المجلس العالمي للبصمة الكربونية
GLOBAL CARBON COUNCIL

Project Submission Form

V3.2 - 2020

Contents

COVER PAGE- Project Submission Form (PSF)	
BASIC INFORMATION	
Title of the Project Activity	Solar Power Project in Bikaner, Rajasthan by Avaada RJHN
PSF version number	1.0
Date of completion of this form	24/12/2021
Project Owner(s) (Shall be consistent with De-registered CDM Type B Projects)	Avaada RJHN Private Limited
Country where the Project Activity is located	India
GPS coordinates of the project site(s)	Latitude - 28°12'51.0"N to 28°15'27.0"N Longitude - 73°12'19.0"E to 73°14'27.0"E
Eligible GCC Project Type as per the Project Standard (Tick applicable project type)	☒ **Type A:** ☐ Type A1 ☒ Type A2 ☐ **Type B – De-registered CDM Projects:**[1] ☐ Type B1 ☐ Type B2

[1] Owners of Type B projects shall fill in the form provided in Appendix 7.

Minimum compliance requirements	☒ Real and Measurable GHG Reductions ☒ National Sustainable Development Criteria (if any) ☒ Apply credible baseline and monitoring methodologies ☒ Additionality ☒ Local Stakeholder Consultation Process ☒ Global Stakeholder Consultation Process ☒ No GHG Double Counting ☒ Contributes to United Nations Sustainable Development Goal 13 (Climate Action)
Choose optional and additional requirements (Tick applicable label categories)	☒ Do-no-net-harm Safeguards to address Environmental Impacts ☒ Do-no-net-harm Safeguards to address Social Impacts ☒ Contributes to United Nations Sustainable Development Goals (in addition to Goal 13)
Applied methodologies (Shall be approved by the GCC or the CDM)	ACM0002: Grid-connected electricity generation from renewable sources --- Version 20.0[2]
GHG Sectoral scope(s) linked to the applied methodology(ies)	Sectoral Scope: 01 (Energy (renewable/non-renewable sources)

[2] https://cdm.unfccc.int/methodologies/DB/XP2LKUSA61DKUQC0PIWPGWDN8ED5PG

Applicable Rules and Requirements for Project Owners (Tick applicable Rules and Requirements)	**Rules and Requirements**		**Reference**	**Version**
	☒ ISO 14064-2			
	☒ Applicable host country legal requirements /rules			
	☒ GCC Rules and Requirements[3]	☒ Project Standard		3.1
		☐ Approved GCC Methodology (XXXXX)		
		☒ Program Definitions		3.1
		☒ Environment and Social Safeguards Standard		2.0
		☒ Project Sustainability Standard		2.1
		☒ Instructions in Project Submission Form (PSF)-template		3.2
	☒ CDM Rules[4]	☒ Approved CDM Methodology	ACM0002	20.0
		☒ Tool for the demonstration and assessment of additionality	TOOL 01	7.0.0
		☐ Combined tool to identify the baseline scenario and demonstrate additionality	TOOL 02	
		☒ Tool to calculate the emission factor for an electricity system	TOOL 07	7.0
		☐ Demonstration of additionality of microscale project activities	TOOL 19	
		☐ Demonstration of additionality of small-scale project activities	TOOL 21	
		☐ Additionality of first-of-its-kind project activities	TOOL 23	

[3] GCC Program rules and requirements: https://www.globalcarboncouncil.com/resource-centre.html
[4] CDM Program rules: https://cdm.unfccc.int/Reference/index.html

		☒ Common practice	TOOL 24	3.1
		☒ Investment analysis	TOOL 27	11.0
		☐ Positive lists of technologies	TOOL 32	
		☐ Guidelines for objective demonstration and assessment of barriers		
Choose Third Party External Project Verification by approved GCC Verifiers[5] (Tick applicable verification categories)	☒ GHG emission reductions (i.e., Approved Carbon Credits **(ACCs)**) ☒ Environmental No-net-harm Label (**E+**) ☒ Social No-net-harm Label (**S+**) ☒ United Nations Sustainable Development Goals (**SDG+**) ☐ Bronze SDG Label ☐ Silver SDG Label ☐ Gold SDG Label ☐ Platinum SDG Label ☒ Diamond SDG Label ☒ CORSIA requirements (**C+**) ☒ Host Country Attestation on Double counting			

[5] **Note:** GCC Verifiers under the Individual Track are not eligible to conduct verifications for GCC Project Activities whose owners intend to supply carbon credits (ACCs) for use within CORSIA.

Declaration to be made by the Project Owner(s)[6] (Tick all applicable statements)	The Project Owner(s) declares that: ☒ The Project Activity complies with the eligibility of the applicable project type (A1, A2, B1 or B2) as stipulated by the Project Standard. ☒ The Project Activity shall start operations, and start generating emission reductions, on or after 1 January 2016. ☒ The Project Activity is eligible to be registered under the GCC program. ☒ No carbon credits generated by the proposed Project Activity will be claimed as carbon credits in any other GHG program anywhere in the world, either for compliance or voluntary purposes, for the entire 10-year GCC crediting period. ☒ The proposed Project Activity, if Type A, is NOT registered as a GHG Project Activity in any other GHG program or any other voluntary program anywhere in the world. ☒ The proposed Project Activity is NOT included as a component Project Activity (CPA) in a registered GHG Programme of Activities (PoA) under any GHG program (such as the CDM or any other voluntary program) anywhere in the world. ☒ The proposed Project Activity is NOT a CPA that has been excluded from a registered PoA under any GHG program (such as the CDM or any other voluntary program) anywhere in the world.
	☒ If a GCC project chooses to apply to use ACCs under CORSIA, the Project Owner(s) is required to declare that they are aware that they must obtain and provide to the GCC and its Registry (operated by IHS Markit) a written attestation from the host country's national focal point (e.g., Ministry of Environment or Civil Aviation Authority) or focal point's designee, as required by CORSIA Emissions Unit Eligibility Criteria, which: ☒ Confirms the avoidance of double counting as required by CORSIA; ☒ Shall be made publicly available prior to the use of units from the host country under CORSIA; and ☒ Places all responsibility on the Project Owner(s) to replace any and all doubly claimed or counted ACCs by the host country, in the GCC registry operated by IHS Markit.
	The Project Owner(s) declares that:

[6] The "Project Owner" means the legal entity or organization that has overall control and responsibility for the Project Activity.

	☒ All of the information provided in this document, including any supporting documents submitted to the GCC or its registry operator IHS Markit at any time, is true and correct; ☒ They understand that a failure by them to provide accurate information or data, or concealing facts and information, can be considered as negligence, fraud or willful misconduct. Therefore, they are aware that they are fully responsible for any liability that arises as a result of such actions.
Appendixes 1-7	Details about the Project Activity are provided in Appendixes 1 through 7 to this document as applicable.
Name, designation, date and signature of the Project Owner(s)	**On behalf of Avaada RJHN Private Limited.**  **Signature:** Name: Atul Sanghal Designation: Business Head Authorized Representative: Emergent Ventures India Pvt. Ltd. Date: 24/12/2021

1. PROJECT SUBMISSION FORM

Section A. Description of the Project Activity

A.1. Purpose and general description of the Project Activity

>>
The purpose of project activity is to generate and feed to the connected national electricity grid of India GHG free electricity by the installation of a 240MWac solar power project. The project activity is located at Noorsar village in Bikaner Tehsil of Bikaner district in the state of Rajasthan, in India.

The project boundary includes the project site where the plant has been installed, power evacuation infrastructure including the other power stations feeding to the connected electricity grid, energy metering points, switch yards and other civil constructs.

The baseline of the project activity is continued generation of electricity in the national grid of India. The electricity generation in India is highly carbon intensive. According to the latest data from Central Electricity Authority[7] on carbon intensity of grid electricity, the combined margin emission factor of the grid electricity is **0.9346tCO2e/MWh** and therefore electricity generation from solar power project as in the project activity results into emission reductions. It is estimated that the project activity will effect a cumulative GHG emission reduction of **4,665,334 tCO2e over 10 year period** of project activity with an average of **466,533 tCO2e** GHG emission reduction per year.

The project activity is expected to contribute to sustainable development of the host country in a number of ways which is explained as below:

Socio-economic development:
There are direct gains from the project activity in terms of generation of direct employment and indirect livelihood opportunities in and around the project site during and after the construction phase and for the operation and the upkeep of the project. The project additionally lead to expenditure in other social development purposes like education health, skill development and other such activities in the areas of project influence.

Environmental development:
Since solar power generation is a clean source of energy, there are numerous environmental benefits from their operations such as no GHG emissions, no air pollutants, no water pollution, lower waste generation compared to conventional thermal power plants.

Technological development:
The project activity is step forward in harnessing the untapped solar energy potential and further diffusion of the solar power technology in the region.

A.2. Location of the Project Activity

[7] https://cea.nic.in/cdm-co2-baseline-database/?lang=en

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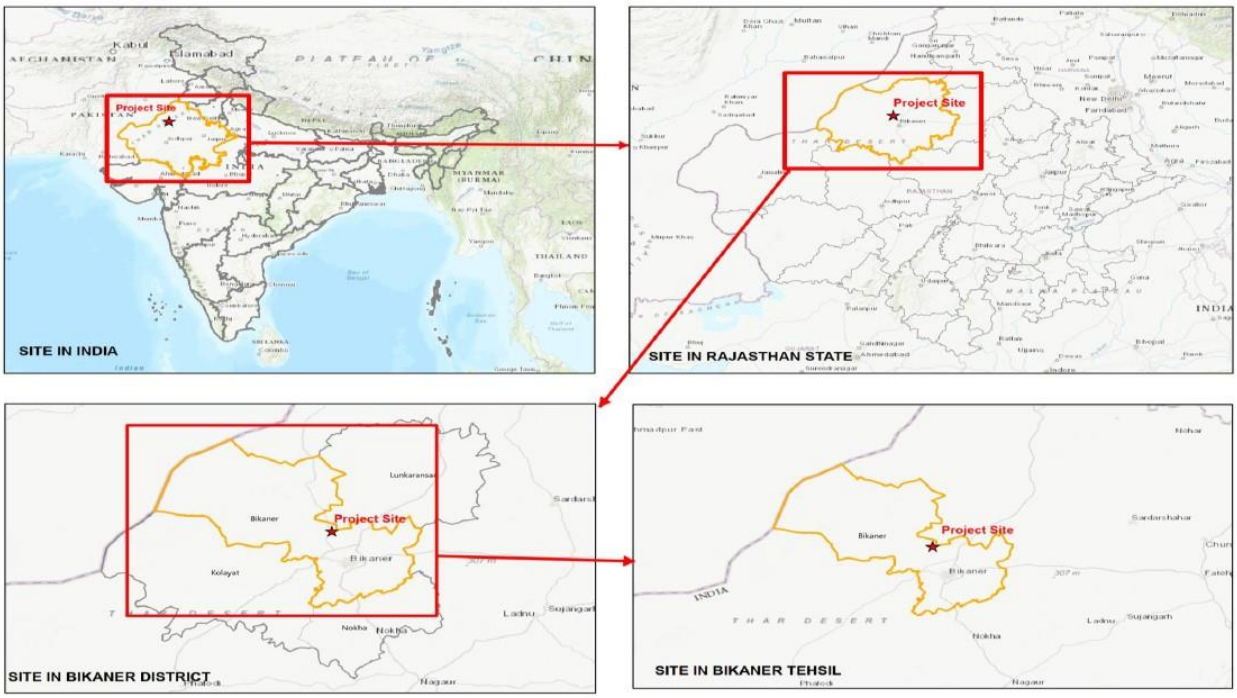
The project activity is located in Noorsar village in Bikaner Tehsil of Bikaner district in the state of Rajasthan, in India. The nearest railway station is Jamsar Station approximately 16 km (Arial Distance) towards the East and the nearest airport is Bikaner airport.

Address and geodetic coordinates of the physical site of the Project Activity		
Physical address	**Latitude**	**Longitude**
Village: Noorsar, Tehsil: Bikaner District: Bikaner, State: Rajasthan	28°12'51.0"N to 28°15'27.0"N	73°12'19.0"E to 73°14'27.0"E

Pictorial representation of the project activity location



A.3. Technologies/measures

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The details of the technology deployed in the project activity are tabulated below:

Parameter	**Value**
Installed capacity	240 MWac

	336MWp
Technical lifetime	25 years
Inverters type	SINENG
Transformer specifications	125/150MVA
Feeder Voltage	33kV

A.4. Project Owner(s)

Location/ Country	Project Owner(s)	Where applicable[8], indicate if the host country has provided approval (Yes/No)
India	Avaada RJHN Private Limited	No

A.5. Declaration of intended use of Approved Carbon Credits (ACCs) generated by the Project Activity

>>
The Project Activity is expected to generate ACCs for a full 10-year crediting period and supply the credits to offset GHG emissions.

Period		Name of the Entities	Purpose and Quantity of ACCs to be supplied
From	To		
April 2022	March 2032	Avaada RJHN Private Limited	**4,665,334** ACCs over 10 year period will be generated and supplied from the project activity. ACCs will be utilized for offsetting of GHG emissions.

Project owner confirms that the carbon credits (ACCs) from the Project Activity shall not be double counted. The project activity is being registered only with GCC and no other carbon standard.

A.6. Additional requirements for CORSIA

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Refer to **Section E** of this document for details on compliance to the Environment and Social Safeguards Standard to ensure that the Project Activity does not cause any net harm to the environment or society.

[8] For example, *Project Coordination Form* is to be filled-in by Project Owners for projects located in Qatar. A written attestation from the host country's national focal point or the focal point's designee, as required by CORSIA (Refer section A.5 of the PSF guidelines).

Also refer to **Section F** of this document for details on compliance to the Project Sustainability Standard to ensure that the Project Activity demonstrates the level of contribution towards achieving the United Nations Sustainability Development Goals (SDGs).

Section B. Application of selected methodology(ies)

B.1. Reference to methodology(ies)

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The project activity applies approved Large Scale Consolidated Methodology as below.
ACM0002: Grid-connected electricity generation from renewable sources[9]; Version 20.0

The methodology also refers to following approved versions of the tools.
TOOL01: Tool for the demonstration and assessment of additionality[10]; Version 7.0.0
TOOL07: Tool to calculate the emission factor for an electricity system[11]; Version 7.0
TOOL24. Common practice[12]; Version 3.1
TOOL27. Investment analysis[13]; Version 11.0

B.2. Applicability of methodology(ies)

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The methodology **ACM0002, Version 20.0** is applicable to the project activity under the following conditions:

Condition para 3: This methodology is applicable to grid-connected renewable energy power generation project activities that: • Install a Greenfield power plant; • Involve a capacity addition to (an) existing plant(s); • Involve a retrofit of (an) existing operating plants/units; • Involve a rehabilitation of (an) existing plant(s)/unit(s); or • Involve a replacement of (an) existing plant(s)/unit(s).
Status of project activity: The project activity involves a new installation of solar power generation plant. Hence the methodology is applicable to the project activity.
Condition para 4(a): The project activity may include renewable energy power plant/unit of one of the following types:

[9] https://cdm.unfccc.int/methodologies/DB/XP2LKUSA61DKUQC0PIWPGWDN8ED5PG
[10] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v7.0.0.pdf/history_view
[11] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v7.0.pdf/history_view
[12] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-24-v1.pdf/history_view
[13] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-27-v10.0.pdf/history_view

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
Status of project activity: The project activity is a solar power generation plant and hence meets the applicability condition.
Condition para 4(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.
Status of project activity: The project activity is a greenfield project installation and hence this condition does not apply.
Condition para 5: In case of hydro power plants, one of the following conditions shall apply:[14] 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/m^2 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.
Status of project activity: The project activity is NOT a hydro power project. Hence the condition does not apply.
Condition para 6: In the case of integrated hydro power projects, project proponent 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 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.
Status of project activity: The project activity is NOT a hydro power project. Hence the condition does not apply.
Condition para 7: The methodology is not applicable to: 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;
Status of project activity: The project activity is NOT a fossil fuel switch project. Hence the condition does not apply.
Condition para 8: 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".
Status of project activity: The project activity is a greenfield project installation. Hence the condition does not apply.

Also, the applicability conditions of applied tools are explained below:

Applicability Conditions as per Tool
TOOL01: Tool for the demonstration and assessment of additionality[15]; Version 7.0.0, Paragraph 8 states "Project activities that apply this tool in context of approved consolidated methodology ACM0002, only need to identify that there is at least one credible and feasible alternative that would be more attractive than the proposed project activity."

[15] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v7.0.0.pdf/history_view

Status of project activity: Refer to section B.5 of PSF for details where additionality of the project activity is demonstrated using TOOL1.
TOOL07: Tool to calculate the emission factor for an electricity system[16]; Version 7.0 "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). "
Status of project activity: Refer to section B.4 of PSF. The project activity is a greenfield solar power generation plant and hence, according to the applied methodology, the baseline scenario 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 "TOOL07: Tool to calculate the emission factor for an electricity system". Hence this tool is applicable.
TOOL24. Common practice[17]; Version 3.1 This methodological tool is applicable to project activities that apply the methodological tool "Tool for the demonstration and assessment of additionality", the methodological tool "Combined tool to identify the baseline scenario and demonstrate additionality", or baseline and monitoring methodologies that use the common practice test for the demonstration of additionality.
Status of project activity: Project activity applies "Tool for the demonstration and assessment of additionality". Please refer to section B.5 of PSF for details.
TOOL27. Investment analysis[18]; Version 11.0 This methodological tool is applicable to project activities that apply the methodological tool "Tool for the demonstration and assessment of additionality", the methodological tool "Combined tool to identify the baseline scenario and demonstrate additionality", the guidelines "Non-binding best practice examples to demonstrate additionality for SSC project activities", or baseline and monitoring methodologies that use the investment analysis for the demonstration of additionality and/or the identification of the baseline scenario.
Status of project activity: As "Tool for the demonstration and assessment of additionality" is applied, TOOL27 is also applicable and complied with for investment analysis for the

[16] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v7.0.pdf/history_view
[17] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-24-v1.pdf/history_view
[18] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-27-v10.0.pdf/history_view

demonstration of additionality. Please refer to section B.5 of PSF for details.

B.3. Project boundary, sources and greenhouse gases (GHGs)

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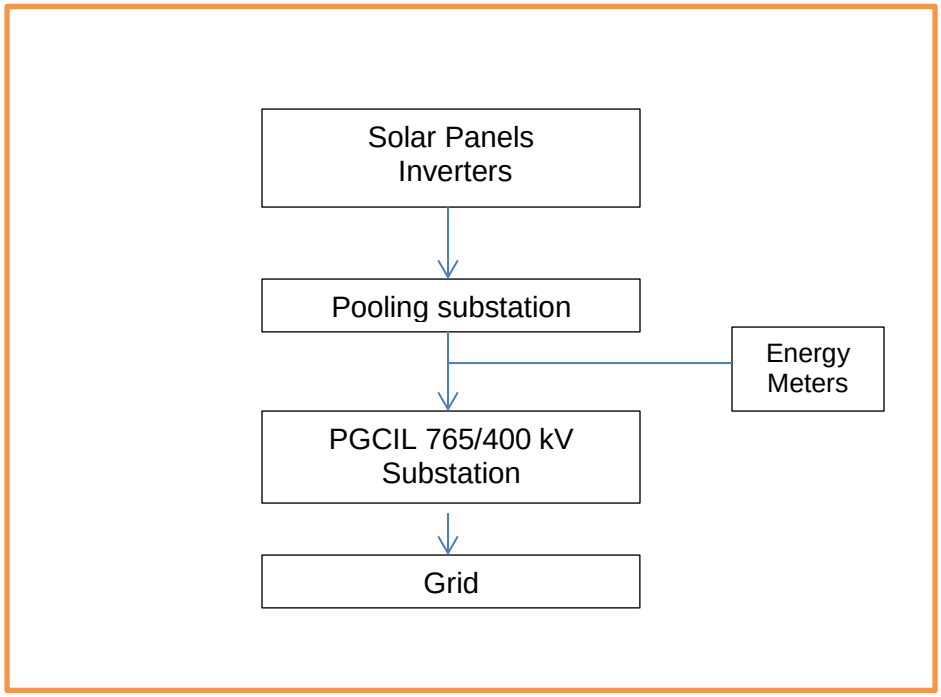
According to the methodology, the spatial extent of the project boundary includes the project power plant/unit and all power plants/units connected physically to the electricity system that the project power plant is connected to.

Hence, the project boundary includes the project site where the power plant has been installed, associated power evacuation infrastructure, energy metering points, switch yards and other civil constructs and the connected national grid of India.



The table below provides an overview of the emissions sources included or excluded from the project boundary for determination of baseline and project emissions.

Source		GHG	Included?	Justification/Explanation
Baseline	CO2 emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity	CO_2	Included	Main emission source
		CH_4	Excluded	Minor emission source
		N_2O	Excluded	Minor emission source
Project	Solar energy project (Project activity)	CO_2	Excluded	Minor emission source
		CH_4	Excluded	Minor emission source
		N_2O	Excluded	Minor emission source

The parameters to be monitored are as below:

- $EG_{PJ,y}$ – Quantity of net electricity supplied by the project plant/unit to the grid in year y in MWh

B.4. Establishment and description of the baseline scenario

>>
The project activity is a greenfield solar power generation plant and hence, according to the applied methodology, the baseline scenario 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 “TOOL07: Tool to calculate the emission factor for an electricity system”.

So, for baseline emissions include CO2 emissions from electricity generation in power plants that are displaced due to the project activity and is the kWh produced by the renewable generating unit multiplied by an emission coefficient (measured in kgCO2e/kWh) calculated in a transparent and conservative manner as: Combined margin (CM), consisting of the combination of operating margin (OM) and build margin (BM) according to the procedures prescribed in “Tool to calculate the emission factor for an electricity system” (Version 07.0).

The combined margin of the electricity grid is sourced from ”CO2 Baseline database for the Indian Power Sector“ Version 16.0 dated March 2021 of Central Electricity Authority of India[19] which follows Tool to calculate the emission factor for an electricity system”.

The baseline emission factor ($EF_{grid,CM,y}$) is calculated as a combined margin (CM), consisting of the combination of operating margin ($EF_{grid,OM,y}$) and build margin ($EF_{grid,BM,y}$) factors according to the following steps. Calculation for this combined margin is based on data from an official source publicly available.

Step 1: Identify the relevant electricity systems
Historically, the Indian power system was divided into five independent regional grids, namely Northern, Eastern, Western, Southern, and North-Eastern. Each grid covered several states. As of 31 December 2013, all regional grids had been integrated and were operating in synchronous

[19] https://cea.nic.in/cdm-co2-baseline-database/?lang=en

mode, i.e. at same frequency, hence forming one unified Indian Grid. Hence, unified Indian Grid is the relevant electricity system for the purpose of estimating Grid Emission Factor.

Step 2: Choose whether to include off-grid power plants in the project electricity system (optional)
Option 1 is chosen and only grid connected power plants are included in the calculation.

Step 3: Select a method to determine the operating margin (OM)
There are four following methods prescribed which can be used for calculating OM.

(a) Simple OM, or
(b) Simple adjusted OM, or
(c) Dispatch Data Analysis OM, or
(d) Average OM.

Project proponent follows option (a) i.e. Simple OM for estimation of Operating Margin emission factor.

The Simple OM method can only be used where low-cost/must run resources constitute less than 50% of total grid generation in recent five years. As observed in the table below less than 20% is provided by low cost must run power plants. Simple OM has been selected also because the required disaggregated data is available in India.

Parameter	2015-16	2016-17	2017-18	2018-19	2019-20
Gross Generation Total (GWh)	1,103,174	11,51,479	12,01,877	12,47,575	12,44,853
Net Generation Total (GWh)	1,027,028	10,72,839	11,21,567	11,65,160	11,62,971
Share of Must-Run (Hydro/Nuclear) (% of Net Generation)	15.1%	14.6%	14.3%	14.5%	17.0%

Step 4: Calculate the operating margin emission factor according to the selected method
The simple OM emission factor is calculated as the generation-weighted average CO2 emissions per unit net electricity generation (t CO2/MWh) of all generating power plants serving the system, not including low-cost/must-run power plants/units.

The results of $EF_{grid,OM,y}$ calculation are as in the table below.

Parameter	2017-18	2018-19	2019-20
Simple Operating Margin	0.9543	0.9603	0.955
Net Generation in Operating Margin (GWh)	9,60,693	9,95,957	9,65,009

Since ex-ante option of calculating OM is considered, a three year weighted average based on the most recent available data is calculated.

So, $EF_{grid,OM,y}$ = 0.9568

Step 5: Calculate the build margin (BM) emission factor
Option 1 has been chosen to calculate BM.

The results of $EF_{grid,BM,y}$ calculation are as in the table below.

Parameter	2019-20
Build margin (not adjusted for imports) (tCO2/MWh)	0.8682

Step 6: Calculate the combined margin emissions factor
The calculation of the combined margin (CM) emission factor (*EF*) is based on Weighted Average CM.

Since it is a solar power project and this is the first crediting period, following weights have been considered for the calculation of CM.

W_{OM} = 0.75 & W_{BM} = 0.25

The results of $EF_{grid,CM,y}$ calculation are as in the table below.

Parameter	OM	BM	CM
Combined margin (tCO2/MWh)	0.9568	0.8682	0.9346

B.5. Demonstration of additionality

>>
The additionality of a GCC Project shall be demonstrated by applying the following approach having two components: (i) A Legal Requirement Test; and (ii) An Additionality Test either based on a Positive List test or a projects-specific additionality test.

The project activity is a Type A project and hence requires to undergo a Legal Requirement Test. However the projects as in the project activity are not mandated by law or regulations and are entirely a voluntary action. The project is additional as per paragraph 46 of GCC Project Standard V3.1.

The project activity does not fulfill the criteria of positive list as provided in CDM Tool 32: “Methodological Tool – Positive List of Technologies” and hence additionality of the project activity is demonstrated through a project specific additionality test.

For the demonstration and assessment of additionality ““Tool for demonstration and assessment of additionality”, Version 07.0.0 has been applied.

The tool provides a step-wise approach to demonstrate and assess the additionality of a project. These steps are:

(a) Step 0 Demonstration whether the proposed project activity is the first-of-its-kind;
(b) Step 1 Identification of alternatives to the project activity;
(c) Step 2 Investment analysis;
(d) Step 3 Barriers analysis; and
(e) Step 4 Common practice analysis

Step 0: Demonstration whether the proposed project activity is the first-of-its-kind
The project activity is a large scale solar power project undertaken in India. This is not the first such project to be installed in the country or in the state and therefore project activity does not meet this criterion.

Step 1: Identification of alternatives to the project activity consistent with current laws and regulations

Sub-step 1a: Define alternatives to the project activity
The option of proposed project activity being undertaken without being registered as a GCC project activity is available. However this is not a plausible option as project activity faces significant financial barriers. The power generated from the project activity will be fed into India National Grid, which has a number of power plants including existing and upcoming ones which would be used in the absence of project activity. In the absence of project activity, power from the same grid will continue to provide for the requirement of the country.

Therefore, continuation of the current situation is the likely alternative to the project activity.

Sub-step 1b: Consistency with mandatory laws and regulations
Installation of a large scale solar power project including the one proposed as project activity here is completely consistent with mandatory laws and regulations of India. Also, continuation of current situation is consistent with national laws and regulations.

The environmental regulations, legislations and policy guidelines in respect to the project activity are governed by various regulatory agencies. The principal environmental regulatory agency in India is Ministry of Environment, Forest and Climate Change (MoEF&CC), Delhi supported by Central Pollution Control Board (CPCB).

The Solar Photovoltaic Power Projects are not covered under the ambit of EIA Notification, 2006. Hence, it does not require preparation of Environmental Impact Assessment Report and pursuing Environmental Clearance from Ministry of Environment, Forest and Climate Change (MoEF&CC). (Annexure-II MOEF&CC, OM on J-11013/41/2006-IA. II (I) dated 7th July 2017) Further, MoEF&CC has included Solar PV Power Projects under “White category” for Consent to Establish/Operate. Newly-introduced White category contains 36 industrial sectors which are practically non-polluting. There shall be no necessity of obtaining the Consent to Establish/Operate’’ for White category of industries.

Overall, the project activity is consistent with the following mandatory laws and regulations.

- Electricity Act, 2003
- Environmental (Protection) Act, 1986 and amendment(s)
- Environmental Impact Assessment (EIA) Notification, 2006 and amendment(s)
- The Air (Prevention and Control of Pollution) Act, 1981 including Rules 1982 and 1983 and amendment(s)
- The Water Prevention and Control of Pollution), Cess Act, 1977 including Rules 1978 and 1991
- The Noise Pollution (Regulation and Control) Rules, 2000 and the Noise Pollution
- Solid Waste Management Rules, 2016
- Plastic Waste (Management and Handling) Rules, 2016 and amendments

- Bio-medical Waste Management Rules, 2016 and amendments
- E-waste (Management) Rules 2016 and amendment(s)
- Batteries (Management and Handling) Rules, 2001

Step 2: Investment analysis
In this section it is demonstrated that the project activity is not financially feasible without the revenue from the sale of ACCs. This is demonstrated in following sections as per "Investment analysis" (Version 11.0).

Sub-step 2a: Determine appropriate analysis method
Since project activity generates revenue, Option III. Benchmark Analysis has been chosen to carry out investment analysis.

Sub-step 2b: Option III. Apply benchmark analysis
Since the project is funded through equity and debt funds, Equity IRR has been considered an appropriate financial indicator which will be tested against an appropriate benchmark cost of equity.

These indicators are industry accepted indicators and are commonly used for financial analysis of similar kinds of projects.

Sub-step 2c: Calculation and comparison of financial indicators
GCC project activity has a less favorable Equity IRR than the benchmark, and hence the GCC project activity cannot be considered as financially attractive.

The key data parameters used to calculate Equity IRR are tabulated below:

Technical details	**Value**	**Unit**	**Reference/Remarks**
Capacity	240	MWac	Loan sanction letter
PLF	24.50%	%	PPA
Annual generation	515,088	MWh	Calculated for Year 1
O&M and Insurance costs	**Value**	**Unit**	
Power tariff	2.73	INR/ kWh	PPA
Annual O & M cost	0.35	INR million/MW	Loan sanction letter
Escalation in O&M (from 2nd year onward)	4.50%	%	Loan sanction letter
Project cost and financing structure	**Value**	**Unit**	
Project cost	11,119.60	INR million	Loan sanction letter
Debt	8,339.70	INR Million	Loan sanction letter
Equity	2,779.90	INR Million	Loan sanction letter
Interest rate on loan	9.50%	%	Loan sanction letter
Period of assessment	25	years	PPA
Book Depreciation (SLM)			
Building	3.17%	%	for 30 years
Plant & machinery	3.80%	%	for 25 years
Taxes			
Corporate Tax Rate	25.63%	%	IT rules

Minimum Alternative Tax Rate	17.47%	%	IT rules

Based on the above values, Equity IRR is calculated as 8.20% without the consideration of ACC revenue. This is compared with the benchmark cost of equity.

Benchmark Cost of Equity:
As per "Investment Analysis" (Version 11.0), default value for cost of equity for India for Group 1 projects (that includes renewable energy projects) is 10.55%. This value is in real terms and hence should be inflation adjusted to convert into nominal cost of equity.

As per para 16 of Investment Analysis, the inflation rate shall be obtained from the inflation forecast of the central bank of the host country. According to Reserve Bank of India (RBI), inflation forecast is 6% (Monetary Policy Statement, 2020[20]).

So, nominal cost of equity = (1+10.55%)*(1+6%)-1
= 17.18%

As evident, Equity IRR is less than CoE and renders the project activity financially non-feasible.

Sub-step 2d: Sensitivity analysis
The financial performance of the project activity hinges on a number of critical parameters therefore, sensitivity analysis is carried out in this section to see that the financial performance is robust to reasonable favourable variations in the critical assumptions.

Following parameters have been chosen to conduct the sensitivity test.

- Increase in annual power generation
- Reduction in Project cost
- Reduction in O&M cost
- Upward change in tariff

Increase in annual power generation:
A 10% upward change in annual power generation of base case results into Equity IRR of 12.56% which is less than CoE. It is highly unlikely that power generation moves upwards in any case. However, it might get affected downwards in case of any force majeure.

Reduction in project cost:
A 10% reduction in project cost changes Equity IRR to 14.11% which is less than CoE. A reduction in project cost from the estimated level does seem unlikely.

Reduction in O&M cost:
In the base case, O&M cost has been considered as INR 0.35 million per MW which is less than 1% of project cost. In the sensitivity analysis, 10% decrease in O&M cost has been considered. Even at the reduced level of O&M, Equity IRR comes to be 8.37%.

Upward change in tariff:

[20] https://www.rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=50747

A power purchase agreement (PPA) has been signed for 25 years. Under which power will be sold at a pre –fixed price and therefore any upward change over and above this is not expected. However even with a 10% increase in tariff, Equity IRR becomes 12.56% and remains below CoE.

The results of the sensitivity analysis are summarized below:

Factor	**Change %**	**Equity IRR**
PLF	0.00%	**8.20%**
O&M cost	0.00%	
EPC Cost	0.00%	
Tariff	0.00%	

Parameters	**% change**	**Equity IRR**
PLF	10.00%	12.56%
O&M cost	-10.00%	8.37%
EPC Cost	-10.00%	14.11%
Tariff	10.00%	12.56%

From above, it can be safely concluded that project will remain financially unattractive despite positive changes in the key performance drivers. Hence it is additional.

Step 3: Barrier analysis
As per Tool for demonstration and assessment of additionality" (Version 07.0.0), Step 2 or Step 3 or both can be used to demonstrate additionality of the project activity. In this case, Step 3 is not being used for the purpose.

Sub-step 3a: Identify barriers that would prevent the implementation of the proposed CDM project activity
Not applicable.

Sub-step 3b: Show that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity)
Not applicable.

Step 4: Common practice analysis
As per para 57 of Tool for demonstration and assessment of additionality" (Version 07.0.0), Step 2 analysis shall be complemented with an analysis of extent to which the proposed project type (e.g. technology or practice) has already diffused in the relevant sector and region. This test is a credibility check to complement the investment analysis (Step 2).

Sub-step 4a: The proposed CDM project activity(ies) applies measure(s) that are listed in the definitions section above
The project activity meets the following criteria for TOOL24 Common Practice; Version 03.1.

- *Applicable geographical area:* Entire host country has been considered as the geographical area.

- *Measure:* Item (b) applies to the project activity since it is a renewable energy generation activity.
- *Output:* It is the electricity generated by the project activity.
- *Technology:* Large scale solar power based on PV is the applicable technology.

Now, step wise approach as suggested in the tool is applied to the project activity:

Step 1: calculate applicable capacity or output range as +/-50% of the total design capacity or output of the proposed project activity.

The installed capacity of the project is 240 MW hence the applicable output range is from 120 MW to 360 MW.

Step 2: identify similar projects (both CDM and non-CDM) which fulfil all of the following conditions:
(a) The projects are located in the applicable geographical area;
(b) The projects apply the same measure as the proposed project activity;
(c) The projects use the same energy source/fuel and feedstock as the proposed project activity, if a technology switch measure is implemented by the proposed project activity;
(d) The plants in which the projects are implemented produce goods or services with comparable quality, properties and applications areas (e.g. clinker) as the proposed project plant;
(e) The capacity or output of the projects is within the applicable capacity or output range calculated in Step 1;
(f) The projects started commercial operation before the project design document (CDM-PDD) is published for global stakeholder consultation or before the start date of proposed project activity, whichever is earlier for the proposed project activity.

Following large scale solar PV power projects in the state of **Rajasthan** are considered for analysis because:

(a) These fall in the applicable geographical location i.e. state of Rajasthan in India
(b) These apply the same measure i.e. utility scale solar PV power generation
(c) These use the same source of input energy i.e. solar
(d) These produce the same goods/services i.e. electricity supplied to the connected grid
(e) The capacity of these projects is in the range as defined in Step 1 i.e. **120 MW – 360** MW
(f) These project started commercial operation before the start date of proposed project activity i.e. July 2020 (date of signing of PPA)

There is no other project in the region meeting the above criteria.

Step 3: within the projects identified in Step 2, identify those that are neither registered CDM project activities, project activities submitted for registration, nor project activities undergoing validation. Note their number N_{all}.

As explained in Step 2, there are no projects which meet the selection criteria.

So, $N_{all} = 0$

Step 4: within similar projects identified in Step 3, identify those that apply technologies that are different to the technology applied in the proposed project activity. Note their number Ndiff.

There is no project from the identified above that is different in technology. Hence, *Ndiff = 0*

Step 5: calculate factor F=1-Ndiff/N_{all} representing the share of similar projects (penetration rate of the measure/technology) using a measure/technology similar to the measure/technology used in the proposed project activity that deliver the same output or capacity as the proposed project activity.

Hence, F = 1-0 = 1

And, $N_{all} - N_{diff} = 0$

Since, $N_{all} - N_{diff} = 0$ and not greater than 3, hence project activity is not a common practice in the region.

B.6. Estimation of emission reductions

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B.6.1. Explanation of methodological choices

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Baseline emissions:

Baseline emissions include only CO_2 emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity. The methodology assumes that all project electricity generation above baseline levels would have been generated by existing grid-connected power plants and the addition of new grid connected power plants. The baseline emissions are to be calculated as follows:

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

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 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 "TOOL07: Tool to calculate the emission factor for an electricity system" (t CO_2/MWh)

Since the project activity is Greenfield, therefore,

$$EG_{PJ,y} = EG_{facility,y}$$

Where:

$EG_{PJ,y}$ = 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)

$EG_{facility,y}$ = Quantity of net electricity generation supplied by the project plant/unit to the grid in year *y* (MWh/yr)

Project emissions:
Since the project activity is a solar power project with no direct GHG emissions during its operations, the project emissions are zero.

Leakage:
Leakage emissions are not considered as per the applicable methodology.

Emission reductions:

$$ER_y = BE_y - PE_y$$

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)

B.6.2. Data and parameters fixed ex ante

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Data / Parameter Table 1.

Data / Parameter:	**$EF_{grid,CM,y}$**
Methodology reference	TOOL7
Data unit	tCO2e/MWh
Description	Combined margin CO2 emission factor for the project electricity system in year *y*
Measured/calculated /default	Calculated
Data source	”CO_2 Baseline database for the Indian Power Sector“ Version 16.0, March 2021

<table>
<tr><td>Value(s) of monitored parameter</td><td>0.9346</td></tr>
<tr><td>Measurement/ Monitoring equipment (if applicable)</td><td>
<table>
<tr><td colspan="2"></td></tr>
<tr><td>Type of meter</td><td></td></tr>
<tr><td>Location of meter</td><td></td></tr>
<tr><td>Accuracy of meter</td><td></td></tr>
<tr><td>Serial number of meter</td><td></td></tr>
<tr><td>Calibration frequency</td><td></td></tr>
<tr><td>Date of Calibration/ validity</td><td></td></tr>
<tr><td>Reference No. of Calibration Certificate</td><td></td></tr>
<tr><td>Calibration Status</td><td></td></tr>
</table>
Not applicable.
</td></tr>
<tr><td>Measuring/reading/ recording frequency (if applicable)</td><td>Not applicable.</td></tr>
<tr><td>Calculation method (if applicable)</td><td>Not applicable.</td></tr>
<tr><td>QA/QC procedures</td><td>Not applicable.</td></tr>
<tr><td>Purpose of data</td><td>Calculation of baseline emissions.</td></tr>
<tr><td>Additional comments</td><td>This is ex-ante fixed.</td></tr>
</table>

B.6.3. Ex-ante calculation of emission reductions

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As per methodology ACM0002, the net emission reductions are calculated as follows:

$ER_y = BE_y – PE_y$

ERy = Emission reductions in year y (tCO2e/yr)
BEy = Baseline emissions in year y (tCO2e/yr)
PEy = Project emissions in year y (tCO2e/yr)

Baseline emissions:

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

Where:

BE_y = Baseline emissions in year y (t CO2/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 CO2 emission factor for grid connected power generation in year y calculated using the latest version of "TOOL07: Tool to calculate the emission factor for an electricity system" (t CO2/MWh)

BE_y = 515,088 MWh/year (first year) x 0.9346 tCO2e/MWh = 481,418 tCO2e/year

Project emissions:

PE_y = 0 (project activity is zero as per ACM0002 methodology)

Leakage emissions:

As per ACM0002 no Leakage emissions are considered.

Hence, LEy= 0

$ER_y = BE_y – PE_y$ = 481,418 -0-0

= 481,418 tCO2 for first year.

Ex-ante emission reduction calculations for all years in the crediting period are estimated with de-ration of 0.7% in generation.

B.6.4. Summary of ex ante estimates of emission reductions

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Year	Baseline emissions (t CO_2e)	Project emissions (t CO_2e)	Leakage (t CO_2e)	Emission reductions (t CO_2e)
Year 1	4,81,418	0	0	4,81,418
Year 2	4,78,049	0	0	4,78,049
Year 3	4,74,702	0	0	4,74,702
Year 4	4,71,379	0	0	4,71,379
Year 5	4,68,080	0	0	4,68,080
Year 6	4,64,803	0	0	4,64,803
Year 7	4,61,549	0	0	4,61,549
Year 8	4,58,319	0	0	4,58,319
Year 9	4,55,110	0	0	4,55,110
Year 10	4,51,925	0	0	4,51,925
Total	**46,65,334**	**0**	**0**	**46,65,334**
Total number				

of crediting years	10			
Annual average over the crediting period	**466,533**	**0**	**0**	**466,533**

B.7. Monitoring plan

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B.7.1. Data and parameters to be monitored

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Data / Parameter Table 2.

Data / Parameter:	**$EG_{PJ,y}$**
Methodology reference	ACM0002 Version 20.0
Data unit	MWh/y
Description	Quantity of net electricity supplied by the project plant/unit to the grid in year y in MWh
Measured/calculated /default	Measured
Data source	Monthly Credit Report or Joint Meter Readings issued by state authority.
Value(s) of monitored parameter	515,088 (ex-ante estimation)
Measurement/ Monitoring equipment	<table><tr><td colspan="2"></td></tr><tr><td>Type of meter</td><td>ABT compliant electricity meter</td></tr><tr><td>Location of meter</td><td>Receiving end of substation</td></tr><tr><td>Accuracy of meter</td><td>0.2S</td></tr></table>

	<table><tr><td>Serial number of meter</td><td>To be confirmed during verification</td></tr><tr><td>Calibration frequency</td><td>Once in three years</td></tr><tr><td>Date of Calibration/ validity</td><td>To be confirmed during verification</td></tr><tr><td>Reference No. of Calibration Certificate</td><td>To be confirmed during verification</td></tr><tr><td>Calibration Status</td><td>To be confirmed during verification</td></tr></table>
Measuring/reading/ recording frequency	Monthly or as decided by the government authority responsible for energy metering.
Calculation method (if applicable)	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, electricity imported from the grid obtained from joint meter reading and apportioning certificates/credit notes issued by state authority as per below equation: $EG_{PJ,y} = EG_{Export} - EG_{Import}$ The calculation is done by state authority and the Project Developer has no control over the authority for the calculation. This data is directly used for calculation of emission reductions.
QA/QC procedures	The metering arrangement, accuracy class of meters, calibration frequency is under control of relevant agency of state and Project owner do not have any control on it. The electricity meter used for metering the electricity supplied to the grid will be calibrated at the designated frequency. This will be done by the relevant agency of the state with project owner having no control over the procedure and timing. Based on the joint meter reading, apportioning certificates/credit notes, the project developer raises the invoice which can be used to crosscheck the data values.
Purpose of data	Calculation of baseline emissions.
Additional comments	-

B.7.2. Monitoring-program of risk management actions

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<table>
<tr><td>Data / Parameter:</td><td>PV Modules Waste</td></tr>
<tr><td>Objective of the Program of Risk Management Actions</td><td>Program of Risk Management Actions for PV Modules Waste (PRMA 01)</td></tr>
<tr><td>Purpose:</td><td>To mitigate/reduce an environmental impact identified as Harmful in the risk assessment and to develop a Program of Risk Management Actions plan to address the risk of PRMA 01.</td></tr>
<tr><td>Describe the environment /social impact risk that needs to be mitigated.</td><td>The defunct / damaged PV modules may be generated and storage/ disposal can lead to contamination of soil.</td></tr>
<tr><td>Describe the actions and targets that will be implemented to ensure that the Project Activity will avoid negative impacts that cause harm.</td><td>The damaged/defunct solar PV modules shall be stored and disposed-off as per the guidance of national/local laws.</td></tr>
<tr><td>Program of Risk Management Actions to achieve the target(s):</td><td>
<table>
<tr><th>S.No.</th><th>Action and targets</th><th>Responsibility</th><th>Resource Requirement</th><th>Target to be Achieved by (insert date)</th><th>Key Performance Indicators (KPI)</th><th>Targets achieved on (insert date)</th></tr>
<tr><td>1</td><td>The damaged/defunct solar PV modules shall be stored and disposed-off</td><td>Avaada RJHN Private Limited.</td><td>01</td><td>As per national/local law/regulations.</td><td>Quantity of damaged Solar PV modules handled safely.</td><td>To be monitored</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="7"></td></tr>
<tr><td colspan="3">Date of Closing the Program:</td><td colspan="2">Through the project lifetime.</td><td colspan="2"></td></tr>
</table>
</td></tr>
<tr><td>QA/QC procedures:</td><td>The details of damaged and returned solar PV modules will be maintained in records for future verification.</td></tr>
<tr><td>Describe whether the Project Activity has achieved the targets set out in this Program of Risk Management Actions. If yes, describe the outcome(s).</td><td>To be monitored.</td></tr>
</table>

<table>
<tr><td>Data / Parameter:</td><td>E- Waste</td></tr>
<tr><td>Objective of the Program of Risk Management Actions</td><td>Program of Risk Management Actions for E- Waste (PRMA 02)</td></tr>
<tr><td>Purpose:</td><td>To monitor an environmental impact identified as Harmful in the risk assessment and to develop a Program of Risk Management Actions plan to address the risk of PRMA 02.</td></tr>
<tr><td>Describe the environment /social impact risk that needs to be mitigated.</td><td>E waste may be generated and storage/ disposal can lead to contamination of soil.</td></tr>
<tr><td>Describe the actions and targets that will be implemented to ensure that the Project Activity will avoid negative impacts that cause harm.</td><td>E- waste shall be stored and disposed-off as per the guidance of national/local laws/regulations.</td></tr>
<tr><td>Program of Risk Management Actions to achieve the target(s):</td><td>
<table>
<tr><th>S.No.</th><th>Action and targets</th><th>Responsibility</th><th>Resource Requirement</th><th>Target to be Achieved by (insert date)</th><th>Key Performance Indicators (KPI)</th><th>Targets achieved on (insert date)</th></tr>
<tr><td>1</td><td>E-waste shall be stored and disposed-off</td><td>Avaada RJHN Private Limited.</td><td>01</td><td>As per national/local law.</td><td>Quantity of E-waste handled safely.</td><td>To be monitored</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="7"></td></tr>
<tr><td colspan="3">Date of Closing the Program:</td><td colspan="2">Through the project lifetime.</td><td colspan="2"></td></tr>
</table>
</td></tr>
<tr><td>QA/QC procedures:</td><td>The details of E-waste will be maintained in records for future verification.</td></tr>
<tr><td>Describe whether the Project Activity has achieved the targets set out in this Program of Risk Management Actions. If yes, describe the outcome(s).</td><td>To be monitored.</td></tr>
</table>

<table>
<tr><td>Data / Parameter:</td><td>CO2 Emissions Reduction</td></tr>
<tr><td>Objective of the Program of Risk Management Actions</td><td>Program of Risk Management Actions for CO2 emissions reduction (PRMA 03)</td></tr>
<tr><td>Purpose:</td><td>To monitor an environmental impact identified as Harmful in the risk assessment and to develop a Program of Risk Management Actions plan to address the risk of PRMA 03.</td></tr>
<tr><td>Describe the environment /social impact risk that needs to be mitigated.</td><td>The project activity will displace fossil fuel based electricity generation that would have otherwise been provided by the operation and expansion of the fossil fuel based power plants in Indian grid.</td></tr>
<tr><td>Describe the actions and targets that will be implemented to ensure that the Project Activity will avoid negative impacts that cause harm.</td><td>CO2 emissions reduction will be monitored and calculated.</td></tr>
<tr><td>Program of Risk Management Actions to achieve the target(s):</td><td>
<table>
<tr><th>S.No.</th><th>Action and targets</th><th>Responsibility</th><th>Resource Requirement</th><th>Target to be Achieved by (insert date)</th><th>Key Performance Indicators (KPI)</th><th>Targets achieved on (insert date)</th></tr>
<tr><td>1</td><td>Monitoring and calculation of CO2 emission reduction</td><td>Avaada RJHN Private Limited.</td><td>01</td><td></td><td>CO2 emissions reduction</td><td>To be monitored</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="7"></td></tr>
<tr><td colspan="3">Date of Closing the Program:</td><td colspan="2">Through the project lifetime.</td><td colspan="2"></td></tr>
</table>
</td></tr>
<tr><td>QA/QC procedures:</td><td>The details of CO2 emissions reduction will be maintained in records for future verification.</td></tr>
<tr><td>Describe whether the Project Activity has achieved the targets set out in this Program of Risk Management Actions. If yes, describe the outcome(s).</td><td>To be monitored.</td></tr>
</table>

<table>
<tr><td>Data / Parameter:</td><td>Number of people employed by the project</td></tr>
<tr><td>Objective of the Program of Risk Management Actions</td><td>Program of Risk Management Actions for employment (PRMA 04)</td></tr>
<tr><td>Purpose:</td><td>To monitor a social impact identified as not harmful in the risk assessment and to develop a Program of Risk Management Actions plan to address the risk of PRMA 04.</td></tr>
<tr><td>Describe the environment /social impact risk that needs to be mitigated.</td><td>Employment generated</td></tr>
<tr><td>Describe the actions and targets that will be implemented to ensure that the Project Activity will avoid negative impacts that cause harm.</td><td>Employment will be generated due to project activity</td></tr>
<tr><td>Program of Risk Management Actions to achieve the target(s):</td><td>
<table>
<tr><th>S.No.</th><th>Action and targets</th><th>Responsibility</th><th>Resource Requirement</th><th>Target to be Achieved by (insert date)</th><th>Key Performance Indicators (KPI)</th><th>Targets achieved on (insert date)</th></tr>
<tr><td>1</td><td>Jobs will be provided .</td><td>Avaada RJHN Private Limited.</td><td>01</td><td></td><td>Number of employees.</td><td>To be monitored</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="7"></td></tr>
<tr><td colspan="3">Date of Closing the Program:</td><td colspan="2">Through the project lifetime.</td><td colspan="2"></td></tr>
<tr><td colspan="7"></td></tr>
</table>
</td></tr>
<tr><td>QA/QC procedures:</td><td>Employment records will be maintained for future verification</td></tr>
<tr><td>Describe whether the Project Activity has achieved the targets set out in this Program of Risk Management Actions. If yes, describe the outcome(s).</td><td>To be monitored.</td></tr>
</table>

Data / Parameter:	**Expenditure on social welfare programs**
Objective of the Program of Risk Management Actions	**Program of Risk Management Actions for social welfare (PRMA 05)**

<table>
<tr><td>Purpose:</td><td>To monitor a social impact identified as not harmful in the risk assessment and to develop a Program of Risk Management Actions plan to address the risk of PRMA 05.</td></tr>
<tr><td>Describe the environment /social impact risk that needs to be mitigated.</td><td>Expenditure on social welfare programs.</td></tr>
<tr><td>Describe the actions and targets that will be implemented to ensure that the Project Activity will avoid negative impacts that cause harm.</td><td>Expenditure on social welfare programs will be recorded.</td></tr>
<tr><td>Program of Risk Management Actions to achieve the target(s):</td><td>
<table>
<tr><th>S.No.</th><th>Action and targets</th><th>Responsibility</th><th>Resource Requirement</th><th>Target to be Achieved by (insert date)</th><th>Key Performance Indicators (KPI)</th><th>Targets achieved on (insert date)</th></tr>
<tr><td>1</td><td>Expenditure on social welfare programs will be recorded.</td><td>Avaada RJHN Private Limited.</td><td>01</td><td></td><td>Expenditure on social welfare programs</td><td>To be monitored</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="7"></td></tr>
<tr><td colspan="3">Date of Closing the Program:</td><td colspan="2">Through the project lifetime.</td><td colspan="2"></td></tr>
<tr><td colspan="7"></td></tr>
</table>
</td></tr>
<tr><td>QA/QC procedures:</td><td>Records of expenditure on social welfare programs will be maintained for future verification.</td></tr>
<tr><td>Describe whether the Project Activity has achieved the targets set out in this Program of Risk Management Actions. If yes, describe the outcome(s).</td><td>To be monitored.</td></tr>
</table>

Data / Parameter:	**Number of women employed by the project**
Objective of the Program of Risk Management Actions	**Program of Risk Management Actions for women employment (PRMA 06)**
Purpose:	To monitor a social impact identified as not harmful in the risk assessment and to develop a Program of Risk Management Actions plan to address the risk of **PRMA 06.**

<table>
<tr><td>Describe the environment /social impact risk that needs to be mitigated.</td><td>Women Employment generated</td></tr>
<tr><td>Describe the actions and targets that will be implemented to ensure that the Project Activity will avoid negative impacts that cause harm.</td><td>Women Employment will be generated due to project activity</td></tr>
<tr><td>Program of Risk Management Actions to achieve the target(s):</td><td>
<table>
<tr><th>S.No.</th><th>Action and targets</th><th>Responsibility</th><th>Resource Requirement</th><th>Target to be Achieved by (insert date)</th><th>Key Performance Indicators (KPI)</th><th>Targets achieved on (insert date)</th></tr>
<tr><td>1</td><td>Jobs to women will be provided .</td><td>Avaada RJHN Private Limited.</td><td>01</td><td></td><td>Number of women employees.</td><td>To be monitored</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="7"></td></tr>
<tr><td colspan="3">Date of Closing the Program:</td><td colspan="2">Through the project lifetime.</td><td colspan="2"></td></tr>
<tr><td colspan="7"></td></tr>
</table>
</td></tr>
<tr><td>QA/QC procedures:</td><td>Employment records will be maintained for future verification</td></tr>
<tr><td>Describe whether the Project Activity has achieved the targets set out in this Program of Risk Management Actions. If yes, describe the outcome(s).</td><td>To be monitored.</td></tr>
</table>

Data / Parameter:	**Number of people employed for more than 1 year by the project**
Objective of the Program of Risk Management Actions	**Program of Risk Management Actions for long term jobs (PRMA 07)**
Purpose:	To monitor a social impact identified as not harmful in the risk assessment and to develop a Program of Risk Management Actions plan to address the risk of **PRMA 07.**
Describe the environment /social impact risk that needs to be mitigated.	Long term jobs generated

<table>
<tr><td>Describe the actions and targets that will be implemented to ensure that the Project Activity will avoid negative impacts that cause harm.</td><td>Long term jobs will be generated due to project activity</td></tr>
<tr><td>Program of Risk Management Actions to achieve the target(s):</td><td>
<table>
<tr><th>S.No.</th><th>Action and targets</th><th>Responsibility</th><th>Resource Requirement</th><th>Target to be Achieved by (insert date)</th><th>Key Performance Indicators (KPI)</th><th>Targets achieved on (insert date)</th></tr>
<tr><td>1</td><td>Long term Jobs will be provided .</td><td>Avaada RJHN Private Limited.</td><td>01</td><td></td><td>Number of people employed for more than 1 year</td><td>To be monitored</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="7"></td></tr>
<tr><td colspan="3">Date of Closing the Program:</td><td colspan="2">Through the project lifetime.</td><td colspan="2"></td></tr>
<tr><td colspan="7"></td></tr>
</table>
</td></tr>
<tr><td>QA/QC procedures:</td><td>Employment records will be maintained for future verification</td></tr>
<tr><td>Describe whether the Project Activity has achieved the targets set out in this Program of Risk Management Actions. If yes, describe the outcome(s).</td><td>To be monitored.</td></tr>
</table>

Data / Parameter:	**Number of people employed for less than 1 year by the project**
Objective of the Program of Risk Management Actions	**Program of Risk Management Actions for short term jobs (PRMA 08)**
Purpose:	To monitor a social impact identified as not harmful in the risk assessment and to develop a Program of Risk Management Actions plan to address the risk of **PRMA 08.**
Describe the environment /social impact risk that needs to be mitigated.	Short term jobs generated

<table>
<tr><td>Describe the actions and targets that will be implemented to ensure that the Project Activity will avoid negative impacts that cause harm.</td><td>Short term jobs will be generated due to project activity</td></tr>
<tr><td>Program of Risk Management Actions to achieve the target(s):</td><td>
<table>
<tr><th>S.No.</th><th>Action and targets</th><th>Responsibility</th><th>Resource Requirement</th><th>Target to be Achieved by (insert date)</th><th>Key Performance Indicators (KPI)</th><th>Targets achieved on (insert date)</th></tr>
<tr><td>1</td><td>Short term Jobs will be provided .</td><td>Avaada RJHN Private Limited.</td><td>01</td><td></td><td>Number of people employed for less than 1 year</td><td>To be monitored</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="7"></td></tr>
<tr><td colspan="3">Date of Closing the Program:</td><td colspan="2">Through the project lifetime.</td><td colspan="2"></td></tr>
<tr><td colspan="7"></td></tr>
</table>
</td></tr>
<tr><td>QA/QC procedures:</td><td>Employment records will be maintained for future verification</td></tr>
<tr><td>Describe whether the Project Activity has achieved the targets set out in this Program of Risk Management Actions. If yes, describe the outcome(s).</td><td>To be monitored.</td></tr>
</table>

Data / Parameter:	**Expenditure on social welfare programs for education**
Objective of the Program of Risk Management Actions	**Program of Risk Management Actions for social welfare in education (PRMA 09)**
Purpose:	To monitor a social impact identified as not harmful in the risk assessment and to develop a Program of Risk Management Actions plan to address the risk of **PRMA 09.**
Describe the environment /social impact risk that needs to be mitigated.	Expenditure on social welfare programs for education.

<table>
<tr><td>Describe the actions and targets that will be implemented to ensure that the Project Activity will avoid negative impacts that cause harm.</td><td>Expenditure on social welfare programs for education will be recorded.</td></tr>
<tr><td>Program of Risk Management Actions to achieve the target(s):</td><td>
<table>
<tr><th>S.No.</th><th>Action and targets</th><th>Responsibility</th><th>Resource Requirement</th><th>Target to be Achieved by (insert date)</th><th>Key Performance Indicators (KPI)</th><th>Targets achieved on (insert date)</th></tr>
<tr><td>1</td><td>Expenditure on social welfare programs for education will be recorded</td><td>Avaada RJHN Private Limited.</td><td>01</td><td></td><td>Expenditure on social welfare programs for education</td><td>To be monitored</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="7"></td></tr>
<tr><td colspan="3">Date of Closing the Program:</td><td colspan="2">Through the project lifetime.</td><td colspan="2"></td></tr>
<tr><td colspan="7"></td></tr>
</table>
</td></tr>
<tr><td>QA/QC procedures:</td><td>Records of expenditure on social welfare programs on education will be maintained for future verification.</td></tr>
<tr><td>Describe whether the Project Activity has achieved the targets set out in this Program of Risk Management Actions. If yes, describe the outcome(s).</td><td>To be monitored.</td></tr>
</table>

B.7.3. Sampling plan

>>

This is not applicable to the project activity.

B.7.4. Other elements of the monitoring plan

>>

The monitoring plan prescribed the project activity describes about monitoring organization, parameters to be monitored, monitoring practices, QA and QC procedures, data storage and archiving.

Monitoring organization
The overall responsibility for monitoring, recording and reporting of the data is with the plant in-charge/site manager. The plant in-charge/site manager will be assisted by a team with experience in plant operations & management of project.

Parameters requiring monitoring
The parameters will be monitored as per section 7.1 above.

Monitoring practices
The metering will be done at the receiving end of PGCIL/CTU/pooling substation using an ABT compliant energy meter. There will be Main Meter and a Backup Meter arrangement. In the event Main Meter is not in service then the Backup Metering System shall be used for such periods.

QA/QC procedures
When the Main Metering System and/or the Backup Metering System and/or any component thereof is found to be outside the acceptable limit of accuracy or otherwise not functioning properly, energy meters will be repaired, re-calibrated or replaced as soon as possible. Meters will be calibrated at least once in three years.

Data storage and archiving
All the data items monitored will be kept for two years after the end of crediting period or till the last issuance of ACCs for this project activity whichever occurs later. The monitored data will be presented to for future verifications.

Section C. Start date, crediting period type and duration

C.1. Start date of the Project Activity

>>

23/03/2022. This is the estimated date of start of commercial operation of the project activity

C.2. Expected operational lifetime of the Project Activity

>>

25 years, 0 months

C.3. Crediting period of the Project Activity

>>

C.3.1. Fixed crediting period

>>

10 years

C.3.2. Start date of the crediting period

>>
01/04/2022

C.3.3. Duration of the crediting period

>>
10 years

Section D. Environmental impacts

D.1. Analysis of environmental impacts

>>
The Solar Photovoltaic Power Projects are not covered under the ambit of EIA Notification, 2006. Hence, it does not require preparation of Environmental Impact Assessment Report and pursuing Environmental Clearance from Ministry of Environment, Forest and Climate Change (MoEF&CC). (Annexure-II MOEF&CC, OM on J-11013/41/2006-IA II (I) dated 7th July 2017) Further, MoEF&CC has included Solar PV Power Projects under “White category” for Consent to Establish/Operate. Newly-introduced White category contains 36 industrial sectors which are practically non-polluting. There shall be no necessity of obtaining the Consent to Establish/Operate’’ for White category of industries.

D.2. Environmental impact assessment

>>
Refer details of section D.1 above.

Section E. Environmental and social safeguards

>>

E.1. Environmental safeguards

>>

Impact of Project Activity on		Information on Impacts, Do-No-Harm Risk Assessment and Establishing Safeguards									Project Owner's Conclusion	
		Description of Impact *(both positive and negative)*	**Legal requirement / Limit**	**Do-No-Harm Risk Assessment**			**Risk Mitigation Action Plans**		**Do-No-Harm Residual Risk Assessment**		**Self-Declaration**	
				Not Applicable *(No actions required)*	**Harmless** *(No actions required)*	**Harmful** *(Actions required)*	**Operational Controls**	**Program of Risk Management Actions**	**Re-evaluate Risks**	**Monitoring**	**Explanation of Conclusion**	**The Project Activity will not cause any harm**
Environmental impacts on the identified categories[21] indicated below.	*Indicators for environmental impacts*	*Describe anticipated environmental impacts, both positive and negative from all sources (stationary and mobile), that may result from the Project Activity, within and outside the project boundary, over which the Project Owner(s) has control, and beyond what would reasonably be expected to occur in the absence of the Project Activity.*	*Describe the applicable national regulatory requirements /legal limits related to the identified risks of environmental impacts.*	*If no environmental impacts are anticipated, then the Project Activity is unlikely to cause any harm (is safe) and shall be indicated as **Not Applicable** (No actions required)*	*If environmental impacts are anticipated, but are expected to be in compliance with applicable national regulatory requirements/ below the legal limits, then the Project Activity is unlikely to cause any harm (is safe) and shall be indicated as **Harmless** (No actions required)*	*If environmental impacts are anticipated that will not be in compliance with the applicable national regulatory requirements or are likely to exceed legal limits, then the Project Activity is likely to cause harm (may be un-safe) and shall be indicated as **Harmful** (Actions required).*	*Describe the operational controls and best practices, focusing on how to implement and operate the Project Activity, to reduce the risk of impacts that have been identified as **Harmful**.*	*Describe the Program of Risk Management Actions (refer to Table 3), focusing on additional actions (e.g., installation of pollution control equipment) that will be adopted to reduce the risk of impacts that have been identified as **Harmful**.*	*Re-evaluate risks after Risk Mitigation Action Plans have been developed (refer to previous two columns) for impacts that have been identified as Harmful. Indicate whether the risks have been eliminated or reduced and, where appropriate, indicate them as **Harmless** (No actions required)*	*Describe the monitoring approach and the parameters to be monitored for each impact that has been identified as Harmful and described in the PSF (refer to Table 3).*	*Describe how the Project Owner has concluded that the Project Activity is likely to achieve the identified Risk Mitigation Action Plan targets for managing risks to levels that are unlikely to cause any harm.*	*Confirm that the Project Activity risks of negative environmental impacts are expected to be managed to levels that are unlikely to cause any harm (Mark +1 for **Yes** or and -1 for **No**)*
Environmental Safeguards												
Environment - *Air*	*SO_x emissions*	No SO_x emissions are anticipated from the solar power project.	The Air (Prevention & Control of Pollution) Act 1981 including Rules 1982 and 1983 and amendment	Not applicable as no emissions occur in project scenario.	No action required	-	Not applicable.	Not applicable.	No Action Required	Not applicable.	With reference to the CPCB modified direction No. B29012/ESS(CPA)/2015-16; dated March 07,	Not applicable.

[21] sourced from the CDM SD Tool and the sample reports are available (https://www4.unfccc.int/sites/sdcmicrosite/Pages/SD-Reports.aspx)

			(s)								2016 (Appendix A) solar power project falls in White category and it is mentioned in the notification that there shall be no necessity of obtaining the Consent to Operate'' for White category of industries.	
	NO_x emissions	No NO_x emissions are anticipated from the solar power project.	The Air (Prevention & Control of Pollution) Act 1981 including Rules 1982 and 1983 and amendment (s)	Not applicable as no emissions occur in project scenario.	No action required.	-	Not applicable.	Not applicable.	No Action Required	Not applicable.	With reference to the CPCB modified direction No. B29012/ESS(CPA)/2015-16; dated March 07, 2016 (Appendix A) solar power project falls in White category and it is mentioned in the notification that there shall be no necessity of obtaining the Consent to Operate'' for White category of industries.	Not applicable.
	CO_2 emissions	Solar power projects are clean energy sources with	The Air (Prevention & Control of	The project activity will displace fossil fuel	No action required.	-	Not applicable.	Not applicable.	No Action Required	CO2 emissions reduction will be	With reference to the CPCB modified	+1

		no associated CO_2 emissions.	Pollution) Act 1981 including Rules 1982 and 1983 and amendment (s)	based electricity generation that would have otherwise been provided by the operation and expansion of the fossil fuel based power plants in Indian grid.						monitored and calculated as per PSF. Refer B.6	direction No. B29012/ESS(CPA)/2015-16; dated March 07, 2016 (Appendix A) solar power project falls in White category and it is mentioned in the notification that there shall be no necessity of obtaining the Consent to Operate'' for White category of industries.	
	CO emissions	Solar power projects are clean energy sources with no associated CO emissions.	The Air (Prevention & Control of Pollution) Act 1981 including Rules 1982 and 1983 and amendment (s)	Not applicable as no emissions occur in project scenario.	No action required.	-	Not applicable.	Not applicable.	No Action Required	Not applicable.	With reference to the CPCB modified direction No. B29012/ESS(CPA)/2015-16; dated March 07, 2016 (Appendix A) solar power project falls in White category and it is mentioned in the notification that there shall be no necessity of obtaining the Consent to Operate'' for White category of industries.	Not applicable.

	Suspended particulate matter (SPM) emissions	No SPM emissions are anticipated through the operation of the project.	The Air (Prevention & Control of Pollution) Act 1981 including Rules 1982 and 1983 and amendment (s)	Not applicable as no emissions occur in project scenario.	No action required.	-	Not applicable.	Not applicable.	No Action Required	Not applicable.	With reference to the CPCB modified direction No. B29012/ESS(CPA)/2015-16; dated March 07, 2016 (Appendix A) solar power project falls in White category and it is mentioned in the notification that there shall be no necessity of obtaining the Consent to Operate'' for White category of industries.	Not applicable.
	Fly ash emissions	No flyash emissions are anticipated through the operation of the project.	The Air (Prevention & Control of Pollution) Act 1981 including Rules 1982 and 1983 and amendment (s)	Not applicable as no emissions occur in project scenario.	No action required.	-	Not applicable.	Not applicable.	No Action Required	Not applicable.	With reference to the CPCB modified direction No. B29012/ESS(CPA)/2015-16; dated March 07, 2016 (Appendix A) solar power project falls in White category and it is mentioned in the notification that there shall be no necessity of	Not applicable.

											obtaining the Consent to Operate'' for White category of industries.	
	Non-Methane Volatile Organic Compounds (NMVOCs)	No NMVOCs emissions are anticipated through the operation of the project.	The Air (Prevention & Control of Pollution) Act 1981 including Rules 1982 and 1983 and amendment (s)	Not applicable as no emissions occur in project scenario.	No action required.	-	Not applicable.	Not applicable.	No Action Required	Not applicable.	With reference to the CPCB modified direction No. B29012/ESS(CPA)/2015-16; dated March 07, 2016 (Appendix A) solar power project falls in White category and it is mentioned in the notification that there shall be no necessity of obtaining the Consent to Operate'' for White category of industries.	Not applicable.
	Odor emissions	No odor emissions are anticipated through the operation of the project.	The Air (Prevention & Control of Pollution) Act 1981 including Rules 1982 and 1983 and amendment (s)	Not applicable as no emissions occur in project scenario.	No action required.	-	Not applicable.	Not applicable.	No Action Required	Not applicable.	With reference to the CPCB modified direction No. B29012/ESS(CPA)/2015-16; dated March 07, 2016 (Appendix A) solar power project falls in White category and it is mentioned in the notification	Not applicable.

											that there shall be no necessity of obtaining the Consent to Operate'' for White category of industries.	
	Noise Pollution	No noise pollution is anticipated through the operation of the project.	The Air (Prevention & Control of Pollution) Act 1981 including Rules 1982 and 1983 and amendment (s)	Not applicable as no emissions occur in project scenario.	No action required.	-	Not applicable.	Not applicable.	No Action Required	Not applicable.	With reference to the CPCB modified direction No. B29012/ESS(CPA)/2015-16; dated March 07, 2016 (Appendix A) solar power project falls in White category and it is mentioned in the notification that there shall be no necessity of obtaining the Consent to Operate'' for White category of industries.	Not applicable.
Environment *- Land*	*Solid waste Pollution from Plastics*	No plastics pollution is anticipated through the operation of the project.	Plastic Waste (Management and Handling) Rules, 2016 and amendment (s)	Not applicable.	No action required	-	Not applicable.	Not applicable.	No Action Required	Not applicable.	-	Not applicable.

	Solid waste Pollution from Hazardous wastes	Damaged solar PV modules at site might have negative environmental impacts if not managed well.	Solid Waste Management Rules, 2016	-	harmless	-	-	The damaged/defunct solar PV modules shall be stored and disposed-off as per the national/local law.	Harmless	The details of damaged and returned solar PV modules will be maintained in records for future verification. Refer B.7.2	The project owner undertakes to manage solar PV modules waste in an appropriate manner and in compliance to the prevailing laws and regulations.	+1
	Solid waste Pollution from Bio-medical wastes	No bio-medical waste pollution is anticipated through the operation of the project.	Bio-medical Waste Management Rules, 2016 and amendment (s)	Not applicable.	Not applicable.	No Action Required	No Action Required	Not applicable.	Not applicable.	No Action Required	-	Not applicable.
	Solid waste Pollution from E-wastes	No e-waste pollution is anticipated through the operation of the project.	E-waste (Management) Rules 2016 and amendment (s)	-	**Harmless**	No Action Required	No Action Required	E-waste shall be stored and disposed-off as per the national/local law	Harmless.	Records of E-waste will be maintained as per applicable prevailing laws and regulations.	The project owner undertakes to manage E-waste in in compliance to the prevailing laws and regulations	+1
	Solid waste Pollution from Batteries	The project does not deploy batteries for storage. No solid waste pollution from batteries is anticipated.	Batteries (Management and Handling) Rules, 2001	Not applicable.	Not applicable.	No Action Required	No Action Required	Not applicable.	Not applicable.	No Action Required	-	Not applicable.
	Solid waste Pollution from end of life products/ equipment	Solar PV modules at site might have negative environmental impacts if not managed well after their end-of-life.	Solid Waste Management Rules, 2016	-	harmless	-	-	The damaged/defunct solar PV modules shall be stored and disposed-off as per the national/local law.	Harmless.	The details of damaged and returned solar PV modules will be maintained in records for future	The project owner undertakes to manage solar PV modules waste in an appropriate manner and in	+1

										verification. Refer B.7.2	compliance to the prevailing laws and regulations.	
	Soil Pollution from Chemicals (including Pesticides, heavy metals, lead, mercury)	No soil pollution from chemicals is anticipated through the operation of the project.	-	Not applicable.	Not applicable.	No Action Required	No Action Required	Not applicable.	Not applicable.	No Action Required	-	Not applicable
	Soil erosion	No soil erosion is anticipated through the operation of the project.	-	Not applicable.	Not applicable.	No Action Required	No Action Required	Not applicable.	Not applicable.	No Action Required	-	Not applicable
Environment *- Water*	*Reliability/ accessibility of water supply*	The project does not have significant water use except for sanitation purposes.	-	Not applicable.	-	-	-	-	-	-	-	Not applicable
	Water Consumption from ground and other sources	The project does not have significant water use except for sanitation purposes.	-	Not applicable.	-	-	-	-	-	-	-	Not applicable
	Generation of wastewater	The project does not have significant water use except for sanitation purposes.	-	Not applicable.	-	-	-	-	-	-	-	Not applicable
	Wastewater discharge without/with insufficient treatment	The project does not have significant water use except for sanitation purposes.	-	Not applicable.	-	-	-	-	-	-	-	Not applicable

	Pollution of Surface, Ground and/or Bodies of water	The project does not have significant water use except for sanitation purposes.	-	Not applicable.	-	-	-	-	-	-	-	-
Environment *– Natural Resources*	*Conserving mineral resources*	*The project does not use any mineral resources.*	-	Not applicable.	-	-	-	-	-	-	-	-
	Protecting/ enhancing plant life		-	Not applicable.	-	-	-	-	-	-	-	-
	Protecting/ enhancing species diversity		-	Not applicable.	-	-	-	-	-	-	-	-
	Protecting/ enhancing forests		-	Not applicable.	-	-	-	-	-	-	-	-
	Protecting/ enhancing other depletable natural resources		-	Not applicable.	-	-	-	-	-	-	-	-
	Conserving energy	This is a renewable energy generation project and does not involve energy conservation.	-	Not applicable.	-	-	-	-	-	-	-	-
	Replacing fossil fuels with renewable sources of energy	Solar power project replaces fossil fuels combustion in the thermal power plants in the connected grid.	-	Not applicable.	-	-	-	-	-	-	-	-

	Replacing ODS with non-ODS refrigerants	There are no ODS involved in the project.	-	Not applicable.	-	-	-	-	-	-	-	-
Note: If the score is: (a) zero or greater, the overall impact is neutral or positive and there is no net harm; and (b) less than zero, the overall impact is negative and there is net harm to Environment. Score is obtained after adding the individual scores in each of the rows in the last column of the above table.												
Net Score:			**+4**									
Project Owner's Conclusion in PSF:			The Project Owner confirms that the Project Activity will not cause any net harm to the environment.									

E.2. Social Safeguards

>>

Impact of Project Activity on		**Information on Impacts, Do-No-Harm Risk Assessment and Establishing Safeguards**									**Project Owner's Conclusion**	
		Description of Impact (*both positive and negative*)	**Legal requirement /Limit**	**Do-No-Harm Risk Assessment**			**Risk Mitigation Action Plans**		**Do-No-Harm Residual Risk Assessment**		**Self-Declaration**	
				Not Applicable *(No actions required)*	**Harmless** *(No actions required)*	**Harmful** *(Actions required)*	**Operational Controls**	**Program of Risk Management Actions**	**Re-evaluate Risks**	**Monitoring**	**Explanation of Conclusion**	**The Project Activity will not cause any harm**
Social impacts on the identified categories[22] indicated below.	*Indicators for social impacts*	*Describe the impacts on society and stakeholders, both positive and negative, that may result from constructing and operating of the Project Activity.*	*Describe the applicable national regulatory requirements / legal limits related to the identified risks of social impacts.*	*If no social impacts are anticipated, then the Project Activity is unlikely to cause any harm (is safe) and shall be indicated as **Not Applicable** (No actions required)*	*If social impacts are anticipated, but are expected to be in compliance with applicable national regulatory requirements/ legal limits, then it the Project Activity is unlikely to cause any harm (is safe) and shall be indicated as **Harmless** (No actions required)*	*If social impacts are anticipated that will not be in compliance with the applicable national regulatory requirements/ legal limits, then the Project Activity is likely to cause harm (may be unsafe) and shall be indicated as **Harmful** (Actions required).*	*Describe the operational controls and best practices, focusing on how to implement and operate the Project Activity, to reduce the risk of impacts that have been identified as **Harmful**.*	*Describe the Program of Risk Management Actions (refer to Table 3), focusing on additional actions (e.g., construction of crèche for workers) that will be adopted to reduce the risk of impacts that have been identified as **Harmful**.*	*Re-evaluate risks after Risk Mitigation Actions plans have been developed (refer to previous two columns) for impacts that have been identified as Harmful. Indicate whether the risks have been eliminated or reduced and, where appropriate, indicate them as **Harmless** (No actions required)*	*Describe the monitoring approach and the parameters to be monitored for each impact that has been identified as Harmful and to be described in the PSF (refer to Table 3).*	*Describe how the Project Owner has concluded that the Project Activity is likely to achieve the identified Risk Mitigation Action Plan targets for managing risks to levels that are unlikely to cause any harm.*	*Confirm that the Project Activity risks of negative social impacts are expected to be managed to levels that are unlikely to cause any harm (Mark +1 for **Yes** or and -1 for **No**)*
Social Safeguards												
Social - *Jobs*	*Long-term jobs (> 1 year) created/ lost*	There is a positive impact of the project activity on the creation of long term jobs during its operational life time.	Not applicable.	There is a positive impact of the project activity on the creation of long term jobs during its operational life time	-	-	Not applicable.	Not applicable.	Not applicable.	Records of People employed by the project will be maintained.	Not applicable.	+1

[22] sourced from the CDM SD Tool and the sample reports are available (https://www4.unfccc.int/sites/sdcmicrosite/Pages/SD-Reports.aspx)

				No harm. Not applicable.								
	New short-term jobs (< 1 year) created/ lost	There is a positive impact of the project activity on the creation of jobs during its construction and operational life time.	Not applicable.	There is a positive impact of the project activity on the creation of jobs during its construction and operational life time.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Records of People employed by the project will be maintained.	Not applicable.	+1
	Sources of income generation increased / reduced	There is positive impact of the project activity in creating new sources of revenue and/or increased income of the old and new small enterprises established in the neighborhood of the project due to increased economic activity in the area.	Not applicable.	There is positive impact of the project activity in creating new jobs and sources of revenue and/or increased income of the old and new small enterprises established in the neighborhood of the project due to increased economic activity in the area.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Records of People employed by the project will be maintained.	Not applicable.	+1
Social - *Health & Safety*	*Disease prevention*	*There is no direct impact of the project activity on disease prevention however it may be argued that due to the clean nature of the project, it helps in creating a heathier*	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.

		environment at the local and global level as there are no air pollutants emissions from the project.										
	Reducing / increasing accidents	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Reducing / increasing crime	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Reducing / increasing food wastage	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Reducing / increasing indoor air pollution	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Efficiency of health services	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Sanitation and waste management	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Other health and safety issues	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
Social - *Education*	*Job related training imparted or not*	The project activity does induce job related training opportunities for the personnel at the sites.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable
	Educational services improved or not	The project activity does not directly induce improvement in education services	Not applicable.	Through the social welfare programs, the project will help in improved	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Records of expenditure on social welfare programs for education	Not applicable.	+1

		however through the social welfare programs, the project will help in improved educational service delivery in the area.		educational service delivery in the area.						will be maintained.		
	Project-related knowledge disseminatio n effective or not	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable
	Other educational issues	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
Social - *Welfare*	*Improving/ deteriorating working conditions*	*Overall working conditions of the personnel engaged in the project activity are expected to improve.*	Not applicable.	*Overall working conditions of the personnel engaged in the project activity are expected to improve..*	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Records of People employed by the project will be maintained.	Not applicable.	+1
	Community and rural welfare	Through the social welfare programs, the project will contribute to community and rural welfare in the area.	Not applicable.	Through the social welfare programs, the project will contribute to community and rural welfare in the area.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Records of expenditure on social welfare programs will be maintained.	Not applicable.	+1
	Poverty alleviation (more people above poverty level)	By generating direct and indirect employment opportunities, the project activity contributes to the efforts of poverty alleviation.	Not applicable.	By generating direct and indirect employment opportunitie s, the project activity contributes to the efforts of	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Records of People employed by the project will be maintained.	Not applicable.	+1

				poverty alleviation.								
	Improving / deteriorating wealth distribution/ generation of income and assets	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Increased or / deteriorating municipal revenues	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Women's empowerment	The project activity will promote women empowerment by providing direct and indirect job opportunities at site and in the adjoining areas	Not applicable.	The project activity will promote women empowerment by providing direct and indirect job opportunities at site and in the adjoining areas	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Records of women employed by the project will be maintained.	Not applicable.	+1
	Reduced / increased traffic congestion	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Other social welfare issues	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
	Add more rows if required											

Note: If the score is: (a) zero or greater, the overall impact is neutral or positive and there is no net harm; and (b) less than zero, the overall impact is negative and there is net harm to society. Score is obtained after adding the individual scores in each of the rows in the last column of the above table.

Net Score:	**8**
Project Owner's Conclusion in PSF:	The Project Owner confirms that the Project Activity will not cause any net harm to society.

Section F. United Nations Sustainable Development Goals (SDG)

>>

UN-level SDGs	UN-level Target	Declared Country-level SDG	Defining Project-level SDGs					Project Owner(s)'s Conclusion	
			Project-level SDGs	**Project-level Targets/ Actions**	**Project-level Indicators**	**Contribution of Project-level Actions to SDG Targets**	**Monitoring**	**Explanation of Conclusion**	**Are Goal/ Targets Likely to be Achieved?**
Describe UN SDG targets and indicators *See: https://unstats.un.org/sdgs/indicators/indicators-list/*	*Describe the UN-level target(s) and corresponding indicator no(s)*	*Has the host country declared the SDG to be a national priority? Indicate Yes or No*	*Define project-level SDGs by suitably modifying and customizing UN/ Country-level SDGs to the project scope.* ***For guidance see:*** *Integrating the SDGs into Corporate Reporting- A Practical Guide: https://www.unglobalcompact.org/docs/publications/Practical_Guide_SDG_Reporting.pdf* *Case-study from Coca-Cola and other organizations to develop organization-wide SDGs (page 114): https://pub.iges.or.jp/pub/realising-transformative-potential-sdgs*	*Define project-level targets/actions, by suitably modifying and customizing UN/Country-level targets to the project scope. Define the target date by which the Project Activity is expected to achieve the project-level SDG target(s). Refer to the previous column for guidance*	*Define project-level indicators by suitably modifying and customizing UN/Country-level indicators to the project scope or creating a new indicator(s). Refer to the previous column for guidance*	*Describe and justify how actions taken under the Project Activity are likely to result in a direct positive effect that contributes to achieving the defined project-level SDG targets and is additional to what would have occurred in the absence of the Project Activity*	*Describe the monitoring approach and the monitoring parameters to be applied for each project-level SDG target and Indicator*	*Describe how the Project Owner has concluded that the project is likely to achieve the identified Project level SDGs target(s).*	*Describe whether the project-level SDG target(s) is likely to be achieved by the target date (Yes or No)*
Goal 1: End poverty in all its forms everywhere	1.1	Yes	Improve earnings of personnel by direct or indirect engagement in project construction and project operation.	Provide direct employment and induce indirect employment through contracting agencies.	a. No of personnel employed – direct employment b. No of personnel employed –	The employment generation means direct earnings to those engaged in the project related activities and thereby direct contribution to reduction of poverty.	Project activity will maintain a register of direct employees and those engaged through contractors throughout the project's operational life.	The project activity is already under construction and has engaged a number of direct and indirect employees in plant operation.	Yes

					indirect employment through contractors				
Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture	-								
Goal 3. Ensure healthy lives and promote well-being for all at all ages	3.2; 3.8	Yes	Company identifies providing best medical facilities in the villages as priority under SDG 3	Project developer will facilitate awareness sessions on health, free medical health camps and development and creation of health infrastructure in the village	Targets will be decided on an ongoing basis.	Project activity contributes directly to SDG targets.	This is a continuous activity; Progress will be measured as per the total expenditure on health initiatives and infrastructure developments	Project activity will regularly hold health camps in the area with necessary resource allocation.	Yes.
Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	4.3; 4.4	Yes	Company identifies absence of quality education programs as priority under SDG 4	Project developer will undertake a number of initiatives based on the identified needs of the project area on an on-going basis. E.g. infrastructure support to government schools, mid-day meals in government schools, providing, tables, chairs in	Targets will be decided on an ongoing basis.	Project activity contributes directly to SDG targets.	This is a continuous activity; Progress will be measured as per the Total expenditure for various education related initiatives.	Project activity will achieve intended targets with necessary resource allocation and continuous monitoring of the initiatives.	Yes.

				school premises etc.					
Goal 5. Achieve gender equality and empower all women and girls	5.5	Yes	Company identifies absence of livelihood opportunity for women as priority under SDG 5	Project developer will choose from a number of initiatives based on the identified needs of the project area on an ongoing basis. E.g. arranging awareness programs regarding female education at village level, providing infrastructure support to the vocational training centres, etc..	Targets will be decided on an ongoing basis.	Project activity contributes directly to SDG targets.	This is a continuous activity; progress will be measured as per expenditure on various initiatives in promoting gender equality and empowering women and girls.	Project activity will achieve intended targets with necessary resource allocation and continuous monitoring of the initiatives.	Yes.
Goal 6. Ensure availability and sustainable management of water and sanitation for all	6.1	Yes	Company identifies absence of drinking water facility in community as priority under SDG 6	Project developer will choose from a number of initiatives based on the identified needs of the project area on an ongoing basis. E.g Installation of Community RO, awareness	Targets will be decided on an ongoing basis.	Project activity contributes directly to SDG targets.	This is a continuous activity. Progress will be measured as per expenditure on water and sanitation initiatives.	Project activity will achieve intended targets with necessary resource allocation and continuous monitoring of the initiatives.	Yes.

				sessions on cleanliness and water saving					
Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all	7.2	Yes	Project activity is meant for generation of renewable energy and displacement of emission intensive energy in the connected grid.	Installation of 240 MW Solar power generation capacity	Approx. 5 million MWh over 10 years	Project activity contributes directly to SDG targets	Monitoring & reporting asper GCC Standard requirement.	Project activity is already installed and is in operation.	Yes.
Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	8.6	Yes	Company identifies absence of livelihood for youth as priority under SDG 8	Project developer will choose from a number of initiatives based on the identified needs of the project area on an ongoing basis. E.g. facilitate different vocational Courses (Beautician, Mehendi, Handicrafts etc), especially among children, women, elderly and the differently abled and livelihood enhancement projects;	Need based	Project activity contributes directly to SDG targets	This is a continuous activity; progress will be measured as per expenditure on various initiatives on training & engagement of local people in income generating activities.	Project activity will achieve intended targets with necessary resource allocation and continuous monitoring of the initiatives.	Yes.
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	-								
Goal 10. Reduce inequality within and among countries	-								

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable	-								
Goal 12. Ensure sustainable consumption and production patterns	-								
Goal 13. Take urgent action to combat climate change and its impacts	13.3	Yes	Project activity directly contributes to GHG emission reductions through generation of renewable energy and displacement of emission intensive energy in the connected grid.	Installation of 240MW Solar power generation capacity	Approx. 5 million tCO2e reduction over 10 years	Project activity contributes directly to SDG targets	Monitoring & reporting asper GCC Standard requirement.	Project activity is already installed and is in operation.	Yes.
Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development	-								
Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	15.3	Yes	Company identifies lack of vegetation/tree cover as priority under SDG 15	Project developer will organize various tree plantation drives and campaigns	No of trees planted	Project activity contributes directly to SDG targets	Impact will measure as how many trees have been planted/ distributed.	Project activity will achieve intended targets with necessary resource allocation and continuous monitoring of the initiatives.	Yes.
Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective,	-								

accountable and inclusive institutions at all levels									
Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development	-								

SUMMARY	**Targeted**	**Likely to be Achieved**
Total Number of SDGs	**09**	**09**
Certification label (Bronze, Silver, Gold, Platinum, or Diamond) for the ACCs as defined in the PSF	**Diamond**	**Diamond**

Section G. Local stakeholder consultation

G.1. Modalities for local stakeholder consultation

>>

The consultations for this project were carried out by a team during 16th to 19th December, 2020.

Scope of consultation:

Following are the main objectives of the consultation:

- Promote public awareness and improve understanding of the local people about the proposed project;
- Assessment of possible requirement of improvements;
- Solicit the views of affected communities/individuals on environmental and social problems;
- Improve environmental and social soundness;
- To settle problems with mutual consent; and
- Create accountability and sense of local ownership during project implementation.

Group of stakeholders involved:

project affected people, property owners, village Sarpanch – former and the present position holder, patwari (land record officer), local youth and women group and others in the village and people in the surrounding areas were part of the consultation.

Means of inviting stakeholders' participation:

Consultations conducted during the ESIA stakeholder engagement process involved individual interviews, focus group discussions and online discussions considering COVID-19 related restrictions in face to face meetings

Individual discussions were carried out with the project affected persons of Noorsar village, with those who have sold their land parcels to the project implementing company. Discussions were carried out to understand the prevalent socio-economic conditions and Project associated issues. Focus Group Discussions (FGD) were also carried out with people residing in the village to gauge their acceptability of the project and expectation from it and the project implementing authorities. Women community members were also identified and FGDs were held with the women community members of Noorsar village. The FGDs undertaken with the women community members were to understand the gender profile of the project area, to gain an understanding on the socio-economic situation as well as the health profile of the women of the village.

Information made available to stakeholders:

The consultation process began by explaining the type of development and the technology used for power generation. The villagers were also informed about the potential adverse environmental impacts, which are limited to construction phase and will be reversible afterwards. The villagers were also made aware about the employment opportunities through this project and the importance of setting up solar PV power plant, not only to tap the cleaner sources energy generation but most to meet the ever-increasing energy demand of state. The differences between conventional and renewable energy plants along with the climate change benefits of solar power plant are also explained. Unlike fossil fuel, solar power units do not emit dangerous gases like

Sulphur dioxide, Nitrogen oxides, Carbon monoxide, Volatile Organic Compounds, as well as greenhouse gas in the environment.

G.2. Summary of comments received

>>

All the respondents, communities in and around study area were aware about the proposed solar power project and expressed their support and cooperation for project activity. They didn't seem to have any objections or problem related to the development of solar power project in their area.

Local people were concerned about the employment opportunity from the proposed solar power project. The Project Proponent has assured, that they will prefer local people for unskilled labors during project construction period, while based on the skills and education they will provide employment opportunities to eligible youths of the locality.

G.3. Consideration of comments received

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The outcome of the public consultation is presented below:

SN	Concerns & expectations	Addressal of concerns
1	Capacity and Technology adopted for the proposed project	The community in and around study area have been apprised about the development of 240 MW Solar PV Power Plant
2	Requirement of land and process of land procurement	The land parcels of around 1000 acres required for the project through willing seller willing buyer basis
3	Will the upcoming solar power plant create employment opportunities for the local people?	The major source of employment will be during the construction and commissioning phase, with skilled and unskilled jobs for a period of 7-8. The project will also create employment for about 25 skilled and 120-130 unskilled personal during the operational phase of project. The PP has assured the community that local villagers will be offered employment opportunities for unskilled labour and based on their skills for skilled labour.
4	Will there be any influx of people due to upcoming solar power plant? Will it disrupt public services?	The chances of influx of people to the study area will be very minimal. As such it will not have an impact on the existing public services and local community.
5	Will the proposed solar power plant disturb existing land uses?	The land use pattern of the identified land will be changed from uncultivable fallow land to industrial land use.
6	Will the solar power plant project pose a risk to human	No. Solar PV Power plants do not present any risks to public health and the environment.

	health and the environment?	
7	What will be benefits of the neighbors due to upcoming project?	The proposed project will enhance the economy of the local area as well as of Bikaner district. It will provide employment opportunity to local community during construction period. Monetary gains, education, health, sanitation, water conservation, plantation and improvement in general environment through community development plan. This will lead to positive growth of local community. The PP will provide some Corporate Social Responsibility's (CSR) activity in the locality to improvement livelihoods standard of villagers.

Section H. Approval and authorization

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Not applicable.

Appendix 1. Contact information of project owners

Organization name	Avaada RJHN Private Limited
Country	India
Address	C-11, Sector-65, Gautam Buddha Nagar, Noida, UP – 201301
Telephone	-
Fax	-
E-mail	rajesh.dwivedi@avaada.com
Website	-
Contact person	Rajesh Bihari Dwivedi - Assistant Vice President

Appendix 2. Affirmation regarding public funding

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The project is financed through a mix of debt and equity. There is no ODA funding involved in the project activity.

Appendix 3. Applicability of methodology(ies)

>>
Refer section B.6.1 of PSF.

Appendix 4. Further background information on ex ante calculation of emission reductions

>>
Refer section B.6.2 of PSF.

Appendix 5. Further background information on monitoring plan

>>
Refer section B.7 of PSF.

Appendix 6. Summary report of comments received from local stakeholders

>>
Refer section G of PSF.

Appendix 7. Summary of de-registered CDM project (Type B)

>>Not applicable.

Complete this form in accordance with the instructions attached at the end of this form.	
CDM Project registration number	
Date of registration of CDM Project	
Title of the Project Activity	
CDM Project de-registration reference number	
Date of de-registration of the CDM Project	
Project Participants (authorized by the host / annex 1 country letter of approval)	
Country where the project is located	

Applied CDM methodology(ies)

(provide reference and version number(s))

Pre-registration changes to the CDM Project Activity

(Tick as applicable)

CDM Pre-registration Changes	Reference number	Approved	Provide a summary of pre-registration changes
Deviations from the CDM methodology		☐	
Deviations from the CDM Tool		☐	
Deviations from the CDM rules		☐	
Other…….		☐	

Post-registration changes to the CDM Project Activity

(Tick as applicable)

CDM Post registration Changes	Reference number	Approved	Provide a summary of post-registration changes
Change in project design		☐	
Request for revision of monitoring plan		☐	
Request for change in start date of crediting period		☐	
Renewal of crediting period		☐	
Temporary deviations		☐	
Other…….		☐	

Crediting Period(s)

Crediting period(s)			Period (start & end dates)	ERs as per registered PDD/MR	CERs issued
Crediting Period (shall start on or after 1 Jan 2016)	Fixed 10 year				
	Renewable (7 years, with 2 approved renewals)	1st			
		2nd			
		3rd			
Period for which CERs have been issued					
Period for which CERs have been requested but not issued					-
Period for which CERs have never been requested for issuance (no monitoring reports submitted)					-
Period for which CERs have never been requested for issuance prior to CDM de-registration					-
Remaining Crediting period, after CDM de-registration, for which CERs have not been issued by the UNFCCC CDM Executive Board, subject to a ceiling of 10 years as allowed under the GCC Program					-

Details of Previous CDM Issuance Requests

Issuance Request	Period (start & end dates)	ERs as per registered PDD	Quantity of CERs requested to be issued	Quantity of CERs issued
1st				
2nd				
3rd				
4th				
5th				
Add rows ……				
Total				

List any open issues in the

Validation and last Verification Report (e.g., FARs, if any) and how they have been addressed	
Any other relevant information that has not been reported in the registered CDM documents and that may have adverse impacts on the environmental integrity of the Project Activity	
Provide the list of all the registered documents related to this project, as available on the UNFCCC/CDM website and the corresponding URLs.	

DOCUMENT HISTORY

Version	Date	Comment
V 3.2	31/12/2020	▪ The name of GCC Program's emission units has been changed from "Approved Carbon Reductions" or ACRs to "Approved Carbon Credits" or ACCs.
V 3.1	17/08/2020	▪ Editorial revisions made ○ Revised Table in section B.7.2 on Monitoring-program of risk management actions ○ Revised Table in section E.1 on Environmental Safeguards ○ Revised Table in section E.1 on Social Safeguards ○ Revised Table in section F on United Nations Sustainable Development Goals (SDG)
V 3.0	05/07/2020	▪ Revised version released on approval by Steering Committee as per GCC Program Process; ▪ Revised version contains following changes: ○ Change of name from Global Carbon Trust (GCT) to Global Carbon Council (GCC); ○ Considered and addressed comments raised by Steering Committee: ➢ during physical meeting (SCM 01, dated 29 Oct 2019, Doha Qatar); and ➢ electronic consultations EC01-Round 01 (15.09.2019 – 25.09.2019), EC01-Round 02 (27.03.2020 – 27.06.2020). ○ Feedback from Technical Advisory Board (TAB) of ICAO on GCC submission for approval under CORSIA[23];
V 2.0	25/06/2019	▪ Revised version released for approval by the GCC Steering Committee. ▪ Revised version includes additional details and instructions on the information to be provided, consequent to the latest developments world-wide (e.g., CORSIA EUC).
V 1.0	01/11/2016	Initial version released under the GCC Program Version 1

[23] See ICAO recommendation for conditional approval of GCC at https://www.icao.int/environmental-protection/CORSIA/Documents/TAB/Excerpt_TAB_Report_Jan_2020_final.pdf

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