

**Gold Standard for the Global Goals  
Transition Annex**  
*(To be used by all GS CDM/VER stand alone projects and PoAs,  
Micro Scale stand alone projects and Micro PoAs)*



**Version 1 – September 2017**

## KEY PROJECT INFORMATION

Title of Project/PoA/Activity:	2x50 MW Orange Suvaan Solar Photovoltaic Power Project in Maharashtra, India
GS ID of the project/PoA/activity:	GS5928
GS Version:	2.2
Brief description of Project:	The project activity is a 100 (50 x 2) MW solar power project, promoted by Orange Suvaan Energy Private Limited (OSEPL). The purpose of the project activity is to generate electrical power through operation of Solar photovoltaic power plant using poly crystalline solar PV modules of 265/270 Wp each from a Tier I supplier.
Project type: Energy/Land Use	Energy
For Renewable Energy Projects – intention to apply RECs Labels (y/n)	No
GS Stream (CDM/VER):	GS VER
Scale (large/scale/micro):	Large
GS Registration Date:	01/08/2018
GS Crediting period start date:	16/06/2017
CDM Registration Date:	Not Applicable
CDM Crediting period start date:	Not Applicable
Project Developer:	Orange Suvaan Energy Private Limited
Project Representative:	Kosher Climate India (P) Limited
Project Participants and any communities involved:	Orange Suvaan Energy Private Limited
Host Country/Location:	India
Methodologies applied:	ACM0002 "Grid-connected electricity generation from renewable sources" Version 17.0
SDG Impacts:	<ul style="list-style-type: none"> <li>1 - SDG 7 Affordable and Clean Energy</li> <li>2 - SDG 8 Decent Work and Economic Growth</li> <li>3 - SDG 13 Climate Action</li> </ul>
Estimated amount of SDG Impact (GSVERs and others)	<p>SDG 7 : 168,630 MWh/year electricity generation</p> <p>SDG 8 : 400 Lakh INR cost spent on O&amp;M 25 number of employments 3 Training or workshops conducted /year</p> <p>SDG 13 : 164,869tCO<sub>2</sub> emission reduction</p>

## SECTION A Sustainable Development Goals (SDG) outcomes

### A.1 Relevant target for each of the three SDGs

>> (Specify the relevant SDG target for at least each of three SDGs addressed by the project. Refer most recent version of targets [here](#). Contribution to SDG 13 is mandatory to be demonstrated for all projects and activities. Contribution to SDG 7 is recommended to be demonstrated for all community service projects and activities)

SDG Goal	Relevant SDGs Targets	Corresponding Indicator
<b>SDG 7:</b> Ensure access to affordable, reliable, sustainable and modern energy for all	<b>7.2:</b> By 2030, increase substantially the share of renewable energy in the global energy mix	<b>7.2.1:</b> Renewable energy share in the total final energy consumption
<b>SDG 8:</b> Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	<b>8.5:</b> By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value	<b>8.5.1:</b> Average hourly earnings of female and male employees, by occupation, age and persons with disabilities <b>8.5.2:</b> Unemployment rate, by sex, age and persons with disabilities
<b>SDG 13:</b> Take urgent action to combat climate change and its impacts	<b>13.2:</b> Integrate climate change measures into national policies, strategies and planning	<b>13.2.1:</b> Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)

SDG Goal	SDG Indicator	Chosen Parameter
<b>SDG 7:</b> Ensure access to affordable, reliable, sustainable and modern energy for all	<b>7.2.1:</b> Renewable energy share in the total final energy consumption	Net electricity supplied to the grid
<b>SDG 8:</b> Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	<b>8.5.1:</b> Average hourly earnings of female and male employees, by occupation, age and persons with disabilities	1) Cost spent for O&M 2) Number of O&M staffs involved in the project
	<b>8.5.2:</b> Unemployment rate, by sex, age and persons with disabilities	1) Trainings provided to employees & O&M staffs
<b>SDG 13:</b> Take urgent action to combat climate change and its impacts	<b>13.2.1:</b> Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)	1) Quantity of net electricity supplied to the grid during the year y. 2) Emission reductions in tCO <sub>2</sub>

## A.2 Explanation of methodological choices/approaches for estimating the SDG outcome

>> (Explain how the methodological steps in the selected methodology(ies) or proposed approach for calculating baseline and project outcomes are applied. Clearly state which equations will be used in calculating net benefit.)

The company has a Corporate Social Responsibility Policy<sup>1</sup> in place. In sync with the overall policy, the company conducts regular surveys during construction as well as O&M phases in the villages near project locations to check the requirement of facilities by the villages. Based on the surveys, PP identifies and works on several scope(s) of developmental activities such as health camps, distribution of furniture & sports kits in schools, toilet requirements in government schools, drinking water requirements etc. Apart from these activities, some or all of which will be conducted in any given year, following SDGs will be impacted every year:

SDG Goal	Monitoring Plan
<b>SDG 7:</b> Ensure access to affordable, reliable, sustainable and modern	<u>Method:</u> Monitored through energy meter. Net electricity will be calculated by DISCOM and O&M operator on monthly basis and provided in the share certificate.

<sup>1</sup> <http://orangerenewable.net/download/OrangeRenewable-CSR-Policy.pdf>

energy for all	<p><u>Frequency:</u> Monthly</p> <p><u>QA/QC procedures:</u> Net electricity supplied to the grid by the project activity will be cross checked with invoices submitted to EB. The meter(s) shall be calibrated on a regular basis.</p> <p><u>Purpose:</u> To measure the electricity produced and supplied to the grid</p>
<b>SDG 8:</b> Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	<p><u>Method:</u> Ongoing data collection and storage under HSE records &amp; HR Records.</p> <p><u>Frequency:</u> Annual</p> <p><u>QA/QC procedures:</u> Transparent data collection, analysis and reporting.</p> <p><u>Purpose:</u> To identify and record the no. of trainings provided to the employees as well as employment generated due to project activity</p>
<b>SDG 13:</b> Take urgent action to combat climate change and its impacts	<p><u>Method:</u> Using processes and equations provided under "Tool to calculate the emission factor for an electricity system", v5 and referencing data from CEA database v11.</p> <p><u>Frequency:</u> Every monitoring period</p> <p><u>QA/QC procedures:</u> Transparent data collection, analysis, calculation and reporting.</p> <p><u>Purpose:</u> To calculate emissions avoided due to the project activity</p>

### A.3 Data and parameters fixed ex ante for monitoring contribution to each of the three SDGs

<b>Relevant SDG Indicator</b>	<b>SDG13.2.1:</b> Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)
<b>Data/Parameter</b>	<b>EF<sub>OM, y</sub></b>
<b>Unit</b>	tCO <sub>2</sub> /MWh
<b>Description</b>	Operating Margin CO <sub>2</sub> emission factor for the Indian Grid in year y
<b>Source of data</b>	CEA's " <i>Baseline Carbon Dioxide Emission Database Version 11.0</i> "
<b>Value(s) applied</b>	0.9941
<b>Choice of data or measurement methods and procedures</b>	<p>Calculated in line with "<i>Tool to calculate the emission factor for an electricity system (Version 05.0.0)</i>" using data from Central Electricity Authority of India's (CEA) "<i>Baseline Carbon Dioxide Emission Database Version 11.0</i>".</p> <p>The value used is calculated ex-ante as generation based weighted average of last three years of the operating margin provided in the CEA database.</p> <p>Weighted average  <math display="block">= \frac{\sum_{i=1 \text{ to } n} (\text{Net generation in operating margin in year } i * \text{Simple operating margin in year } i)}{\sum_{i=1 \text{ to } n} (\text{Net generation in operating margin of year } i)}</math></p>
<b>Purpose of data</b>	<i>Calculation of baseline emissions</i>
<b>Additional comment</b>	The value is fixed ex-ante

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<b>Relevant SDG Indicator</b>	<b>SDG13.2.1:</b> Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)
<b>Data/Parameter</b>	$EF_{BM,y}$
<b>Unit</b>	tCO <sub>2</sub> /MWh
<b>Description</b>	Build Margin CO <sub>2</sub> emission factor for the Indian Grid in year y
<b>Source of data</b>	CEA's "Baseline Carbon Dioxide Emission Database Version 11.0"
<b>Value(s) applied</b>	0.9285
<b>Choice of data or measurement methods and procedures</b>	Calculated in line with "Tool to calculate the emission factor for an electricity system (Version 05.0.0)" using data from Central Electricity Authority of India's (CEA) "Baseline Carbon Dioxide Emission Database Version 11.0".  The value is calculated ex-ante as most recent build margin provided by the CEA.
<b>Purpose of data</b>	Calculation of baseline emissions
<b>Additional comment</b>	The value is fixed ex-ante

<b>Relevant SDG Indicator</b>	<b>SDG13.2.1:</b> Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)
<b>Data/Parameter</b>	$EF_{grid,CM,y}$
<b>Unit</b>	tCO <sub>2</sub> /MWh
<b>Description</b>	Combined Margin CO <sub>2</sub> emission factor for the Indian Grid in year y
<b>Source of data</b>	Central Electricity Authority(CEA) of India Database Version 11.0
<b>Value(s) applied</b>	0.9777
<b>Choice of data or measurement methods and procedures</b>	This has been calculated based on Operating Margin (OM) and Build Margin (BM) published by Central Electricity Authority (CEA) of India. Please refer section B.6.1 for details.
<b>Purpose of data</b>	Calculation of baseline emissions
<b>Additional comment</b>	The value is fixed ex-ante

## SECTION B Safeguarding Principles Assessment

### B.1 Analysis of social, economic and environmental impacts

>> (Refer the GS4GG Safeguarding Principles and Requirements document for detailed guidance on carrying out this assessment. The assessment of following Safeguarding Principles Assessment is required to be carried

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out by GS Version 2.0, 2.1 and 2.2 projects. GS v1.0 projects will carry out assessment of all the safeguarding principles discussed in the GS4GG Safeguarding Principles and Requirements document.)

Safeguarding principles	Assessment questions	Assessment of relevance to the project (Yes/potentially/no)	Justification	Mitigation measure (if required)
3.1 Human Rights	<p>1. The Project Developer and the Project shall respect internationally proclaimed human rights and shall not be complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights.</p> <p>2. The Project shall not discriminate with regards to participation and inclusion.</p>	No	<p>1. During construction and operation of the project the project proponent respected all the human rights. The project is not in any kind of conflict with the livelihood of local people. Project proponent had conducted stakeholder's consultation and sought their opinion.</p> <p>2. The project will not employ any personnel based on gender, race, religion, sexual orientation or any other basis. As the Constitution of the host country prohibits discrimination on the basis of a person's race, sex, religion, place of birth, or social status. The host country has signed the Convention 100 (equal remuneration) and convention 111 (discrimination in employment /occupation) under the ILO Declaration on Fundamental Principles and rights<sup>2</sup></p>	Not Required
3.2 Gender Equality and Women's	The Project shall complete the following gender assessment questions in	No		Not Required

<sup>2</sup> <http://www.mfcindia.org/main/bgpapers/bgpapers2013/am/bgpap2013c.pdf>

<p>Rights</p>	<p>order to inform Requirements, below:</p> <ol style="list-style-type: none"> <li>1. Is there a possibility that the Project might reduce or put at risk women's access to or control of resources, entitlements and benefits?</li> <li>2. Is there a possibility that the Project can adversely affect men and women in marginalised or vulnerable communities (e.g., potential increased burden on women or social isolation of men)?</li> <li>3. Is there a possibility that the Project might not take into account gender roles and the abilities of women or men to participate in the decisions/designs of the project's activities (such as lack of time, child care duties, low literacy or educational levels, or societal discrimination)?</li> <li>4. Does the Project take into account gender roles and the abilities of women or men to benefit from the Project's activities (e.g., Does the project criteria ensure that it includes minority groups or landless peoples)?</li> <li>5. Does the Project design contribute to an increase in women's workload that adds to their care responsibilities or that prevents them from engaging in other activities?</li> <li>6. Would the Project</li> </ol>		<ol style="list-style-type: none"> <li>1. The project does not decrease women's access to or control of resources.</li> <li>2. No, there is no possibility of adverse effect.</li> <li>3. No, the Project does not consider gender roles and in fact actively engages both women and men. Community meetings are scheduled considering participation by both Men and Women.</li> <li>4. The project does not discriminate on basis of gender, caste or religion.</li> <li>5. No the Project was not designed to increase women's workload nor add care responsibilities.</li> <li>6. There is no place for discrimination against</li> </ol>	
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	<p>potentially reproduce or further deepen discrimination against women based on gender, for instance, regarding their full participation in design and implementation or access to opportunities and benefits?</p> <p>7. Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and priorities of women and men in accessing and managing environmental goods and services?</p> <p>8. Is there a likelihood that the proposed Project would expose women and girls to further risks or hazards?</p> <p>The Project shall not directly or indirectly lead to/contribute to adverse impacts on gender equality and/or the situation of women.</p> <p>1. Sexual harassment and/or any forms of violence against women - address the multiple risks of gender-based violence, including sexual exploitation or human trafficking.</p> <p>2. Slavery, imprisonment, physical and mental drudgery, punishment or coercion of women and girls.</p> <p>3. Restriction of women's rights or access to</p>		<p>women in this Project. The project does not discriminate on basis of gender, caste or religion.</p> <p>7. The Project will not limit women's ability regarding natural resources. The project being solar power project thus does not have any major impact on natural resources of the region.</p> <p>8. No the Project will not expose women and girls to further risks or hazards.</p> <p>The project proponent has a grievance cell which would look into compalints.</p> <p>1. There is no such risk for the project. Participation in the project is 100% voluntary. The project proponent has a grievance cell which would look into compalints.</p> <p>2. The project does not involve in slavery, imprisonment or coercion of women and girls.</p> <p>3. The Project will not</p>	
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	<p>resources (natural or economic).</p> <p>4. Recognise women's ownership rights regardless of marital status - adopt project measures where possible to support to women's access to inherit and own land, homes, and other assets or natural resources.</p> <p>Projects shall apply the principles of nondiscrimination, equal treatment, and equal pay for equal work, specifically:</p> <p>1. Where appropriate for the implementation of a Project, paid, volunteer work or community contributions will be organised to provide the conditions for equitable participation of men and women in the identified tasks/activities.</p> <p>2. Introduce conditions that ensure the participation of women or men in Project activities and benefits based on pregnancy, maternity/paternity leave, or marital status.</p> <p>3. Ensure that these conditions do not limit the access of women or men, as the case may be, to</p>		<p>restrict women's rights or access regarding natural resources. The project proponent does not discriminate on gender, caste, religion etc.</p> <p>4. Marital status is completely irrelevant to the Project. The project proponent does not discriminate on gender, caste, religion etc.</p> <p>Yes, the Project has equal opportunity for women and men to contribute both in volunteer and working positions</p> <p>1. The project proponent has a stipulated HR policy that takes into account participation by both men and women. Further, the CSR projects designed are implemented for equal participation of both men and women.</p> <p>2. There is no limit on the access to Project participation and benefits from either of these conditions.</p> <p>3. There are no such conditions that limit the access of women or men for participation.</p>	
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	<p>Project participation and benefits.</p> <p>The Project shall refer to the country's national gender strategy or equivalent national commitment to aid in assessing gender risks.</p>		<p>The project is aligned to India's strategy for elimination of all discrimination. India ratified the International Convention on the Elimination of All Forms of Racial Discrimination on 03/12/1968 with certain reservation<sup>3</sup>.</p>	
3.3 Community Health, Safety and Working Conditions	<p>The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community.</p>	No	<p>The project is in compliance with all relevant local and national laws. The Project does not threaten human health or environment and does not adversely affect the health of the workers and the community.</p>	Not Required
3.4.1 Sites of Cultural and Historical Heritage	<p>Does the Project Area include sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g., knowledge, innovations, or practices)?</p>	No	<p>The project does not alter, damage or remove any cultural heritage. As per the list of cultural heritage sites in India by UNESCO<sup>4</sup>, it is clear that the project site is not a cultural heritage site.</p>	Not Required
3.4.2 Forced Eviction and Displacement	<p>Does the Project require or cause the physical or economic relocation of peoples (temporary or permanent, full or partial)?</p>	No	<p>The project does not involve and is not complicit in involuntary resettlement of peoples in any way.</p> <p>The Project Developer has also obtained all necessary clearances from nodal agencies and NOCs from all the Gram Panchayats for establishing the project.</p>	Not Required
3.4.3 Land Tenure and Other Rights	<p>1. The Project Developer shall identify all such sites/matters potentially affected by the Project. For all such sites/matters identified the Project shall respect and safeguard:</p> <p>(a) Legal rights, or (b) Customary rights, or (c) Special cultural,</p>	No	<p>1. The project has all the legal, customary rights on the land and does not require any change to land tenure arrangements. The proponent has also obtained necessary clearances from nodal agencies and NOCs from all the Gram Panchayats for establishing the plant.</p>	Not Required

<sup>3</sup> [http://nhrc.nic.in/documents/india\\_ratification\\_status.pdf](http://nhrc.nic.in/documents/india_ratification_status.pdf)

<sup>4</sup> <http://whc.unesco.org/en/statesparties/in>

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	<p>ecological, economic, religious or spiritual significance of people shall be demonstrably promoted/protected.</p> <p>2. Changes in legal arrangements must be in line with relevant law and regulation and must be carried out in strict adherence with such laws. All legal disputes must be resolved prior to Project being carried out in such areas. All such changes must be demonstrated as having been agreed with free, prior and informed consent.</p> <p>3. The Project Developer must hold uncontested land title for the entire Project Boundary to complete Project Design Certification.</p>		<p>2. This is not applicable as the project does not require any change to land tenure arrangements.</p> <p>3. The project developers holds the land title for the all the land covered in the project activity.</p>	
3.4.4 Indigenous Peoples	Are indigenous peoples present in or within the area of influence of the Project and/or is the Project located on land/territory claimed by indigenous peoples?	No	The project is a solar power project and it is not located on land/territory claimed by any indigenous peoples.	Not Required
3.5 Corruption	The Project shall not involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects.	No	The proponent confirms that there is no corruption involved in the project activity. The host country has strict laws <sup>5</sup> and robust arrangements to prevent such activities. The DOE has been provided with company internal policies and it is clear that it has laid provisions to prevent/identify any	Not Required

<sup>5</sup> <http://cbi.nic.in/>

			corruption.	
3.6.1 Labour Rights	<p>1. The Project Developer shall ensure that there is no forced labour and that all employment is in compliance with national labour and occupational health and safety laws, with obligations under international law, and consistency with the principles and standards embodied in the International Labour Organization (ILO) fundamental conventions. Where these are contradictory and a breach of one or other cannot be avoided, then guidance shall be sought from Gold Standard.</p> <p>2. Workers shall be able to establish and join labour organisations.</p> <p>3. Working agreements with all individual workers shall be documented and implemented. These shall at minimum comprise: (a) Working hours (must not exceed 48 hours per week on a regular basis), AND (b) Duties and tasks, AND (c) Remuneration (must include provision for payment of overtime), AND (d) Modalities on health insurance, AND (e) Modalities on termination</p>	No	<p>1. The proponent assures that there will be no bonded or forced labor during construction and operation of the project activity. Uniform policy will be implemented for all employees. The host country has robust laws in place prohibiting forced and compulsory labor<sup>6</sup>.</p> <p>2. The proponent confirms that all the fundamental rights of the employees will be respected. The rights of industrial trade unions and their members have been protected by law in India since 1926 by The Trade Unions Act, 1926<sup>7</sup>.</p> <p>3. Working agreements with all individual workers are documented and implemented.</p>	Not Required

<sup>6</sup> <http://labour.nic.in/content/>

<sup>7</sup> <http://ncw.nic.in/acts/TheTradeUnionsAct1926.pdf>

	<p>of the contract with provision for voluntary resignation by employee, AND Provision for annual leave of not less than 10 days per year, not including sick and casual leave.</p> <p>4. The Project Developer shall justify that the employment model applied is locally and culturally appropriate.</p> <p>5. Child labour, as defined by the ILO Minimum Age Convention is not allowed. The Project Developer shall use adequate and verifiable mechanisms for age verification in recruitment procedures. Exceptions are children for work on their families' property as long as: (a) Their compulsory schooling (minimum of 6 schooling years) is not hindered, AND (b) The tasks they perform do not harm their physical and mental development, AND (c) The opinions and recommendations of an Expert Stakeholder shall be sought and demonstrated as being included in the Project design.</p> <p>6. The Project Developer shall ensure the use of appropriate equipment, training of workers, documentation and reporting of accidents and incidents, and emergency preparedness and response</p>		<p>4. The Project Developer ensures that local workers/employees are preferred, to the extent possible, for employment during construction as well as operation phase of the project ensuring skill development in the local populace.</p> <p>5. Child labor is strictly prohibited in the country<sup>8</sup>. The proponent assures that no child labor will be employed during construction and operation of the plant. The project proponent has a set mechanism to ensure the age of all the temporary/permanent employees during the life time of the project.</p> <p>6. The Project Developer has an active HSE team which ensures that all employees are given appropriate equipment and training. The same is properly</p>	
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<sup>8</sup> [http://www.indianchild.com/child\\_labour\\_law\\_in\\_india.htm](http://www.indianchild.com/child_labour_law_in_india.htm)

	measures.		documented and appropriate measures taken in case of emergencies.	
3.6.2 Negative Economic Consequences	<p>1. The Project Developer shall demonstrate the financial sustainability of the Projects implemented, also including those that will occur beyond the Project Certification period.</p> <p>2. The Projects shall consider economic impacts and demonstrate a consideration of potential risks to the local economy and how these have been taken into account in Project design, implementation, operation and after the Project. Particular focus shall be given to vulnerable and marginalised social groups in targeted communities and that benefits are socially-inclusive and sustainable.</p>	No	<p>1. Financial Sustainability of the project has been discussed under Section B.5 of the registered PDD. The calculations are for the entire life of the project.</p> <p>2. There are no negative economic impacts or potential risks to the local economy due to the project activity.</p>	Not Required
4.1.1 Emissions	Will the Project increase greenhouse gas emissions over the Baseline Scenario?	No	The project is a solar power project and does not lead to any greenhouse gas emissions in project scenario.	Not Required
4.1.2 Energy Supply	Will the Project use energy from a local grid or power supply (i.e., not connected to a national or regional grid) or fuel resource (such as wood, biomass) that provides for other local users?	No	The project is connected to the grid, as well as being a solar power project it will be a net provider of power to the local grid.	Not Required
4.2.1 Impact on natural water patterns and flow	Will the Project affect the natural or pre-existing pattern of watercourses, ground-water and/or the	No	The project being a solar power project will not have any such impacts.	Not Required

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	watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?			
4.2.2 Erosion and/or water body stability	<p>1. Could the Project directly or indirectly cause additional erosion and/or water body instability or disrupt the natural pattern of erosion? If 'Yes' or 'Potentially' proceed to question 2.</p> <p>2. Is the Project's area of influence susceptible to excessive erosion and/or water body instability?</p>	No	<p>1. The project activity has developed activities for prevention of soil erosion by various landscaping measures.</p> <p>2. The project area is not susceptible to excessive erosion or water body instability.</p>	Not Required
4.3.1 Landscape modification and soil	Does the Project involve the use of land and soil for production of crops or other products?	No	The project does not involve the use of land and soil for production of crops or other products.	Not Required
4.3.2 Vulnerability to Natural Disaster	Will the Project be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions?	No	The Project will not be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions.	Not Required
4.3.3 Genetic Resources	Could the Project be negatively impacted by the use of genetically modified organisms or GMOs (e.g., contamination, collection and/or harvesting, commercial development)?	No	The project does not have any impact by used of GMOs.	Not Required
4.3.4 Release of pollutants	Could the Project potentially result in the release of pollutants to the environment?	No	The project being a solar power project does not lead to release of any pollutants.	Not Required
4.3.5 Hazardous	Will the Project involve the manufacture, trade,	No	The project during operational phase uses	Not Required

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and Non-hazardous Waste	release, and/ or use of hazardous and non-hazardous chemicals and/or materials?		various type of oil/lubricants, grease which are classified as hazardous. These waste are handled in line with hazardous waste management rules and are disposed off accordingly.	
4.3.6 Pesticides and fertilizers	Will the Project involve the application of pesticides and/or fertilisers?	No	The Project will not involve the application of pesticides and/or fertilisers.	Not Required
4.3.7 Harvesting of forests	Will the Project involve the harvesting of forests?	No	The Project does not involve the harvesting of forests.	Not Required
4.3.8 Food	Does the Project modify the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	No	The Project does not have any impact on the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives.	Not Required
4.3.9 Animal Husbandry	Will the Project involve animal husbandry?	No	The Project will not involve animal husbandry.	Not Required
4.3.10 High Conservation Value Areas and Critical Habitats	Does the Project physically affect or alter largely intact or High Conservation Value (HCV) ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified?	No	The Project does not affect or alter largely intact or HCV ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified.	Not Required
4.3.11 Endangered Species	<p>1. Are there any endangered species identified as potentially being present within the Project boundary (including those that may route through the area)?</p> <p>2. Does the Project potentially impact other areas where endangered species may be present through transboundary affects?</p>	No	<p>1. There are no endangered species identified as potentially being present within the Project boundary.</p> <p>2. The Project does not impact other areas where endangered species may be present through transboundary affects.</p>	Not Required

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## Adherence to the Gold Standard Gender Equality Guidelines and Requirements

**Question 1:** Does the project reflect the key issues and requirements of Gender Sensitive design and implementation as outlined in the Gender Policy? Explain how.

**Response:** As per Gold Standard Gender Policy, para 13(i) "*Foundational gender-sensitive requirement - This strengthens Gold Standard's 'do no harm' approach and addresses safeguards to prevent or mitigate adverse impacts on women or men and girls and boys. Such action is mandatory for all projects seeking Gold Standard certification and includes compliance with the gender 'do no harm' safeguards, gender gap analysis and gender sensitive stakeholder consultations.*" This project is gender-sensitive in design. All stakeholders, irrespective of the gender, were invited and given a chance to give their feedback during the stakeholder feedback round. All the CSR activities that are planned and implemented by the project developer takes into account the need of the local people, irrespective of their gender.

**Question 2:** Does the project align with existing country policies, strategies and best practices? Explain how.

**Response:** A signatory to the Convention for the Elimination of Discrimination against Women<sup>9</sup> and the UN Convention on the Rights of the Child<sup>10</sup>, India has a number of progressive laws that support gender equality and ending discrimination and violence against women. The Government of India was represented at the 2013 session of the Commission on the Status of Women<sup>11</sup>, where Member States committed to ending all forms of violence against women. They recognized that there is a need to address the economic and political underpinnings of violence; ensure access to justice; strengthen multi-sectoral approaches; and end harmful traditional practices that negatively impact women. Under the Sexual Harassment of Women at the Workplace (Prevention, Prohibition and Redressal) Act 2013, the Government of India has pledged to establish 100 One Stop Crisis Centres and the creation of a INR 1000 Crore Nirbhaya Fund to respond to Violence against Women and Girls. More recently, the Criminal Law (Amendment) Act of 2013 expands the scope of sexual and gender based crimes against women.

The Project aligns with the national policies and thus the Project Developer has a Gender Sensitization Policy in place to ensure that every employee is treated with dignity and respect and afforded equitable treatment. The project developer also has a stipulated HR policy that takes into account participation by both men and women. Further, the CSR projects designed are implemented for equal participation of both men and women.

**Question 3:** Does the project address the questions raised in the Gold Standard Safeguarding Principles & Requirements document? Explain how.

**Response:** Please refer to the responses provided under "Safeguarding Principle 3.2 - Gender Equality and Women's Rights" under section B.1 - Analysis of social, economic and environmental impacts.

**Question 4:** Does the project apply the Gold Standard Stakeholder Consultation & Engagement Procedure Requirements? Explain how.

**Response:** Yes, the project applies the stakeholder-related procedures. From the GS Stakeholder guidelines, section 1.4 "*In developing a Project, taking gender issues into account would require that local stakeholder consultation processes reach a wide range of community representatives in ways that ensure equal and effective participation of women and men in consultation, and that gender issues are fully factored into comprehensive social and environmental impact assessments.*" The Local Stakeholder Consultation Meeting had an overall healthy participation from women in the meeting. The meeting was held during the day, as women tend to circulate more freely and safely than after sunset. All the villagers were invited for the consultation through News Paper Advertisement & invitation pasted in Gram Panchayat (local administration) Office. The meeting was conducted in local language.

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<sup>9</sup> [https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg\\_no=IV-8&chapter=4&lang=en](https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-8&chapter=4&lang=en)

<sup>10</sup> [https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg\\_no=IV-11&chapter=4&clang=en](https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-11&chapter=4&clang=en)

<sup>11</sup> <http://www.un.org/womenwatch/daw/csw/57sess.htm>

### C.1 Data and parameters to be monitored

<b>Relevant Indicator/Safeguarding Principle</b>	<b>SDG</b> <b>SDG13.2.1:</b> Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)
<b>Data / Parameter</b>	$EG_{\text{facility},y}$
<b>Unit</b>	MWh/year
<b>Description</b>	Quantity of net electricity supplied to the grid during the year y.
<b>Source of data</b>	Monthly energy generation statement issued by State Electricity Board. These are called JMR (Joint Meter Reading)
<b>Value(s) applied</b>	168,630
<b>Measurement methods and procedures</b>	<p>Net electricity supplied will be calculated based on the difference between values of “export” and “import” on the EB energy meter at the Government sub-station (evacuation point). (Net Electricity = Export – Import)</p> <p>The net electricity will be calculated by State electricity board and provided in the monthly generation statement/JMR/B-form. Hence, the net electricity reading will be directly sourced from the monthly generation statement/JMR/B-form.</p>
<b>Monitoring frequency</b>	<p>Measurement: Continuous</p> <p>Recording: Monthly</p> <p>Monitoring Method: recording in JMR (Join Meter Reading)</p> <p>The JMR includes, monthly recording of electricity export, import &amp; transmission loss. Energy meters of accuracy class 0.2 or better.</p>
<b>QA/QC procedures</b>	Net electricity supplied to the grid by the project activity will be cross checked with invoices submitted to EB. The meter(s) shall be calibrated and maintained by the state utility as per their schedule, and this frequency of meter calibration is not within the control of the Project Proponent. However, the project proponent shall ensure that calibration of electricity meters is carried out in-line with the Nation standard <sup>12</sup> which recommends at least once in 5 year calibration or whenever abnormal difference/inconsistency is observed between main meter and check meter.
<b>Purpose of data</b>	Baseline emission calculation ( $EG_{\text{facility},y}$ )
<b>Additional comment</b>	MWh/year

<sup>12</sup> (Page number 12 of ) [http://www.aegcl.co.in/Metering\\_Regulations\\_Of\\_CEA\\_17\\_03\\_2006.pdf](http://www.aegcl.co.in/Metering_Regulations_Of_CEA_17_03_2006.pdf)

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<b>Relevant Indicator/Safeguarding Principle</b>	<b>SDG</b> SDG 7.2.1: Renewable energy share in the total final energy consumption
<b>Data / Parameter</b>	Access to affordable and clean energy services
<b>Unit</b>	MWh
<b>Description</b>	Net Electricity supplied to grid
<b>Source of data</b>	JMR and Invoices generated by PP.
<b>Value(s) applied</b>	168,630MWh units of electricity supplied to grid annually
<b>Measurement methods and procedures</b>	Recorded monthly through the energy meters. Net electricity will be calculated by DISCOM and O&M operator on monthly basis and provided in the share certificate.
<b>Monitoring frequency</b>	Yearly Once
<b>QA/QC procedures</b>	-
<b>Purpose of data</b>	To monitor the contribution to SDG 7
<b>Additional comment</b>	-

<b>Relevant Indicator/Safeguarding Principle</b>	<b>SDG</b> SDG 8.5.1: Average hourly earnings of female and male employees, by occupation, age and persons with disabilities
<b>Data / Parameter</b>	Quantitative employment and income generation
<b>Unit</b>	<ul style="list-style-type: none"> <li>• Cost spent for O&amp;M</li> <li>• Number of O&amp;M staffs involved in the project</li> </ul>
<b>Description</b>	Total employment generated due to the implementation of project activity and the amount spent for O&M activities due to the project.
<b>Source of data</b>	Plant employment records
<b>Value(s) applied</b>	<p>The total number of O&amp;M staffs employed by the Orange for the operation &amp; maintenance of the project activity are around 25. This includes 8 number of O&amp;M team, 5 number of third party contractors and 12 number of security staff employed at project site.</p> <p>The cost of O&amp;M is over 4 lakhs per MW which works at 4000 lakhs INR for the project per year, which helps in creating service based jobs in the project region.</p> <p>The project also will provide training to women on various skills.</p> <p>The parameter has a positive impact as the project results in direct employment and income generation.</p>
<b>Measurement methods and procedures</b>	Employment records Training record for women
<b>Monitoring frequency</b>	Yearly Once
<b>QA/QC procedures</b>	-
<b>Purpose of data</b>	To monitor the contribution to SDG 8 (Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all)
<b>Additional comment</b>	-

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<b>Relevant Indicator/Safeguarding Principle</b>	<b>SDG</b> SDG 8.5.2: Unemployment rate, by sex, age and persons with disabilities
<b>Data / Parameter</b>	Quality of employment
<b>Unit</b>	Number of Trainings provided to employees & O&M staffs
<b>Description</b>	Trainings provided to employees & O&M staffs
<b>Source of data</b>	Training Records, HSE & HR records
<b>Value(s) applied</b>	<p>Some of the trainings &amp; workshops that are given to the O&amp;M staffs by management of Orange.</p> <ul style="list-style-type: none"> <li>• HSE Training Record</li> <li>• Regular Drill Record</li> <li>• Handling of Equipment Training</li> <li>• Soft Skill Training</li> </ul> <p>The training programmes help in making the workforce efficient and skilled at their job. This not only helps the company but adds to growth of individual employees. Thus, the project has a positive impact on the parameter.</p>
<b>Measurement methods and procedures</b>	List of training programmes conducted and the number of beneficiaries
<b>Monitoring frequency</b>	Yearly Once
<b>QA/QC procedures</b>	-
<b>Purpose of data</b>	To monitor the contribution to SDG 8 (Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all)
<b>Additional comment</b>	-

<b>Relevant Indicator/Safeguarding Principle</b>	<b>SDG</b> Safeguarding Principle 3.3 Community Health, Safety and Working Conditions
<b>Data / Parameter</b>	Safety of workers
<b>Unit</b>	<p>Safety procedures followed:</p> <ul style="list-style-type: none"> <li>• Operating staffs are provided with helmet, shoes &amp; gloves</li> <li>• Conduct safety training to the O&amp;M staffs yearly</li> </ul>
<b>Description</b>	<p>The EHS team is responsible for ascertaining the safety procedures are followed, some being:</p> <ul style="list-style-type: none"> <li>- Proper training to all the workers at site</li> <li>- Safety gear mandatory while Working at heights and inside the site location</li> <li>- Job card in conformity with safety protocol released before taking up any task by O&amp;M team</li> <li>- Implementation of Loading &amp; Unloading protocols</li> <li>- Use of vehicles with PUC &amp; proper maintenance of vehicles</li> <li>- Control speed of vehicles</li> </ul>
<b>Source of data</b>	Site Records of helmet, shoes & gloves distributed to staffs & Records of safety training

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<b>Value(s) applied</b>	There is no change in the status, as no land has been purchased after construction nor any associated resettlement.
<b>Measurement methods and procedures</b>	-
<b>Monitoring frequency</b>	Yearly Once
<b>QA/QC procedures</b>	-
<b>Purpose of data</b>	-
<b>Additional comment</b>	-

<b>Relevant Indicator/Safeguarding Principle</b>	<b>SDG</b> Safeguarding Principle 3.4.2 Forced Eviction and Displacement
<b>Data / Parameter</b>	Involuntary Resettlement & expropriation
<b>Unit</b>	Resettlement or Grievance
<b>Description</b>	<p>The project activity does not involve in any involuntary resettlement. Further all the land purchased is private land purchased from on mutual consent. The project proponent ensured the following during land purchase:</p> <ul style="list-style-type: none"> <li>• No land with existing structures was purchased</li> <li>• No land from any marginalized farmers was purchased</li> <li>• There were no settlements in vicinity of the chosen site</li> <li>• All the purchase process followed national and state laws for land purchase.</li> <li>• As the purchase of land is a voluntary process it does not involve "The National Rehabilitation and Resettlement Policy, 2007<sup>13</sup>,</li> </ul>
<b>Source of data</b>	Interview with local villagers & Grievance register
<b>Value(s) applied</b>	There is no change in the status, as no land has been purchased after construction nor any associated resettlement.
<b>Measurement methods and procedures</b>	-
<b>Monitoring frequency</b>	Yearly Once
<b>QA/QC procedures</b>	-
<b>Purpose of data</b>	-
<b>Additional comment</b>	-

<b>Relevant Indicator/Safeguarding Principle</b>	<b>SDG</b> Safeguarding Principle 4.3.4: Release of pollutants
<b>Data / Parameter</b>	Air quality
<b>Unit</b>	CO <sub>2</sub> emission reduction and reduction in dust generation

<sup>13</sup> <http://www.dolr.nic.in/nrrp2007.pdf>

<b>Description</b>	In order to reduce dust emissions during the construction phase, the following dust suppression measures stipulated and implemented: <ul style="list-style-type: none"> <li>• Spraying water and covering material trucks' body to minimize dust;</li> <li>• Reuse of water for sprinkling of unpaved roads.</li> <li>• Imposition of speed controls for vehicles and unpaved site roads;</li> <li>• Well-maintained diesel-powered mechanical equipment to avoid black smoke emissions;</li> <li>• Shut-down of diesel-powered mechanical equipment or trucks inside the worksites when they are not in operation.</li> </ul>
<b>Source of data</b>	Central Electricity Authority: "CO <sub>2</sub> Emission Database CEA CO <sub>2</sub> Baseline database Version 11" published by Central Electricity Authority (CEA), Ministry of Power, Government of India
<b>Value(s) applied</b>	164,869tCO <sub>2</sub> emission reductions estimated per annum
<b>Measurement methods and procedures</b>	Project logbook, or interview with maintenance staff. Amount of annual net electricity generation will be used to calculate estimated CO <sub>2</sub> emission reductions by project activity
<b>Monitoring frequency</b>	Once every monitoring period
<b>QA/QC procedures</b>	In order to reduce dust emissions during the Operation phase, the following dust suppression measures stipulated and implemented: <ul style="list-style-type: none"> <li>• Imposition of speed controls for vehicles and unpaved site roads;</li> <li>• Well-maintained diesel-powered mechanical equipment to avoid black smoke emissions;</li> </ul>
<b>Purpose of data</b>	To monitor compliance to Safeguarding Principle 4.3.4 (Release of pollutants)
<b>Additional comment</b>	-

## C.1.1 Other elements of monitoring plan (if applicable)

>>

Not Applicable

## SECTION D Duration and crediting period

### D.1 Duration of project

#### D.1.1 Start date of project

>> (Specify start date of the project, in the format of DD/MM/YYYY)

25/10/2016

#### D.1.2 Expected operational lifetime of project

>> (Specify in years)

25 years

### D.1 GS Crediting period of the project/activity

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## D.2.1 Start date of the ongoing GS crediting period

>> *(Specify in dd/mm/yyyy)*

16/06/2017

## D.2.3 End date of the ongoing GS crediting period

>> *(Specify in dd/mm/yyyy)*

15/06/2024

## D.2.3 Total length of the GS crediting periods

>> *(Specify the total length of crediting period in years in line with GS4GG Principles & Requirements or relevant activity requirements)*

21 years (7 years x renewable twicw)

## SECTION E Stacking of new assets

>> *(If project is looking to stack new assets over GSVERs the required information to demonstrate compliance to the relevant methodology, product specification and additionality shall be presented in the new PDD template launched with GS4GG)*

Not applicable, as the project is not to stack new assets over GSVERs.

## Appendix 1. Contact information of project participants

<b>Organization name</b>	Orange Suvaan Energy Private Limited
<b>Registration number with relevant authority</b>	-
<b>Street/P.O. Box</b>	301B, 3rd Floor,
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