

# ANNEX Q - LSC REPORT

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## SECTION A. PROJECT DESCRIPTION

## A. 1. Title of the project activity

Title: India One Solar Thermal Power Project

Date: 30<sup>th</sup> of march 2017

Version no.: 03

## A. 2. Project eligibility under the Gold Standard

## [See Toolkit 1.2 and Annex C]

The project is eligible under the Gold Standard with the following aspects being met:

## 1) Scale of the project activity:

This project is a Micro-Scale Project eligible under Gold Standard VER scheme.

## 2) Host country or state:

The project is located in Rajasthan, India.

## 3) Type of project activity:

Project activity falls under the approved baseline and monitoring methodology, AMS I.F. 'Renewable Electricity Generation for Captive Use and Mini-Grid (Version 03)'.

The small-scale methodology 'AMS-I.F Renewable electricity generation for captive use and mini-grid', version 03 is applicable, since the following criteria are met by the project activity:

- I. This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass that supply electricity to user(s). The project activity will displace electricity from an electricity distribution system that is or would have been supplied by at least one fossil fuel fired generating unit i.e. in the absence of the project activity, the users would have been supplied electricity from one or more sources listed below:
  - a. A national or a regional grid (grid hereafter);
  - b. Fossil fuel fired captive power plant;
  - c. A carbon intensive mini-grid.

### Justification:

The project activity implements a solar thermal power plant with an installed capacity of 1.0 MW<sub>electrical</sub> (3.5 MW<sub>thermal</sub>) and a gross electrical output of 6,130 MWh/year (net electrical output is 4,360 MWh/year). The generated electricity will be used internally for in-house (captive) consumption in Shantivan, Manmohini and Anand Sarovar complexes present in Brahma Kumaris Campus, located at a distance of round 6 km from Abu Road Railway Station, Sirohi, Rajasthan and thus will avoid use of grid electricity which is



primarily dominated by fossil fuel based thermal power plants.

II. Applicability of methodologies AMS-I.D, AMS-I.F and AMS-I.A based on project types: Category 4: Project supplies electricity to a mini grid system where in the baseline all generators use exclusively fuel oil and/or diesel fuel.

## Justification:

The project activity consists of a mini-grid with a small- scale Solar Thermal Power System with a total capacity of 1 MW<sub>electrical</sub> (3.5 MW<sub>thermal</sub>) and a net electrical output of 4,360 MWh/year. The mini-grid is not connected to a national or regional grid.

III. Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology: The project activity is implemented in an existing reservoir with no change in the volume of reservoir; The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the project emissions section, is greater than 4 W/m²; The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the project emissions section, is greater than 4 W/m².

#### Justification:

This criterion is not applicable since the project activity is based on Solar Energy.

IV. This methodology is applicable for project activities that: (a) Install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant); (b) Involve a capacity addition, (c) Involve a retrofit of (an) existing plant(s); or (d) Involve a replacement of (an) existing plant(s).

#### Justification:

The project activity is a Greenfield plant and does not involve any retrofit of existing systems.

V. In the case of project activities that involve the capacity addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.

## Justification:

The project activity is not a capacity addition of an existing renewable energy generation unit.

**VI.** In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.

### Justification:

The project activity is a Greenfield plant and does not involve any retrofit or replacement of existing systems.

VII. If the unit added has both renewable and non-renewable components (e.g. a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity



applies only to the renewable component. If the unit added co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.

#### Justification:

The project activity does not consist of a renewable and a non-renewable component.

**VIII.** Combined heat and power (co-generation) systems are not eligible under this category.

### Justification:

Cogeneration is defined in Methodology AMS-I.C as 'Cogeneration - means the simultaneous generation of heat and electrical energy in one process. Project activities that produce heat and electrical energy in separate element processes (for example heat from a boiler and electricity from a biogas engine) do not fit under the definition of cogeneration.' Under the project activity heat is generated by concentrating solar radiation with the solar dishes on the receiver and then transported in form of water vapour to the Siemens steam turbine to produce electricity. Therefore heat and electricity are produced in two different processes and the project therefore is not labelled as a combined heat and power system.

**IX.** If electricity and/or steam/heat produced by the project activity is delivered to a third party, i.e. another facility or facilities within the project boundary, a contract between the supplier and consumer(s) of the energy will have to be entered that ensures that there is no double counting of emission reductions.

## Justification:

The generated electricity from the project activity will be used internally for in-house (captive) consumption in Shantivan, Manmohini and Anand Sarovar complexes present in Brahma Kumaris Campus, located at a distance of round 6 km from Abu Road Railway Station, Sirohi, Rajasthan. Project activity will not supply any unit generated to a third party.

## **Greenhouse Gases:**

Among the greenhouse gases eligible under the Gold Standard, this project is reducing Carbon Dioxide (CO<sub>2</sub>).

## 4) Official Development Assistance (ODA):

The project did not receive or benefit from Official Development Assistance (ODA) with the condition that some, or all, of the carbon credits [VERs] coming out of the project are transferred to the ODA donor country. No financing provided in connection with the project GS 1304 has come from or will come from ODA that has been or will be provided under the condition, whether express of implied, that any or all of the carbon credits issued as a result of the project's operation will be transferred directly or indirectly to the country of origin of the ODA.



## 5) Previous announcement check:

There has not been a public announcement of the project going ahead without carbon funding. The cooperation with atmosfair to register as a carbon project to close the financing gap was intended from the very beginning.

## 6) Other Certification Schemes:

The project has not claimed certificates from other Certification schemes, therefore no double counting can occur and as a result the project is eligible under the Gold Standard VER scheme.

## A. 3. Current project status

## As of March 2017:

The construction phase of the project is finished and it is now in the final testing (turbine) and commissioning phase. The turbine is expected to be fully tested and to run under maximum capacity in October 2017.

## SECTION B. DESIGN OF STAKEHOLDER CONSULTATION PROCESS

## B. 1. Design of physical meeting(s)

## i. Agenda

The Agenda of the meeting is given below:

- 1. Opening of the meeting
- 2. Explanation of the project
- 3. Questions for clarification about project explanation
- 4. Blind sustainable development exercise
- 5. Discussion on monitoring sustainable development
- 6. Closure of the meeting

#### ii. Non-technical summary

Energy is one of the most important requirements in this world to function properly. Its availability and regular supply are of paramount interest. As we are all aware energy/ fuel prices are rising day by day and the negative effects of global warming are more and

more visible. Coal consumption and Electricity generation now days recognized as one of the prime contributors for global warming and respective climate change. It has been postulated that these climatic changes would be even more adverse in upcoming decades. The coal is been burned in the process which greatly affects/disturbs carbon cycle, increasing atmospheric GHG concentrations, leading to many direct and indirect adverse effects such as (i) elevated air pollution (CO<sub>2</sub> and particulate matter) which badly impacts public health; (ii) reduced visibility that affects air transportation; and (iii) reduced photosynthetic activity when fly ash settles on the leaves of the plant. Thus, an urgent need to manage carbon emissions and has captured special attention among environmentalist during Kyoto Protocol and Copenhagen Summit. Both the summits impose legal bindings on the nations, especially for developing economies to cut carbon emissions. The project activity exploits the solar energy in a proper manner and thus the power is produced with no net greenhouse gas emissions, hence contributes to sustainable development. In the project activity, the electricity would be generated from solar energy to meet the captive energy requirements of Brahma Kumaris Campus at Village Talheti, Tehsil Abu Road, District Sirohi, Rajasthan. The generated electricity will be used internally for in-house consumption and thus will avoid use of grid electricity which in India is primarily dominated by coal based thermal power plants. The project will demonstrate, at a commercial level the potential and technical viability of solar energy and utilizing for power generation through solar thermal route. In the absence of the project activity, the same amount of electricity would have been generated by burning of coal resulting in greenhouse gas (GHG) emissions into the atmosphere. The generation of electricity from solar energy will contribute to reducing greenhouse gas (GHG) emissions in the current energy mix. In addition to reducing the GHG emissions the project activity will limit emissions of SOX and NOX, since these emissions are higher in coal based power plants as coal consist of carbon, hydrogen, oxygen, nitrogen, sulphur and mineral matter.

## iii. Invitation tracking table

Table 1: Invitation tracking table for the Local Stakeholder Consultation Meeting at at Shantivan Complex, Brahma Kumaris, Abu Road, Rajasthan conducted on 27/09/2012 for 1 MW Solar Thermal Power project.

Category Code	Organization (if relevant)	Name of Invitee	Means of Invitation	Date of Invitation	Confirmation received (Y/N)
А	Not Applicable	Local People	Newspaper: 'Times of India' (English)	21-Sep-12	-
А	Not Applicable	Local People	Newspaper: 'Dainik Bhaskar' (Hindi)	22-Sep-12	ı
В	Rajasthan Energy Development Agency (REDA)	Shri Shyam S. Agarwal, IAS	Official Mail	24-Sep-12	Z



С	Designated National Authority (DNA), India	Mr. Rajiv Kumar	Official Mail	24-Sep-12	N
С	Designated National Authority (DNA), India	Mr. Bose	Official Mail	24-Sep-12	N
D	GIZ	Sven Eberle	Official Mail	24-Sep-12	N
E	Gold Standard Foundation (GSF)	Ms. Neha Rao	Official Mail	24-Sep-12	Y
F	Carbon Watch	Mr. Deepak Mawandia	Official Mail	24-Sep-12	N
F	Development Alternatives	Dr. Ashok Khosla	Official Mail	24-Sep-12	Υ
F	EnerGHG India	Mr. Narendra Paruchuri	Official Mail	24-Sep-12	N
F	Fair Climate Network	Dr. Sudha Padmanabha	Official Mail	24-Sep-12	N
F	NERD SOCIETY Coimbatore	Mrs. Sathiajothi Kamaraj	Official Mail	24-Sep-12	N
F	Rural Education for Development Society-REDS	Mr. M. C. Raj	Official Mail	24-Sep-12	N
F	Rural Education for Development Society-REDS	Mrs. Jyothi Raj	Official Mail	24-Sep-12	N
F	SKG Sangha	Vidya Sagar Devabhaktuni	Official Mail	24-Sep-12	N
F	Winrock International India	Debajit Das	Official Mail	24-Sep-12	N
F	HELIO International	Helene O'Connor- Lajambe	Official Mail	24-Sep-12	N
F	Mercy Corps	Dorothy McIntosh	Official Mail	24-Sep-12	N
F	Greenpeace International	Steve Sawyer	Official Mail	24-Sep-12	N



Please explain how you decided that the above organisations/ individuals are relevant stakeholders to your project. Also, please discuss how your invitation methods seek to include a broad range of stakeholders (e.g. gender, age, ethnicity).

Invitees were identified according to guidelines in the Gold Standard Toolkit and invitees include the following relevant stakeholders directly associated with the project:

- Local People
- NGO Members
- REDA personnel
- GIZ personnel
- Official representative of DNA
- Local Gold Standard Expert

Local people, where the project is under implementation are integral part of the project activity and therefore involved in the stakeholder meeting.

Being a Gold Standard VER project, representatives of DNA, local expert of Gold Standard foundation and other Gold Standard supporters were invited to get their feedback on the project activity. Local policy makers like REDA is involved in different legal approval and clearance procedure was also invited to get their feedback on the project activity. Therefore inviting them to the Stakeholder meeting makes the project stronger to analyse the project sustainability.

#### iv. Text of individual invitations

Advertisements were given in the local news papers, "Times of India" (in English) as well as in, "Dainik Bhaskar" (in Hindi), announcing the date, time and location of the stakeholder consultation meeting.

Text of invitation for the stakeholder meeting on 27/09/2012 for the solar thermal power project.

Dear All, We are planning to implement Solar Thermal Power Project at Village - Talheti, Tehsil - Abu Road, District - Sirohi, Rajasthan. The project uses Solar Energy to generate power and helps to reduce Carbon Dioxide and other harmful Green House Gas emissions. The project will have positive impact on environment and will contribute to the sustainable development of the Nation. We are developing our Solar Thermal Power Project under Gold Standard Voluntary Emission Reduction Scheme.

We cordially invite you to attend the Stakeholders' meeting on 27<sup>th</sup> September 2012 at 10:30 AM at Brahmakumaris Shantivan Campus, Talheti, Abu Road, Rajasthan and express your views on the above initiative by World Renewal Spiritual Trust.

With Kind Regards,

BK Yogendra Meeting Co-ordinator



**India One Solar Thermal Power Plant** Abu Road, Rajasthan - 307510 Mob: 8233260227 / 9667583989

## v. Text of public invitations

# **World Renewal Spiritual Trust**

#### **Public Notice**

World Renewal Spiritual Trust is implementing Solar Thermal Power Project at Village Talheti, Tehsil Abu Road, District Sirohi, Rajasthan. The project produces clean energy and is eligible under Gold Standard Voluntary Emission Reduction Scheme. The project will have positive impact on environment as it reduces Carbon dioxide and other harmful Green House Gases by using solar energy. Therefore World Renewal Spiritual Trust is pleased to meet, discuss and apprise the stakeholders, the details of the proposed project, as per the program given below:

Date: - 27/09/2012

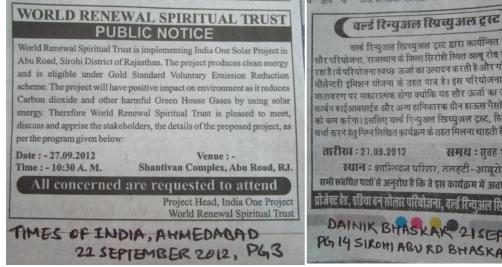
Venue: - Shantivan Complex, Abu Road, Rajasthan

Time: - 10:30 AM

All concerned are requested to attend

Project Head, India One Solar for World Renewal Spiritual Trust

Please find below scanned copy of the advertisements below:







# B. 2. Description of other consultation methods used

If individuals and/ or entities (e.g. NGOs) are unable to attend the physical meeting, please discuss other methods that were used to solicit their feedback/ comments (e.g. questionnaires, phone calls, interviews).



## **SECTION C.**

## **CONSULTATION PROCESS**

# C. 1. Participants' in physical meeting(s)

# i. List of participants

The Original participants' list for stakeholder consultation meeting conducted at Shantivan Complex, Brahma Kumaris, Abu Road, Rajasthan on 27<sup>th</sup> September 20012 for 1 MW solar thermal power project is as under:

# **Attendance Sheet**

India One Solar Thermal Power Project Village - Talheti, Tehsil - Abu Road District - Sirohi (Rajasthan)

Sr. No.	Name	Age	Sex (M/F)	Occupation	Village	Signature
1	Ajad Shrestla	56	M	Business	Nepal	6
2.	Angu Shrestha	23	F	Househite		
3.	Subramonien	36	P	Ele Asice	Madua	Sussan
4)	April mothere	30	m	Ele ent	Nagpin	Bus.
3	April mothers Suspiker	38	M	Businer	Ludher	
6	Dharamian	98	m	Bussinis	Chendigo	4 Jul
7	Rotan Col Que	58	M	mussing		1
89	BS. Punt	/	m	pangupo		
9)	A. R. Ubele	23	F	AlleAngal	manus and	1
(0)	Ante tome		F			
11)	Shallder Shok Rone	38	F	Authorbad		Quere
12>	Anantraj Paikholt	44	m	Business	GOA	1 0pm
13>	Deepali Pai Khot	36	F	Housewife		8/A Pai Ond
14	Siddharth Paikha		M	Student		93
15)	Manjunath Mai	55	m	B.K., Sevadha		
16)		27	F	Housewife		
17)	sitemer s. lawn	129	M			84
18)	Jeceran Sharma	22	M	Engineer	Pathenkot	
19)	Sake T Mudgal	21	M	0)	Delhi	Schet



# **Attendance Sheet**

India One Solar Thermal Power Project

Village - Talheti, Tehsil - Abu Road

District - Sirohi (Rajasthan)

Sr. No.	Name	Age	Sex (M/F)	Occupation	Village	Signature
20	गुगाधर-	63	М	301	37.014	Aulabor
21	2898 214914	67	m	Laurel at	-a.	3
22	Helmar Wigg	42	m	7	-11-	In
23	brotham Pawar	123	M	Butsmens	Awaystad	9 Dungs
ey	Ashok, M. Baret	245	M	Framer.	Salne	Aut 9
25	SATISM.	32	m	-160	m. JABU	
26	Amal s. Joeller	24	m	Jab.	Acurcugalre	1 Sjall
24	TMTIME ALV	35	m	Byissney	ABYROWE	7
28	Vineyer Panters	46	m	Soil I somm	MT 460	Czer
29	Shivanard Arosan	c31	m	Sarves	Phulono	Shogen
30	S.B. Molenahalf	40	m	Barnadal	(Imaren)	8000
31	Rahul Misra	26	m	Service	Lucknow	Ramo
32	Togendra Hingare	3)	M	Slynta	Talheli	yen
33	Joe ani Ph	52	M	LAVISIO	Lbu Roal	7.10h
1/-1				B.K. Awali	10/10	



## ii. Evaluation forms

Original evaluation forms in English language are as under:

# **Evaluation Form**

India One Solar Thermal Power Project Village - Talheti, Tehsil - Abu Road District - Sirohi (Rajasthan)

Name	Anantraj Pai Khot
What is your impression of the meeting?	The information was basic but questions were answered very nicely
What do you like about the Project?	I liked everything about the project.
What do you not like about the Project?	
Signature	Open



India One Solar Thermal Power Project Village - Talheti, Tehsil - Abu Road District - Sirohi (Rajasthan)

Name	PANKAJ NANDWAL
What is your impression of the meeting?	helpered Ist Home in Judia & this is how start in Solar Termal Evergy which is a green Energy, good for Energy
What do you like about the Project?	It is free from Polution & never ended energy.
What do you not like about the Project?	Nothing
Signature	Sandrige



India One Solar Thermal Power Project Village - Talheti, Tehsil - Abu Road District - Sirohi (Rajasthan)

Name	D'HARAM POWL
What is your impression of the meeting?	I live very muchthus project 2 maching
What do you like about the Project?	All Green Environat, Sare Greyy, Sare Environt
What do you not like about the Project?	
Signature	Atu_



India One Solar Thermal Power Project Village - Talheti, Tehsil - Abu Road District - Sirohi (Rajasthan)

Name	Ajad Shrestha
What is your impression of the meeting?	Good Explanation about Project
What do you like about the Project?	It is enteresting project We Wants to see it.
What do you not like about the Project?	
Signature	Johnstha



India One Solar Thermal Power Project Village - Talheti, Tehsil - Abu Road

District - Sirohi (Rajasthan)

Name	mahejan Ps-
What is your impression of the meeting?	11 311 23, 11
What do you like about the Project?	पुरुश्रात मुक्त, त्यातावत्य
What do you not like about the Project?	
Signature	And the same of th



India One Solar Thermal Power Project Village - Talheti, Tehsil - Abu Road District - Sirohi (Rajasthan) Date: 27/09/2012

Name	मितंदु चुरेश दुसार व्यावना	TERMIS
What is your impression of the meeting?	मियेंग अन्धी यही	r.e.l
What do you like about the Project?	वहात बहात अवधा ह	
What do you not like about the Project?	- dE	
Signature	516	



India One Solar Thermal Power Project Village - Talheti, Tehsil - Abu Road District - Sirohi (Rajasthan)

Date: 27/09/2012

Name	Ramolas B. Dahn
What is your impression of the meeting?	Possel of my Majus 3read
What do you like about the Project?	रिण 321 3 करेंगे टिश Motors 9711904 -
What do you not like about the Project?	
Signature	28 Juny

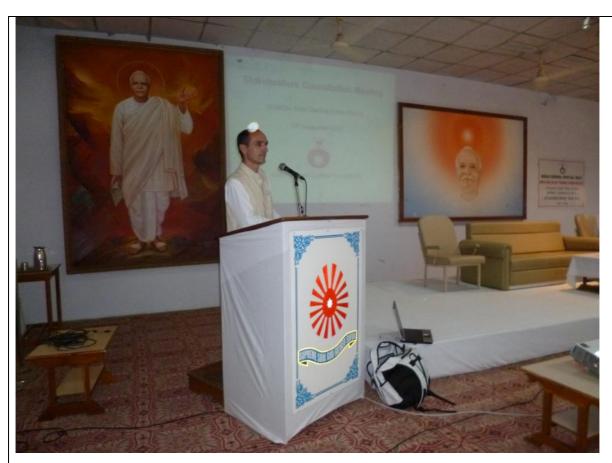
Evaluation forms were distributed to the stakeholders at the end of the meeting. No negative comment was received from the stakeholders due to the project activity. Few examples of filled evaluation form from stakeholders are provided above.



# C. 2. Pictures from physical meeting(s)























## C. 3. Outcome of consultation process

## i. Minutes of physical meeting(s)

Please ensure that you include a summary of the meeting as well as all comments received.

## a. **Opening of the meeting**

The Stakeholders assembled at the venue of the meeting as per scheduled time at 10.30 AM. The meeting was attended by around 33 people including the personnel from WRST who had coordinated the LSC meeting. Literature in English and Hindi (local language widely spoken and understood by the local population) with the description of the Project was distributed to the stakeholders. The project proponent (Mr. Golo Pilz) opened the meeting with welcome remarks to the stakeholders.

## b. Explanation of the project

The project proponent described in detail about the proposed solar thermal power project and its development under GOLD STANDARD VER scheme including the different steps of project and how the project would help in sustainable development of the area in terms of harmful gas emission reduction and employment generation.

## Questions for clarification about project explanation

After the detailed presentation some of the participants raised questions on the proposed solar thermal power project to clear their doubts. Following questions were asked which were adequately explained and answered and all their doubts were cleared.

Question 1. What kind of job opportunity will be generated by the project activity to the local people?

Answer: The project activity will give direct employment to the skilled people for the installation, operation and maintenance of the power plant and indirect employment during supply of consumables/materials/equipments/machineries for the plant.

Question 2. The electricity generated by the solar thermal power plant will be provided free of cost to the local people?

Answer: No, the electricity generated by the solar thermal power plant will only be used for the electricity requirements in Brahma Kumaris Campus and thus will avoid and displace the use of equal quantity of grid electricity. But due to the project activity the supply of power in the local area will increase.

Question 3. When the project will start generating electricity?

Answer: The project would start generating electricity probably by next year.

Question 4. Considering the cost of the project to be 63 Cr. INR for 1 MW electricity generation, don't you think that the investment cost is too high?

Answer: The project activity is an R&D initiative into solar thermal technology. This is the reason why the electrical power generation capacity is 1 MW. Upon successful demonstration of this prototype this technology can be executed on large scale and thus shall scale down electricity generation cost per unit to match with the conventional electricity generation cost per unit. Our forecast is in next 5 years the electricity power



generation cost per unit through solar energy shall match with the conventional fuel based electricity power generation.

# c. Blind sustainable development exercise

After the above Q/A session a blind Sustainable Development exercise was conducted with respect to the proposed solar thermal power project. Stakeholders responded in the affirmative manner and whole heartedly supported the project.

## d. Discussion on monitoring sustainable development

Monitoring of the sustainable development indicators was discussed. Stakeholders showed satisfaction with the sustainable development monitoring plan. All the sustainable development indicators which have been scored '+' are been monitored as described in the GSv2 toolkit. No negative '-' impact found to be monitored.

**Closure of the meeting** Thereafter the Public Consultation Check Lists and the Evaluation Forms were distributed to the stakeholders and they were asked to fill up the response sheets. The completed response sheets were collected.

The meeting ended with vote of thanks by the project proponent Mr. Golo Pilz.

## ii. Minutes of other consultations

There was no other consultation process.

#### iii. Assessment of all comments

Stakeholder comment	Was comment taken into account (Yes/No)?	Explanation (Why? How?)
What kind of job opportunity will be generated by the project activity to the local people?	Yes	The project activity will give direct employment to the skilled people for the installation, operation and maintenance of the power plant and indirect employment during supply of consumables/materials/equipments/machinerie s for the plant.
The electricity generated by the solar thermal power plant will be provided free of cost to the local people?	Yes	No, the electricity generated by the solar thermal power plant will only be used for the electricity requirements in Brahma Kumaris Campus and thus will avoid and displace the use of equal quantity of grid electricity. But due to the project activity the supply of power in the local area will increase.
When the project will start generating	Yes	The project would start generating electricity probably by next year.

electricity?		
Considering the cost of the project to be 63 Cr. INR for 1 MW electricity generation, don't you think that the investment cost is too high?	Yes	The project activity is an R&D initiative into solar thermal technology. This is the reason why the electrical power generation capacity is 1 MW. Upon successful demonstration of this prototype this technology can be executed on large scale and thus shall scale down electricity generation cost per unit to match with the conventional electricity generation cost per unit. Our forecast is in next 5 years the electricity power generation cost per unit through solar energy shall match with the conventional fuel based electricity power generation.

## iv. Revisit sustainability assessment

Are you going to revisit the sustainable development assessment?	Yes	No
Please note that this is necessary when there are indicators scored 'negative' or if there are stakeholder comments that can't be mitigated		V

## Give reasoning behind the decision

None of the sustainable development indicator scored negative and the summary of the evaluation forms were positive. In addition, all the stakeholders were satisfied with the project activity. Therefore a revisiting of the sustainability assessment is not required.

## v. Summary of alterations based on comments

If stakeholder comments have been taken into account and any aspect of the project modified, then please discuss that here.

No alteration to the basic project design or project implementation will be done because there were no negative comments or feedbacks from the local stakeholders.



# SECTION D. SUSTAINABLE DEVELOPMENT ASSESSMENT

## D. 1. Own sustainable development assessment

## i. 'Do no harm' assessment

Of all the Safeguarding Principles (SP) as listed in Annex H of the Toolkit, none are deemed relevant for this project activity:

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 complicit in Human Rights abuses.	The host country has ratified the following conventions:  - UN International Covenant on Economic, Social and Cultural Rights on the 10 Apr 1979 a¹  - UN International Convent on Civil and Political Rights on the 10 Apr 1979 a²  The project respects he human rights of the local population, their cultural heritage and uniqueness.	low	Not applicable
2: The project does not involve and is not complicit in involuntary resettlement.	The project does not need or lead to resettlement; it is not related to land issues in any way. The project site belongs to Brahma Kumaris and has so before.	low	Not applicable
3: The project does not involve and is not	No cultural site is affected by the project activity. Also, no cultural heritage is affected by the project,	low	Not applicable

<sup>&</sup>lt;sup>1</sup> **United Nations Treaty Collection** (n.d.) *Human Rights,* [online] Available at: http://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx [accessed: 30<sup>th</sup> of March 2017]

<sup>&</sup>lt;sup>2</sup> **United Nations Treaty Collection** (n.d.) *International Covenant on Civil and Political Rights* , [online] Available at: <a href="http://www.ohchr.org/EN/ProfessionalInterest/Pages/CCPR.aspx">http://www.ohchr.org/EN/ProfessionalInterest/Pages/CCPR.aspx</a> [accessed on 30<sup>th</sup> of March 2017]



complicit in the alteration, damage or removal of any critical cultural heritage.	heat and electricity are used as they were used before. The procedures at the campus are not affected by the project activity.		
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.	Skilled and unskilled workers will sign fair working agreements with the employer.  The host country has ratified the following Conventions:  - ILO Convention 105 on the 18th May 2000 <sup>3</sup> - ILO Convention 100 (equal remuneration) on the 25th September 1958 India is member of the International Labour Organization.	low	Not applicable
5: The project does not involve and is not complicit in any form of forced or compulsory labour.	All the employees will sign fair and voluntary working assignments. There will be no forced or compulsory labour. Brahma Kumaris has been located at Mount Abu long before the project activity, it is in their own interest to care for good working conditions for the employees.	low	Not applicable
	The host country has ratified the ILO Convention 29 (elimination of forced and compulsory labour) on the 30th Nov 1954		
6: The project does not employ and is not complicit in any form of child labour.	Brahma Kumaris and the World Renewal Spiritual Trust will ensure that the project does not employ and is not complicit in any form of child labor.	low	Not applicable
	The host country has ratified the UN Convention on the right of the child on the 11 Dec 1992 a <sup>4</sup>		
7: The project does	Project structure and developers do not endorse any form of	low	Not

 $<sup>^3</sup>$  ILOLEX Database of International Labour Standards (n.d.) ILO Convention 105 (Abolition of Forced Labour Convention), [online] Available at:

http://ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100\_ILO\_CODE:C105 [accessed on 30th of March 2017]

<sup>&</sup>lt;sup>4</sup> Convention on the Rights of the Child, Available at: <a href="http://www.ohchr.org/EN/ProfessionalInterest/Pages/CRC.aspx">http://www.ohchr.org/EN/ProfessionalInterest/Pages/CRC.aspx</a> [accessed 30th of March 2017]



not involve and is not complicit in any form of discrimination based on gender, race, religion, sexual orientation or any other basis.	discrimination based on gender, race, religion, sexual orientation or any other basis.  The leadership and membership of the Brahma Kumaris movement remains primarily female, most leader and members are female.  The host country has ratified the – ILO Convention 111 (Discrimination in employment/occupation) on the 03rd June 1960 <sup>5</sup>		applicable
8: The project does not involve and is not complicit in any form of environmental damage.	No involvement of hazardous material in the construction of the solar thermal power plant. There are safe working conditions as required by law.	low	Not applicable
9: The project does not involve and is not complicit in corruption.	The project's environmental impact is positive, no negative impacts are expected.  - UN Kyoto Protocol to the United Nations Framework Convention on Climate Change on the 26th Aug 20026  - UN Convention on Biological Diversity on the 18 Feb 19947  Moreover the heat receiver are made from steel using water to transport the heat to the turbine, and not, as it is common practice with this kind of technology using, using a mixture of sand and chemicals making it complicated to recycle. The heat receivers can be melted into steel after lifetime and used again.	low	Not applicable

<sup>&</sup>lt;sup>5</sup> **ILOLEX Database of International Labour Standards** (n.d.) *ILO Convention 111 (Discrimination in employment/occupation))*, [online] <a href="http://www.aihrc.org.af/media/files/Discrimination Occupaton.pdf">http://www.aihrc.org.af/media/files/Discrimination Occupaton.pdf</a> [accessed 30th of March 2017].

<sup>&</sup>lt;sup>6</sup> Kyoto Protocol to the United Nations Framework Convention on Climate Change, [online] Available at: https://unfccc.int/resource/docs/convkp/kpeng.pdf [accessed 30th of March 2017]

<sup>&</sup>lt;sup>7</sup> Convention on Biological diversity, [online] Available at: <a href="http://www.un-documents.net/cbd.htm">http://www.un-documents.net/cbd.htm</a> [accessed on 30th of March 2017]



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 applicable

# Sustainable development matrix

# [See Toolkit 2.4.2 and Annex I]

Indicator	Mitigation measure	Relevance to achieving MDG	Chosen parameter and explanation	Pre- liminary score
Air quality	Air quality monitoring	Goal 7 – ensure environmental sustainability	Air quality will be improved substantially compared to emission levels related to fossil fuel combustion. Fossil fuels will be displaced by the use of biomass residues and biomass residues for power generation. The GHG emissions will also be reduced as a consequence of the project.	+
Water quality and quantity	Contaminatio n of public water resources, shortage of water supply	Goal 7 – ensure environmental sustainability	Within the project area of 10 km radius, there is no significant surface water body which could be impacted due to the upcoming of the project.	0
Soil condition	Soil contaminatio n and erosion	Goal 7 – ensure environmental sustainability	There is no significant impact on soil condition due to project activity.	0
Other pollutants	Noise	Goal 7 – ensure environmental sustainability	There is no significant difference compared with the baseline scenario for noise and other pollutants.	0



Biodiversity	Threatened Plants or animal species or habitats	Goal 7 – ensure environmental sustainability	There is no endangered / threatened plant / animal species or any habitat in the area of the project activity.	0
Quality of employment	Nature of employment after project	Goal 1 – eradicate extreme poverty and hunger	The workers will be trained, direct & indirect employment opportunities will be generated for skilled and unskilled local population. The staffs would acquire technical skills, knowledge and quality of employment will improve.	+
Livelihood of the poor	Employees income after project commencem ent	Goal 1 – eradicate extreme poverty and hunger	The project will improve the livelihood of local people by creating employment opportunities for both skilled and unskilled people.	+
Access to affordable and clean energy services	Change in energy use		The project will use solar energy (renewable fuel) to generate electricity in a country where installation of fossil fuel based power plants is the most common scenario. The energy will be used on campus, therefore the possibility for pupils to use renewable energy while staying on campus is improved. Since residual heat will be used in the kitchen to preheat the water boilers, traditional fossil fuel consumption (diesel) will be lowered.	+
Human and institutional capacity	Public Participation, education and skills	Goal 8: Develop a Global Partnership for Development	Although the project will improve the human and institutional capacity through involvement of stakeholders in the LSC meeting, the overall benefits are not so significant. In practice, only the employees working on the project can be	0



Quantitative employment and income generation	Employees income after project commencem ent	Goal 1 – eradicate extreme poverty and hunger	considered as the main beneficiaries. The scoring of this indicator is kept neutral to be conservative.  The participants all agreed that employment will be generated for the local population, resulting in an increase in personal and regional income.	+
Balance of payments and investment	Level of fuel import		Overall, the participants did not have an idea whether the project will result in a reduction of fuel import through use of local energy resources. So, this indicator has been considered to be neutral.	0
Technology transfer and technological self-reliance	Introduction of new technology in the region, along with training and workshops		The participants agreed that this project was something new for their village or neighbouring villages and would lead to improvement of technical knowledge of local population. However they thought that project activity does not lead to technology transfer or introduction of new technology.	0

Comments accompanying own sustainable development matrix

Project activity causes no negative effects on the local environment as well as on socio-economic conditions.

## D. 2. Stakeholders Blind sustainable development matrix

From the physical meeting, participants agreed that the overall impact of the project will be positive for all the indicators chosen for the categories of sustainable development. In order to capture the responses of the people a questionnaire was designed in such a way that the stakeholders can express their view on different indicators at their discretion. Subsequently, their views were analyzed from these questionnaires and used to support our results in the blind SD matrix.



Indicator	Mitigation measure	Relevance to achieving MDG	Chosen parameter and explanation	Pre- liminary score
Air quality	Air quality monitoring	Goal 7 – ensure environmental sustainability	Air quality will be improved substantially compared to emission levels related to fossil fuel combustion. Fossil fuels will be displaced by the use of biomass residues and biomass residues for power generation. The GHG emissions will also be reduced as a consequence of the project.	+
Water quality and quantity	Contamination of public water resources, shortage of water supply	Goal 7 – ensure environmental sustainability	Within the project area of 10 km radius, there is no significant surface water body which could be impacted due to the upcoming of the project.	0
Soil condition	Soil contamination and erosion	Goal 7 – ensure environmental sustainability	There is no significant impact on soil condition due to project activity.	0
Other pollutants	Noise	Goal 7 – ensure environmental sustainability	There is no significant difference compared with the baseline scenario for noise and other pollutants.	0
Biodiversity	Threatened Plants or animal species or habitats	Goal 7 – ensure environmental sustainability	There is no endangered / threatened plant / animal species or any habitat in the area of the project activity.	0
Quality of employment	Nature of employment after project	Goal 1 – eradicate extreme poverty and hunger	The workers will be trained, direct & indirect employment opportunities will be generated for skilled and unskilled local population. The staffs would acquire technical skills, knowledge and quality of employment will improve.	+



Livelihood of the poor	Employees income after project commenceme nt	Goal 1 – eradicate extreme poverty and hunger	The project will improve the livelihood of local people by creating employment opportunities for both skilled and unskilled people.	+
Access to affordable and clean energy services	Change in energy use		The project will use solar energy (renewable fuel) to generate electricity in a country where installation of fossil fuel based power plants is the most common scenario.	+
Human and institutional capacity	Public Participation, education and skills	Goal 8: Develop a Global Partnership for Development	Although the project will improve the human and institutional capacity through involvement of stakeholders in the LSC meeting, the overall benefits are not so significant. In practice, only the employees working on the project can be considered as the main beneficiaries. The scoring of this indicator is kept neutral to be conservative.	0
Quantitative employment and income generation	Employees income after project commenceme nt	Goal 1 – eradicate extreme poverty and hunger	The participants all agreed that employment will be generated for the local population, resulting in an increase in personal and regional income.	+
Balance of payments and investment	Level of fuel import		Overall, the participants did not have an idea whether the project will result in a reduction of fuel import through use of local energy resources. So, this indicator has been considered to be neutral.	0
Technology transfer and technological	Introduction of new technology in		The participants agreed that this project was something new for their	0



self-reliance	the region, along with training and workshops	village or neighbouring villages and would lead to improvement of technical knowledge of local population. However they thought that project activity does not lead to technology transfer or introduction of new
		technology.

Comments resulting from the stakeholders blind sustainable development matrix

Comments resulting from the blind sustainable development exercise indicate that the project activity causes no negative effects on the local environment and on the socio-economic conditions.

Give analysis of difference between own sustainable development matrix and the one resulting from the blind exercise with stakeholders. Explain how both were consolidated.

Own and blind sustainable development matrixes are very similar with respect to all sustainable development indicators.

## D. 3. Consolidated sustainable development matrix

Indicator	Mitigation measure	Relevance to achieving MDG	Chosen parameter and explanation	Pre- liminary score
Air quality	Air quality monitoring	Goal 7 – ensure environmental sustainability	Air quality will be improved substantially compared to emission levels related to fossil fuel combustion. Fossil fuels will be displaced by the use of biomass residues and biomass residues for power generation. The GHG emissions will also be reduced as a consequence of the project.	+
Water	Contaminatio	Goal 7 –	Within the project area of	0



quality and quantity	n of public water resources, shortage of water supply	ensure environmental sustainability	10 km radius, there is no significant surface water body which could be impacted due to the upcoming of the project.	
Soil condition	Soil contaminatio n and erosion	Goal 7 – ensure environmental sustainability	There is no significant impact on soil condition due to project activity.	0
Other pollutants	Noise	Goal 7 – ensure environmental sustainability	There is no significant difference compared with the baseline scenario for noise and other pollutants.	0
Biodiversity	Threatened Plants or animal species or habitats	Goal 7 – ensure environmental sustainability	There is no endangered / threatened plant / animal species or any habitat in the area of the project activity.	0
Quality of employment	Nature of employment after project	Goal 1 – eradicate extreme poverty and hunger	The workers will be trained, direct & indirect employment opportunities will be generated for skilled and unskilled local population. The staffs would acquire technical skills, knowledge and quality of employment will improve.	+
Livelihood of the poor	Employees income after project commencem ent	Goal 1 – eradicate extreme poverty and hunger	The project will improve the livelihood of local people by creating employment opportunities for both skilled and unskilled people.	+
Access to affordable and clean energy services	Change in energy use		The project will use solar energy (renewable fuel) to generate electricity in a country where installation of fossil fuel based power plants is the most common scenario.	+
Human and institutional capacity	Public Participation, education and skills	Goal 8: Develop a Global Partnership for	Although the project will improve the human and institutional capacity through involvement of	0



		Development	stakeholders in the LSC meeting, the overall benefits are not so significant. In practice, only the employees working on the project can be considered as the main beneficiaries. The scoring of this indicator is kept neutral to be conservative.	
Quantitative employment and income generation	Employees income after project commencem ent	Goal 1 – eradicate extreme poverty and hunger	The participants all agreed that employment will be generated for the local population, resulting in an increase in personal and regional income.	+
Balance of payments and investment	Level of fuel import		Overall, the participants did not have an idea whether the project will result in a reduction of fuel import through use of local energy resources. So, this indicator has been considered to be neutral.	0
Technology transfer and technologica I self- reliance	Introduction of new technology in the region, along with training and workshops		The participants agreed that this project was something new for their village or neighbouring villages and would lead to improvement of technical knowledge of local population. However they thought that project activity does not lead to technology transfer or introduction of new technology.	0
Indicator				
Gold Standard indicators of sustainable development			itigation measure from 'Do N Iclude mitigation measure use of '-'	
Air quality		and in absence o	ses solar energy for power f project activity the same ing fossil fuel fired powe	power will



	located in the region. GHG emission reductions are expected as the result of the project implementation; detail on the calculation of this reduction is available in the project design document (PDD).
Water quality and quantity	Within the project area of 10 km radius, there is no significant surface water body which could be impacted due to the upcoming of the project.
Soil condition	The project proponents do not expect to see significant impacts on the soil condition.
Other pollutants	There is no significant difference compared with the baseline scenario for noise and other pollutants.
Biodiversity	Project activity will not have significant impact on biodiversity.
Quality of employment	The project will create employment, involving various jobs, for technicians, qualified and unskilled workers. In addition, safety procedures will be included in the operation manual in ensure safe working condition for the staff
Livelihood of the poor	The project will improve the livelihood of local people by creating employment opportunities for both skilled and unskilled people.
Access to affordable and clean energy services	The project will use solar energy (renewable fuel) to generate electricity in a country where installation of fossil fuel based power plants is the most common scenario.
Human and institutional capacity	The project may not significantly contribute to local education, gender equality or social structure in the near future. However, local stakeholders had a feeling of empowerment brought about by the participatory process under which this project was developed.
Quantitative employment and income generation	The participants all agreed that employment will be generated for the local population, resulting in an increase in personal and regional income.
Balance of payments and investment	The project will have no impact on this parameter as it doesn't lead to direct substitution of any fossil fuel and hence doesn't result in any direct or positive impact on the net foreign currency savings.
Technology transfer and technological self-reliance	The participants agreed that this project was something new for their village or neighbouring villages and would lead to improvement of technical knowledge of local population. However they thought that project activity



does not lead to technology transfer or introduction of new technology.

# SECTION E. SUSTAINABILITY MONITORING PLAN

# E. 1. Discussion on Sustainability monitoring Plan

# [See Toolkit 2.4.3 and 2.6.1]

Discuss stakeholders' ideas on monitoring sustainable development indicators. Do people have ideas on how this could be done in a cost effective way? Are there ways in which stakeholders can participate in monitoring?

Indicators	Frequency of Monitoring	Parameters to be Analyzed
Access to clean and affordable energy	Monthly	Net electricity generated by the project activity.
Quantitative employment and income generation		Written confirmation (coupled with employment contracts) from the project owner can be provided to confirm that jobs have been created as a result of the project implementation.
Technology transfer and technological self-reliance		Training records shall be made available to show that new skills have been passed on to the employees.



# E. 2. Discussion on continuous input / grievance mechanism

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

Continuous la nut / Crisus nos	Method Chosen (include all known details e.g. location of book, phone, number, identity of mediator)	Justification
Continuous Input / Grievance Expression Process Book	Input can be given continuously by calling or sending an E-Mail. Contact details are given below.  Furthermore, a book will be maintained to record continuous inputs from the stakeholders that can't give their input via phone or E-Mail.	Telephone and email access are considered by the project participants as a reliable method to allow continuous input from stakeholders. For everyone else a book will be on display in which grievance can be expressed by hand.  The grievance book will be placed at the video Room department at Brahmakumaris Shantivan Campus, Talheti, Abu Road, Rajasthan, India. The room is always open for visitors and there is plenty additional information regarding the project to be found.
Telephone access	+91 (0) 2974-228298 +41 (0) 22 788 7080	
Internet/email access  Nominated Independent	info@india-one.net machnik@atmosfair.de info@goldstandard.org Not applied/Not asked	Stakeholders agreed that no
Mediator (optional)	for during LSC.	mediator would be necessary.

All issues identified during the crediting period through any of the Methods shall have a mitigation measure in place. The identified issue should be discussed in the revised Passport and the corresponding mitigation measure should be added to sustainability monitoring plan



	SECTION F.	FEEDBACK ROUND	
Г	CED to be done		
	SFR to be done		
	ANNEV 1	ODICINIAL DADTICIDANTS LIST	
	ANNEX 1.	ORIGINAL PARTICIPANTS LIST	
	ANNEX 2.	ORIGINAL EVALUATION FORMS	