Gold Standard for the Global Goals

Climate Security & Sustainable Development

TEMPLATE

KEY PROJECT INFORMATION & PROJECT DESIGN DOCUMENT (PDD)

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VERSION **v.1.5**

RELATED SUPPORT

- TEMPLATE GUIDE Key Project Information & Project Design Document

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KEY PROJECT INFORMATION

GS ID of Project	7080
Title of Project	72 MWac Ramnad Solar Power Project
Time of First Submission Date	24/12/2018
Date of Design Certification	26/10/2020
Version number of the PDD	3.0
Completion date of version	05/04/2024
Project Developer	Ramnad Solar Power Limited
Project Representative	Infinite Environmental Solutions Limited
Project Participants and any communities involved	Ramnad Solar Power Limited
Host Country (ies)	India
Activity Requirements applied	☐ Community Service Activity ☒ Renewable Energy ☐ Land-Use and Forests Activity Requirements/Risks & Capacities ☐ N/A
Scale of the project activity	☐ Micro scale ☐ Small Scale ☒ Large Scale
Other Requirements applied	NA
Methodology (ies) applied and version number	ACM0002: Grid-connected electricity generation from renewable sources --- Version 21.0
Product Requirements applied	☒ GHG Emissions Reduction & Sequestration ☐ Renewable Energy Label ☐ N/A
Project Cycle:	☐ Regular ☒ Retroactive

Table 1 – Estimated Sustainable Development Contributions

SUSTAINABLE DEVELOPMENT GOALS TARGETED	SDG IMPACT (DEFINED IN B.6)	ESTIMATED ANNUAL AVERAGE	UNITS OR PRODUCTS
13 Climate Action (mandatory)	Emissions Reductions	106,873	GSVERs
SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all	MWh of Renewable energy generated	114,794	MWh
SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Employment generated due to project activity per year.	20	Number of employees

SECTION A. DESCRIPTION OF PROJECT

A.1 Purpose and general description of project

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The main purpose of this project activity is to generate clean electricity through renewable solar energy source for sale of electricity to the grid. Ramnad Solar Power Limited (RSPL) is the promoter of the proposed project activity.

The project activity involves installation of 72 MWac (corresponding to 86.40 MWp) solar power project. The project is installed in the same project boundary at Village: O. Karisalkulam, Tehsil: Kamuthi, District: Ramanthpuram State: Tamil Nadu.

The electricity generated from project activity will be sold under the Power Purchase Agreement (PPA), signed with Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) wholly owned by the Government of Tamil Nadu. The electricity generated from the project activity will be evacuated through 110 kV sub-station located at Kamuthi for consumption in the Indian Electricity Grid.

The project will replace anthropogenic emissions of greenhouse gases (GHG's) estimated to be approximately 106,873 tCO_2e per annum, thereon displacing 114,794

MWh/year amount of electricity from the generation-mix of power plants connected to the Indian electricity grid, which is mainly dominated by thermal/fossil fuel-based power plant.

The details of the project are mentioned in the table:

Project Investors' Name	Ramnad Solar Power Limited
Capacity in MW	72
State	Tamil Nadu
Commissioning Date	08/02/2016
PPA	04/07/2015
Grid	TANGEDCO
Types of Solar PV Modules	Poly-crystalline

Scenario existing prior to the implementation of the project activity

As the project activity is the installation of a new grid-connected renewable power plant/unit. The scenario existing prior to the implementation of project activity is Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the TOOL07 "Tool to calculate the emission factor for an electricity system" (Version 07.0).

Baseline Scenario

Baseline scenario and Scenario existing prior to the implementation of the project activity are both the same.

Sustainable Development

The National CDM Authority (NCDMA), which is the Designated National Authority (DNA) for the Government of India (GOI) under the Ministry of Environment, Forest and Climate Change (MoEFCC), has mentioned four indicators for the sustainable development in the interim approval guidelines for Clean Development Mechanism (CDM) projects from India.

Thus, the project's contribution towards sustainable development has been addressed based on the following sustainable development aspects:

Social well being

The project activity will provide job opportunities to local people during erection, commissioning and maintenance of the Solar power project. Frequency of visiting to villages and nearby areas by skilled, technical and industrialist has increased due to installation /site visit/operation and maintenance work related to Solar panels at plant site. This directly and indirectly positively affects the economy of nearby populace.

Environmental well being

Solar power is one of the cleanest renewable energy powers and does not involve any fossil fuel. There are no GHG emissions. The impact on land, water, air and soil is negligible. Thus, the project activity contributes to environmental well-being without causing any negative impact on the surrounding environment.

Economic well being

The project activity generates permanent and temporary employment opportunities within the vicinity of the project. The electricity supply in the nearby area improves, which directly and indirectly improves the economy and life style of the area.

Technological well being

The project activity is step forward in harnessing the untapped solar potential and further diffusion of the Solar technology in the region. The project activity leads to the promotion and demonstrates the success of solar projects in the region which further motivate more investors to invest in Solar power projects. Hence, the project activity leads to technological well-being.

A.1.1. Eligibility of the project under Gold Standard

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The project meets the eligibility criteria as per section 3.1.1 of GS4GG Principles & Requirements, including the following:

Eligibility Criteria Category	Remarks
Demonstrate if project is pre identified as eligible by being referenced in Gold Standard	The Project activity is already registered in GS4GG with GS ID 7080,

Activity Requirements, Impact Quantification Methodologies or Product Requirements	and it meets all eligibility criteria as mentioned below.
If not pre identified as eligible, provide evidence of Gold Standard approval	Not applicable
Demonstrate how the project meets the General Eligibility criteria of the applicable Activity Requirements	General Eligibility criteria has been justified below
Confirm that the project is not registered with any other voluntary or compliance schemes.	The project activity is registered under CDM. However, it has been successfully transitioned to GS4GG on 06/03/2022 and not claiming any CERs under CDM. Apart from CDM it is not registered in any other voluntary or compliance schemes.
Demonstrate the activity is NOT located in a host country, region, locality or state that has an emission reduction cap enforced OR has the possibility to trade emissions that include the scope of the proposed project	The host country for project activity is India which is a non-annex Country. Hence, no emission reduction cap enforced as well as no emission trading system implemented in the host country.
Demonstrate that no potential for double counting of impacts if the Project Area overlaps with that of another Gold Standard or other voluntary or compliance standard programme of a similar nature.	The Project is not claiming carbon credits in any other mechanism. Also, self-declaration for no double counting has been provided by the PP.
Demonstrate that the project is in compliance with applicable Host Country's legal, environmental, ecological and social regulation.	The project activity has obtained all the authorities' approvals to comply with legal, environmental, ecological and social regulations before beginning the implementation.

The project activity meets the eligibility criteria as per section 3.1.1 of GS4GG Principles & Requirements document and GHG emissions reductions & sequestration product requirements.

Eligibility Criteria Category	Description	Justification	Criterion met?
Types of Projects	The project type is a Solar Power Plant which generates power using solar Energy. The project activity belongs to the type of Renewable energy that generate and deliver power to the Indian grid.	The Solar Power Plant Project is conceived as a grid connected solar power plant within the category of renewable energy supply. See section A.1.	Yes

	The project applies methodology ACM0002 Version 21.0. which is an approved methodology under Gold Standard.		
Location of Project:	The Project activity is located in Ramanthpuram, Tamil Nadu. Further details have been provided in section A.4 of this report.	The Power purchase agreement between PP and Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO).	Yes
Project Area, Project Boundary and Scale:	Project Area and Boundary are defined in line with the applicable Methodology ACM0002 Version 21.0 The project activity includes installation of 72 MWac (corresponding to 86.40 MWp) solar power project and is greenfield large scale solar power project. (in accordance with UNFCCC rules).	The Project will be located at Ramanthpuram, Tamil Nadu. The project has an installed capacity of 72 MWac which is more than 15 MW, therefore applies as a large-Scale project. See section A.1	Yes
Host Country Requirements:	The project activity follows the social wellbeing, Environmental wellbeing, Economic wellbeing and Technological wellbeing.	Projects is in compliance with India's legal, environmental, ecological and social regulations.	Yes
Contact Details:	**Project Participant:** Ramnad Solar Power Limited **Name of the contact person:** Mr. Dhaval Trivedi **Email:** dhaval.trivedi@adani.com	GS4GG-Cover Letter	Yes
Legal Ownership and Other Rights:	The project activity is being developed by the PPs	The PP, Ramand Solar Power Limited has received Consent for Establishment from TANGEDCO and TN Pollution Control Board; Also, the Power Purchase Agreement demonstrates the PP as the legal owner.	Yes
Official Development Assistance (ODA) Declaration:	The project had private funding and funding from bank. The PP hereby confirms that there is no public funding from Annex	The Project Owner declares that the project has not directly or indirectly received or benefited from	Yes

	1 countries and no diversion of Official Development Assistance (ODA) involved in the project activity. The project is funded by bank.	official development assistance.	

The project activity meets the general eligibility criteria of “Renewable Energy Activity Requirements”, version 1.4 as described below.

Eligible project types	Justification
In order to be eligible for Gold standard certification, all Renewable Energy Projects, shall meet the following Eligibility Criteria: a. Projects shall generate and deliver energy services (e.g., mechanical work/electricity/heat) from non-fossil fuel and renewable energy sources. b. Projects shall comprise of renewable energy generation units, such as solar photovoltaic, tidal/wave, wind, hydro, geothermal, waste to energy and renewable biomass, that are: ▪ Supplying energy to a national or a regional grid; OR ▪ Supplying energy to an identified consumer facility via national/regional grid through a contractual agreement such as wheeling.	The project activity is a solar power plant that generates renewable electricity and supplies it to the national grid via TANGEDCO. It is eligible under GS4GG.
New Gold Standard Verified Emission Reductions (GS VER) or Gold Standard labels for Certified Emission Reductions (GS CER), Renewable Energy projects connected to national or a regional electricity grid must be located in either a; a. Least Developed Country (LDC), Small Island Developing State (SIDS) or a Land Locked Developing Country (LLDC)3 or b. Low Income and	The project is not a new project, rather it is already registered in GS4GG. Therefore, this parameter is not applicable.

Low Middle-income country where the penetration level of the proposed Renewable Energy Technology type is less than 5% of the total grid installed capacity, at the time of the first submission to preliminary review	
Grid Connected off-shore wind projects and waste to energy projects that involve utilization of landfill gas/biogas to electricity generation with or without thermal energy production are exempted from eligibility requirement outlined in paragraph 2.1.3 |[1]above.	The project activity is neither off-shore wind project nor waste to energy type. Therefore, this parameter is not applicable.
The eligibility requirement outlined in paragraph 2.1.3 |above is effective from 24 Jan 2020. This requirement is applicable in case of projects and PoAs as follows;	Not applicable since the project activity is not a PoA.

General Eligibility Criteria	**Justification**
Types of project:	The project activity is a solar power plant that generates renewable electricity.
Location of project:	The Project is located at Village: O. Karisalkulam, Tehsil: Kamuthi, District: Ramanthpuram State: Tamil Nadu.
Project area, boundary and scale:	According to the applied methodology ACM0002, the spatial extent of the project boundary includes the project activity and all power plants connected physically to the national electricity grid. The installed capacity of the project activity is 72 MW which is a large-scale project.

[1] Para of "RENEWABLE ENERGY ACTIVITY REQUIREMENTS" version 1.4

Suppressed demand:	This project activity does not use Certain Impact Quantification as well as a Suppressed Demand scenario when establishing the baseline.
Stacking:	The project activity claims for GS VERs only. According to Section 3.5 of Renewable Energy Activity Requirements/ version 1.4, GS VERs with REC labels (if any) shall not be claimed for the same MWh.

Eligibility Principles and Requirements	**Justification**
Principle 1 – Contribution to Climate Security & Sustainable Development	The project is solar power project type, which is eligible under GS4GG. The project contributes to SDG 7, SDG8 and SDG 13.
Principle 2 – Safeguarding Principles	The safeguarding principles assessment has been done and reported in the GS PDD, see Appendix 1 of GS PDD for details;
Principle 3 – Stakeholder Inclusivity	The project is already registered in GS4GG. The relevant stakeholders have been invited for local stakeholder meeting and the local stakeholder consulting meeting was held on 10/06/2015. Grievance mechanism has been put in place to ensure continuous stakeholder engagement.
Principle 4 – Demonstration of Real Outcomes	The project start date is 13/06/2015 as per registered PDD. The project activity had its first crediting period from 26/10/2018 to 25/10/2023. For the renewal of crediting period the second crediting period is of 5 years and starts from 26/10/2023 to 25/10/2028. The project is only claiming GS VERs. At the design renewal the baseline has been reevaluated using tool 11. Section B.4 can be referred for assessment of the validity of the original/current baseline.

Principle 5 – Financial Additionality & Ongoing Financial Need	The project has been registered under GS4GG. Since it is already a registered project and the additionality had been carried out for long term at the time of design certification. Therefore, the additionality is still valid, and it is not required to carry out additional assessment for demonstration of additionality. However Ongoing Financial Need has been demonstrated in section B.5.2 as per renewal of crediting period requirements.

A.1.2. Legal ownership of products generated by the project and legal rights to alter use of resources required to service the project.

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The project participant has received Consent for Establishment from TANGEDCO and TN Pollution Control Board; Also, the Power Purchase Agreement demonstrates the PP as the legal owner. Thus, the project participant Ramnad Solar Power Limited is the legal owner of the project and has the legal rights for the credits that shall be generated by this project activity.

A.2 Location of project

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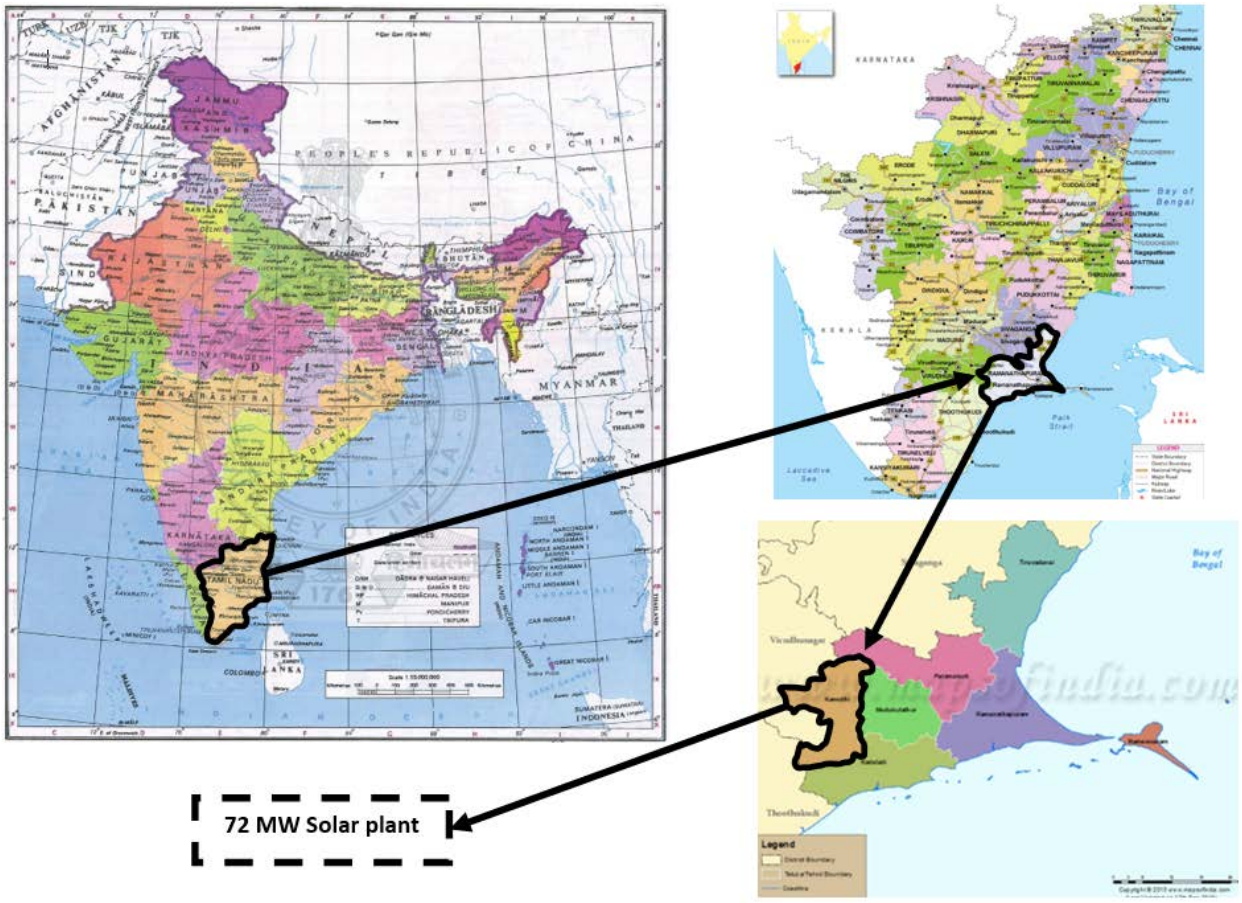
Village: O. Karisalkulam,
Tehsil: Kamuthi,
District: Ramanthpuram

The Project is located at Village: O. Karisalkulam, Tehsil: Kamuthi, District: Ramanthpuram State: Tamil Nadu. The site is well connected by state highway state highway (SH) 47 up to Arruppukottai and further national highway NH48 connects to Madurai. The nearest commercial city remains Madurai, which is approximately 90km from the Project site location. The nearest railway station is at Tiruchuli which is 25km form the site and Madurai is the closest airport approximately 90km form the site. The project coordinates are 9°19'26.90"N and 78°23'40.62"E.



A.3 Technologies and/or measures

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The project activity aims to harness solar energy through installation of PV with total installed capacity of 72 MWac (corresponding to 86.4MWp). The solar PV power plant will have solar PV modules, inverters, transformers and other protection systems and supporting components.

Technical Specifications at the time of commissioning and during validation and registration of project activity

A. Solar PV modules:

Module Supplier	Module Model	Capacity (p)	Number	Total Capacity (MWp)
Hanwha	Poly C-Si	310	104740	32.4694
Hanwha	Poly C-Si	315	33120	10.4328
Trina	Poly C-Si	310	56800	17.608
Trina	Poly C-Si	315	23180	7.3017
SunTech	Poly C-Si	310	30080	9.3248

SunTech	Poly C-Si	315	28160	8.8704

B. Inverters:

Make		
Manufacturer	ABB	Hitachi
Model	PVS800	NPi201
Rated Capacity	1000 KW	1250 KW
No. of Inverters	12	48
Rated Input Voltage (Max. Input Voltage)	380 V	350 V

C. Transformers

Make			
Manufacturer	ABB	SChneider	SChneider
Capacity	40/45 MVA	4 MVA	5 MVA
No. of Transformers	2	3	12
Voltage Ratio	33/110 KV	0.380/33 KV	0.350/33 KV

D. Metering Equipment Details

Make	Solar Plant End
Manufacturer	Secure Make
Type	ABT meters
Accuracy Level	0.2s
Total no of meter	3*2 = 6

The solar PV modules have a useful life of 25 years. Since the project has been commissioned on 08/02/2016, after the first crediting period the approximate age of the plant is 7 years and 8 months.

In the absence of project activity, the equivalent amount of electricity sold to grid would have been generated by grid connected power plants (which is predominantly based on fossil fuels) and by the addition of new generation sources. Hence baseline scenario of the project activity is the grid-based electricity system, which is also the pre-project scenario.

The total installed capacity of the project activity is 72 MW. The annual GHG emission reduction through this project activity is 106,874 tCO2e.
Positive contribution of the project to the following Sustainable Development Goals:

1. **SDG13: Climate Action:** The project would lead to an average reduction of approx. 106,874 tCO_2 per annum due to implementation of project activity.
2. **SDG 7: Affordable and Clean Energy:** The project is expected to generate average of 114,794 MWh of clean energy per annum.
3. **SDG 8: Decent Work and Economic Growth:** The project provides employment to around 20 persons. The project leads to Trainings & workshops which are conducted for the staff of the project.

A.4 Scale of the project

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As per GHG EMISSIONS REDUCTION & SEQUESTRATION PRODUCT REQUIREMENTS version 2.1-
"All Projects exceeding the small-scale thresholds are defined as large scale. Small scale projects are defined following CDM project standard for project activities, as below;

a) Type 1: Renewable energy Projects: maximum output capacity of 15 MW(e) or 45MW(th)."

Since, the project activity has a maximum output capacity of 72 MW which is more than 15MW(e). Therefore, the project is a large-scale project.

A.5 Funding sources of project

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The project has not received public funding. It is entirely being funded by private sector and banks.
Also, PP wants to confirm that there is no public funding from Annex 1 countries and no diversion of Official Development Assistance (ODA) involved in the project activity.

SECTION B. APPLICATION OF APPROVED GOLD STANDARD METHODOLOGY (IES) AND/OR DEMONSTRATION OF SDG CONTRIBUTIONS

B.1. Reference of approved methodology (ies)

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Title: Grid-connected electricity generation from renewable sources.

References: Approved Large Scale Consolidated Methodology: ACM0002: Grid-connected electricity generation from renewable sources --- Version 21.0[2]

The following tools also have been used in the PDD:

- TOOL01: Tool for the demonstration and assessment of additionality - Version 07.0.0[3]
- TOOL07: Tool to calculate the emission factor for an electricity system - Version 07.0[4]
- TOOL11: Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period - Version 3.0.1[5]

B.2. Applicability of methodology (ies)

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The project activity involves generation of grid connected electricity from renewable solar energy. The project activity has an installed capacity of 72 MW which will qualify for a large scale project activity under Type-I of the large-scale methodologies. The project status is corresponding to the methodology ACM0002 version 21.0 and applicability of methodology are discussed below-

Applicability Criterion	Project Case
1) This methodology is applicable to grid connected renewable energy power generation project activities that:	The project activity is a Renewable Energy Project i.e. Solar Power Project

[2] https://cdm.unfccc.int/methodologies/DB/HF3LP6O41YY0JIP1DK6ZRJO9RSCX3S
[3] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v7.0.0.pdf
[4] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v7.0.pdf
[5] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-11-v3.0.1.pdf

a) Install a Greenfield power plant; b) Involve a capacity addition to (an) existing plant(s); c) Involve a retrofit of (an) existing operating plants/units; d) Involve a rehabilitation of (an) existing plant(s)/unit(s); or e) Involve a replacement of (an) existing plant(s)/unit(s).	which falls under applicability criteria option 1 (a) i.e., "Install a Greenfield power plant". As per ACM0002 "Greenfield power plant - a new renewable energy power plant that is constructed and operated at a site where no renewable energy power plant was operated prior to the implementation of the project activity;" Prior to the project's commissioning on 08/02/2016, no other renewable power plant existed in the same location therefore the plant is a greenfield activity. Hence the project activity meets the given applicability criterion.
2) In case the project activity involves the integration of a BESS, the methodology is applicable to grid-connected renewable energy power generation project activities that: (a) Integrate BESS with a Greenfield power plant; (b) Integrate a BESS together with implementing a capacity addition to (an) existing solar photovoltaic or wind power plant(s)/unit(s); (c) Integrate a BESS to (an) existing solar photovoltaic or wind power plant(s)/unit(s) without implementing any other changes to the existing plant(s); (d) Integrate a BESS together with implementing a retrofit of (an) existing solar photovoltaic or wind power plant(s)/unit(s).	The project activity does not have a battery energy storage system. Thus, this criterion is not applicable.
3)The methodology is applicable under the following conditions:	The project activity is not a Hydro power project,

(a) Hydro power plant/unit with or without reservoir, wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit; (b) In the case of capacity additions, retrofits, rehabilitations or replacements (except for wind, solar, wave or tidal power capacity addition projects) the existing plant/unit started commercial operation prior to the start of a minimum historical reference period of five years, used for the calculation of baseline emissions and defined in the baseline emission section, and no capacity expansion, retrofit, or rehabilitation of the plant/unit has been undertaken between the start of this minimum historical reference period and the implementation of the project activity; (c) In case of Greenfield project activities applicable under paragraph 5 (a) above, the project participants shall demonstrate that the BESS was an integral part of the design of the renewable energy project activity (e.g. by referring to feasibility studies or investment decision documents); (d) The BESS should be charged with electricity generated from the associated renewable energy power plant(s). Only during exigencies 2 may the BESS be charged with electricity from the grid or a fossil fuel electricity generator. In such cases, the corresponding GHG emissions shall be accounted for as project emissions following the requirements under section 5.4.4 below. The charging using the grid or using fossil fuel electricity generator should not amount to more than 2 per cent of the electricity generated by the project renewable energy plant during a monitoring period. During the time periods (e.g. week(s), months(s)) when the BESS consumes more than 2 per cent of the electricity for charging, the project participant shall not be entitled to issuance of the certified emission reductions for the concerned periods of the monitoring period.	and it does not have BEES. Hence not applicable.
4) In case of hydro power plants, one of the following conditions shall apply:	The project is not a hydro power project. Hence, not applicable.

(a) The project activity is implemented in existing single or multiple reservoirs, with no change in the volume of any of the reservoirs; or (b) The project activity is implemented in existing single or multiple reservoirs, where the volume of the reservoir(s) is increased and the power density, calculated using equation (7), is greater than 4 W/m^2; or (c) The project activity results in new single or multiple reservoirs and the power density, calculated using equation (7), is greater than 4 W/m^2; or (d) The project activity is an integrated hydro power project involving multiple reservoirs, where the power density for any of the reservoirs, calculated using equation (7), is lower than or equal to 4 W/m^2, all of the following conditions shall apply: (i) The power density calculated using the total installed capacity of the integrated project, as per equation (8), is greater than 4 W/m^2; (ii) Water flow between reservoirs is not used by any other hydropower unit which is not a part of the project activity; (iii) Installed capacity of the power plant(s) with power density lower than or equal to 4 W/m2 shall be: a. Lower than or equal to 15 MW; and b. Less than 10 per cent of the total installed capacity of integrated hydro power project.	
5) In the case of integrated hydro power projects, project participants shall: (a) Demonstrate that water flow from upstream power plants/units spill directly to the downstream reservoir and that collectively constitute to the generation capacity of the integrated hydro power project; or (b) Provide an analysis of the water balance covering the water fed to power units, with all possible combinations of reservoirs and without the construction of reservoirs. The purpose of water balance is to demonstrate the requirement of specific combination of reservoirs constructed under CDM project activity for the optimization of power output. This demonstration has to be carried out in the specific scenario of water	The project is not a hydro power project. Hence, not applicable.

availability in different seasons to optimize the water flow at the inlet of power units. Therefore, this water balance will take into account seasonal flows from river, tributaries (if any), and rainfall for minimum of five years prior to the implementation of the CDM project activity.	
6) The methodology is not applicable to: (a) Project activities that involve switching from fossil fuels to renewable energy sources at the site of the project activity, since in this case the baseline may be the continued use of fossil fuels at the site; (b) Biomass fired power plants/units	Not applicable as the project is setting up a solar power project.
7) In the case of retrofits, rehabilitations, replacements, or capacity additions, this methodology is only applicable if the most plausible baseline scenario, as a result of the identification of baseline scenario, is "the continuation of the current situation, that is to use the power generation equipment that was already in use prior to the implementation of the project activity and undertaking business as usual maintenance".	The project does not involve retrofits, rehabilitations, replacements, or capacity additions. Hence not applicable.
8) In addition, the applicability conditions included in the tools referred to below apply.	Applicability of each tool is given below Tools used- • Tool to calculate the emission factor for an electricity system - Version 07.0 • Tool for the demonstration and assessment of additionality - Version 07.0.0 • Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period - Version 3.0.1

Additional GS applicability criteria/ requirements/ remarks for ACM0002-

Additional requirements for Hydro power project.	The project is not a hydro project hence this requirement is not applicable.
Renewable Energy projects connected to national, or a regional electricity grid must be located in either: a. Least Developed Country (LDC), Small Island Developing State (SIDS) or a Land Locked Developing Country (LLDC) or b. Low Income and Low Middle-income country where the penetration level of the proposed Renewable Energy Technology type is less than 5% of the total grid installed capacity, at the time of the first submission to preliminary review.	The project activity is already registered in GS4GG and applying for renewal of crediting period. Therefore, this requirement is not applicable.

Tool to calculate the emission factor for an electricity system - Version 07.0 (EB 100 annex 4)

Applicability Criterion	Project Case
1) This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity that is where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).	The project is a grid connected, Greenfield solar power project and thus it results in savings of electricity that would have been provided by the grid. Therefore, this tool is applicable.
2) Under this tool, the emission factor for the project electricity system can be calculated either for grid power plants only or, as an option, can include off-grid power plants. In the latter case, two sub-options under the step 2 of the tool are available	Since, in India the total capacity of off-grid power plants (in MW) does not exceed 10 per cent of the total capacity of grid power

to the project participants, i.e. option IIa and option IIb. If option IIa is chosen, the conditions specified in "Appendix 1: Procedures related to off-grid power generation" should be met. Namely, the total capacity of off-grid power plants (in MW) should be at least 10 per cent of the total capacity of grid power plants in the electricity system; or the total electricity generation by off-grid power plants (in MWh) should be at least 10 per cent of the total electricity generation by grid power plants in the electricity system; and that factors which negatively affect the reliability and stability of the grid are primarily due to constraints in generation and not to other aspects such as transmission capacity.	plants in the electricity system; therefore, offgrid power plants has not been included in the calculations. Therefore, this Tool is applicable.
3) In case of CDM projects the tool is not applicable if the project electricity system is located partially or totally in an Annex I country.	Project is located in non-Annex I country and hence the tool is applicable
4) Under this tool, the value applied to the CO_2 emission factor of biofuels is zero.	The project is a Solar project and there is no involvement of biofuels.

Tool for the demonstration and assessment of additionality- Version 07.0.0 (EB 70, Annex 08)
Applicability Criteria has been demonstrated in Section B.5.

TOOL11: Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period - Version 3.0.1

Applicability Criterion	Project Case
This tool provides a stepwise procedure to assess the continued validity of the baseline and to update the baseline at the renewal of a crediting period, as required by paragraph	Since the project is applying for renewal of crediting period 26/10/2023 to 25/10/2028 this tool is applicable. The assessment of

49 (a) of the modalities and procedures of the clean development mechanism	original/current baseline has been conducted in section b.4

B.3. Project boundary

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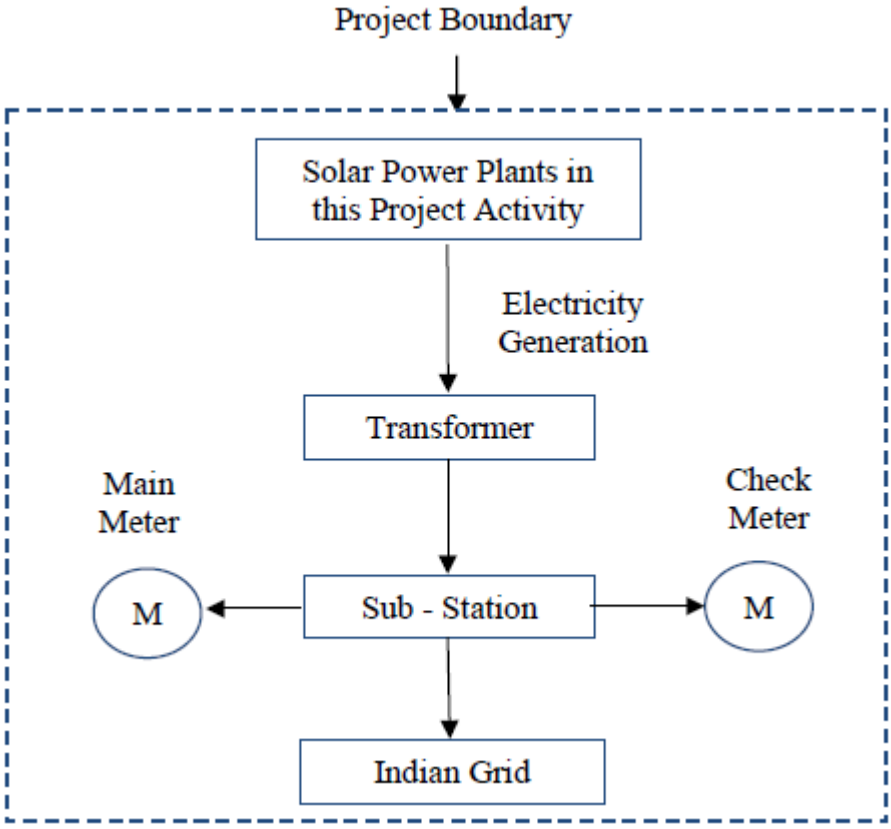
Project boundary has ascertained using para 22 of ACM0002 version 21.0 - "The spatial extent of the project boundary includes the project power plant/unit and all power plants/units connected physically to the electricity system that the project power plant is connected to."

Hence the project boundary includes the Solar Project activity, sub-station, grid and all powerplants connected to grid. The proposed project activity will evacuate power to the Indian grid.



Source		GHGs	Included?	Justification / Explanation
Baseline	Grid connected electricity generation	CO_2	**Yes**	Main emission source
		CH_4	**No**	Minor emission source
		N_2O	**No**	Minor emission source

Project	Green field Solar Power Project Activity	CO_2	**No**	No CO_2 emissions are emitted from the project activity
		CH_4	**No**	No, Project Activity does not emit CH_4
		N_2O	**No**	No, Project Activity does not emit N_2O

B.4. Establishment and description of baseline scenario

>>

At the time of renewal of crediting period, TOOL11 has been used to assess the validity of original baseline.

As per tool 11 “Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period”

Step 1: Assess the validity of the current baseline for the next crediting period.

Step 1.1: Assess compliance of the current baseline with relevant mandatory national and/or sectoral policies.

The baseline scenario established for the project activity at the time of validation remains unchanged at this Design Certification Renewal and it meticulously aligns with all pertinent mandatory national and/or sectoral policies, thereby ensuring strict adherence to India's regulatory frameworks governing energy production and environmental sustainability.

The identified baseline scenario states seamlessly integrate with India's comprehensive suite of policies aimed at advancing renewable energy adoption, curbing greenhouse gas emissions, and promoting sustainable development. The relevant national laws and regulations pertaining to generation of energy in India are:

• Electricity Act 2003[6]

• National Electricity Policy 2005[7]

• Tariff Policy 2016[8]

• The factories act 1948[9]

[6] https://powermin.gov.in/sites/default/files/uploads/The%20Electricity%20Act_2003.pdf
[7] https://powermin.gov.in/sites/default/files/uploads/national_electricity_policy_0.pdf
[8] https://powermin.gov.in/sites/default/files/webform/notices/Tariff_Policy-Resolution_Dated_28012016.pdf
[9] https://labour.gov.in/sites/default/files/factories_act_1948.pdf

The Project activity conforms to all the applicable laws and regulations in India:

- The Indian Electricity Act, 2003 (May 2007 Amendment) does not influence the choice of fuel used for power generation.
- There is no legal requirement on the choice of a particular technology for power generation. Therefore, the power generation using renewable energy is not a legal requirement or a mandate to the PD.
- There are state and sectoral policies such as National Solar Mission (NSM), Renewable Purchase Obligations (RPOs), Jawaharlal Nehru National Solar Mission (JNNSM) etc. These policies have also been drafted realizing the extent of risks involved in the projects and to attract private investments.

There is no mandatory requirement to implement the project activity. It is a voluntary initiative by the PD. Voluntary commitments/agreements within a sector or by an entity do not constitute as the legal requirement.

In summary, the baseline scenario established for the power activity exemplifies strict adherence to relevant mandatory national and sectoral policies governing energy production and environmental sustainability. By harmonizing with India's ambitious renewable energy targets, climate change mitigation commitments, and regulatory frameworks, the project emerges as a vital contributor to India's transition towards a cleaner, more sustainable energy future while ensuring compliance with regulatory mandates.

Step 1.2: Assess the impact of circumstances.

The baseline scenario identified at the time of validation of project activity was “The electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid connected power plants and by the addition of new generation sources into the grid”. The same baseline is still valid at the time of requesting this crediting period renewal as per the applied methodology ACM0002 version 21.0.

This project activity was a voluntary investment which intends to replace equivalent amount of electricity at grid from renewable source. PD was not bound to incur this investment; hence absence of project activity (i.e., the investment) does not lead to any continued baseline practice for PD within their scope whereas the continued operation of the project activity would continue to replace equivalent amount of electricity at grid. Hence, the same baseline as identified in the previous crediting period is still valid for this crediting period renewal.

Since the baseline scenario identified at the validation of the project activity was not the continuation of the current practice without any investment, an assessment of the changes in market characteristics is not required for the renewal of the crediting period as per EB 66 Report, Annex 47.

Step 1.3: Assess whether the continuation of the use of current baseline equipment(s) or an investment is the most likely scenario for the crediting period for which renewal is requested.

As explained in step 1.2, the baseline scenario was the electricity import/generation from the power plants connected to the electricity grid. The project activity in green field project and there is not any baseline equipment or investment involved in project activity. Therefore, this condition is not applicable to the project activity.

Step 1.4: Assessment of the validity of the data and parameters

As per Tool 11 version 3.0.1, "*Where emission factors, values or emission benchmarks are used and determined only once for the crediting period, they should be updated, except if the emission factors, values or emission benchmarks are based on the historical situation at the site of the project activity prior to the implementation of the project and cannot be updated because the historical situation does not exist anymore as a result of the CDM project activity.*"

In the context of the present project activity the emission factors are used and determined only once for the crediting period, the values of parameters $EF_{grid,CM,y}$, $EF_{grid,OM,y}$, $EF_{grid,BM,y}$ have been updated along with the approach used to calculate them. The same can be referred from the table mentioned below under step 2.

Step 2: Update the current baseline and the data and parameters.

As evident from the explanation provided above the baseline scenario remains unchanged. Only the approach used to calculate the baseline emission factor is updated as per the latest version of database available at the time of PDD submission for renewal. In line with the CDM project standard for project activity version 03.0, the impact of new relevant national and/or sectoral policies and circumstances on the baseline taking into account relevant EB guidance with regard to renewal of the crediting period at the time of requesting renewal of crediting period; and the correctness of the application of an approved baseline methodology for the determination of the continued validity of the baseline or its update, and the estimation of emission reductions for the applicable crediting period.

As per the approved consolidated Methodology ACM0002 (Version 21.0, EB 116, Annex 1) para 24: "*If the project activity is the installation of a Greenfield power plant with or without a BESS as described under paragraph 4(a) or paragraph 5(a), the baseline scenario is electricity delivered to the grid by the project activity that would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in TOOL07."*

The project activity involved setting up solar plant to produce electricity and supply to the grid. In the absence of the project activity, the equivalent amount of power would have been supplied to the electricity grid by the operation of grid-connected power

plants (mainly by fossil fuel fired plants) and by the addition of new generation sources, as reflected in the combined margin (CM) calculations.

Hence, the baseline for the project activity is the equivalent amount of power from the Indian grid.

The combined margin ($EF_{grid,CM,y}$) is the result of a weighted average of two emission factor pertaining to the electricity system: the operating margin (OM) and build margin (BM). Calculations for this combined margin must be based on data from an official source (where available) and made publicly available. The CEA database version 18.0 was the latest available data at the time of PDD submission to DOE for validation, hence same is considered for emission factor calculations.

The combined margin of the Indian grid used for the project activity is as follows:

Parameter	Value	Nomenclature	Source
$EF_{grid,CM,y}$	0.9310 tCO_2 /MWh	Combined margin CO_2 emission factor for the project electricity system in year y	Calculated as the weighted average of the operating margin (0.75) & build margin (0.25) values, sourced from Baseline CO_2 Emission Database, Version 18.0, September 2022 published by Central Electricity Authority (CEA), Government of India.
$EF_{grid,OM,y}$	0.9518 tCO_2/MWh	Operating margin CO_2 emission factor for the project electricity system in year y	Calculated as the last 3 year (2019-20, 2020-21 and 2021-22) generation-weighted average, sourced from Baseline CO_2 Emission Database, Version 18.0, Sep 2022 published by Central Electricity Authority (CEA), Government of India.
$EF_{grid,BM,y}$	0.8687 tCO_2 /MWh	Build margin CO_2 emission factor for the project electricity system in year y	Baseline CO_2 Emission Database, Version 18.0. Sep 2022 published by Central Electricity Authority (CEA), Government of India.

B.5. Demonstration of additionality

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The project is retroactive and is registered in GS. Please refer the registered GS PDD[10] for additionality demonstration.

B.5.1 Prior Consideration

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Please refer to the registered PDD for Prior Consideration. Since the project is applying for renewal of crediting period this parameter is not applicable.

B.5.2 Ongoing Financial Need

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The project uses the finance derived Gold Standard Certification which is approximately 0.75% of project income to meet the 2.55% of the expense related to O&M activities.

(i) Certification related cost: The certification process itself requires investment, including costs associated with project design, validation, transition, and verification. 10.69% of the finance derived from Gold Standard Certification has helped cover these expenses, ensuring the project meets the rigorous standards and criteria set by the Gold Standard.

(ii) 42.91% of the finance derived Gold Standard Certification meets the expenses incurred to carry out CSR activities.

(iii) Operations and Maintenance(O&M): O&M costs includes salary expenses towards employment generated, regular cleaning & system monitoring ensuring the project operates optimally. 46.41% of the finance derived from Gold Standard Certification meets the 2.55% of the O&M costs.

Therefore, project activity relies on carbon revenue from generated ER for smooth operation and continuation of the project activity and thus project activity needs finances generated by GS-VERs.

B.6. Sustainable Development Goals (SDG) outcomes

Relevant Target/Indicator for each of the three SDGs

[10] https://registry.goldstandard.org/projects/details/1427

		SDG IMPACT
SUSTAINABLE DEVELOPMENT GOALS TARGETED	MOST RELEVANT SDG TARGET	**INDICATOR (PROPOSED OR SDG INDICATOR)**
13 Climate Action (mandatory)	N/A	Reduction in GHGs emissions
7 Ensure access to affordable, reliable, sustainable and modern energy for all	7.2: By 2030, increase substantially the share of renewable energy in the global energy mix Target: 114,794 MWh per annum	MWh of renewable energy generated
8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	8.5: By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value Target: Employment of 20 staff	Increased employment opportunities

B.6.1 Explanation of methodological choices/approaches for estimating the SDG Impact

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SDG Goal	Methodological choices/approaches for estimating the SDG outcome

SDG 7 -Affordable and Clean Energy: Ensure access to affordable, reliable, sustainable and modern energy for all	**Measurement Method:** - Electricity produced and supplied to the grid is monitored through an energy meter. Monthly generation Statement issued by TANGEDCO on monthly basis. The other parameters used for net electricity supplied to grid are mentioned in the monitoring plan. **Calculation of baseline:** -Since there would be no clean power generation without the project activity in the project site. Hence, the baseline would be considered as zero for electricity generation. **QA/QC Process:** This parameter is monitored monthly, and the value of parameter will be cross checked with invoices. The meters will be calibrated on regular frequency. **Net benefit= (Net Electricity = Export – Import)**
SDG 8 – Descent Work and Economic Growth: Promote inclusive and sustainable economic growth, employment and decent work for all	**Measurement Method:** - Headcount of total number of employees by employment contract (permanent and temporary), by gender. And Headcount of total number of employees by employment type (full-time and part-time), by gender. **Calculation of baseline:** -Since there would be no employment generated in the absence of the project activity in the project site. Hence, the baseline would be considered as zero for Training and employment generation. **QA/QC Process:** This parameter is based on records, data and no QA/QC procedure required. The VVB can confirm this parameter with an interview with PP or Site in charge or employees for training and employment generation. **Net benefit= Number of employees.**

SDG 13 – Climate Action: Take urgent action to combat climate change and its impacts	**Measurement Method: -** The emission reduction parameter is calculated as product of net electricity supplied to grid and grid emission factor. The grid emission factor is ex-ante parameter and determined based on data obtained from "CO_2 Baseline Database for Indian Power Sector" version 18, published by the Central Electricity Authority, Ministry of Power, Government of India. This is in line with "Tool to calculate the emission factor for an electricity system, version 7.0." **Calculation of baseline:** - Since there would be no emission reduction without the project activity in the project site. Hence, the baseline would be considered as zero for emission reduction. **QA/QC Process: -** This parameter is calculated, and no QA/QC procedure required. **Net benefit= BE_y = $EG_{PJ,y}$ x $EF_{grid,CM,y}$** Where: **BEy** = Baseline emissions in year y (tCO_2/yr) **$EG_{PJ,y}$** = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the project activity in year y (MWh/yr)

B.6.2 Data and parameters fixed ex ante

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Data/parameter	$EF_{grid,OM,y}$
Unit	tCO_2/MWh
Description	Operating Margin CO_2 emission factor in year y
Source of data	Calculated from CEA database, Version 18.0, September 2022
Value(s) applied	0.9518
Choice of data or Measurement methods and procedures	Calculated as per "Tool to calculate the emission factor for an electricity system, version 07" as 3-year generation weighted average using data for the years 2019-20, 2020-21 & 2021-22. The data are obtained from "CO_2 Baseline Database for Indian Power Sector"

	version 18, published by the Central Electricity Authority, Ministry of Power, Government of India.
Purpose of data	For the calculation of the Baseline Emission
Additional comment	This parameter is fixed ex-ante for the entire crediting period.

Data/parameter	$EF_{grid,BM,y}$
Unit	tCO_2/MWh
Description	Build Margin CO_2 emission factor in year y
Source of data	Calculated from CEA database, Version 18.0, September 2022
Value(s) applied	0.8687
Choice of data or Measurement methods and procedures	Calculated as per “Tool to calculate the emission factor for an electricity system, version 07”. As such the latest value of build margin, 2020-21 is taken. The data are obtained from “CO_2 Baseline Database for Indian Power Sector” version 18, published by the Central Electricity Authority, Ministry of Power, Government of India.
Purpose of data	For the calculation of the Baseline Emission
Additional comment	This parameter is fixed ex-ante for the entire crediting period.

Data/parameter	$EF_{grid,CM,y}$
Unit	tCO_2/MWh
Description	Combined Margin CO_2 emission factor in year y
Source of data	Calculated from CEA database, Version 18.0, September 2022
Value(s) applied	0.9310

Choice of data or Measurement methods and procedures	The combined margin emissions factor is calculated as follows: $EF_{grid,CM,y} = EF_{grid,OM,y} * W_{OM} + EF_{grid,BM,y} * W_{BM}$ Where: $EF_{grid,BM,y}$ = Build margin CO_2 emission factor in year y (tCO_2/MWh) $EF_{grid,OM,y}$ = Operating margin CO_2 emission factor in year y (tCO_2/MWh) W_{OM} = Weighting of operating margin emissions factor (%) = 75% W_{BM} = Weighting of build margin emissions factor (%) = 25%
Purpose of data	For the calculation of the Baseline Emission
Additional comment	This parameter is fixed ex-ante for the entire crediting period.

B.6.3 Ex ante estimation of SDG Impact

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SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all -

The baseline outcome benefit is zero.

Project expected to generate 114,794 MWh clean energy every year which will be monitored by electricity meters.

SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all -

The baseline outcome benefit is zero.

Providing employment to approximately 20 persons.

SDG13: Climate Action-

The baseline outcome benefit is zero.

The project leads to mitigation of 106,873 tCO_2 per annum.

Calculation of Outcome for SDG13: Climate Action

As per the approved consolidated Methodology ACM0002 (Version 21.0, EB 116, Annex 1), Emission reductions are calculated as follows:

$ER_y = BE_y – PE_y$

Where:

ER_y = Emission reductions in year *y* (t CO_2e/yr)

BE_y = Baseline emissions in year *y* (t CO_2/yr)

PE_y = Project emissions in year *y* (t CO_2e/yr)

Baseline Emissions:

Baseline Emissions for the amount of electricity supplied by project activity, BE_y is calculated as

$BE_y = EG_{PJ,y} \times EF_{grid,CM,y}$

Where:

BE_y = Baseline emissions in year y (t CO_2/yr)

$EG_{PJ,y}$ = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh/yr)

$EF_{grid,CM,y}$ = Combined margin CO_2 emission factor for grid connected power generation in year y calculated using the latest version of the "Tool to calculate the emission factor for an electricity system" (tCO_2/MWh).

Using the values for operating and build margin emission factor provided in the CEA database version 18.0 and their respective weights for calculation of combined margin emission factor, the baseline carbon emission factor (CM) is 0.9310 tCO2e/MWh.

$EG_{PJ,y}$ = 114,794 MWh/year

$EF_{grid,CM,y}$ = 0.9310 tCO2/MWh

$BE_y = EG_{PJ,y} \times EF_{grid,CM,y}$

$BE_y = 114,794 \times 0.9310$ tCO_2/year

BE_y = 106,873 tCO_2/year

Project emissions

As per the ACM0002 version 21.0, Project Emission for most renewable energy power generation project activities, PEy = 0. However, some project activities may involve project emissions that can be significant. These emissions shall be accounted for as project emissions by using the following equation:

$PE_y = PE_{FF,y} + PE_{GP,y} + PE_{HP,y} + PE_{BEES,y}$

Where:
Pe_y = Project emissions in year y (tCO_2e/year)

$PE_{FF,y}$ = Project emissions from fossil fuel consumption in year y (tCO_2/year)

$PE_{GP,y}$ = Project emissions from the operation of geothermal power plants due to the release of non-condensable gases in year y (t CO_2e/year)

$PE_{HP,y}$ = Project emissions from water reservoirs of hydro power plants in year y (tCO_2e/year).

$PE_{BEES,y}$ = Project emissions from charging of a BESS using electricity from the grid or from fossil fuel electricity generators (t CO_2e/year)

The project activity involves the generation of electricity from the installation of solar projects. The project activity does not use fossil fuel for its operation, it does not involve geothermal energy or water reservoirs or Battery energy storage system.

Therefore: $PE_{FF,y}=0$, $PE_{GP,y}=0$, $PE_{HP,y}=0$, $PE_{BEES,y}=0$.

Since, there is no project emission for the project activity. Therefore, project emissions are zero.

Leakage Emissions

No other leakage emissions are considered. The emissions potentially arising due to activities such as power plant construction and upstream emissions from fossil fuel use (e.g. extraction, processing, transport etc.) are neglected.

Emission Reductions

Emission reductions are calculated as follows-

$ER_y = BE_y – PE_y$

Where:
ER_y = Emission reductions in year y (tCO_2/yr)
BE_y = Baseline emissions in year y (tCO_2/yr)
PE_y = Project emissions in year y (tCO_2/yr)

$ER_y = Be_y - Pe_y$
$ER_y = 106{,}873 – 0$
$ER_y = 106{,}873$ (tCO_2/y)

B.6.4 Summary of ex ante estimates of each SDG Impact

SDG 7: Affordable and Clean Energy

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
26/10/2023 to 25/10/2024	0	115,948	115,948
26/10/2024 to 25/10/2025	0	115,368	115,368
26/10/2025 to 25/10/2026	0	114,791	114,791
26/10/2026 to 25/10/2027	0	114,217	114,217
26/10/2027 to 25/10/2028	0	113,646	113,646
Total	0	573,972	573,972
Total number of crediting years		5	
Annual average over the crediting period	**0**	**114,794**	**114,794**

The monitoring parameter for the SDG 7 is Quantity of net electricity supplied to the grid during the year y.

BASELINE ESTIMATE- Electricity produced and supplied to the grid in the absence of the project activity.

Unit- MWh/year

PROJECT ESTIMATE- Electricity produced and supplied to the grid in the presence of the project activity.

Unit- MWh/year

SDG 8: Decent Work and Economic Growth

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
26/10/2023 to 25/10/2024	0	20	20
26/10/2024 to 25/10/2025	0	20	20
26/10/2025 to 25/10/2026	0	20	20

26/10/2026 to 25/10/2027	0	20	20
26/10/2027 to 25/10/2028	0	20	20
Total	0	20	20
Total number of crediting years		5	
Annual average over the crediting period	**0**	**20**	**20**

BASELINE ESTIMATE- Employment headcount in absence of the project activity.

Unit- number of employees/years

PROJECT ESTIMATE- Headcount of employees due to the presence of the project activity.

Unit- number of employees/years

SDG13: Climate Action

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
26/10/2023 to 25/10/2024	0	107,948	107,948
26/10/2024 to 25/10/2025	0	107,408	107,408
26/10/2025 to 25/10/2026	0	106,871	106,871
26/10/2026 to 25/10/2027	0	106,336	106,336
26/10/2027 to 25/10/2028	0	105,805	105,805
Total	0	534,368	534,368
Total number of crediting years		5	
Annual average over the crediting period	**0**	**106,873**	**106,873**

BASELINE ESTIMATE- VERs produced in the absence of the project activity.

Unit- tCO_2e/year

PROJECT ESTIMATE- VERs produced by the project activity.

Unit- tCO_2e/year

B.7. Monitoring plan

B.7.1 Data and parameters to be monitored

SDG 7: Affordable and Clean Energy

Data / Parameter	$EG_{PJ,y}$
Unit	MWh/y
Description	Quantity of net electricity supplied to the grid
Source of data	Monthly Statement of Solar Power Generation by TANGEDCO
Value(s) applied	114,794
Measurement methods and procedures	Data Type: Measured Monitoring equipment: Energy Meters of accuracy class 0.2s Recording Frequency: Continuous monitoring and Monthly recording from Energy Meters, Summarized Annually. Archiving Policy: Paper &/or Electronic Calibration frequency: Once in 5 years as per CEA guidelines[11] Electricity exported/imported to the grid is in kWh. However, for the calculation purpose electricity exported is converted in MWh. The Net electricity supplied to the grid by the project activity will be calculated as a difference of electricity exported to the grid and electricity imported from the grid obtained from Monthly Meter reading reports provided by TANGEDCO (Ramnad Electricity Distribution Circle) as per below equation: $EG_{PJ,y} = EG_{Export} - EG_{Import}$ The calculation is done by Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) and the PP has no

[11] https://cea.nic.in/old/reports/regulation/CEA_metering_regulation_amendment_2019.pdf

	say in the calculation. Based on the Monthly generation Statement issued by TANGEDCO, the project shall raise the invoice. The electricity exported to the grid by the project activity connected to the sub-station is measured by electronic tri-vector meters of accuracy class 0.2s. The electricity exported will be measured continuously using Main & Check meters. Export readings of Main & Check meters shall be taken on monthly basis by authorized officer of TANGEDCO in the presence of PP or representative of PP.

Meter & Calibration Details:			
Details	Main Meter	Check Meter	Standby Meter
Meter Number	TNW01979	TNW01987	TNE81539
Make	Secure	Secure	Secure
Accuracy Class	0.2s	0.2s	0.2s
Calibration Dates	20/07/2018	27/08/2018	27/08/2018
Calibration frequency	Once in 5 years as per CEA guideline		

Cross Checking:
Quantity of net electricity supplied to the grid will be cross checked from the Invoices/ Monthly Bill raised by the Project Participant to Ramnad Electricity Distribution Circle, TANGEDCO.

Monitoring frequency	Measurement: Continuous Recording: Monthly
QA/QC procedures	Calibration of all the meters will be undertaken once every five year and faulty meters will be duly replaced immediately. The meters will be of accuracy class 0.2s.
Purpose of data	The Data/Parameter is required to calculate the baseline emission
Additional comment	Data will be archived electronically for a period of 2 years beyond the end of crediting period.

SDG 8: Decent Work and Economic Growth

Data / Parameter	Headcount of employees
Unit	Number of employees/years

Description	Headcount of total number of employees by employment contract (permanent and temporary), by gender. And Headcount of total number of employees by employment type (full-time and part-time).
Source of data	Plant employment records
Value(s) applied	20
Measurement methods and procedures	The total number of persons working in the plant would be calculated based on the daily log available at site. This parameter also monitors number of men/women employed by the project activity. The employment covers number of men and number of women employed by the project activity. The job is of type temporary/permanent or skilled/unskilled, etc.
Monitoring frequency	Monthly monitoring and annual compilation
QA/QC procedures	The number of persons employed would be mentioned in the plant register, which can be crossed checked with daily attendance register.
Purpose of data	To Monitor the SDG 8 Indicator
Additional comment	-

SDG13: Climate Action

Data / Parameter	ER_y
Unit	VERs
Description	Emission reductions achieved per year
Source of data	Calculated as per registered PDD and as per methodology
Value(s) applied	106,874
Measurement methods and procedures	The baseline emissions are the product of electrical energy baseline $EG_{PJ,y}$ expressed in MWh of electricity produced by the renewable generating unit multiplied by an emission factor.
Monitoring frequency	As per monitoring period
QA/QC procedures	Not Applicable
Purpose of data	Calculation of baseline emissions
Additional comment	-

B.7.2 Sampling plan

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Not applicable.

B.7.3 Other elements of monitoring plan

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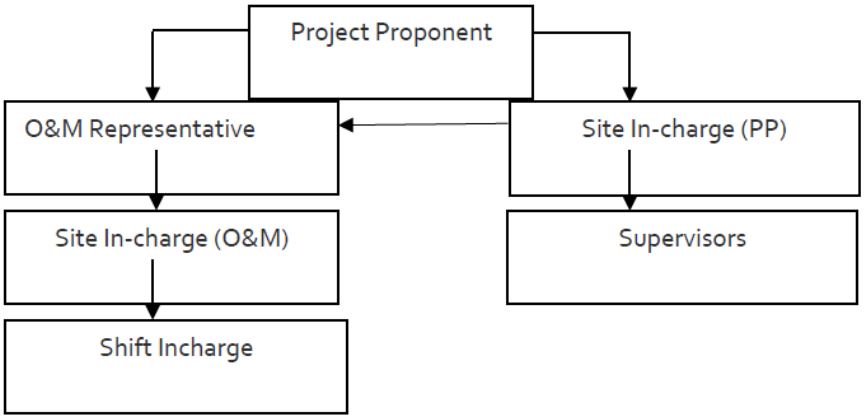
The monitoring plan is developed in accordance with the modalities and procedures for GS4GG project activities and is proposed for grid-connected solar power project/ unit being implemented in Tamil Nadu, India. The monitoring plan, which will be implemented by the project participant describes the monitoring organization, parameters to be monitored, monitoring practices, quality assurance, quality control procedures, data storage and archiving.



Responsibilities of Site In charge (PP): Overall functioning and maintenance of the project activity, the Site in charge shall coordinate with the O&M operator as well as the site supervisors.

Responsibilities of O&M Representative: Co-ordination between Site in charge of the O&M operator as well as the project participant and further report to PP head office.

Responsibilities of Site In-charge (O&M Operator): Responsibility for maintaining the data records, ensures completeness of data, and reliability of data (calibration of equipment) as well as data recording for all the parameters.

Responsibilities of Shift In-charge: Responsibility for day to day data collection and maintains day to day monitored data.

QA / QC procedures:

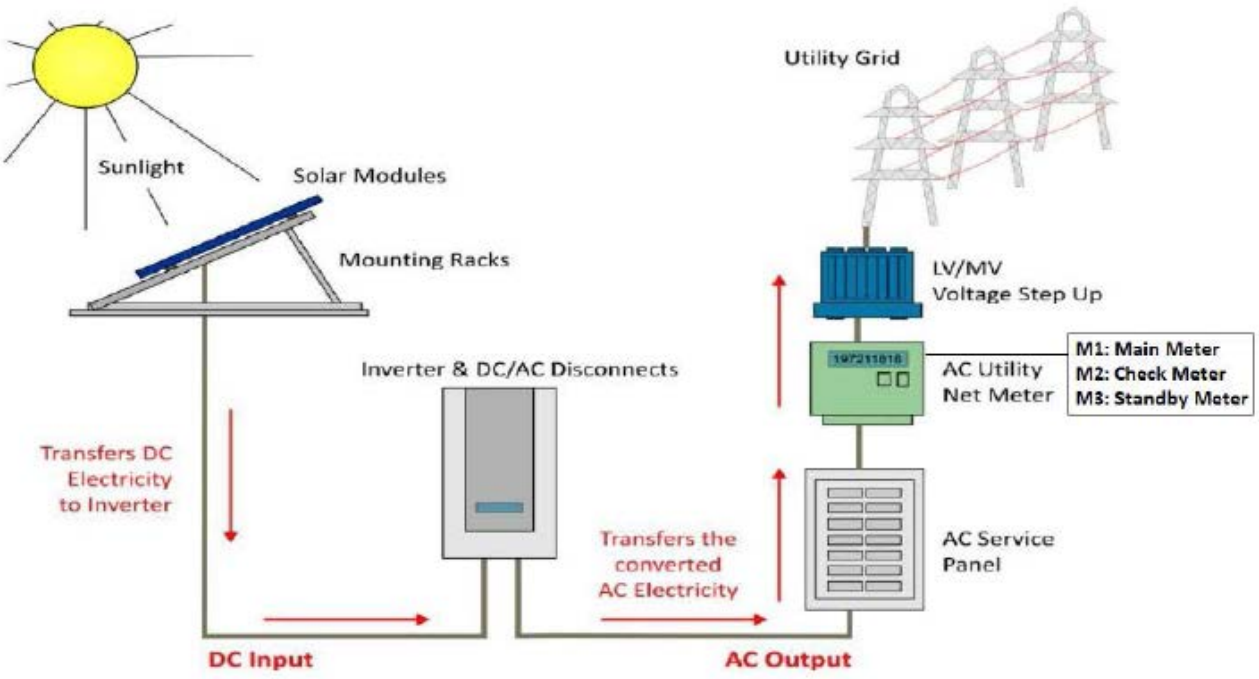
The energy meters at the feeders are maintained and owned by Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO). Neither the project proponent nor

the site personnel have any control over it. The records will be cross-checked with the records of sold electricity TANGEDCO. The meters are calibrated by TANGEDCO at-least once in five years.

Data Measurement

Projects activity comprises of installation of 6 Energy meters installed at the at project site, 3 Energy meters (1 main meter and 1 check meter, 1 standby meter) under control of PP and 3 Energy meters (1 main meter, 1 check meter, 1 standby meter) sealed and under control of TENGEDCO used for joint metering installed at interconnection point of the Grid at project site.

The export and import energy will be measured continuously using above mentioned Main & Check meters. Export & Import readings of Main & Check meters installed at the project site shall be taken on monthly basis by authorized officer of TANGEDCO in the presence of PP or representative of PP. The meter reading will be taken jointly and signed by the representatives of TANGEDCO and project investors. Based on the readings, invoices will be raised by project investors. These invoices can be used for cross checking the meter readings taken for the project activity. It is to be noted though PP or PP representative is available during meter reading, the calculations of net electricity supplied to grid is completely under purview of TANGEDCO officer and PP do not have any control on it. Also, accuracy class of meters and calibration frequency is under purview of TANGEDCO officer and PP do not have any control on it. PP get the monthly generation report from where net electricity supplied to grid is obtained and used for emission reduction calculations.



Data collection and archiving

Export & Import readings from the meters will be collected under the supervision of the authorized representatives of PP. The net electricity supplied to the grid would be calculated based on export & import readings. Export and Import data would be recorded and stored in electronic and/or in Paper format. The records are checked periodically by the Head (Operations) and discussed thoroughly with the O&M Team. The period of storage of the monitored data will be 2 years after the end of crediting period or till the last issuance of GS CERs for the project activity whichever occurs later.

Mismatch in Monitoring Period and the Billing Period

In case the dates of a particular monitoring period do not match with the dates of the billing period, the net electricity exported to the grid would be calculated from daily generation reports for that mismatch period.

Emergency preparedness

The project activity will not result in any unidentified activity that can result in substantial emissions from the project activity. No need for emergency preparedness in data monitoring is visualized.

In the unlikely event of failure of all Main, Check as well as Standby meter installed at Substation, where all the faulty meters are required to be repaired or replaced simultaneously, the export & import readings from Main, Check & Standby Meters

installed at the inter-connection point at the project site will be used for monitoring of net electricity exported to the grid.

Personnel training

In order to ensure the proper functioning of the project activity and a proper monitoring of emission reductions, the staff will be trained. The plant helpers will be trained in equipment operation, data recording, reports writing, operation and maintenance and emergency procedures in compliance with the monitoring plan.

SECTION C. DURATION AND CREDITING PERIOD

C.1. Duration of project

C.1.1 Start date of project

>>

13/06/2015 as per the date of earliest purchase order by Ramnad Solar Power Limited.

C.1.2 Expected operational lifetime of project

>>

17 Years and 4 months after the first crediting period.

C.2. Crediting period of project

C.2.1 Start date of crediting period

>>

26/10/2023

C.2.2 Total length of crediting period

>>

5 Years

SECTION D. SUMMARY OF SAFEGUARDING PRINCIPLES AND GENDER SENSITIVE ASSESSMENT

D.1 Safeguarding Principles that will be monitored

A completed Safeguarding Principles Assessment is in Appendix 1, ongoing monitoring is summarised below.

PRINCIPLES	MITIGATION MEASURES ADDED TO THE MONITORING PLAN
N/A	Since the project does not cause or has the potential to cause any risk or expected issue identified in the assessment Questions in Appendix 1. Therefore, this section is not applicable.

D.2. Assessment that project complies with GS4GG Gender Sensitive requirements

Question 1 - Explain how the project reflects the key issues and requirements of Gender Sensitive design and implementation as outlined in the Gender Policy?	Project participants do not involve and promote any discrimination about the gender differences[12]. The Policies of Project participant includes Minimum Wages Act, 1948. Which states • Minimum Wages Act, 1948 requires the Government to fix minimum rates of wages and reviews this at an interval of not more than 5 years. The Payment of Wages Act, 1936, amended in 2005. Every employer shall be responsible for the payment to persons employed by him of all wages required to be paid under this Act. • As per the Equal Remuneration Act 1976, it is the duty of an employer to pay equal remuneration to men and women workers for same work or work of a similar nature. This ensures that the minimum wage of INR 500/day (as set out by state of Tamil Nadu[13]) is paid to workers without any gender bias." As per Gold Standard for the Global Goals Gender Equality Requirements & Guidelines version 1.1, Mandatory Gender-Sensitive Requirements include compliance with the Gender Safeguarding Principles and Requirements, and gender sensitive stakeholder consultations.

[12] Environment and Social Due Diligence Report – https://www.adb.org/sites/default/files/project-documents/46268/46268-002-sddr-en_3.pdf
[13] https://cms.tn.gov.in/sites/default/files/go/labemp_e_36_2023_2D.pdf

	Since the project is already registered and a retroactive project the stakeholder consultation already followed gender sensitive stakeholder consultations at the time of Design Certification. And Gender safeguarding principles can be referred from appendix 1, principle 2.
Question 2 - Explain how the project aligns with existing country policies, strategies and best practices	PP has defined Corporate HR policies and EHS team to implement EHS plans. The EHS team of RSPL ensures that the contracts engaged are of repute and follow required gender equality guidelines as set forwards by national[14] and international standards.
Question 3 - Is an Expert required for the Gender Safeguarding Principles & Requirements?	The project does not seek to graduate to gender-grade GS certification and thus foundational gender sensitive requirements have been justified. As per GS4GG Gender Equality Requirements & Guidelines, “Gold Standard may require that the Project seek the input of an Expert Stakeholder and to include their recommendations in the Project design. For projects seeking gender-responsive certification, the Gold Standard VVBs audit teams shall include gender consultants with relevant sector expertise to verify the gender claims of the project”. The Project participants do not involve and promote any discrimination about the gender differences. The same is ensured into Sustainability Policy, hence no expert Stakeholder inputs are required. Further the questions raised in the Gold Standard Safeguarding Principles & Requirements document are described under Appendix 1.

[14] https://pmindiaun.gov.in/public_files/assets/pdf/77442Annexure%20II%20of%20the%20UPR%20National%20Report.pdf

Question 4 - Is an Expert required to assist with Gender issues at the Stakeholder Consultation?	No Expert is required to assist with Gender issues at the Stakeholder Consultation as the stakeholders were invited in a 'gender-sensitive' manner and efforts has been made to solicit input from women and marginalised groups. As per the GS Stakeholder guidelines, section 1.1.2 "All Gold Standard projects shall take gender issues into account". This requires local stakeholder consultation processes to reach a wide range of community representatives in ways that ensure equal and effective participation of both women and men, and that gender issues are fully factored into comprehensive social and environmental impact assessments." The Local Stakeholder Consultation Meeting had an overall healthy participation in the meeting. It was held during the day, as women tend to circulate more freely and safely than after sunset. All the villagers were invited for the consultation through invitation pasted in public places (local administration Offices, Bus Stand, Market etc.) The meeting was conducted in local language Telugu and English translation is prepared for the purpose of reporting. The project representative explained how the power projects help in providing clean energy and thereby help in mitigating impacts due to Global Warming and the impact wind power projects which lead to providing clean energy, increase in employment opportunities both long term and short term, increased income and thereby leading to improvement in living standard of the people.

SECTION E. SUMMARY OF LOCAL STAKEHOLDER CONSULTATION

The below is a summary of the 2 step GS4GG Consultation for monitoring purposes. Please refer to the separate Stakeholder Consultation Report for a complete report on the initial consultation and stakeholder feedback round.

E.1 Summary of stakeholder mitigation measures

>>

Please refer to the registered PDD for details of stakeholder consultation conducted at the time of registration.

E.2 Final continuous input / grievance mechanism

METHOD	INCLUDE ALL DETAILS OF CHOSEN METHOD (S) SO THAT THEY MAY BE UNDERSTOOD AND, WHERE RELEVANT, USED BY READERS.
Continuous Input / Grievance Expression Process Book (mandatory)	Grievance Mechanism: Stakeholders can directly submit their complaints to the grievance mechanism using the designated channels provided by PD. These include filling out grievance register, sending emails or making phone calls. A grievance register is placed in the project site to convey grievances regarding the project activity. The comments mentioned shall be recorded in the grievance register and shall be processed.
GS Contact (mandatory)	help@goldstandard.org
Other	Phone number of the contact person is circulated along with the NTS in the stakeholder meeting and is also available in Posewadi Panchayat Bhavan. Mr. Sankaranarayanan N and his mobile number is: +91 9099005305 Email id: alpeshk.gedia@adani.com SustainCert: info@sustain-cert.com

APPENDIX 1 - SAFEGUARDING PRINCIPLES ASSESSMENT

Complete the Assessment below and copy all Mitigation Measures for each Principle into SECTION D above. Please refer to the instructions in the Guide to Completing this Form.

SOCIAL SAFEGUARDING PRINCIPLES		
Reference requirement	Question	Response
P.1 |HUMAN RIGHTS		
P.1.1.1 |	Does the project developer, its representatives and the Project disrespect internationally proclaimed human rights?	☐ YES ☒ NO
P.1.1.1 |	Is the project involved or complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights?	☐ YES ☒ NO
P.1.1.2 |	Have local communities or individuals raised human rights concerns regarding the project (e.g., during the stakeholder engagement process, grievance processes, public statements)?	☐ YES ☒ NO
P.1.1.3 |	Is there a risk that rights-holders (e.g., Project-affected stakeholders) do not have the capacity to claim their rights?	☐ YES ☒ NO
P.1.1.3 |	Does this project undermine national or regional measures for the realisation of the right to development?	☐ YES ☒ NO
If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.		
N/A		
Would the project potentially involve or lead to:		
P.1.1.1 |	adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalised groups?	☐ YES ☐ POTENTIALLY ☒ NO
P.1.1.2 |	inequitable or discriminatory impacts on affected populations, particularly people living in poverty or marginalised or excluded individuals or groups, including persons with disabilities?	☐ YES ☐ POTENTIALLY ☒ NO
P.1.1.3 |	restrictions in availability, quality of and/or access to resources or basic services, in particular to marginalised individuals or groups, including persons with disabilities?	☐ YES ☐ POTENTIALLY ☒ NO
P.1.1.3 |	exacerbation of conflicts among and/or the risk of violence to project-affected communities and individuals?	☐ YES ☐ POTENTIALLY

		☒ NO

Briefly describe below how the project incorporates a human rights-based approach.
For example, by describing how the project design:

- is informed by human rights analysis, including from UN human rights mechanisms (human rights treaty bodies, universal periodic review, special procedures)
- includes measures to assist the government to realise (respect, protect and fulfil) human rights under international law and to implement human rights-related standards in national law (whichever is higher)
- enhances the availability, accessibility and quality of benefits and services for potentially marginalised individuals and groups, and to increase their inclusion in decision-making processes that may impact them (consistent with the non-discrimination and equality human rights principle)
- provides reasonable accommodations to strengthen inclusivity and accessibility of project benefits and services to persons with disabilities.

The Project is not in conflict with the economic livelihood or other issues of the local community. Thus, the Project does not cause any human rights abuse and respects internationally proclaimed human rights issue.

Project activities are not expected to cause any human rights abuse. As a member of United Nations[15] and part of UN Agreement on Human Rights[16], it is ensured by law in India that no action can be taken against human rights. The Human Rights Policy[17] also states that the PP will embrace the diversity of individuals, always treat one another with dignity and respect, and not engage in any acts of direct or indirect discrimination based on protected characteristics; Also, will take action when others engage in conduct that violates this policy.

The project has not and will not employ any personnel based on gender, race, religion, sexual orientation, or any other basis. As the Constitution of the host country prohibits discrimination on the basis of a person's race, sex, religion, place of birth, or social status.

The host country has signed the Convention 100 (equal remuneration) and convention 111 (discrimination in employment /occupation) under the ILO Declaration on Fundamental Principles and rights.

P.2 |GENDER EQUALITY AND WOMEN'S EMPOWERMENT

P.2.1.1 |	Have women's groups/leaders raised gender equality concerns regarding the project, (e.g., during the stakeholder engagement process, grievance processes, public statements)?	☐ YES ☒ NO

[15] https://labour.gov.in/lcandilasdivision/india-ilo

[16] https://www.ilo.org/newdelhi/lang--en/index.htm

[17] https://www.mha.gov.in/sites/default/files/Protection%20of%20HR%20Act1993_0.pdf

P.2.1.2 |	Does the project undermine the principles of non-discrimination, equal treatment, and equal pay for equal work?	☐ YES ☒ NO
P.2.1.2 |	Does the project prevent men and women from having equal opportunities to participate in identified tasks and activities, whether through paid work, volunteer work, or community contributions, as appropriate?	☐ YES ☒ NO
P.2.1.2 |	Does the project limit the participation of women or men based on pregnancy, maternity/paternity leave, or marital status?	☐ YES ☒ NO
P.2.1.2 |	Is information about project objectives being communicated in a way that is inappropriate for the local context and not tailored to the methods of understanding of both women and men, which could hinder their participation?	☐ YES ☒ NO
P.2.1.3 |	Has the project assessed gender risks without referencing the country's gender strategy or equivalent national commitment?	☐ YES ☒ NO
P.2.1.4 |	Has expert stakeholder(s) been involved, and has their input been requested for the project design on gender equality and women's empowerment?	☐ YES ☒ NO
If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.		
N/A		
Would the project potentially involve or lead to:		
P.2.1.1 |	adverse impacts on gender equality and/or the situation of women and girls?	☐ YES ☐ POTENTIALLY ☒ NO
P.2.1.1 |	exacerbation of risks of gender-based violence? For example, through the influx of workers to a community, changes in community and household power dynamics, increased exposure to unsafe public places and/or transport, etc.	☐ YES ☐ POTENTIALLY ☒ NO
P.2.1.2 |	reproducing discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	☐ YES ☐ POTENTIALLY ☒ NO
P.2.1.2 |	limitations on women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well-being.	☐ YES ☐ POTENTIALLY ☒ NO
Briefly describe below how the project is addressing any identified risk to gender equality and women's empowerment.		

The principle of gender equality[18] is enshrined in the Indian Constitution in its Preamble, Fundamental Rights, Fundamental Duties and Directive Principles. The Constitution not only grants equality to women, but also empowers the State to adopt measures of positive discrimination in favor of women. The project activity is in line with the strategy of elimination of discrimination.

P.3 |COMMUNITY HEALTH AND SAFETY

P.3.1.1 |	Does the project involve potential risks to the health and safety of affected communities during its life cycle?	☐ YES ☒ NO
P.3.1.2 |	Does the project involve any potential risks to the workers' safety and health?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

The project is in compliance with all relevant local and national laws. The Project does not threaten human health or the environment and does not adversely affect the health of the workers and the community.
The project proponent is committed to the employee's workplace health & safety during all phases of the project.
The company ensures to provide safe and healthy workplaces for employees and protect the safety of the communities. All employees will attend health & safety training. This is issued in the Labor code on Occupational Safety, Health and Working Conditions and UN Agreement on Human Rights[19].

Would the project potentially involve or lead to:

P.3.1.1 |	construction and/or infrastructure development (e.g., roads, buildings, dams)?	☐ YES ☒ NO
P.3.1.2 |	air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation?	☐ YES ☐ POTENTIALLY ☒ NO
P.3.1.2 |	harm or losses due to failure of structural elements of the project (e.g., collapse of buildings or infrastructure)?	☐ YES ☐ POTENTIALLY ☒ NO
P.3.1.2 |	risks of water-borne or other vector-borne diseases (e.g., temporary breeding habitats), communicable and noncommunicable diseases, nutritional disorders, mental health?	☐ YES ☐ POTENTIALLY ☒ NO

[18] https://wcd.nic.in/womendevelopment/national-policy-women-empowerment
[19] https://www.ohchr.org/EN/Countries/AsiaRegion/Pages/INIndex.aspx

P.3.1.2 |	transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g., explosives, fuel and other chemicals during construction and operation)?	☐ YES ☐ POTENTIALLY ☒ NO
P.3.1.2 |	adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g., food, surface water purification, natural buffers from flooding)?	☐ YES ☐ POTENTIALLY ☒ NO

Briefly describe below how the project is addressing any identified risk related to community health and safety.

The project is already commissioned and in operation therefore there is no requirements for further construction and/or infrastructure development. And since it is a solar project therefore it will not adversely affect any air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation. Also, *Measures to control vector-borne diseases, such as monitoring and mitigation of breeding habitats, are in place.*

Since the project activity is a solar plant, it does transport*, store, and use and/or dispose hazardous or dangerous materials.*

The project is designed to minimize adverse impacts on local ecosystems, preserving ecosystem services vital to community health. All of these has been conformed in the ESIA report of the Plant.

P.4 |CULTURAL HERITAGE, INDIGENOUS PEOPLE, DISPLACEMENT AND RESETTLEMENT

P.4.1 |Sites of Cultural and Historical Heritage

P.4.1.1 |	Does the project involve altering, damaging, or removing sites, objects, or structures of significant cultural heritage?	☐ YES ☒ NO

If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

N/A

Would the project potentially involve or lead to:

P.4.1.1 |	activities adjacent to or within a cultural heritage site?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.1.1 |	significant excavations, demolitions, movement of earth, flooding or other environmental changes?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.1.1 |	alterations to landscapes and natural features with cultural significance?	☐ YES ☐ POTENTIALLY ☒ NO

P.4.1.1 |	adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g., knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	☐ YES ☐ POTENTIALLY ☒ NO
P.4.1.2 |	utilisation of tangible and/or intangible forms (e.g., practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.1.2 |	If answer to question above is “YES” or “POTENTIALLY” - are the communities made aware of their right under the law, scope and nature of proposed development and its potential consequences?	☐ YES ☐ NO ☒ NA
P.4.1.3 |	If answer to question above is “YES” - does the project provide equitable sharing of benefits from commercialisation of such knowledge, innovation, or practice, consistent with their customs and traditions?	☐ YES ☐ NO ☒ NA
P.4.1.4 |	If answer to question above is “YES” - are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
P.4.1.4 |	If answer to question above is “YES”, has project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

The project does not alter, damage or remove any cultural heritage. As per the list of cultural heritage sites in India by UNESCO[20], it is clear that the project site is not a cultural heritage site.

P.4.2 |*Forced Eviction and Displacement*

P.4.2.1 |	Does the project involve any risks related to involuntary relocation of people?	☐ YES ☒ NO

If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.

N/A
The project does not involve and is not complicit in involuntary resettlement of peoples in any way. The Project Developer has also obtained all necessary clearances from nodal agencies and NOCs from all the Gram Panchayats for establishing the project.

[20] https://whc.unesco.org/en/statesparties/in

Would the project potentially involve or lead to:		
P.4.2.1 |	risk of forced evictions or involuntary relocation of people?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.2.2 |	temporary or permanent and full or partial physical displacement (including people without legally recognisable claims to land)?	☐ YES ☐ POTENTIALLY ☐ NO
P.4.2.2 |	economic displacement (e.g., loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.2.2 |	If answer to question above is “YES” or “POTENTIALLY”, - has the project developed Resettlement Action Plan or Livelihood Action Plan in consultation and agreement with affected individual, group or community? - has the project integrated Resettlement Action Plan or Livelihood Action Plan into the Project design?	☐ YES ☐ NO ☒ NA
P.4.2.3 |	If answer to question above is “YES” - are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
P.4.2.3 |	If answer to question above is “YES”, have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA
If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
N/A		
P.4.3 |LAND TENURE AND OTHER RIGHTS		
P.4.3.1 |	Does the project involve any risks related to identifying and managing legitimate tenure rights that may be affected by the project?	☐ YES ☒ NO
If the answer to question above is "yes," please explain the reason and how the project will ensure compliance with applicable requirements.		
N/A		
Would the project potentially involve or lead to:		
P.4.3.1 |	impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?	☐ YES ☐ POTENTIALLY ☒ NO

P.4.3.1 |	uncertainties with regards to land tenure, access rights, usage rights or land ownership? Examples include, but are not limited to water access rights, community-based property rights and customary rights.	☐ YES ☐ POTENTIALLY ☒ NO
P.4.3.2 |	Changes in legal arrangements, if yes, are the changes done in line with relevant laws and regulations?	☐ YES ☐ NO ☒ NA
P.4.3.2 |	Changes in legal arrangements, if yes, are these changes agree with free, prior and informed consent of the involved stakeholders?	☐ YES ☐ NO ☒ NA
P.4.3.3 |	Does some other entity (other than the project developer) hold uncontested land title for the entire Project Boundary?	☐ YES ☐ NO ☒ NA
P.4.3.4 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
P.4.3.4 |	If answer to question above is “YES”, have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA
P.4.3.5 |	Have project developer in consultation with stakeholders established a functioning mechanism to receive, process, resolve, communicate and record grievances?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

N/A

P.4.4 |INDIGENOUS PEOPLES

P.4.4.1 |	Does the project involve Indigenous People within the Project area of influence who may be affected directly or indirectly by the Project?	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

N/A

Would the project potentially involve or lead to:

P.4.4.1 |	affect areas where indigenous peoples are present (including project area of influence)	☐ YES ☐ POTENTIALLY ☒ NO
P.4.4.1 |	affect areas, land and territory claimed by indigenous peoples?	☐ YES ☐ POTENTIALLY ☒ NO

P.4.4.1 |	impacts (positive or negative) to the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples?	☐ YES ☐ POTENTIALLY ☐ NO
P.4.4.7 |	If answer to above questions is ''YES'' or "POTENTIALLY", - Is it determined that the proposed project may affect the rights, lands, resources, or territories of indigenous people? - Has an "Indigenous People Plan" (IPP) or "Indigenous People Plan Framework" been elaborated and included in the project documentation? - Was the plan developed in accordance with the effective and meaningful participation of indigenous peoples and in accordance with UNDP Guidelines?	☐ YES ☐ NO ☒ NA
P.4.4.3 |	risk of forcibly removing indigenous people from their lands and territories?	☐ YES ☐ POTENTIALLY ☒ NO
P.4.4.4 |	utilisation and/or commercial development of natural resources on lands and territories claimed by indigenous peoples? Consider, and where appropriate ensure, consistency with the answers under Principle 4.1 above	☐ YES ☐ POTENTIALLY ☒ NO
P.4.4.5 | P.4.4.6 |	If answer to question above is "YES" or "POTENTIALLY" - Did the project obtain free, prior and informed consent from indigenous people before taking their cultural, intellectual, religious, and/or spiritual property? - Does the project ensure that the indigenous people receive an equitable sharing of benefits resulting from the use of their traditional knowledge and practices? - Does the project ensure that the sharing of benefits resulting from the use of indigenous peoples' traditional knowledge and practices is culturally appropriate and inclusive? - Does the project ensure that the provision of equitable sharing of benefits does not impede land rights or equal access to basic services including health services, clean water, energy, education, safe and decent working conditions, and housing?	☐ YES ☐ NO ☒ NA
P.4.4.8 |	Does the project lack appropriate feedback and grievance channels for Indigenous Peoples and their representatives?	☐ YES ☐ NO ☒ NA

P.4.4.8 |	Has a grievance mechanism not been established at the beginning of programme or project implementation with due consideration given to customary dispute settlement mechanisms among the Indigenous Peoples concerned and will it remain operational throughout the project cycle?	☐ YES ☐ NO ☒ NA
P.4.4.9 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
P.4.4.9 |	If answer to question above is “YES”, have project design been changed, modified, updated considering opinions and recommendations of an Expert Stakeholder?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

N/A
The project is a solar power project, and it is not located on land/territory claimed by any indigenous peoples.

P.5 |CORRUPTION

P.5.1.1 |	Does the project involve, or is it complicit in, contributing to or reinforcing corruption or corrupt projects?	☐ YES ☒ NO
P.5.1.1 |	Does the project have a risk of encouraging bribery, kickbacks, or other unethical behavior?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

N/A
The project is renewable energy technology and does not contribute to or reinforce corruption of any kind. The consequences for violating Anti-Corruption Laws can be severe, including significant fines, imprisonment and loss of reputation and business.

ECONOMIC SAFEGUARDING PRINCIPLES

P.6 |ECONOMIC IMPACTS

P.6.1 |LABOUR RIGHTS AND WORKING CONDITIONS

P.6.1.1 |	Does the project involve, facilitate, or condone forced labor, or pose a potential risk of forced labor?	☐ YES ☒ NO
P.6.1.1 |	Does the project violate any labor or health and safety laws, international obligations, or ILO conventions?	☐ YES ☒ NO
P.6.1.2 |	Does the project violate the principles of equal opportunity and fair treatment in its employment decisions?	☐ YES ☒ NO

P.6.1.3 |	Does the project violate national laws, if available regarding non-discrimination in employment?	☐ YES ☐ NO
P.6.1.4 | P.6.1.5 |	Does the project allow child labor?	☐ YES ☒ NO
P.6.1.7 | P.6.1.8 |	Does the project have insufficient processes and measures in place to ensure the safety and health of project workers?	☐ YES ☒ NO
P.6.1.9 |	Does the project have insufficient measures to safeguard and support vulnerable project workers, such as women, people with disabilities, migrant workers, and young workers, and to prevent any kind of harassment, abuse, bullying, or exploitation, including gender-based violence (GBV)?	☐ YES ☒ NO
P.6.1.10 |	Does the project have no grievance mechanism available for workers to voice workplace concerns? Is information about this mechanism not provided to workers at the time of recruitment, or is it not easily accessible?	☐ YES ☒ NO
If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
N/A		
Would the project potentially involve or lead to: (NOTE: APPLIES TO BOTH PROJECT AND CONTRACTOR WORKERS)		
P.6.1.1 |	use of forced labour?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.1 |	working conditions that do not meet national labour laws and international commitments?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.1 |	working conditions that may deny freedom of association and collective bargaining?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.1 |	absence of documented working agreements with all individual workers *if such agreements do not exist, or do not address working conditions and terms of employment, the project developer shall provide reasonable working conditions and terms of employment.*	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.1 |	use of migrant workers? *if engaged, the developer shall ensure that they are engaged substantially equivalent terms and conditions to non-migrant workers carrying out similar work.*	☐ YES ☐ POTENTIALLY ☒ NO

P.6.1.1 |	having no arrangements for basic services[21] for workers? *the project developer shall put in place and implement policies on the quality and management of the accommodation and provision of basic services in a manner consistent with the principles of non-discrimination and equal opportunity. Workers' accommodation arrangements should not restrict workers' freedom of movement or of association*	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.2 |	any form of discrimination or harassment based on factors unrelated to job requirements, such as gender, race, nationality, ethnicity, social or indigenous origin, religion or belief, disability, age, or sexual orientation?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.2 |	any form of discrimination in any aspect of employment, such as recruitment, compensation, working conditions, training, job assignment, promotion, termination, or discipline?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.2 |	harassment, intimidation, and/or exploitation, especially in regard to women?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.3 |	discriminatory working conditions and/or lack of equal opportunity where national law provides provision to address non-discrimination in employment?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.4 |	use of child labour? (including third-party engaged workers)	☐ YES ☐ POTENTIALLY ☒ NO
P.6.1.4 |	inadequate and verifiable mechanisms for age verification?	☐ YES ☒ NO
P.6.1.7 |	no processes and measures in place for the safety and health of project workers?	☐ YES ☒ NO
P.6.1.7 |	No provision of safety and health training provisions, including on the proper use and maintenance of personal protective equipment conducted by competent persons and the maintenance of training records?	☐ YES ☒ NO
P.6.1.7 |	No provision to record and document accidents, diseases, incidents, and any resulting injuries, illnesses, or deaths?	☐ YES ☒ NO

[21] Basic services requirements refer to minimum space, supply of water, adequate sewage and garbage disposal system, appropriate protection against heat, cold, damp, noise, fire, and disease-carrying animals, adequate sanitary and washing facilities, ventilation, cooking and storage facilities and natural and artificial lighting, and in some cases basic medical services.

P.6.1.8 |	occupational health and safety risks due to physical, chemical, biological and psychosocial hazards (including violence and harassment) throughout the project life-cycle?	☐ YES ☒ NO
P.6.1.9 |	No measures to protect vulnerable project workers from harassment, exploitation, and gender-based violence (GBV)? This includes women, people with disabilities, migrant workers, and young workers.	☐ YES ☒ NO
P.6.1.10 |	No grievance mechanism available for workers to voice workplace concerns.	☐ YES ☒ NO
P.6.1.11 |	No measures for due diligence and the establishment of policies and procedures to manage and monitor the performance of third-party employees in the project?	☐ YES ☒ NO

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

The project proponent is committed to the employee's workplace health & safety during all phases of the project. All employees will attend health & safety trainings. This is issued in the Labour code on Occupational Safety, Health and Working Conditions and UN Agreement on Human Rights[22].

The project respects fundamental right of employee. There is law in India since 1926 by The Trade Unions Act, 192623 which protects rights of industrial trade unions and their members. PP and appointed contractors will not involve in any form of forced or compulsory labor. India has ratified ILO "C029 – Forced Labor Convention"[24]

The working agreements with all individual workers are available which contains the guidelines that define how employees work, and the working environment to feel safe and free to learn, explore and discover. The project follows factory act 1948[25] and national labour law26s which ensures all points 3(a) to 3(f) are followed by the project.

The notice at every site is displayed containing abstract of sections 3 A & 14 of The Child and Adolescent Labour (Prohibition and Regulation) Act, 1986.27

[22] https://www.ohchr.org/EN/Countries/AsiaRegion/Pages/INIndex.aspx

[23] http://ncw.nic.in/acts/TheTradeUnionsAct1926.pdf

[24] https://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:102691

[25] https://labour.gov.in/sites/default/files/Factories_Act_1948.pdf

[26] https://labour.gov.in/sites/default/files/INDUSTRIALEMPLOYMENT(STANDINGORDERS)1CENTRALRULES1946.pdf

[27] The notice displayed containing abstract of sections 3 A & 14 of The Child and Adolescent Labour (Prohibition and Regulation) Act, 1986 is submitted to the VVB

The project owner is committed to safe and healthy working conditions all phases of the project. All employees will attend training courses in health & safety. This issue is protected by Labor code[28] and UN Agreement on Human Rights[29].

P.6.2	NEGATIVE ECONOMIC CONSEQUENCES	
P.6.2.1 |	Is there a risk of project failure during implementation or after project certification due to a lack of financial resources?	☐ YES ☒ NO
P.6.2.2 |	Does the project have potential negative impacts or pose a risk to the local economy?	☐ YES ☒ NO
P.6.2.2 |	Are there any potential risks or negative impacts this project may have on vulnerable or marginalised social groups, despite the benefits it may bring?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

N/A

Financial Sustainability of the project has been discussed under Section B.5 of the registered PDD. The calculations are for the entire life of the project.

There are no negative economic impacts or potential risks to the local economy due to the project activity.

Would the project involve or lead to:

P.6.2.2 |	economic impacts (negative/detrimental) to the local economy?	☐ YES ☐ POTENTIALLY ☒ NO
P.6.2.2 |	negative economic consequences during and after project implementation, e.g., for vulnerable and marginalised social groups in targeted communities?	☐ YES ☐ POTENTIALLY ☒ NO

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

N/A

[28] https://www.ohchr.org/EN/Countries/AsiaRegion/Pages/INIndex.aspx

[29] https://www.ohchr.org/EN/Countries/AsiaRegion/Pages/INIndex.aspx

P.7 |CLIMATE AND ENERGY

P.7.1 |GHG EMISSIONS

P.7.1.1 |	Does the project have a risk of increasing greenhouse gas emissions over the Baseline Scenario?	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

N/A.
The project is a solar plant, and it does not emit greenhouse gases.

Would the project involve or lead to:

P.7.1.1 |	increase greenhouse gas emissions over the Baseline Scenario?	☐ YES ☐ POTENTIALLY ☒ NO

If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

N/A

P.7.2 |ENERGY SUPPLY

P.7.2.1 |	Does the project pose a risk to the availability and reliability of energy supply to other users?	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

N/A

Would the project involve or lead to:

P.7.2.1 |	negative impact on the availability and reliability of energy supply to other users?	☐ YES ☐ POTENTIALLY ☒ NO

If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

N/A

P.8 |WATER

P.8.1 |IMPACT ON NATURAL WATER PATTERNS/FLOWS

P.8.1.1 |	Does the project increase water usage to a level that will not allow for the maintenance of environmental flows?	☐ YES ☒ NO

P.8.1.1 |	Does the project result in the discharge of wastewater that does not meet the required standard for beneficial reuse and could therefore negatively impact the environmental flow?	☐ YES ☒ NO
P.8.1.1 |	Does the project have the potential risk to exceed the rate of recharge for the groundwater source?	☐ YES ☒ NO
P.8.1.1 |	Does the project involve any processes or activities that could contaminate the groundwater and render it unsuitable for use?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

N/A
The project being a solar power project will not have any such impacts.

Would the project involve or lead to:

P.8.1.1 |	affect the natural or pre-existing pattern of watercourses, groundwater and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?	☐ YES ☐ POTENTIALLY ☒ NO
P.8.1.1 |	Wastewater discharge of quality that does not meet the required standard for beneficial reuse?	☐ YES ☐ POTENTIALLY ☒ NO
P.8.1.1 |	significant extraction, diversion of ground water? For example, construction of dams, reservoirs, river basin developments, groundwater extraction	☐ YES ☐ POTENTIALLY ☒ NO
P.8.1.2 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

N/A
The project being a solar power project will not have any such impacts.

P.8.2 |EROSION AND/OR WATER BODY INSTABILITY

P.8.2.1 |	Does the project have a risk of negatively impacting the catchment and has it been assessed and addressed?	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

N/A
The Project activity has no effect on soil conditions because it has no waste coming out.

Would the project involve or lead to:

P.8.2.2 |	negatively impact on the catchment area?	☐ YES

- P.8.2.5 |	*If yes, Erosion prevention measures, including soil and slope protection measures, must be implemented before project commencement. These measures should involve natural terracing, infiltration strips, permanent ground cover, hedge and tree rows, and effective slope length assessment. Regular reassessment of these measures is necessary.*	☐ POTENTIALLY ☒ NO
P.8.2.6 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

N/A

P.9 |ENVIRONMENT, ECOLOGY AND LAND USE

P.9.1 |LANDSCAPE MODIFICATION AND SOIL

P.9.1.1 | - P.9.1.3 |	Is there any risk of soil resource degradation or loss of ecosystem services provided by soils in the project? *If yes, the project shall maintain healthy soils by minimising negative impacts on soil health, productivity, structure, and water retention. Steps to minimise soil degradation include crop rotation, composting, using N-fixing plants, and reducing tillage and ecologically harmful substances.*	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

N/A

Would the project involve or lead to:

P.9.1.4 |	production, harvesting, and/or management of living natural resources by small-scale landholders and/or local communities?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.1.4 |	if answer to above question “yes” or “potentially”, does project adopt appropriate and culturally sensitive sustainable resource management practices?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

N/A *The Project activity has no effect on soil conditions because it has no waste coming out. The project area is not susceptible to excessive erosion or water body instability.*

P.9.2 |VULNERABILITY TO NATURAL DISASTER

P.9.2.1 |	Does the project have any risks associated with natural or man-made hazards that could result from land use changes due to the project?	☐ YES ☒ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

N/A *The Project will not be susceptible to or lead to increased vulnerability to solar, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions.*

Would the project involve or lead to:

P.9.2.2 |	any potential risks that require emergency preparedness and response planning?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.2.2 |	if answer to above question “yes” or “potentially”, did the project developer disclose appropriate information about emergency preparedness and response to affected communities?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

N/A

P.9.3 |BIOSAFETY AND GENETIC RESOURCES

P.9.3.1 |	Does the project involve the transfer, handling, and use of genetically modified organisms/living modified organisms that may result in adverse effects on biological diversity?	☐ YES ☐ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

N/A *The project does not have any impact by the use of GMOs.*

Would the project involve or lead to:

P.9.3.1 |	the transfer, handling and use of genetically modified organisms/living modified organisms (GMOs/LMOs) that result from modern biotechnology	☐ YES ☐ POTENTIALLY ☒ NO
P.9.3.1 |	If answer to above question is “yes” has a risk assessment by a competent Expert stakeholder been carried out in	☐ YES ☐ NO

	accordance with Annex iii of the Cartagena protocol on biosafety to the convention on biological diversity?	☒ NA
P.9.3.2 |	If answer to above question is “yes” has any risks identified in the risk assessment?	☐ YES ☐ NO ☒ NA
P.9.3.3 |	Forestry (for example Afforestation/Reforestation) involving GMO planting? *Note - Forestry projects (for example Afforestation/ Reforestation) involving GMO planting are not eligible for Certification under Gold Standard for the Global Goals.*	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

N/A

Since it is a solar project there is no involvement for the transfer, handling, and use of genetically modified organisms/living modified organism

P.9.4 |RELEASE OF POLLUTANTS

P.9.4.1 |	Does the project have a risk of releasing pollutants to air, water, and land in routine, non-routine, or accidental circumstances?	☐ YES ☐ NO

If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

N/A

Being a solar power project activity, it falls under the list of White category projects declared by Central Pollution Control Board of India, Govt of India. This means project activity does not potentially result in release of pollutants to the environment.

Would the project involve or lead to:

P.9.4.1 |	any potential risk of pollutant release that cannot be avoided?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.4.3 |	If answer to above question is “Yes” or “potentially”, has the project identified all potential pollution sources that may degrade the quality of soil, air, surface, and groundwater in the project area?	☐ YES ☐ NO ☒ NA
P.9.4.2 |	If answer to above question is “Yes” or “potentially”, do the pollution prevention and control technologies and practices applied during the project life cycle align with national regulations or international best practices?	☐ YES ☐ NO ☒ NA

P.9.4.3 |	If answer to above question is “Yes”, is there a monitoring plan to ensure that mitigation measures are implemented, and resources are protected?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

N/A

P.9.5 |HAZARDOUS AND NON-HAZARDOUS WASTE

P.9.5.1 |	Does the project involve the generation of waste materials (both hazardous and non-hazardous)?	☐ YES ☒ NO
P.9.5.3 |	Does the project involve risk of release of hazardous materials resulting from their production, transportation, handling, storage, or use?	☐ YES ☒ NO
P.9.5.5 |	Does the project involve the use of any chemicals or materials subject to international bans or phase-outs?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

N/A
The project is renewable energy technology. The project does not involve generation of Hazardous and Non-hazardous Waste.
Standard procedure is followed at site during operation and maintenance.

Would the project involve or lead to:

P.9.5.1 |	the generation and management of waste materials?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.5.1 |	treatment, destruction, or disposal of waste material?	☐ YES ☐ NO ☒ NA
P.9.5.1 |	If answer to above question is “Yes”, does the project involve an environmentally friendly method that includes appropriate control of emissions and residues resulting from the handling and processing of waste material?	☐ YES ☐ NO ☒ NA
P.9.5.3 |	risk of release of hazardous materials resulting from their production, transportation, handling, storage, or use?	☐ YES ☐ NO ☒ NA
P.9.5.3 |	If answer to above question is "yes”, does project has measures in place to address health risks?	☐ YES ☐ NO ☒ NA
P.9.5.4 |	Involve manufacture, trade, and use of chemicals and hazardous materials subject to international bans or phase-outs due to their high toxicity to living organisms,	☐ YES ☐ POTENTIALLY ☒ NO

	environmental persistence, potential for bioaccumulation, or potential for depletion of the ozone layer	

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

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P.9.6 |PESTICIDES & FERTILISERS

P.9.6.1 |	Does the project involve the use of chemical pesticides?	☐ YES ☒ NO
P.9.6.5 |	Does the project involve purchase, store, manufacture, trade or use products that fall in Classes IA (extremely hazardous) and IB (highly hazardous)	☐ YES ☒ NO
P.9.6.6 |	Does the project use fertilisers, and if so, are measures being taken to minimise their use and nutrient losses to the environment?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

The Project does not involve the application of pesticides and/or fertilizers.

Would the project involve or lead to:

P.9.6.1 |	chemical pesticides use for pest management?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.6.4 |	If answer to question above is “yes” or “potentially”, does project has documented Chemical Pesticides Policy in place?	☐ YES ☐ NO ☒ NA
P.9.6.5 |	purchase, store, use, manufacture, or trade in Class II (moderately hazardous) pesticides?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.6.5 |	If answer to question above is “yes” or “potentially”, does project has appropriate controls on manufacture, procurement, or distribution and/or use of these chemicals?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above questions, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Please add text here….

P.9.7 |HARVESTING OF FORESTS

P.9.7.1 |	Does the project have a risk of unsustainable forest management, including timber harvesting?	☐ YES ☒ NO

P.9.7.1 |	Does the project pose a risk of depleting biodiversity and ecosystem functionality in areas where improved forest management is undertaken?	☐ YES ☒ NO
P.9.7.1 |	Does the project risk not meeting requirements for environment-friendly, socially beneficial, and economically viable plantations using native species whenever possible?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

The Project does not involve the harvesting of forests since it is a solar plant that has been setup in barren lands.

P.9.8 |FOOD SECURITY

P.9.8.1 |	Does the project involve the risk of negatively influencing access to and availability of food for people affected?	☐ YES ☒ NO

If the answer to the question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

The Project does not have any impact on the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives.

Would the project involve or lead to:

P.9.8.1 |	modification of the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	☐ YES ☐ POTENTIALLY ☒ NO

If the answer is "yes" or "potentially" to the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Please add text here….

P.9.9 | ANIMAL WELFARE

P.9.9.1 |	Does the project involve any risks to animal welfare? Animal welfare shall be ensured by providing access to water and food, appropriate environment, humane treatment, and staff training. Evidence of mistreatment will be treated as an immediate non-conformity.	☐ YES ☒ NO
P.9.9.2 |	Does the project involve any potential risk of excessive or inadequate use of veterinary medicines?	☐ YES ☒ NO
P.9.9.4 |	Does the project involve the risk of administering synthetic growth promoters, including hormones?	☐ YES ☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

N/A

Would the project involve or lead to:

P.9.9.1 |	animal husbandry or harvesting of fish populations or other aquatic species?[30]	☐ YES ☐ NO ☒ NA
P.9.9.1 |	limiting access for animals to basic needs like drinking water, adequate food, daylight, appropriate shelter etc.?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.9.3 |	inadequate measures to isolate sick animals and control the spread of disease, especially zoonotic diseases?	☐ YES ☐ NO ☒ NA
P.9.9.5 |	inadequate low-stress methods, equipment, and facilities that facilitate calm animal movement.	☐ YES ☐ NO ☒ NA
P.9.9.6 |	inadequate measures to ensure that animals are exposed to the least stress possible during transportation and slaughtering?	☐ YES ☐ NO ☒ NA
P.9.9.7 |	inappropriate spacing per animal and stocking rates per land unit?	☐ YES ☐ NO ☒ NA
P.9.9.8 |	inadequate measures to address the specific needs of aquatic animals?	☐ YES ☐ NO ☒ NA
P.9.9.9 | P.9.9.10 |	primary production of living natural resources such as animal husbandry, aquaculture, and fisheries? If the answer is yes, implement industry-standard sustainable management practices in line with to one or more relevant and credible standards and utilise available technologies.	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

The Project will not involve animal husbandry.

P.9.10 |HIGH CONSERVATION VALUE AREAS AND CRITICAL HABITATS

P.9.10.1 |	Does the project have the risk of negatively impacting HCV areas and/or critical habitats?	☐ YES ☒ NO
P.9.10.2 |	Does the project in the project area or area of downstream impacts have risks to the following: native tree patches,	☐ YES

[30] 'Involve' means if the project mechanism and/or impact(s) are achieved via changing animal husbandry practices in some way.

	individual native trees, freshwater resources (including rivers, lakes, swamps, temporary water bodies, and wells), habitats of rare, threatened, and endangered species, and biodiversity-enhancing areas?	☒ NO

If the answer to any of the questions above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.

Being Solar project, it does not affect or alter largely intact or HCV ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified.

Would the project involve or lead to:

P.9.10.1 |	identified habitats as HCV areas and or Critical habitats?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.10.1 |	If answer to above question is “yes”, does the project have any risks that could negatively impact the catchment, project success, and surrounding HCV and ecological assets, as well as any measurable adverse impacts on the criteria or biodiversity values for which the critical habitat was designated, and on the ecological processes supporting that biodiversity?	☐ YES ☐ NO ☒ NA
P.9.10.1 |	If answer to above question is “yes”, is a robust, appropriately designed, and long-term Habitats and Biodiversity Action Plan absent which will make the project unable to achieve net gains of those biodiversity values for which the critical habitat was designated?	☐ YES ☐ NO ☒ N/A
P.9.10.2 |	Does the project area or area of downstream impacts have native tree patches, individual native trees, freshwater resources (including rivers, lakes, swamps, temporary water bodies, and wells), habitats of rare, threatened, and endangered species, and biodiversity-enhancing areas?	☐ YES ☐ POTENTIALLY ☒ NO
P.9.10.2 |	If the answer to the above question is “yes”, will the project have any adverse effects on these areas?	☐ YES ☐ No ☒ NA
P.9.10.3 |	If the answer to above question is “yes”, does the project has opportunities to minimise unwarranted conversion or degradation of the habitat and to enhance the habitat as part of its development?	☐ YES ☐ No ☒ NA
P.9.10.4 |	Is the project applying Land Use & Forest Activity Requirements and managing a minimum 10% of the project area to protect or enhance the biological diversity of native ecosystems following HCV approach as per the given requirements?	☐ YES ☐ No ☒ NA
P.9.10.5 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA

If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

Please add text here….

P.9.11 |ENDANGERED SPECIES		
P.9.11.1 |	Does the project lead to the reduction or negative impact on any recognised Endangered, Vulnerable or Critically Endangered species?	☐ YES ☒ NO
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
There are no endangered species identified as potentially being present within the Project boundary. The Project does not impact other areas where endangered species may be present through transboundary affects.		
Would the project involve or lead to:		
P.9.11.2 |	distortion of habitats of endangered species?	☐ YES ☐ POTENTIALLY ☒ NA
P.9.11.2 |	If answer to the above question is “yes”, does the project plan to protect and enhance them?	☐ YES ☐ POTENTIALLY ☐ NO ☒ N/A
P.9.11.2 |	Are opinions and recommendations of an Expert Stakeholder(s) not sought and demonstrated as being included in the project design?	☐ YES ☐ NO ☒ NA
If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.		
Please add text here….		
P.9.12 |INVASIVE ALIEN SPECIES		
P.9.12.1 |	Does project introduce any alien species (not currently established in the country or region of the project) into new environments?	☐ YES ☒ NO
If the answer to question above is "yes," please explain project situation and how the project will ensure compliance with applicable requirements.		
N/A The project does not introduce any alien species into new environments. Since it is a solar plant this safeguard is not applicable.		
Would the project involve or lead to:		
P.9.12.1 |	risk of introducing any alien species with a high risk of invasive behaviour regardless of whether such introductions are permitted under the existing regulatory framework?	☐ YES ☐ POTENTIALLY ☒ NO

P.9.12.1 |	risk of potential accidental or unintended introductions including the transportation of substrates and vectors (such as soil, ballast, and plant materials) that may harbour alien species.	☐ YES ☐ POTENTIALLY ☒ NO
P.9.12.2 |	risk of spreading alien species into areas in which they have not already been established?	☐ YES ☐ POTENTIALLY ☒ NO

If the answer is "yes" or "potentially" to any of the above question, please provide a brief description of the project situation below. Also, provide justification and/or evidence as necessary to demonstrate compliance with applicable requirements.

N/A

APPENDIX 2 - CONTACT INFORMATION OF PROJECT DEVELOPER(S)

Organization name	Ramnad Solar Power Limited
Registration number with relevant authority	U40106GJ2015PLC083404
Street/P.O. Box	Judges Bunglow Road, Bodakdev
Building	Sambhav Press Building
City	Ahmedabad
State/Region	Gujarat
Postcode	380054
Country	India
Telephone	+91 79 2555 7429
E-mail	-
Website	http://www.adanigreenenergy.com/
Contact person	Alpesh Gediya
Title	Manager - ERCG
Salutation	-
Last name	Gediya
Middle name	
First name	Alpesh
Department	ERCG
Mobile	-
Direct tel.	-
Personal e-mail	alpeshk.gedia@adani.com

APPENDIX 3 -LUF ADDITIONAL INFORMATION

>> Not applicable since this is not a LUF project.

APPENDIX 4 - DESIGN CHANGES

A4.1. Details of proposed or actual design change

>> The project has not gone through a design change therefore this section is not applicable.

A4.2. Describe the impacts of design change on the following

a. Additionality

>>NA

b. Applicability of methodology and other methodological regulatory documents with which the project activity has been certified

>>NA

c. Compliance with the monitoring plan of the applied methodology

>>NA

d. Level of accuracy and completeness in the monitoring of the project activity compared with the requirements contained in the registered monitoring plan

>>NA

e. Scale of the project activity

>> NA

f. Stakeholder consultation

>> NA

g. Sustainable development criteria

>> NA

h. Safeguarding assessment

>> NA

i. Compliance with applicable legislation

>> NA

j. <u>Only for LUF Projects</u>: Transparent summary of all approved changes in Project Area, Eligible Area and accompanying changes in ex-ante emissions removals.

DATE OF APPROVED DESIGN CHANGE (MM/DD/YYYY)	PROJECT AREA (HA)		ELIGIBLE AREA (HA)		EX-ANTE ESTIMATE (TCO2E)	
	INCREASE OR DECREASE ?	VALUE (HA)	INCREASE OR DECREASE?	VALUE (HA)	INCREASE OR DECREASE ?	PERCENTAGE (%)
NA	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*

Revision History

Version	Date	Remarks
1.5	29 June 2023	Editorial changes to match V2.1 of the Safeguarding Principles Requirements
1.4	21 June 2023	Editorial changes to match V2.0 of the Safeguarding Principles Requirements
1.3	14 April 2023	Integrated the design change memo as annex of the document. Editorial changes
1.2	14 October 2020	Hyperlinked section summary to enable quick access to key sections Improved clarity on Key Project Information Inclusion criteria table added Gender sensitive requirements added Prior consideration (1 yr rule) and Ongoing Financial Need added Safeguard Principles Assessment as annex and a new section to include applicable safeguards for clarity Improved Clarity on SDG contribution/SDG Impact term used throughout Clarity on Stakeholder Consultation information required Provision of an accompanying Guide to help the user understand detailed rules and requirements
1.1	24 August 2017	Updated to include section A.8 on ‘gender sensitive’ requirements
1.0	10 July 2017	Initial adoption