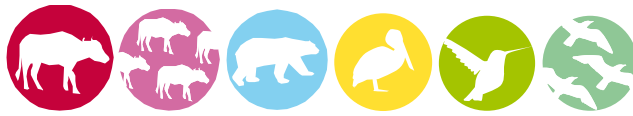


GOLD STANDARD PASSPORT

CONTENTS



- 1. Project title**
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Annex 1 ODA declarations

SECTION A. Project Title

[See Toolkit 1.6]

Title: Renewable Power Project by Emami Power Ltd

Date: ~~10/08~~08/11/2017

Version no.: 0~~3~~2

SECTION B. Project description

[See Toolkit 1.6]

Start date of project activity 31/10/2016¹

The main purpose of this project activity is to generate clean form of electricity through renewable solar energy source. Emami Power Ltd is the promoter of the proposed project activity. The project activity involves installation of 20 MW AC (22.5 MWp DC) solar power project Villages: Udelhedi, Naharpur, Mannakhedi, Kumrada, Tehsil: Roorkee District: Haridwar. The project will replace anthropogenic emissions of greenhouse gases (GHG's) estimated to be approximately 31,689 tCO₂e per year, thereon displacing 32,412 MWh/year amount of electricity from the generation-mix of power plants connected to the grid, which is mainly dominated by thermal/fossil fuel based power plant.

The details of the project and the state of installation are mentioned in the table:-

Project Promoters' Name	Capacity in MW	Connection with Grid	State
Emami Power Ltd.	20 MW (AC)	INDIAN	Uttarakhand

Sectoral Scope: 01 : "Grid-connected electricity generation from renewable sources", ACM0002-Version 17.0"

Project Type: (i) : Renewable energy projects

Scenario existing prior to the implementation of project activity:

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

Baseline Scenario:

¹ Letter of Acceptance (LoA) with contractor provided for documentary evidence of start date.

As per the applicable methodology, a Greenfield power plant is defined as “a new renewable energy power plant that is constructed and operated at a site where no renewable energy power plant was operated prior to the implementation of the project activity”.

As the project activity falls under the definition of a Greenfield power plant, the baseline scenario as per applied methodology is the following:

The baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid.

Hence, pre-project scenario and baseline scenario are the same.

Sustainable development indicators

The National CDM Authority (NCDMA), which is the Designated National Authority (DNA) for the Government of India (GOI) under the Ministry of Environment and Forests (MoEF), has mentioned four indicators for the sustainable development in the interim approval guidelines for Clean Development Mechanism (CDM) projects from India². Thus the project's contribution towards sustainable development has been addressed based on the following sustainable development aspects:

Social well being

The project activity provided / provides job opportunity to local people during erection, commissioning and maintenance of the solar project. Frequency of visiting villages and nearby areas by skilled, technical and industrialist increase due to installation /site visit/operation and maintenance work related to solar plant. This directly and indirectly positively effects the economy of villages and nearby area.

Environmental well being

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

Economic well being

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

Technological well being

² http://www.cdmindia.gov.in/approval_process.php

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

At Emami, the operative philosophy is that inclusive growth is not a destination but a journey. A journey made possible by the progressive engagement of all stakeholders in the developmental process. The Company strives to achieve sustainable development across the realms of education, health and livelihood and undertakes the bulk of its CSR activities in the hinterlands of its factories and offices across 11 states in the country including West Bengal, Assam and Rajasthan, among others. Emami Ltd's CSR activities are carried out by Emami Ltd itself and also by Emami Foundation

Ethical corporate behavior forms the basis of our CSR initiative. Hunger, diseases and ignorance are still the burning issues of modern times, despite growth in science; government budgetary resources are inadequate to mitigate the sufferings. The corporate world cannot afford to remain sitting on the fence as mere onlooker when people are afflicted with hunger and malnutrition, diseases and physical infirmity and illiteracy. Emami has a long tradition in conducting philanthropic activities, supported by a professional outlook. An exercise is underway to integrate all such activities of Emami Group companies and Emami Foundation across healthcare, education, community development, women empowerment and livelihood creation.

<http://www.emamigroup.com/csr-initiative>

SECTION C. Proof of project eligibility

C.1. Scale of the Project

[See Toolkit 1.2.a]

Please tick where applicable:

Project Type	Large	Small
	☒	☐
	☐	☐
	☐	☐

	☐	☐
	☐	☐

	☐
---	--------------------------

C.2. Host Country

[See Toolkit 1.2.b]

India

C.3. Project Type

[See Toolkit 1.2.c and Annex C]

Please tick where applicable:

Project type	Yes	No
Does your project activity classify as a Renewable Energy project?	☒	☐
Does your project activity classify as an End-use Energy Efficiency Improvement project?	☐	☒
Does your project activity classify as waste handling and disposal project?	☐	☒

Please justify the eligibility of your project activity:

The Renewable Energy Supply category is defined as the generation and delivery of energy services (e.g. electricity) from non-fossil and non-depletable energy sources. The Project involves generation and delivery of electricity generated from solar energy sources, so the Project belongs to the Renewable Energy Supply category.

Pre Announcement	Yes	No
------------------	-----	----

Was your project previously announced?	☒	☐
Explain your statement on pre announcement The project activity has been announced for CDM stakeholder consultation with the consideration of potential carbon credit revenues from CDM mechanisms. The project proponent has considered potential carbon credit benefits from the very conceptualisation stage of the proposed project activity. This is further evident from the following information regarding prior CDM consideration notifications: Start date of the project activity is the date of Letter of Acceptance (LoA) with contractor as on 31/10/2016. Emami Power Ltd. intimated the UNFCCC and host party DNA i.e. National CDM Authority (NCDMA) of its intention to seek CDM for the proposed project activity in a defined F-CDM form on 24/11/2016. The UNFCCC has webhosted the prior CDM consideration of the project activity on its website³. Currently the CDM project activity is submitted to UNFCCC for request for registration.		

C.4. Greenhouse gas

[See Toolkit 1.2.d]

Greenhouse Gas	
Carbon dioxide	☒
Methane	☐
Nitrous oxide	☐

C.5. Project Registration Type

³ <http://cdm.unfccc.int/Projects/PriorCDM/notifications/index.html>

[See Toolkit 1.2.f]

Project Registration Type	
Regular	☐

Pre-feasibility assessment	Retroactive projects (T.2.5.1)	Preliminary evaluation (eg: Large Hydro or palm oil-related project) (T.2.5.2)	Rejected by UNFCCC (T2.5.3)
	☒	☐	☐

If Retroactive, please indicate Start Date of project activity dd/mm/yyyy: Start date of the project activity is the date of Letter of Acceptance (LoA) with contractor as on 31/10/2016.

Since the project has applied for Retroactive validation under GS, thus the crediting period under the GS mechanism shall be maximum of 2 years prior to the GS registration date. However since project activity is also applied for CDM registration and start date of GS crediting period will be same as CDM crediting period.

SECTION D. Unique project identification

D.1. GPS-coordinates of project location

[See Toolkit 1.6]

The project activity is located at

Village : Udelhedi, Naharpur, Mannakhedi, Kumrada

District: Haridwar

State: Uttarakhand

The latitude and longitude are as follows:

Project Promoters' Name	Latitude	Longitude	Date of Commissioning
Emami Power Limited	N 29° 45' 11.18"	E 77° 49' 18.76"	30/03/2017

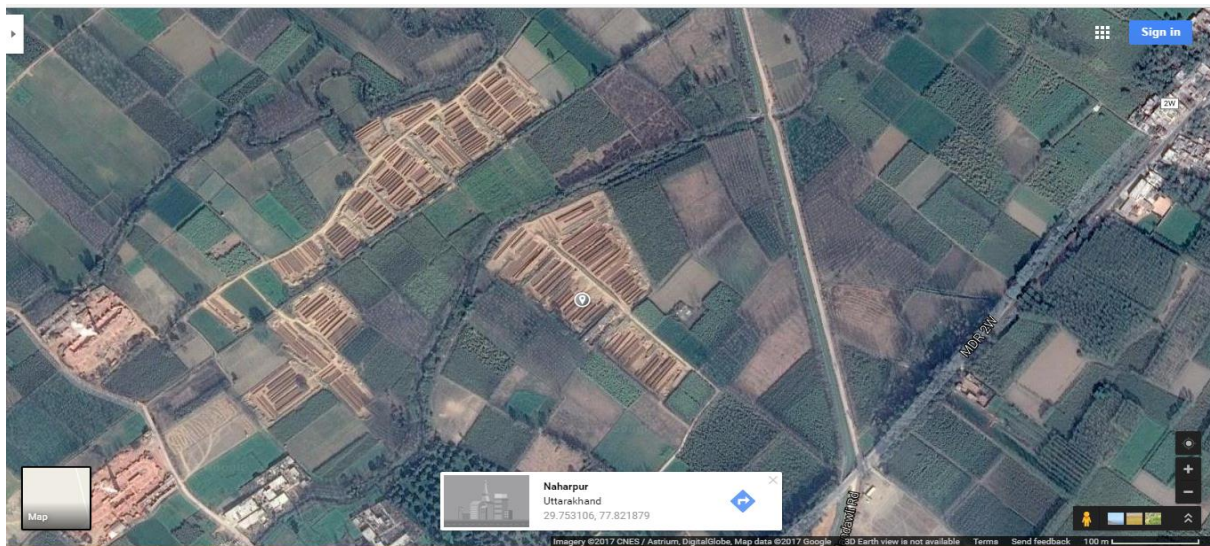


Explain given coordinates

The project activity is located at Uttarakhand, India.

D.2. Map

[See Toolkit 1.6]



SECTION E. Outcome stakeholder consultation process

E.1. Assessment of stakeholder comments

[See Annex J]

It's not necessary for the retroactive project to conduct Local Stakeholder Consultation; the Stakeholder Feedback Round information is available in the below section.

The Local Stakeholder Meetings were organized for local stakeholder consultation and informed local stakeholder regarding the meeting. The followings are the local stakeholders for the project activity:

- Local community
- Local village administration
- Technology suppliers
- Local vendors

Date of invitation – 01/09/2016

Date of Meeting –09/09/2016

Location of Meeting - at project site

All the stakeholders have been invited through public notice to attend the stakeholders meeting.

The stakeholders gathered at the venue, as per the scheduled time. In the introductory speech, the representatives welcomed the gathering and given a brief about the CDM project activity. Subsequent to the introductory speech, stakeholders were explained about the electricity generation from solar project is an environmental friendly power generation technology contributing to reduction in GHG emissions. They were also explained about the benefits of the solar power projects like, increasing energy availability and improving quality of power and its assistance to the local population by providing employment opportunities to both skilled & unskilled labors.

The Minutes of meeting with commenting sheet from LSH, Public Notice copy shall be submitted to the DOE.

Meeting started with opening speech by representative of project participant. He introduced all guests on dais. The representative of project participant explained Technical aspects of project to stakeholders. He also explained about social, environmental & economical benefits of the project. He also elaborated about CDM & its requirement for the current project. After the presentation, the session was open for questions/feedback from stakeholders.

The villagers raised various queries as summarized below:

- Will the operation of the plant result in increased temperature in the surroundings?
- Does the project provides employment opportunities or improve economic development of the area?
- Will the project help in improving the electricity supply to the villagers or neighborhood areas?
- How the project activity benefit the villages around the project site and their residents?

The villagers raised various queries which have been summarised below:

Name of Stakeholder	Mohit Singh
Occupation	Farmer

1. Can we get free electricity?

Answer: Investor cannot sell power directly. The power will be sold to grid.

2. Will it harm the crops?

Answer: It will not harm the crops.

Name of Stakeholder	Girish
Occupation	Villager

1. Will we get employment opportunity?

Answer: Yes, employment opportunities will be developed and village people will be given preference.

2. Can we get free electricity?

Answer: Project investor cannot sell power directly. The power is sold to grid.

3. Will it harm the farmers?

Answer: It will not harm the farmers.

Name of Stakeholder	Vijendra
Occupation	Villager

1. Will there be any problem to people?

Answer: There will be no harm to people due to the project.

2. Will we get employment opportunity?

Answer: Yes, employment will be generated and locals will be given preference.

Name of Stakeholder	Ashok
Occupation	Teacher

1. Will there be pollution from this project?

Answer: There will be no pollution from this project.

2. Will it reduce the problem of power cut?

Answer: The problem of power cut will reduce due to this project.

3. Will schools be opened?

Answer: The investor will develop school for primary education.

Name of Stakeholder	Vasu
---------------------	------

Occupation	Shopkeeper
------------	------------

1. Can Electricity be generated at night from solar plant?

Answer: Electricity cannot be generated at night from solar plant.

2. Will it cause any impact on rainfall?

Answer: It will not have any impact on the rainfall.

3. Will it cause rise in temperature of surrounding?

Answer: It will not cause increase in temperature.

Name of Stakeholder	Ajit
---------------------	------

Occupation	Student
------------	---------

1. Will there be employment opportunity?

Answer: Employment opportunity will be generated and the locals will be given preference.

2. Will there be road development?

Answer: Roads will be developed near the project site.

3. Will it cause any problem to the people?

Answer: It will not cause any problem to the people.

Name of Stakeholder	Mohit Kumar
---------------------	-------------

Occupation	Villager
------------	----------

1. Will it harm our crops?

Answer: It will not harm the crops

2. Will this project use coal?

Answer: This project will not use coal.

3. Will it improve the economic condition of the village?

Answer: Yes, it will help to develop the economic condition of the village.

All the above queries have been suitably and satisfactorily replied / clarified by project participant's representatives. Local stakeholders welcomed and expressed their support to the project. The meeting was concluded by vote of thanks to all the participants.

There were no comments raised by the stakeholders and they were totally in support for setting up of these kinds of projects in the region.

E.2. Stakeholder Feedback Round

Please describe report how the feedback round was organised, what the outcomes were and how you followed up on the feedback.

[See Toolkit 2.11]

The stakeholder Feedback Round (SFR) has been planned from 03/05/2017. The email has been sent to relevant stakeholders like NGOs, DNA officials, Gold Standard officials along with project documents.

PDD and initial GS passport made available in public domain (GS website) for 60 days to enable the local stakeholders to make comments.

The process for the SFR was as follows;

- E mail and Invitations send to relevant stakeholders
- The non-technical summary of project activity along with Registered PDD, web link of UNFCCC web page for the same registered project in CDM, draft GS passport submission to relevant stakeholders, GS Public view section web link.
- Grievance Mechanism Feedback/Questions from Stakeholders
- Answers for questions received from stakeholders during online SFR process.

Identification of Stakeholders:

The Stakeholder feedback round has been planned to consider and to receive feedback from the possible stakeholders to the project, i.e. NGOs. Apart from these, the stakeholders as identified by Gold standard Board, i.e. Gold standard partnered NGOs in India and DNA of India (MoEF).

The nearby local villagers were considered for Stakeholder Feedback Round.

Invitations to Stakeholders:

The Stakeholder feedback round has been done online method. Email invitations were sent to GS partnered NGO's, GS officials, and MoEF. For local stakeholders like villagers, public notice has been put and feedback is requested for the project activity.

The Mandatory Continuous Input & Grievance Expression Methods applied are described in section E.3;

The monitoring of project shall be carried out periodically and the auditors would be visiting or interviewing the stakeholders and in case any concerns the same can also be discussed with them.

DOE who has appointed as the auditor for the project, interacted with stakeholders and observe their views regarding the SFR process and the project activity.

Question/Comments session:

There are no comments received during 2 months period of stakeholder feedback round.

Conclusion:

There are no comments received during 2 months period of stakeholder feedback round. Thus project activity has no adverse impact for sustainable indicator parameter.

E. 3. Discussion on continuous input / grievance mechanism

[See Annex W]

Discuss the Continuous input / grievance mechanism expression method and details, as discussed with local stakeholders.

	Method Chosen (include all known details e.g. location of book, phone, number, identity of mediator)	Justification
Continuous Input / Grievance Expression Process Book	Grievance Register to be maintained at Site office. Project Site Address:	O&M contractor has a dedicated office for O&M in the project area. Thus it is appropriate publicly accessible location at which local stakeholders can provide their feedback on the project.

	Emami Power Ltd., 20 MW, Village : Udelhedi, Naharpur, Mannakhedi, Kumrada Dist: Haridwar , Uttarakhand PP office Address: Emami Power Limited, Emami Tower, 2nd Floor, 687 Anandapur, E.M. Bypass, Kolkata-700107, India	This location is also conducive to continuous and regular checks for stakeholder comments. Also Grievance Register has been kept at PP office so that any stakeholder can give their comments to PP.
Telephone access	Mr. Manish Dabkara, mobile number +91 9907534900 shall be available for any stakeholder to comment.	For those who are unable to travel to site or are not literate, they may contact the Project Implementer via telephone. Persons dialing this telephone number will have access to a Project representative who speaks both English and the local language. Stakeholders have also been provided with a telephone number for the regional Gold Standard Representative in India.
Internet/email access	Email address: Manish Dabkara manish@enkingint.org Gold Standard: info@goldstandard.org	An email id of the project Implementer has been provided for continuous input / grievance for the convenience of stakeholders with internet access.
Nominated Independent Mediator (optional)	No Independent mediator is assigned. However, Mr. Manish Dabkara, has been assigned as the point of contact for all the local issues.	The use of a Nominated Independent Mediator is not being employed. As the use of the process book, telephone and internet will sufficiently capture feedback as necessary.

There are no any issues (negative feedback) received from stakeholders, hence no any mitigation measures are required.

SECTION F. Outcome Sustainability assessment

F.1. 'Do no harm' Assessment

[See Toolkit 2.4.1 and Annex H]

The business Principles which covers under code of conduct consists of

Business Principles – which includes Legal Compliance, Anti-Corruption and anti- bribery and Human Rights

Labour Standards – which includes Freedom of Association, Forced labour, Wages and working hours, child labour and young workers, Non-discrimination, health and Safety, Prevention of alcohol and Drug use at work

Environment – which includes comply of environmental laws and regulations and to encourage diffusion of environmentally friendly technologies.

Also the group companies of Emami Limited have Corporate Governance and followed code of conduct, environment, health & Safety Policy. Thus project activity follows the Environment, health and Safety guidelines at site.

<http://www.emamilttd.in/investor-info/pdf/CorporateGovernance.pdf>

Safeguarding principles	Description of relevance to my project	Assessment of my project risks breaching it (low/medium/high)	Mitigation measure
1. The project respects internationally proclaimed human rights including dignity, cultural property and uniqueness of indigenous people. The project is not	The Project is not in conflict with the economic livelihood of the local community. The Project does not cause any human rights abuse and respects internationally proclaimed human rights issue. The India has ratified the United Nations Human Rights Rules and	Low	Not applicable

complicit in Human Right Abuses	regulations. The India ratified the same as per web link⁴ given below The project adheres to the host country's commitment to: Universal Declaration of Human Rights (UDHR) International Covenant on Economic, Social and Cultural Rights, India Accession 10/04/79⁵ International Covenant on Civil and Political Rights India Accession 10.04.79⁶		
2. The project does not involve and is not complicit in involuntary resettlement	The project does not involve any resettlement. India (the Ministry of <u>Law and Justice</u> Rural development have the “The <u>Right to Fair Compensation and Transparency in Land Acquisition , Rehabilitation and resettlement Act , 2013 dated 26/09/2013</u> National Rehabilitation and Resettlement Policy, <u>2007</u> http://indiacode.nic.in/acts-in-pdf/302013.pdf http://www.dolr.nic.in/nrrp2007.pdf The project activity will not have any major impact on land use patterns. In accordance with Article 1 of the International Covenant on economic, Social and Cultural Rights the program does not complicit in involuntary resettlement No Expropriation has been conducted on any land involved in project activity. Land has been	Low	Not applicable

⁴ http://tbinternet.ohchr.org/_layouts/TreatyBodyExternal/Treaty.aspx?CountryID=79&Lang=EN

⁵ <http://hrlibrary.umn.edu/research/ratification-india.html> and http://tbinternet.ohchr.org/_layouts/TreatyBodyExternal/Treaty.aspx?CountryID=79&Lang=EN

⁶ <http://hrlibrary.umn.edu/research/ratification-india.html> and http://tbinternet.ohchr.org/_layouts/TreatyBodyExternal/Treaty.aspx?CountryID=79&Lang=EN

	utilised on lease basis, thus there are no any issues of dissatisfaction of land owner.		
3. The project does not involve and is not complicit in the alteration, damage or removal of any critical cultural heritage	No cultural heritage is observed on the project site, thus no harm observed. Compliance with India's commitment to International Covenant on Economic, Social and Cultural Rights 10.04.79 will ensure no damage to critical cultural heritage.	Low	Not applicable
4. The project respects the employees freedom of association and their right to collective bargaining and is not complicit in restrictions of these freedoms and rights	This project involves a lot of contribution from employees all the time. Further, India is a party to ILO and forming employee associations is commonly practiced in India. The project is in compliance with the laws of Government of India and there is no any restriction for freedoms and right.	Low	Not applicable
5. The project does not involve and is not complicit in any form of forced or compulsory labour	Forced labor is an illegal activity in the host country and the local labor compliance takes into account of the same. Further, India is a party to ILO and forced labour is illegal in India. The project does not employ any form of forced or compulsory labour. Employees can quit their Services at any time. The project complies with the Factories Act in India that prohibits forced or compulsory labour⁷	Low	Not applicable
6. The project does not employ and is not complicit in any form of child labour	Indulgence in Child labor is an illegal activity in the host country and the local labor compliance takes into account of the same. Further, India is	Low	Not applicable

⁷ <http://www.ilo.org/dyn/natlex/docs/WEBTEXT/32063/64873/E87IND01.htm>

	a party to ILO and Child labour is illegal in India. The project neither employs nor intends to employ child labour. As per the laws prevailing in India, the Child Labour (Prohibition & Regulation) Amendment Act, 2016⁸ prohibits employment of children in certain specified hazardous occupations.		
7. The project does not involve and is not in complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis	The project Proponent does not indulge in discrimination on basis of gender, race, religion, sexual orientation. The project will abide by the Factories Act that prohibits any form of discrimination and is in accordance with the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) , India ratified it on 09/07/1993 with certain reservations⁹ And International Convention on the Elimination of All Forms of Racial Discrimination; India ratified the convention on 03/12/1968 with certain reservation¹⁰	Low	Not applicable
8. The project provides workers with a safe and healthy work environment and is	The project proponent has implemented Environment Health Safety and Social guideline which takes into account the same.	Low	Not applicable

8

[https://pencil.gov.in/THE%20CHILD%20LABOUR%20\(PROHIBITION%20AND%20REGULATION\)%20AMENDMENT%20ACT,%202016\(1\).pdf](https://pencil.gov.in/THE%20CHILD%20LABOUR%20(PROHIBITION%20AND%20REGULATION)%20AMENDMENT%20ACT,%202016(1).pdf)<http://www.childlineindia.org.in/Child-Labour-Prohibition-and-Regulation-Act-1986.htm>

⁹ [http://nhrc.nic.in/documents/india ratification status.pdf](http://nhrc.nic.in/documents/india%20ratification%20status.pdf) and

<http://www.un.org/womenwatch/daw/cedaw/>

¹⁰ [http://nhrc.nic.in/documents/india ratification status.pdf](http://nhrc.nic.in/documents/india%20ratification%20status.pdf) and

<http://www.refworld.org/docid/3ae6b3940.html>

not complicit in exposing workers to unsafe or unhealthy work environments	The project provides safe and healthy work condition to the employees. The programme complies with the Factories Act and provides safe and healthy work environment ¹¹		
9. The project takes a precautionary approach in regard to environmental challenges and is not complicit in practices contrary to the precautionary principle.	The project has received all statutory clearances. The project does not lead to release of any hazardous substances that pose threat to the environment. Rather it aims at reducing the air pollution that is prevalent due to use of fossil fuel power plants. The project promotes environmental protection through the use of cleaner technology. The project abides by the stipulations of the Indian Environment Protection Act 1986 ¹²	Low	Not applicable
10. The project does not involve or complicit in significant conversion or degradation of critical natural habitats including those that are (a) legally protected, (b) officially proposed for protection, (c) identified by authoritative sources for their high conservation value or (d) recognised as protected by	The project proponent has implemented Environment Health Safety and Social guideline which takes into account the same. The project activity does not pose any harm to the natural habitats of the native species	Low	Not applicable

¹¹ <http://www.ilo.org/dyn/natlex/docs/WEBTEXT/32063/64873/E87IND01.htm>

¹² <http://envfor.nic.in/legis/env/env1.html>

traditional local communities			
11. The project does not involve and is not in complicit in corruption	Indulgence in corruption is an illegal activity in the host country and the local labor compliance takes into account of the same. The project abides by the United Nations Convention Against Corruption. India ratification 09.05.11 ¹³	Low	Not applicable
Additional relevant critical issues for my project type	Description of relevance to my project	Assessment of relevance to my project (low/medium/high)	Mitigation measure
Not identified	Not relevant	No risk	Not required

F.2. Sustainable Development matrix

[See Toolkit 2.4.2 and Annex I]

The report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013. This report clearly mentioned that Solar farms operations do not result in direct air pollution, noise pollution. Please refer below web link for the same.
<http://mnre.gov.in/file-manager/UserFiles/report-on-developmental-impacts-of-RE.pdf>

There are no any significant impacts due to implementation of project activity.

Also the group companies of Emami Limited have Corporate Governance and followed code of conduct, environment, health & Safety Policy. Thus project activity follows the Environment, health and Safety guidelines at site.

<http://www.emamiltd.in/investor-info/pdf/CorporateGovernance.pdf>

Based on above evidences, the score mentioned below are justified.

Insert table as in section D3 from your Stakeholder Consultation report (Sustainable Development matrix).

Indicator	Mitigation measure	Relevance to achieving MDG	Chosen parameter and explanation	Preliminary score
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¹³ <http://www.unodc.org/unodc/en/treaties/CAC/signatories.html>

Gold Standard indicators of sustainable development.	If relevant copy mitigation measure from "do no harm" – table, or include mitigation measure used to neutralise a score of ‘–’	Check www.undp.or/mdg and www.mdgmonitor.org Describe how your indicator is related to local MDG goals	Defined by project developer	Negative impact: score ‘-’ in case negative impact is not fully mitigated score 0 in case impact is planned to be fully mitigated No change in impact: score 0 Positive impact: score ‘+’
Air quality	Not Required	Goal 7 – Ensure Environmental sustainability; Target 7.A - Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources	Operation Phase: Project activity leads to electricity production by Solar power, which improves the air quality as compared to those by the fossil fuel dominated grid mix. As compared with emission reduction by project activity, the air pollution (which may occur due to transformers, other electrical equipment’s etc) is less than 1% of overall emission reductions by the project activity and hence are negligible. Construction Phase: The impact during the construction phase shall localized and temporary. Emissions will be substantially greater than emissions from project operation activities, but still limited in volume. Thus impact on local settlements will be negligible owing to	0

			the considerable distance from the project site. Also report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013. This report clearly mentioned that Solar farms operations do not result in direct air pollution. The minor dust emissions if any are localized and controlled by spraying water in the area. Thus the Overall impact due to the project shall be positive in line with baseline scenario. However during the project activity operation, there is very negligible impact (being less than 1% of overall emission reductions by the project activity) at site and solar is renewable energy source. Hence this parameter is considered as neutral. As compared to baseline scenario, which is fossil fuel dominated grid connected electricity, the project activity reduces air pollution of baseline fossil fuel power plants equivalent of electricity generated by project activity. Please refer page 28, table 3.4.3 of report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013.	
Water quality and quantity	Not Required	MDG 7: Ensure Environmental	Explanation: Thermal power plants produce considerable	0

		Sustainability, target C “Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.	amount wastewater especially due to cooling. By the project activity, significant amount of wastewater discharge will be avoided. During normal construction period, water usage is negligible for domestic use in full capacity of workers. Once the Solar farm is operational, water is only required for the domestic use of project staff at the site which will be around 0.5 KLD. For module cleaning, very less water is required (960 KL of water is required per year for solar module cleaning considering 1 KL/ MW per wash and 4 wash per month as per CEEW, COUNCIL ON ENERGY, ENVIRONMENT AND WATER) as compared with baseline fossil fuel dominated power plants. The waste water after cleaning the solar module was fall down of ground and absorbs in ground. Thus there is no any soil pollution due to module cleaning. Minor volumes of sewage will be generated from toilet facilities at the site office. This will be disposed to septic tank, thus no significant impact is anticipated to surface or groundwater. Please refer page 28, table 3.4.3 of report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013.	
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Soil condition	Not Required	MDG- 7: Ensure Environment Sustainability 7.A Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources 7. B Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	The project would not emit any pollutants to the soil during the construction and operation period, with no negative impact on the soil quality. The top soil excavated during construction, will be stock piled and will be used for compaction. The roads will not be paved and soling will be done with excavated earth & rock material, so land disturbance will be minimized. All the drainage patterns will be maintained as it is and wherever required road culverts will be provided. The cranes used for construction activities will be placed on hard, flat surface area and if required, ground levelling will be done. Mitigation action for top soil erosion measures has been submitted herewith. During operation of a project, no appreciable adverse changes in the soils are anticipated. There was no excavated wastes. All excavated soils from foundation pits were spread in the plant area itself to provide required gradient in alignment with maximum solar radiation. Water Harvesting Structure is available inside the plant where water during rainy season is stored and allowed to recharge the ground water. The plant land is plain thus there was no any top soil stripping required. Also vegetation at site maintained	0
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			the soil condition and there is no any impact. Plantation activities at site controls the soil erosion. Please refer page 25, table 11 of report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013.	
Other pollutants	Not Required	MDG- 7: Ensure Environment Sustainability 7. B Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	Explanation: During the operation of the Solar farm there will be some noise due to electrical equipment’s like transformers etc. The maximum decibel level of sound due the project activity equipment’s is less than 60 dB which is within permissible limit. Also as distance increases, sound level will be less and less audible. Thus there will be no negative impact on the settlement areas in this project due to the distance. Also report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013. This report does not mention any noise pollution from solar power plants, thus there is no any impact of noise pollution due to project activity. This report clearly mentioned that Solar farms operations do not result in noise pollution. Solid waste due to construction and daily activities of staff, during both construction and operation	0

			phases, will be handled and disposed of in an approved manner; therefore no soil contamination will result. Waste water holding tanks / septic tank will be located at more than 500 m away from bore wells or any other underground water holding tanks. There are no other pollutants generated from the solar power project (renewable energy project). Access Road was available for transportation of equipment during construction. Vegetation and landscaping was done at site to give pleasant outlook at site. Thus the Overall impact due to the project shall be neutral. Please refer page 28, table 3.4.3 of report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013.	
Biodiversity	Not Required	MDG- 7: Ensure Environment Sustainability 7. B Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	Through engineering measures and greening measures, the condition of ground vegetation will be gradually improved; No rare species has been found in the around area. The project site is not on the migration route of migratory bird. With the implementation of Project, the greening water will be increased significantly; the biodiversity in the vicinity will be improved with the vegetation improvement.	0

			There is no any adverse impact on Bio adversity due to project implementation. Please refer page 29, table 3.4.3 of report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013	
Quality of employment	Necessary health and safety measures will be taken during construction and operation phase, relevant staff will be trained to be able to work with high voltages.	MDG-1: Eradicate extreme poverty & hunger 1.B. Achieve full and productive employment and decent work for all, including women and young people	Parameter: Health and Safety and other trainings Explanation: Project developer ensures high standard health and safety conditions for the employees and provides Health & Safety Trainings to employees. Some of the staff may get training on different kind of issues like operation and maintenance of power plant. All employees will be trained on Occupational Health and Safety issue. There is positive impact on quality of employment due to project implementation. Please refer page 29, table 3.4.4 of report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013.	+
Livelihood of the poor	Not Required	MDG-1: Eradication extreme poverty and hunger 1.A.Halve, between 1990 and 2015, the proportion of people whose	Income generation by local orders with project activity will have indirect impacts to changing living standards of the local people. However, the impact is not significant and direct. There is positive impact on community due to project	0

		income is less than \$1 a day	implementation. Please refer page 29, table 3.4.4 of report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013.	
Access to affordable and clean energy services	Not Required	Goal 7 – Ensure Environmental Sustainability; Target 7.A - Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources	Explanation: The project will help to reduce high share of imported fossil fuel dependency of India. In baseline, equivalent quantity of electricity would have been generated from fossil fuel dominated grid connected power plants. Thus project activity helps to increase renewable energy contribution for grid connected power plants. Since electricity export from project activity is supplied to grid, thus clean energy supplied by project does not have any direct impact in local areas or households. Hence score of indicator is considered as neutral. Hence score of indicator is considered as neutral	0
Human and institutional capacity	Not Required	MDG-1: Eradicate extreme poverty & hunger	The project activity will have an overall positive contribution to the sustainable development of the region. However, it is difficult to measure the positive changes in the project scenario compared to the baseline specifically in terms of education & skills, gender equality and empowerment. In practice, only the employees working on the	0

			Project can be considered as the main beneficiaries. Thus, it is considered that the project activity does not have a significant impact on human and institutional capacity.	
Quantitative employment and income generation	Not Required	Goal 1 – Eradicate extreme hunger and poverty; Target 1.B – Achieve full and productive employment and decent work for all, including women and young people	Project activity will lead to generate employment opportunities for both skilled and unskilled labours. Hence the parameter to be monitored for this indicator is the number of staff employed for the project activity. The project activity expected to generate the employment for more than 15 people and they are getting more payment than local level. Parameter Monitored: <i>No. of staff employed in the project activity</i>	+
Access to investment	Not Required	MDG-8.D Develop a global partnership for development 8.D. Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term.	There is no foreign investment envisaged for implementation or operation of the project activity at this stage. However, the project being a renewable power project leads to reduction in dependency on fossil fuels, there by leading to a reduction in purchase of fossil fuel in the country. As the impact is not quantifiable thus, it is considered that the project activity does not have a significant impact on balance of payments and investment.	0
Technology transfer and		MDG 8 target F: In cooperation with the private sector,	In the project activity, technology shall be sourced primarily from inside the	0

technological self-reliance		make available the benefits of new technologies, especially information and communications	country and introduced into the region. At the same time, the project activity shall build usable and sustainable know-how in the region for the technology, where know-how was previously lacking. Hence the project presents ample opportunities of replication in other areas. However, constant monitoring of this parameter involves complexities and hence this parameter is scored neutral as a conservative approach.	
Justification choices, data source and provision of references				
Air quality	According to the projections given in B.4 part of the PDD, in the baseline situation new capacity additions will most probably be fossil fuel fired power plants. Electricity generated from the Solar power plants partially substitute electricity generation from fossil fuel fired power plants that represent a large share of the Indian Power grid generation mix. Thus, besides greenhouse gases, all other air pollutants (e.g. SO_x, NO_x), particle and VOC emissions are avoided by the project activity. Dust emergence connected to the project activity appears only for a short time during the construction phase and will be caused by digging foundations, land arrangement works and construction. Project developer has taken all precautionary actions to prevent dust emissions. Emissions during this phase will be localized and temporary. Thus impact on local settlements will be negligible owing to the considerable distance from the project site. Therefore, the project will have a positive impact on air quality, however as a conservative estimate the impact in the SDM is considered as neutral and the PP does not wish to include the same. Also report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013. This report clearly mentioned that solar farms operations do not result in direct air pollution. Please refer page 28, table 3.4.3 of report.			
Water quality and quantity	In the baseline, thermal power plants discharges significant amount of waste water to the environment after usage for operational purposes like cooling. Having water treatment system in these power plants does not neutralize negative impact of waste water on environment as chemicals used for waste water treatment becomes problematic afterwards. With proposed project activity, usage and discharge of considerable amount of water will be avoided			

	with partially substituting electricity generation from thermal power plants. Therefore, the impact of the project on this indicator is deemed to be positive. However, as a conservative approach the impacts on water quality and quantity has been considered as neutral. Further, during operation of project activity only small amount of waste water to be discharged environment. Wastewater production is due to daily consumption of workers. Minor volumes of sewage will be generated from toilet facilities at the site office. This will be disposed to septic tank, thus no significant impact is anticipated to surface or groundwater. The parameter is considered as neutral. Please refer page 28, table 3.4.3 of report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013 which mentioned that solar plant operations do not result in water pollution.
Soil condition	In the baseline, thermal power plants emits significant amount of NO_x which have negative impact to the quality of soil. The adverse affect of emissions of NO_x on soil conditions is acid rains. Acid rains can damage soil conditions badly. With proposed project activity significant amount of NO_x emission will be avoided due to substituting partially thermal power plant electricity generation. The project would not emit any pollutants to the soil during the construction and operation period, with no negative impact on the soil quality. The top soil excavated during construction, will be stock piled and will be used for compaction. The roads will not be paved and soling will be done with excavated earth & rock material, so land disturbance will be minimized. All the drainage patterns will be maintained as it is and wherever required road culverts will be provided. The cranes used for construction activities will be placed on hard, flat surface area and if required, ground levelling will be done. However, to be conservative impact of the project on this indicator is scored to be neutral and will not be monitored. Please refer page 25, table 11 of report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013.
Other pollutants	For this indicator, noise is defined as relevant parameter with the project activity. Since impact of noise can be significant only close area to the project, surrounding area of the project activity is selected as impact assessment boundary and for the baseline movement of leaf and daily life in the close villages. Noise is very low compare to background noise levels observed in surrounding of villages. Also, power plant control room is a well isolated area, therefore impact of noise from power plant on both employees and local residents is deemed to be negligible.

	Also report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013. This report does not mention any noise pollution from solar power plants, thus there is no any impact of noise pollution due to project activity. This report clearly mentioned that solar farms operations do not result in any noise pollution. Therefore, in the SDM the negligible effect of the project on the other pollutants is scored with (0) and will not be monitored.
Biodiversity	Through engineering measures and greening measures, the condition of ground vegetation will be gradually improved; No rare species has been found in the around area. The Project site is not on the migration route of migratory bird. With the implementation of Project, the greening water will be increased significant, the biodiversity will be improved with the vegetation improvement. There is no any adverse impact on Bio adversity due to project implementation. Please refer page 29 and 30, table 3.4.1 of report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013. Page 29 and 30 of this report mentioned that “As described, air, noise, water and biodiversity impacts of both wind and solar projects are either very low or negligible. It is for these reasons that the clearances required for RE projects are not stringent. As long as the projects are developed on wasteland or agriculture land, they don’t have significant biodiversity effects or long term irreversible impact on the local environment. Therefore, in the SDM the negligible effect of the project on biodiversity is scored with (0) and not monitored.
Quality of employment	Besides providing training to the employees, the Project will create permanent jobs for various technical services required to operate the power plant. These jobs were created require qualified and skilled staff. So staff will be trained to have higher skills and certification to perform such power generation projects, the employment and training of skilled staff has an impact on job quality. With regard to the health and safety of the staff, facilities will be provided following requirements of company EHSS guideline, example, a first aid kit shall be provided at the working area; regular technical and safety trainings will be organized by the project owner periodically, emergency and safety procedures will be included in the operation manual in ensure safe working condition for the staff; Please refer page 29, table 3.4.4 of report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013 which mentioned that solar forms create local employment. As the project will provide employment so that the living standard of the employees can be improved, the indicator scores positive, since it is difficult to quantify and monitor the quality of employment except for training of staff, therefore training of staff was the chosen parameter for this indicator.

Livelihood of the poor	The Project will improve the livelihood of those hired through income. In addition, the tax paid by the Project will be used for local infrastructure construction. However, the impact is not significant and direct and considered as neutral. Please refer page 29, table 3.4.4 of report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013.
Access to affordable and clean energy services	The Project utilises clean energy to displace fossil fuel. The Project exports electricity to the NEWNE grid, thus results in a small and positive contribution in meeting national power demand. The Project adds renewable energy based capacity in the country. In baseline, equivalent quantity of electricity would have been generated from fossil fuel dominated grid connected power plants. Thus project activity helps to increase renewable energy contribution for grid connected power plants. Since electricity export from project activity is supplied to grid, thus clean energy supplied by project does not have any direct impact in local areas or households. Hence score of indicator is considered as neutral (0) and not monitored.
Human and institutional capacity	The project activity will have an overall positive contribution to the sustainable development of the region. However, it is difficult to measure the positive changes in the project scenario compared to the baseline specifically in terms of education & skills, gender equality and empowerment. In practice, only the employees working on the Project can be considered as the main beneficiaries. Thus, it is considered that the project activity does not have a significant impact on human and institutional capacity.
Quantitative employment and income generation	Within the construction of the project, there will be created employment opportunities for workers. The project activity expected to generate the employment for more than 15 people and they are getting more payment than local level. The Project will recruit operation and management personnel responsible for operation and maintenance of the Project during project operation period, and pay salaries and welfares and also helps to increase their income. The proposed project will create new employments. Therefore, this indicator is scored with (+) and will be monitored.
Access to Investment	There is no foreign investment envisaged for implementation or operation of the project activity at this stage. Thus, it is considered that the project activity does not have a significant impact on balance of payments and investment.
Technology transfer and technological self-reliance	The project developer considers the investment into and the operation of a well known technology in the country. Further, some of the employees will be trained for Solar power plant related issues. However, since these trainings are rather operation related trainings and will not lead an important know-how and technology transfer, this indicator is scored with (0) in the SDM

SECTION G. Sustainability Monitoring Plan

[See Toolkit 2.4.3 and Annex I]

No		1
Indicator		Quality of employment
Mitigation measure		N/A as indicator scored positive.
<i>Repeat for each parameter</i>		
Chosen parameter		Training of staff.
Current situation of parameter		Without the Project, local people have no such opportunities to be trained on the technology and the monitoring of the plant operation, and the emergency and safety procedures.
Estimation of baseline situation of parameter		Without the Project, local people have no such opportunities to be trained on the technology and the monitoring of the plant operation, and the emergency and safety procedures.
Future target for parameter		Together with the technology supplier, the Project organise training for the staff on the technology and the monitoring of the plant operation, and the emergency and safety procedures.
Way of monitoring	How	The training records for all the employees
	When	Annually
	By who	Monitored by the project owner

No	2
Indicator	Quantitative employment and income generation
Mitigation measure	Not Required
<i>Repeat for each parameter</i>	
Chosen parameter	No. of staff employed in the project activity
Current situation of parameter	Without project, there is no any employment and income generation
Estimation of baseline situation of parameter	0
Future target for parameter	As per the requirements for plant operations, company policy.

		Around 15 people are expected to be employed during crediting period.
Way of monitoring	How	Employee rolls, pay-slips, attendance registers, etc.
	When	Annually
	By who	Project proponent

Additional remarks monitoring

For details regarding the monitoring of the other parameters pertaining to the calculation of GHG emission reductions for the project activity under consideration, please refer to sections B.6.3. and B.7.2 of the CDM PDD.

SECTION H. Additionality and conservativeness



This section is only applicable if the section on additionality and/or your choice of baseline does not follow Gold Standard guidance

H.1. Additionality

[See Toolkit 2.3]

Please refer to section B.5. of the PDD, Additionality is in line with Tool for the demonstration and assessment of additionality.

H.2. Conservativeness

[See Toolkit 2.2]

The PP hereby wishes to clarify that the most conservative baseline scenario has been used for baseline establishment for the project, especially considering the relevant guidelines of the approved methodology ACM0002. version 17.

Further, the PDD applies grid emission factor as per the latest applicable and available CEA database version 11 and the emission factor applied is 0.9777 tCO₂/MWh. The emission factor is calculated as per tool to calculate emission factor for an electricity system and is calculated in conservative manner.

Since the emission factor is calculated based on latest available data at the time PDD /GS passport submission to GS registry, no any comparison has been made.

ANNEX 1 ODA declaration

[See Toolkit Annex D]

The PP hereby declares that no ODA was received for this project. Further, a declaration for the same is submitted to the DOE.