,
Vijayawada.

Lr. No. CE/CDO/EE2/DEE4/AEE10/INDOSOL SOLAR PH/10/2025/97/25 Dt 28-10-2025

Sir,

Sub:- WRD – Minor Irrigation – Indosol Solar private Limited- Designs for construction of Pump houses for water intake from Chevuru tank and Chennayapalem tank for IGW Solar PV Module Manufacturing Plant of M/s Indosol Solar Private Ltd (ISPL) –General Arrangement Drawings - Approval- Reg.

Ref:- 1.AP Maritime Board, Lr No. 02/Indosol/CEO/APMB/2025 Dt 04.04.2025

2.G.O Ms. No.18, Water Resources (Reforms) Dt 13.04.2025.

3.Indosol Solar Pvt Ltd, Ref No. ISPL/WRD/2025-26/001 Dt 19.06.2025

4.ENC(I), Lr No. ENC(I)/EE/DEE1/AEE2/IWS/Ms Indosol Solar Pvt Ltd Dt 1.07.2025

5.T.O Lr No. CE/CDO/EE2/DEE4/AEE11/Indosol Solar PH/10/2025/69/25

Dt 18- 07-2025

6.Lr No. DCE-I/OT1-T1/Indosol/Designs/Replies to the Remarks Dt 19-09-2025

7. Lr No CE/CDO/EE2/DEE4/AEE10/Indosol Solar PH/10/2025 Dt 16-10-2025.

In the reference 4th cited, the E-in-C (I) has furnished the designs and drawings for the construction of pump houses for water intake from Chevuru Tank and Chennayapalem Tank for the proposed Integrated Solar PV Module Manufacturing Facility of M/s Indosol Solar Private Limited (ISPL), seeking approval from this office.

The design calculations submitted were scrutinized in this office, and certain remarks were communicated vide reference 5th cited. In response, the CE/MI, vide reference 6th cited, has forwarded the replies submitted by SE/Ongole for Chevuru and SE/Nellore for Chennayapalem.

In this regard, it is to inform that this office generally accords approval for **General Arrangement Drawings (GADs)** only. Approval of detailed designs and drawings for non-departmental works requires execution of an MOU with the concerned agency. The draft MOU is herewith enclosed. If the agency enters into MOU, the detailed designs will be scrutinized and vetted. Necessary action may be taken in this regard.

However, as a first instance, the **GADs for the pump houses for water intake from Chevuru and Chennayapalem tanks** have been taken up. For this purpose, the **sluice levels and delivery levels** at the plant are required for both tanks; however, these details have not been furnished in the replies.

As informed by the field authorities, the **highest sluice sill levels** are as follows:

- Chevuru Tank – 13.68 m
- Chennaiyapalem Tank – 4.410 m

Accordingly, the **minimum water levels for pumping** are proposed in this office as follows (i.e., 1.00 m above the sill level, as per G.O. cited in reference 2nd):

- Chevuru Tank – 14.68 m
- Chennaiyapalem Tank – 5.51 m

The Firm proposes to draw **4 MLD from Chevuru Tank and 3 MLD from Chennaiyapalem Tank**. The project authorities are therefore requested to **confirm the highest sluice sill levels** for both tanks before execution. In case of any variation in these levels, the same shall be communicated to this office for necessary **revision of the designs and GADs**.

Further, the **delivery levels** for both lifts have not been furnished in the design calculations. However, the Design Consultant has indicated that the **delivery level for the Chevuru Lift is proposed at +24.00 m**, and the same has been assumed for the **Chennaiyapalem Lift**. The remarks in this regard have already been communicated vide T.O. reference 7th cited, requesting the field authorities to furnish both **sluice levels and delivery levels**.

The **power calculations** have been carried out based on the **above delivery level of +24.00 m** and incorporated in the drawings. The field authorities are therefore requested to **verify and ensure the correctness** of these levels before taking up execution.

It is also reiterated that all **terms and conditions stipulated in the G.O. cited in reference 2nd** shall be **strictly adhered to during execution** of the works. The Chief Engineer, Minor Irrigation, Vijayawada is requested to depute the concerned design personnel to this office for incorporating the corrections and to submit the fair copy of the drawings for final approval and communication.

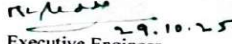
Encl: Draft MOU

Yours faithfully,
 Sd/-(29-10-2025)
 Chief Engineer,
 Central Designs Organisation
 Vijayawada.

Copy submitted to the Engineer in chief (Irrigation) for favour of information.

Copy to the Superintending Engineer, Irrigation Circle, Ongole for information and necessary action.

Copy to the Superintending Engineer, Irrigation Circle, Nellore for information and necessary action.

// T.C.F//

 Executive Engineer,
 Div-2/C.D.O.,
 Vijayawada.

MEMORANDUM OF UNDERSTANDING (MOU)

This memorandum of understanding (MOU) by and between M/s Indosol Solar Pvt Ltd, having its office at Hyderabad as the first part.

AND

Central Designs Organisation (CDO), Water Resources Department, Govt. of Andhra Pradesh represented by the Chief Engineer, CDO having its office at Bhavanipuram, Vijayawada, the second part.

Both parties have agreed as follows:

1. M/s INDOSOL SOLAR PVT LTD, requested for the vetting of designs and drawings for the construction of pump houses for water intake from Chevuru Tank and Chennaiyapalem Tank for the proposed Integrated Solar PV Module Manufacturing Facility.
2. CDO shall provide vetting of designs and drawings for the pump houses for water intake from Chevuru Tank and Chennaiyapalem Tank as per BIS codal provisions and practices in vogue.
3. The firm shall furnish necessary field data, designs and drawings to CDO related to the components of the Project. ✓
4. The terms and conditions for vetting of designs and drawings for the proposed pump houses shall be as follows:

- (i) The consultancy fee for above work shall be 0.5 % of the total construction cost of Pump Houses excluding service tax. TDS on payments and any other relevant taxes as applicable and deducted at source at the time of payment, such deduction vouchers shall be arranged to CDO for record. The payment shall be made in two installments, 1st installment at 50% on entering into MOU and balance 50 % on communication of vetted drawings to CE, Minor Irrigation.
- (ii) This MOU shall remain in force till completion of construction of the Pump House.
- (iii) The site visit expenses of the CDO officials during the construction for any suggestions or remedial measures if required are not included in the consultancy charges.

The MOU is signed and witnessed on date day of October- 2025.

For & behalf of M/s Indosol Solar Pvt Ltd

For & behalf of CDO

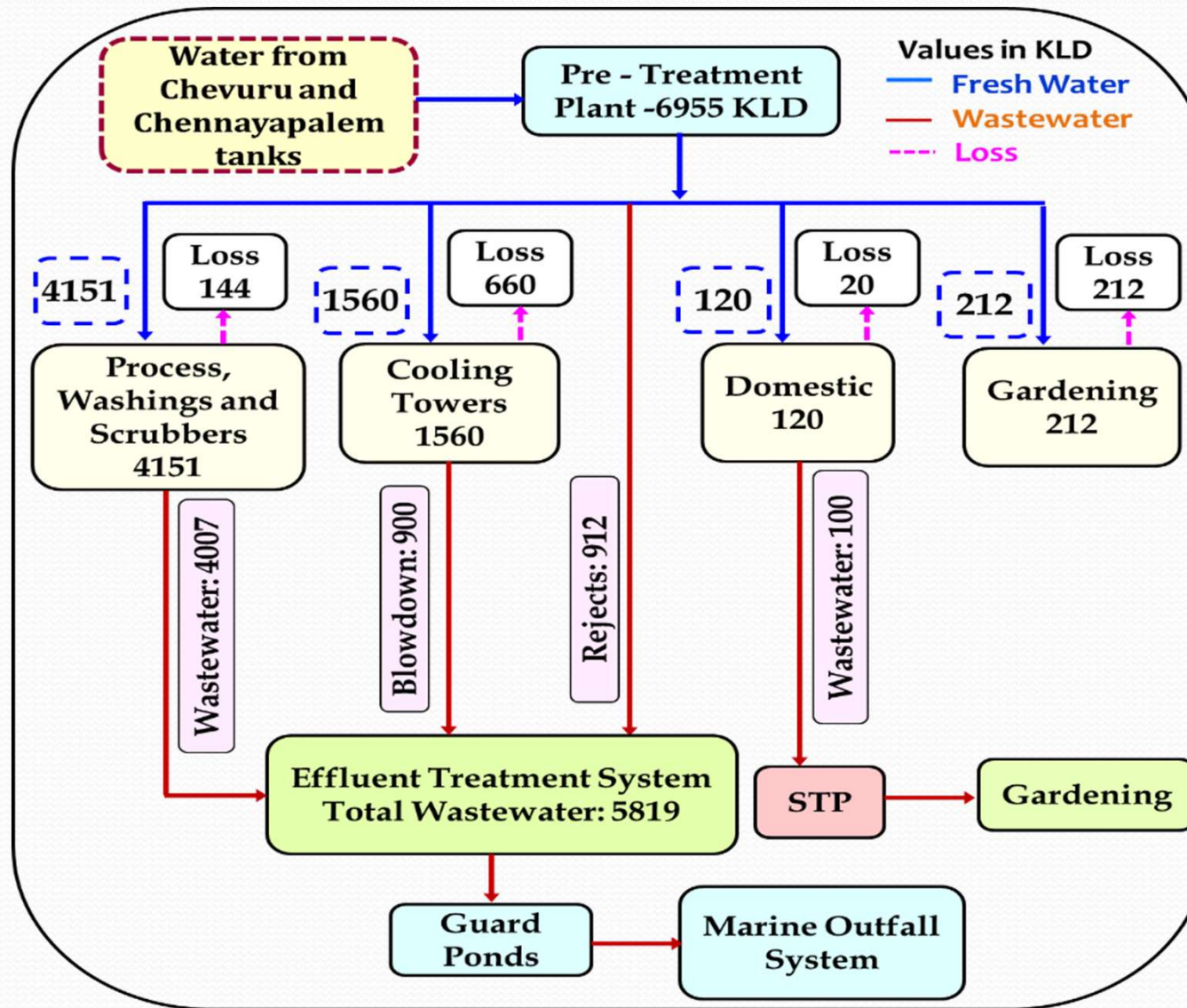
Indosol Solar Pvt Ltd
Hyderabad

A.Vijaya Bhaskar
Chief Engineer,
Central Designs Organization,
Vijayawada.

WATER BALANCE

Description	Input (KLD)	Output (KLD)	
		Loss	Effluent
Process, washings, and scrubber	4151	144	4007
Cooling Tower	1560	660	900
DM Plant	912	--	912
Domestic	120	20	100
Gardening	212	212	--
Total	6955	1036	5919

OCCUPATION STAGE – FLOW CHART WATER CONSUMPTION



TOTAL EFFLUENT GENERATED AND MODE OF TREATMENT

Purpose	Quantity (KLD)	Mode of Treatment
Process, Washings and Scrubber	4007	Sent to Effluent treatment system (ETS) consisting of a biological treatment system based on UASB for treating wastewater containing organic compounds with a capacity of 1.45 MLD, and precipitation and filtration based effluent treatment plant for treating wastewater containing inorganic compounds with a capacity of 4.37 MLD. The treated effluents are sent to guard ponds followed by discharge through marine outfall. The industry proposes to lay a pipeline of approximately 8 km length with 400 mm diameter from the industry premises to the Land Fall Point (LFP) at the seashore. Further, a marine outfall pipeline of 1000 m length with 400 mm diameter is proposed to be laid into the sea up to the outfall diffuser at a depth of 8.5 m, for discharge of treated effluent with a total marine outfall capacity of 6 MLD.
Cooling Tower	900	
DM Rejects	912	
Domestic	100	Sent to sewage treatment plant (STP) and treated wastewater is used for on land irrigation to develop greenery.
Total	5919	

- **Dual Plumbing System for reuse of treated water for flushing**
- **Dual Flush Cistern with 6/3 lpf capacity (IS :7231 : 2021)**
- **Low Flow Faucets preferably 6 liters per minute or less**
- **Reuse of treated domestic wastewater for greenery development**
- **Rain water Harvesting to improve ground water levels**

SOLID WASTE MANAGEMENT

S.No.	Description	Unit	Quantity	Mode of Disposal
1	ETP Sludge (Inorganic)	TPD	2.62	Sent to TSDF/ Authorized recyclers
2	ETP Sludge (Organic)	TPD	0.73	Sent to TSDF/ Authorized recyclers
3	Silica recovered from ETP	TPD	1.4	Sold to recyclers
4	STP sludge	TPD	0.3	Used as manure/Horticulture
5	Oily waste	TPA	1	Sent to Authorized Agencies/Recyclers/Vendors
6	Waste oils and grease	LPA	500	Sent to Authorized Agencies/Recyclers/Vendors
7	Detoxified containers & bags	Nos./ Month	300	Sent to Authorized Agencies/Recyclers/Vendors
8	Used PPE	TPM	0.5	Sent to Authorized Agencies/Recyclers/Vendors
9	E- Waste including production reject	TPA	321.5	Store solar photo-voltaic modules or panels or cells waste generated upto the year 2034-2035 as per the guidelines laid down by the Central Pollution Control Board.
10	Plastic Waste	TPA	10	Sent to Authorized Recyclers
11	Metal Scrap	TPM	20	Sent to Authorized Recyclers
12	Used / Discarded RO Membranes cartridge	TPA	4	Sent to TSDF
13	Spent Resin	TPA	6	Sent to TSDF
14	Spent Anthracite	TPA	0.5	Sent to TSDF
15	Bio medical waste	Kg/ Month	5	Sent to authorized CBMWTF
16	Used batteries	TPA	35	Sent to Authorized recyclers or returned to seller
17	Municipal solid waste	TPA	198	Municipal solid waste disposal
18	Construction and Demolition (C&D) waste	Tons	4750	Reuse to the extent possible followed by disposal to designated C&D waste disposal facility

DETAILS OF EMISSIONS

Stack Connected to	Pollution control Device connected to	Stack Ht (m)	Dia of stack at top (m)	Temp. of exhaust gases (0 ^c)	Exit Velocity (m/sec)	Pollutant Emission Rate (g/sec)				
						PM	SO2	NOx	HCl	HF
Ingot & Wafer division										
Stack - 1 no. (1 Common stack connected to 2 nos. scrubbers)	Wet Scrubber	13.5	0.35	80	5	--	--	--	--	0.006
Stack - 3 nos. (3 nos. stacks connected to 7 nos. dust exhaust)	Bag Filter	11.5	0.25	65	7	0.02	--	--	--	--
Cell division										
Stack - 5 nos. (5 nos. stacks connected to 5 nos. scrubbers)	Wet Scrubber	15	1.35	45	15	--	--	--	0.22	0.06
DG Set										
2 X 2500 kVA DG set*	Effective Stack Height	30	0.5	180	10	0.02	0.15	0.2	--	--
2 X 2000 kVA DG set*	Effective Stack Height	30	0.5	180	10	0.02	0.1	0.15	--	--
1 X 1500 kVA DG set*	Effective Stack Height	30	0.5	180	10	0.01	0.07	0.074	--	--
1 X 1250 kVA DG set*	Effective Stack Height	30	0.5	180	8.8	0.01	0.04	0.05	--	--

** Shall be kept as standby*

THANK YOU

