



RENEWABLE SOLAR POWER PROJECT BY RENEW SOLAR POWER PRIVATE LIMITED



Document Prepared by EKI Energy Services Limited

Project Title	Renewable Solar Power Project by ReNew Solar Power Private Limited
Version	3.0
Report ID	VVER 636
Date of Issue	10- October-2022
Project ID	1851
Monitoring Period	01-January-2022 to 30-June-2022(both days are included)
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1 PROJECT DETAILS

1.1 Summary Description of the Implementation Status of the Project

The main purpose of this project activity is to generate clean form of electricity through renewable solar energy sources. The project activity involves total capacity of 927 MW solar power project which are installed in Gujarat, Karnataka, Madhya Pradesh, Rajasthan and Telangana states of India. The solar projects have been developed by the SPVs of ReNew Solar Power Private Limited.

All the SPVs are of ReNew Solar Power Private Limited. The project is promoted by ReNew Solar Power Private Limited.

Total emission reductions achieved in this monitoring period:

During the Current Monitoring Period from 01-January-2022 to 30-June-2022 (First and last date included) the project activity has supplied 997,326.639 MWh of electricity, and thus contributing to the GHG reductions 944,966 tCO₂e (Round down value).

The project started operation from 13-February-2017 and it is still in running condition. In current monitoring period, there is no major breakdown/shutdown of plant happened which can have impact on emission reduction. The previous Monitoring Periods and the respective emission reduction are shown below:

1. 1st Monitoring Period: 13-February-2017 to 25-October-2018, VCU: 1,984,034 tCO₂e.
2. 2nd Monitoring Period: 26-October- 2018 to 24-December-2019, VCU: 2,034,985 tCO₂e.
3. 3rd Monitoring Period: 25-December-2019 to 25-May-2021, VCU: 2,496,897 tCO₂e.
4. 4th Monitoring Period: 26-May-2021 to 31-December-2021, VCU: 944,387 tCO₂e.

1.2 Sectoral Scope and Project Type

The project activity falls under the following Sectoral scope and Project Type:

Sectoral Scope: 01 - Energy industries (renewable / non-renewable sources)

Project Type: I - Renewable Energy Projects

Project Category: Grid-connected electricity generation from renewable sources ACM0002-Version 19.0¹

Tools referred with above methodology and applicable for project activity are:

- Tool to calculate the emission factor for an electricity system²- Version 07.0 (EB 100, Annex 04)
- Methodological Tool- Tool for the demonstration and assessment of additionality³- Version 07.0.0 (EB 70, Annex 08).

¹ <http://cdm.unfccc.int/methodologies/DB/VJI9AX539D9MLOPXN2AY9UR1N4IYGD>

² <http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v7.0.pdf>

³ <http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v7.0.0.pdf>

1.3 Project Proponent

Organization name	ReNew Solar Power Private Limited
Contact person	Mr. Aditya Sharma
Title	PP Representative
Address	ReNew Hub, Commercial Block-1, Zone 6, Golf Course Road, DLF City, Phase-V, Gurugram- 122009, Haryana
Telephone	+91-8800915324
Email	Aditya.Sharma@renewpower.in

1.4 Other Entities Involved in the Project

Organization name	EKI Energy Services Limited
Role in the Project	Project Consultant
Contact person	Bibhushita Ghose
Title	Manager- Operations
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Email	bibhushita.ghose@enkingint.org // registry@enkingint.org

1.5 Project Start Date

Start date of the project activity is the earliest date of interconnection with the grid i.e.13-February-2017 which is the date of commissioning of 24 MW solar project activity by Renew Mega Solar Power Private Limited.

1.6 Project Crediting Period

Crediting Period Start date: 13-February-2017

Crediting Period End date: 12-February-2027

The project activity adopts renewable crediting period of 10 years period which can be renewed for maximum 2 times.

1.7 Project Location

The details of the project locations are mentioned in the table below.

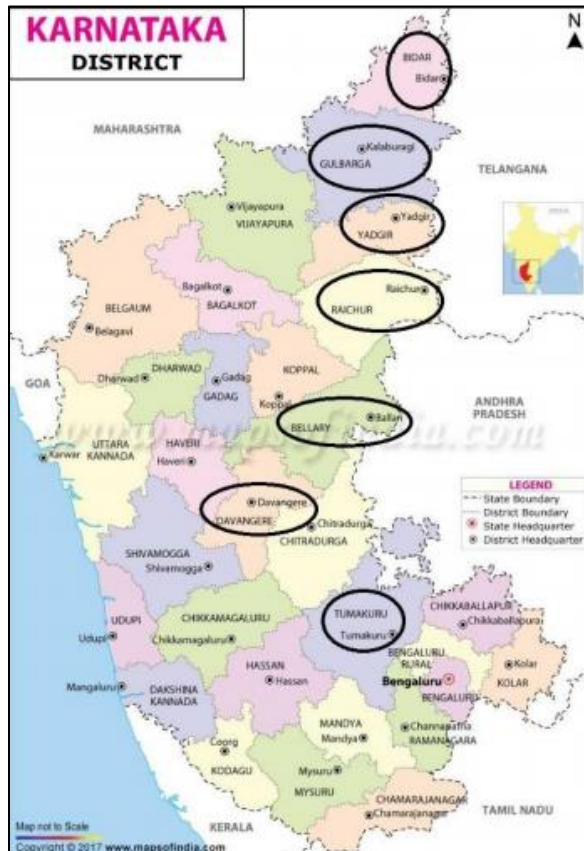
Name of SPVs	Capacity (MW)	Village(s)	Tehsil / Mandal	District	State
Bhumi Prakash Private Limited	20 MW	Hirebudur	Deodurga	Raichur	Karnataka
Renew Wind Energy (MP Four) Private Limited	20 MW	Chincholi	Chincholi	Kalaburagi	
Renew Agni Power Private Limited	20 MW	Upparhosahalli	Siruguppa	Ballari	
Renew Wind Energy (Karnataka 3) Private Limited	20 MW	Ladha	Bhalki	Bidar	
Tarun Kiran Bhoomi Private Limited	20 MW	Gola (B)	Aland	Kalaburagi	
Renew Wind Energy (Karnataka 4) Private Limited	20 MW	Nirna	Humnabad	Bidar	
Renew Wind Energy (Budh 3) Private Limited	20 MW	Santhpur near Eklara	Aurad	Bidar	
Renew Wind Energy (Budh 3) Private Limited	20 MW	Nirna	Humnabad	Bidar	
Renew Wind Energy (Budh 3) Private Limited	20 MW	Wadagere & Aikur	Shahapur	Yadagir	
Renew Wind Energy (Maharashtra) Private Limited	20 MW	Saidapur & Malhar	Yadagir	Yadagir	
Renew Wind Energy (Rajasthan Four) Private Limited	20 MW	Gundikaval	Turuvekere	Tumkur	
Renew Wind Energy (MP Three) Private Limited	20 MW	Kattige	Honnali	Davangere	
Renew Saur Urja Private Limited	50 MW	Thalekhan	Lingasugur		
Renew Wind Energy (TN2) Private Limited	50 MW	Thirumani, Rayacherlu, Vallur, Balasamudra, Kyataganacherlu	NagalamadikeHobli , Pavagada	Tumkur	
Renew Solar Energy (Karnataka Two) Private Limited	40 MW	Charanka	Santalpur	Patan	Gujarat
Renew Clean Energy Private Limited	51 MW	Bhensarwas	Shadora	Ashok Nagar	Madhya Pradesh
Aalok Solarfarms Limited	10 MW	Badisid	Bap	Jodhpur	Rajasthan

Abha Solarfarms Limited	10 MW	Badisid	Bap	Jodhpur	
Heramba Renewables Limited	20 MW	Hanawat Nagar	Bap	Jodhpur	
	20 MW	Khetusar Nagar	Bap	Jodhpur	
ReNew Solar Energy (Telangana) Private Limited	143 MW	Dharamaraopet & Kankal	Sadasivanagar	Nizamabad	Telangana
Renew Mega Solar Power Pvt Limited	48 MW	Andugulapet	Mandamarri	Adilabad	
Renew Saur Shakti Private Limited	30 MW	Vangara	Bheemdevarapally	Karimnagar	
Renew Saur Shakti Private Limited	65 MW	Minpur	-	Medak	
Renew Wind Energy (TN2) Private Limited	100 MW	Gudibanda	Addakal	Mahabubnagar	
Prathamesh Solarfarms Limited	50 MW	Dodaguntapally	Peddamandadi	Mahabubnagar	

The Geo-coordinates of the project site is mentioned below:

Name of SPVs	Capacity (MW)	Latitude	Longitude
Bhumi Prakash Private Limited	20 MW	16.3° N	76.8° E
Renew Wind Energy (MP Four) Private Limited	20 MW	17.4° N	77.4° E
Renew Agni Power Private Limited	20 MW	15.5° N	76.9° E
Renew Wind Energy (Karnataka 3) Private Limited	20 MW	18° 0'5.81"N	77°18'32.57"E
Tarun Kiran Bhoomi Private Limited	20 MW	17.4° N	76.7° E
Renew Wind Energy (Karnataka 4) Private Limited	20 MW	17.7° N	77.3° E
Renew Wind Energy (Budh 3) Private Limited	20 MW	18°11'47.91"N	77°26'46.34"E
Renew Wind Energy (Budh 3) Private Limited	20 MW	17.75° N	77.35° E
Renew Wind Energy (Budh 3) Private Limited	20 MW	16.6° N	77.0° E
Renew Wind Energy (Maharashtra) Private Limited	20 MW	16.6° N	77.3° E
Renew Wind Energy (Rajasthan Four) Private Limited	20 MW	13.2° N	76.8° E
Renew Wind Energy (MP Three) Private Limited	20 MW	14.3° N	75.6° E
Renew Saur Urja Private Limited	50 MW	15°53'53" N	76°33'26" E
Renew Wind Energy (TN2) Private Limited	50 MW	14.237 N	77.486 E
Renew Solar Energy (Karnataka Two) Private Limited	40 MW	23°54'56.45" N	71°12'4.79" E
Renew Clean Energy Private Limited	51 MW	24.03117° N	76.667943° E
Aalok Solarfarms Limited	10 MW	27.4° N	72.4° E
Abha Solarfarms Limited	10 MW	27.4° N	72.4° E
Heramba Renewables Limited	20 MW	27.4° N	72.1° E
Shreyas Solarfarms Limited	20 MW	27.3° N	71.9° E
ReNew Solar Energy (Telangana) Private Limited	143 MW	N 18.6°	E 78.3°
Renew Mega Solar Power Pvt Limited	48 MW	N 18.985290°	E 79.446397°
Renew Saur Shakti Private Limited	30 MW	18.1° N	79.4° E

Renew Saur Shakti Private Limited	65 MW	17° 57.951' N	78° 03.968' E
Renew Wind Energy (TN2) Private Limited	100 MW	16.6°N	77.9°E
Prathamesh Solarfarms Limited	50 MW	16°25'12" N	78°4'40.80" E



Gujarat Site:



Rajasthan Site:



Madhya Pradesh Site:



Telangana Site:



1.8 Title and Reference of Methodology

Title: Grid-connected electricity generation from renewable sources

Reference: The project activity meets the eligibility criteria of large-scale project as it is more than 15 MW

Methodology: ACM0002: Grid-connected electricity generation from renewable sources⁴ - Version 19.0

Type I: Energy industries (renewable / non-renewable sources)

Category: Approved Consolidated Methodology (ACM0002)

Tools referred with above methodology and applicable for project activity are:

- Tool to calculate the emission factor for an electricity system⁵- Version 07.0 (EB 100, Annex 04)
- Methodological Tool- Tool for the demonstration and assessment of additional⁶- Version 07.0.0 (EB 70, Annex 08).

⁴ <http://cdm.unfccc.int/methodologies/DB/VJI9AX539D9MLOPXN2AY9UR1N4IYGD>

⁵ <http://cdm.unfccc.int/methodologies/PAMethodologies/tools/am-tool-07-v7.0.pdf>

⁶ <http://cdm.unfccc.int/methodologies/PAMethodologies/tools/am-tool-01-v7.0.0.pdf>

1.9 Participation under other GHG Programs

The project has neither been registered nor seeking registration under any other GHG programs. The project is registered only in VCS program.

1.10 Other Forms of Credit

Emission Trading Programs and Other Binding Limits:

Net GHG emission reductions or removals generated by the project are not being used for compliance with an emissions trading program or to meet binding limits on GHG emissions in any Emission Trading program or other binding limits.

Other Forms of Environmental Credit:

Not applicable, as the project is not registered in any other GHG mechanism other than VCS. Also, the project activity is not availing any REC benefits and the same can be confirmed from publicly available link of REC generators.

Web-link: <https://www.recregistryindia.nic.in/>

1.11 Sustainable Development Contributions

Contribution to sustainable development:

Ministry of Environment, Forest and Climate Change, has stipulated economic, social, environment and technological well-being as the four indicators of sustainable development. The project contributes to sustainable development using the following ways.

Social well-being: The project helps in generating employment opportunities during the construction and operation phases. The project activity leads to development in infrastructure in the region like development of roads and also may promote business with improved power generation.

Economic well-being: The project is a clean technology investment in the region, which would not have been taken place in the absence of the VCS benefits. The project activity helps to reduce the demand supply gap in the state.

Technological well-being: The successful operation of project activity leads to promotion of solar power generation and encourages other entrepreneurs to participate in similar projects

Environmental well-being: Solar being a renewable source of energy, it reduces the dependence on fossil fuels and conserves natural resources which are on the verge of depletion. Due to its zero emission the Project activity also helps in avoiding significant amount of GHG emission.

Table 1: Sustainable Development Contributions

Row number	SDG Target	SDG Indicator	Net Impact on SDG Indicator	Current Project Contributions	Contributions Over Project Lifetime
<i>Sequential row number</i>	<i>SDG Target number</i>	<i>Number and text of SDG indicator or, if no official SDG indicator is applicable, user-defined indicator</i>	<i>Indicate the project's contribution to the SDG Indicator (implemented activities to increase or decrease)</i>	<i>Brief description of the quantifiable impact of the project's activities related to the SDG indicator, during the monitoring period.</i>	<i>Brief description of the cumulative quantifiable impact of the project's activities related to the SDG indicator, over the project lifetime.</i>
1)					
2)					
3)					
4)					

This is not applicable upto 2025.

2 SAFEGUARDS

2.1 No Net Harm

The project activity does not involve any major construction activity. It primarily requires the installation of the solar PV panels, interfacing the generators with the State Electricity Board by setting up HT transmission lines and installation of other accessories.

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 PV project activity operations do not result in direct air pollution, noise pollution. Please refer below web link for the same⁷.

Thus there are no any significant impacts due to implementation of project activity on air, water, soil quality and ambience are envisaged due to the project activity. Also, there is no any negative environmental and socio-economic impacts due to implementation of the project activity as this is a renewable solar project.

2.2 Local Stakeholder Consultation

The local stakeholder meeting was carried out for the project activity and the details of the same can be referred from the registered VCS PD.

As a part of continuous feedback from stakeholders, the PP also placed a grievance register onsite where-in, the stakeholders can put down their complaint and the same if found genuine are addressed immediately. However, during the current monitoring period, no comments or feedback was received.

2.3 AFOLU-Specific Safeguards

Not Applicable, as this is not an AFOLU project.

3 IMPLEMENTATION STATUS

3.1 Implementation Status of the Project Activity

The project activity involves the installation of solar project. The total installed capacity of the project is 927 MW Solar project located at Gujarat, Karnataka, Madhya Pradesh, Rajasthan and Telangana states in India. The project is promoted by ReNew Solar Power Private Limited.

The Project activity is a new facility (Greenfield) and the electricity generated by the project is exported to the Indian electricity grid. The project therefore displaces an equivalent

⁷ http://www.odishainnovationcell.nic.in/Content/SIC/Articles/RE_Development_Impacts_in_India.pdf

amount of electricity which would have otherwise been generated by fossil fuel dominant electricity grid.

During the Current Monitoring Period, all the solar plants were operational and the project activity has supplied 997,326.639 MWh of electricity, and thus contributing to the GHG reductions 944,966 tCO₂e (Round down value).

The technical details of the project activity are provided below.

The technical specification for 20 MW solar project by Bhumi Prakash Private Limited at Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 320 Wp, 325 Wp No. of Modules- 21, 21
2	Number of Inverters & Capacity	20 Inverters Capacity- 1 MW
3	Number of Transformers & Capacity	5 transformer of 4 MVA 1 transformer of 15/20 MVA

The technical specification for 20 MW solar project by Renew Wind Energy (MP Four) Private Limited at Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 320 Wp No. of Modules- 21
2	Number of Inverters & Capacity	20 Inverters Capacity- 1 MW
3	Number of Transformers & Capacity	5 transformer of 4 MVA 1 transformer of 16/20 MVA

The technical specification for 20 MW solar project by Renew Agni Power Private Limited at Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp, 320 Wp & 325 Wp No. of Modules- 21,21,21
2	Number of Inverters & Capacity	465 Inverters Capacity- 0.043 MW
3	Number of Transformers & Capacity	5 transformer of 4 MVA 1 transformer of 16/20 MVA

The technical specification for 20 MW solar project by Renew Wind Energy (Karnataka 3) Private Limited at Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp, 320 Wp & 325 Wp No. of Modules- 21,21,21
2	Number of Inverters & Capacity	20 Inverters Capacity- 1 MW
3	Number of Transformers & Capacity	5 transformer of 4 MVA 1 transformer of 16/20 MVA

The technical specification for 20 MW solar project by Tarun Kiran Bhoomi Private Limited at Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp, 320 Wp No. of Modules- 21,21
2	Number of Inverters & Capacity	8 Inverters Capacity- 2.5 MW
3	Number of Transformers & Capacity	4 transformer of 4 MVA 1 transformer of 16/20 MVA

The technical specification for 20 MW solar project by Renew Wind Energy (Karnataka 4) Private Limited at Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp, 320 Wp & 325 Wp No. of Modules- 20,20,20
2	Number of Inverters & Capacity	20 Inverters Capacity- 1 MW
3	Number of Transformers & Capacity	5 transformer of 4 MVA 1 transformer of 16/20 MVA

The technical specification for 20 MW solar project by Renew Wind Energy (Budh 3) Private Limited at Eklara site in Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 320 Wp, 325 Wp & 330 Wp No. of Modules- 20,20,20
2	Number of Inverters & Capacity	8 Inverters Capacity- 2.52 MW
3	Number of Transformers & Capacity	5 transformer of 4 MVA 1 transformer of 16/20 MVA

The technical specification for 20 MW solar project by Renew Wind Energy (Budh 3) Private Limited at Nirna site in Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 325 Wp & 330 Wp No. of Modules- 20,20
2	Number of Inverters & Capacity	8 Inverters Capacity- 2.52 MW
3	Number of Transformers & Capacity	4 transformer of 5 MVA 1 transformer of 15/20 MVA

The technical specification for 20 MW solar project by Renew Wind Energy (Budh 3) Private Limited at Wadagere site in Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 320 Wp, 325 Wp & 330 Wp No. of Modules- 20,20,20
2	Number of Inverters & Capacity	30 Inverters Capacity- 0.68 MW
3	Number of Transformers & Capacity	4 transformer of 4 MVA 1 transformer of 15/20 MVA

The technical specification for 20 MW solar project by Renew Wind Energy (Maharashtra) Private Limited at Karnataka

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp, 320 Wp & 325Wp

		No. of Modules- 21,21,21
2	Number of Inverters & Capacity	30 Inverters Capacity- 0.68 MW
3	Number of Transformers & Capacity	5 transformer of 4 MVA 1 transformer of 15/20 MVA

The technical specification for 20 MW solar project by Renew Wind Energy (Rajasthan Four) Private Limited at Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 320 Wp& 325Wp No. of Modules- 21,21
2	Number of Inverters & Capacity	20 Inverters Capacity- 1 MW
3	Number of Transformers & Capacity	5 transformer of 4 MVA 1 transformer of 16/20 MVA

The technical specification for 20 MW solar project by Renew Wind Energy (MP Three) Private Limited at Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 320 Wp, 325 Wp& 330Wp No. of Modules- 21,21,21
2	Number of Inverters & Capacity	20 Inverters Capacity- 1 MW
3	Number of Transformers & Capacity	5 transformer of 4 MVA 1 transformer of 15/20 MVA

The technical specification for 50 MW solar project by Renew Saur Urja Private Limited at Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp, 320 Wp& 325Wp No. of Modules- 21,42,21
2	Number of Inverters & Capacity	23 Inverters of 1 MW 24 Inverters of 1.125 MW
3	Number of Transformers & Capacity	6 transformer of 4.5 MVA

		5 transformer of 4 MVA 1 transformer of 3 MVA 2 transformers of 20/25 MVA
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The technical specification for 50 MW solar project by Renew Wind Energy (TN2) Private Limited at Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 320 Wp, 325 Wp, 330 Wp, 340 Wp & 345 Wp No. of Modules- 19,21,21,21,21
2	Number of Inverters & Capacity	20 Inverters of 2.5 MW
3	Number of Transformers & Capacity	10 transformers of 5 MVA 2 transformers of 20/25 MVA

The technical specification for 40 MW solar project by Renew Solar Energy (Karnataka Two) Private Limited at Gujarat.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp, 320 Wp & 325 Wp No. of Modules- 20,20,20
2	Number of Inverters & Capacity	40 Inverters of 1 MW
3	Number of Transformers & Capacity	10 transformers of 4 MVA 2 transformers of 16/20 MVA

The technical specification for 51 MW solar project by Renew Clean Energy Private Limited at Madhya Pradesh.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 117.5 Wp No. of Modules- 32
2	Number of Inverters & Capacity	6 Inverters of 2.5 MW 12 Inverters of 3 MW
3	Number of Transformers & Capacity	6 transformers of 6 MVA 3 transformers of 5 MVA 2 transformers of 25/30 MVA

The technical specification for 10 MW solar project by Aalok Solarfarms Limited at Rajasthan.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp No. of Modules- 20
2	Number of Inverters & Capacity	10 Inverters of 1 MW
3	Number of Transformers & Capacity	5 transformers of 2 MVA

The technical specification for 10 MW solar project by Abha Solarfarms Limited at Rajasthan.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp No. of Modules- 20
2	Number of Inverters & Capacity	10 Inverters of 1 MW
3	Number of Transformers & Capacity	5 transformers of 2 MVA

The technical specification for 20 MW solar project by Heramba Renewbles Limited at Rajasthan.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp No. of Modules- 20
2	Number of Inverters & Capacity	10 Inverters of 1 MW
3	Number of Transformers & Capacity	10 transformers of 2 MVA

The technical specification for 20 MW solar project by Shreyas Solarfarms Limited at Rajasthan.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp No. of Modules- 20
2	Number of Inverters & Capacity	10 Inverters of 1 MW
3	Number of Transformers & Capacity	10 transformers of 2 MVA

The technical specification for 143 MW solar project by ReNew Solar Energy (Telangana) Private Limited at Telangana.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 310 Wp, 315 Wp, 320 Wp & 325 Wp No. of Modules- 21,21,21,21
2	Number of Inverters & Capacity	130 Inverters of 1 MW
3	Number of Transformers & Capacity	31 transformers of 4.4 MVA 3 transformers of 2.2 MVA 3 transformers of 40/50 MVA

The technical specification for 48 MW solar project by Renew Mega Solar Power Private Limited at Telangana.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 310 Wp, 315 Wp & 320 Wp No. of Modules- 21,21,21
2	Number of Inverters & Capacity	48 Inverters of 1 MW
3	Number of Transformers & Capacity	12 transformers of 4 MVA 2 transformers of 25/30 MVA

The technical specification for 30 MW solar project by Renew Saur Shakti Private Limited at Telangana.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 320 Wp No. of Modules- 21
2	Number of Inverters & Capacity	30 Inverters of 1 MW
3	Number of Transformers & Capacity	7 transformers of 4 MVA 1 transformers of 2 MVA 1 transformers of 25/30 MVA

The technical specification for 65 MW solar project by Renew Saur Shakti Private Limited at Telangana.

Sl. No.	Technical details of the equipment	Description
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1	Modules capacity and No. of Module	Model capacity- 315 Wp, 320 Wp& 325 Wp No. of Modules- 42,84,42
2	Number of Inverters & Capacity	65 Inverters of 1 MW
3	Number of Transformers & Capacity	16 transformers of 4 MVA 1 transformer of 1 MVA 1 transformer of 25/30 MVA 1 transformer of 40/50 MVA

The technical specification for 100 MW solar project by Renew Wind Energy (TN2) Private Limited at Telangana.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 320 Wp, 325 Wp& 330 Wp No. of Modules- 60,60,60
2	Number of Inverters & Capacity	28 Inverters of 2.5 MW 30 Inverters of 1 MW
3	Number of Transformers & Capacity	6 transformers of 4 MVA 3 transformers of 2 MVA 14 transformers of 5 MVA 2 transformers of 40/50 MVA

The technical specification for 50 MW solar project by Prathamesh Solar farms Limited at Telangana.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 320 Wp& 325 Wp No. of Modules- 20,20
2	Number of Inverters & Capacity	50 Inverters of 1 MW
3	Number of Transformers & Capacity	12 transformers of 4 MVA 2 transformers of 1 MVA

The commissioning details of this project activity is given below:

Name of SPVs ⁸	Capacity in MW	Date of Commissioning	Connection with Grid	State	Usage
Bhumi Prakash Private Limited	20 MW	26-September-2017	Indian Grid	Karnataka	Sale to State Discom
Renew Wind Energy (MP Four) Private Limited	20 MW	28-April-2017			Sale to State Discom
Renew Agni Power Private Limited	20 MW	31-March-2017			Sale to State Discom
Renew Wind Energy (Karnataka 3) Private Limited	20 MW	27-March-2017			Sale to State Discom
Tarun Kiran Bhoomi Private Limited	20 MW	31-March-2017			Sale to State Discom
Renew Wind Energy (Karnataka 4) Private Limited	20 MW	31-March-2017			Sale to State Discom
Renew Wind Energy (Budh 3) Private Limited	20 MW	16-March-2018			Sale to 3rd Party
Renew Wind Energy (Budh 3) Private Ltd	20 MW	09-March-2018			Sale to 3rd Party
Renew Wind Energy (Budh 3) Private Limited	20 MW	30-December-2017			Sale to 3rd Party
Renew Wind Energy (Maharashtra) Private Limited	20 MW	13-October-2017			Sale to State Discom
Renew Wind Energy (Rajasthan Four) Private Limited	20 MW	07-December-2017			Sale to State Discom
Renew Wind Energy (MP Three) Private Limited	20 MW	11-November-2017			Sale to State Discom
Renew Saur Urja Private Limited	50 MW	26-May-2017			Sale to 3rd Party
Renew Wind Energy (TN2) Private Limited	50 MW	14-December-2017			Sale to NTPC Limited
Renew Solar Energy (Karnataka Two) Private Limited	40 MW	31-March-2017		Gujarat	Sale to SECI Limited

⁸ The SPV names mentioned in the table are in accordance with their respective Commissioning Certificates.

Renew Energy Limited	Clean Private	51 MW	01-October-2017		Madhya Pradesh	Sale to State Discom
Aalok Solarfarms Limited		10 MW	06-November-2017			Sale to NTPC Limited
Abha Solarfarms Limited		10 MW	17-October-2017			Sale to NTPC Limited
Heramba Renewables Limited		20 MW	10 MW on 17-October-2017 10 MW on 28-October-2017		Rajasthan	Sale to NTPC Limited
Shreyas Solarfarms Limited		20 MW	17-November-2017			Sale to NTPC Limited
ReNew Solar Energy (Telangana) Private Limited		143 MW	44 MW on 28-April-2017 17.6 MW on 16-May-2017 44 MW on 22-June-2017 15.4 MW on 03-July-2017 22 MW on 12-July-2017			Sale to State Discom
Renew Mega Solar Power Private Limited		48 MW	24 MW on 13-February-2017 24 MW on 21-February-2017			Sale to State Discom
Renew Saur Shakti Private Limited		30 MW	8 MW on 14-February-2017 10 MW on 04-March-2017 6 MW on 30-March-2017 4.5 MW on 30-May-2017 1.5 Mw on 11-June-2017		Telangana	Sale to State Discom
Renew Saur Shakti Private Limited		65 MW	58 MW on 29-May-2017 7 MW on 07-July-2017			Sale to State Discom
Renew Wind Energy (TN2) Private Limited		100 MW	01-November-2017			Sale to NTPC Limited
Prathamesh Solarfarms Limited		50 MW	20-September-2017			Sale to State Discom

Total	927 MW				
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There is no changes in SPV during the current monitoring period(01-January-2022 to 30-June-2022)

3.2 Deviations

2.1.1 Methodology Deviations

Not Applicable, as there are no methodological deviations.

2.1.2 Project Description Deviations

From January-2020 onwards, Regional Energy Account(REA) statements are being issued for the SPV- Renew Wind Energy (TN2) Private Limited, 50 MW Pavagada site. But the source of data for the generation data was Form-B. Hence, the generation data has been taken from the REA statements. The change in source of data for the generation is as per the requirement of State electricity authority and PP has no role to play in it. Therefore, PP applied for deviation from the source of data for generation from the registered PD.

The above mentioned deviation was approved during the previous verification and the same is being followed during the current verification period. It is to be noted that, due to this deviation, there is no any impact on the applicability of the methodology, additionality or the baseline scenario of the project activity.

3.3 Grouped Projects

Not Applicable, as this is not a grouped project activity.

4 DATA AND PARAMETERS

4.1 Data and Parameters Available at Validation

Data / Parameter	EF_{grid,OM,y}
Data unit	tCO ₂ /MWh
Description	Operating Margin CO ₂ emission factor in year y
Source of data	Calculated from CEA database, Version 13, June 2018 ⁹
Value applied	0.9726
Justification of choice of data or description of measurement	Calculated as per “Tool to calculate the emission factor for an electricity system, version 07” as 3-year generation weighted average using data for the years 2014-15, 2015-16 & 2016-17.

⁹http://www.cea.nic.in/reports/others/thermal/tpece/cdm_co2/user_guide_ver13.pdf

methods and procedures applied	The data are obtained from “CO ₂ Baseline Database for Indian Power Sector” version 13, published by the Central Electricity Authority, Ministry of Power, Government of India.
Purpose of Data	For the calculation of the baseline emission
Comments	This parameter is fixed ex-ante for the entire crediting period.

Data / Parameter	EF_{grid,BM,y}
Data unit	tCO ₂ /MWh
Description	Build Margin CO ₂ emission factor in year y
Source of data	Calculated from CEA database, Version 13, June 2018 ¹⁰
Value applied	0.8723
Justification of choice of data or description of measurement methods and procedures applied	Calculated as per “Tool to calculate the emission factor for an electricity system, version 07” as per the latest data available for the most recent year 2016-17. The data is obtained from “CO ₂ Baseline Database for Indian Power Sector” version 13, published by the Central Electricity Authority, Ministry of Power, Government of India.
Purpose of Data	For the calculation of the Baseline Emission
Comments	This parameter is fixed ex-ante for the entire crediting period.

Data / Parameter	EF_{grid,CM,y}
Data unit	tCO ₂ /MWh
Description	Combined Margin CO ₂ emission factor in year y
Source of data	Calculated from CEA database, Version 13, June 2018 ¹¹
Value applied	0.9475
Justification of choice of data or description of measurement methods and procedures applied	The combined margin emissions factor is calculated as follows: $EF_{grid,CM,y} = EF_{grid,OM,y} * W_{OM} + EF_{grid,BM,y} * W_{BM}$ Where: EF_{grid,BM,y}= Build margin CO₂ emission factor in year y (tCO₂/MWh) EF_{grid,OM,y}= Operating margin CO₂ emission factor in year y (tCO₂/MWh) W_{OM} = Weighting of operating margin emissions factor (%) = 75% W_{BM}= Weighting of build margin emissions factor (%) = 25%
Purpose of Data	For the calculation of the Baseline Emission
Comments	This parameter is fixed ex-ante for the entire crediting period

¹⁰http://www.cea.nic.in/reports/others/thermal/tpece/cdm_co2/user_guide_ver13.pdf
¹¹http://www.cea.nic.in/reports/others/thermal/tpece/cdm_co2/user_guide_ver13.pdf

4.2 Data and Parameters Monitored

For Karnataka Site

Data / Parameter	EG_{PJ, y, KA}
Data unit	MWh/y
Description	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh
Source of data	Monthly joint meter reading reports
Description of measurement methods and procedures to be applied	The difference of final value of export and import is used for monthly values of net electricity supplied to the grid by the project activity and same value is considered for ER calculations.
Frequency of monitoring/recording	Continuous measurement & monthly recording
Value monitored	356,528.63 MWh
Monitoring equipment	The electricity exported / supplied by the plant to pooling substation and further to substation. This meter also measures electricity imported by the plant from the grid.
QA/QC procedures to be applied	The meters is approved, tested & sealed by the State Utility. The meters are in the custody of State Utility. The frequency of calibration is once in 5 years. The monthly electricity supplied/exported by the project activity in the JMR report is cross checked with the monthly invoices of sale. In the absence or delay in the meter calibration appropriate Guidelines are applied appropriately to confirm the conservativeness of metering. The metering arrangement, accuracy class of meters, calibration frequency is under control of state electricity board and PP do not have any control on it. PP is getting value of net electricity supplied to grid and the same is considered the monitoring parameter. The meter and meter calibration details are given in Appendix I of Monitoring Report. The billing is raised based on substation meters.
Purpose of the data	Calculation of baseline emissions
Calculation method	Thus, Net electricity supplied to the grid by the project plant in a given month = Export, kWh– Import, kWh. If share certificate/JMR mentioned only net electricity export to grid, and does not mention any export and import separately, then net electricity supplied to grid is considered directly.
Comments	Data archived in paper & electronic form for two years after the end of crediting period or of the last issuance of VERs for this project activity, whichever occurs later.

For Gujarat Site

Data / Parameter	EG_{PJ, y,GJ}
Data unit	MWh/y
Description	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh
Source of data	Monthly joint meter reading reports
Description of measurement methods and procedures to be applied	The difference of final value of export and import is used for monthly values of net electricity supplied to the grid by the project activity and same value is considered for ER calculations.
Frequency of monitoring/recording	Continuous measurement & monthly recording
Value monitored	45,339.231 MWh
Monitoring equipment	The electricity exported / supplied by the plant to pooling substation and further to substation. This meter also measures electricity imported by the plant from the grid.
QA/QC procedures to be applied	The meters is approved, tested & sealed by the State Utility. The meters are in the custody of State Utility. The frequency of calibration is once in 5 years. The monthly electricity supplied/exported by the project activity in the JMR report is cross checked with the monthly invoices of sale. In the absence or delay in the meter calibration appropriate Guidelines are applied appropriately to confirm the conservativeness of metering. The metering arrangement, accuracy class of meters, calibration frequency is under control of state electricity board and PP do not have any control on it. PP is getting value of net electricity supplied to grid and the same is considered the monitoring parameter. The meter and meter calibration details are given in Appendix I of Monitoring Report. The billing is raised based on substation meters.
Purpose of the data	Calculation of baseline emissions
Calculation method	Thus, Net electricity supplied to the grid by the project plant in a given month = Export, kWh– Import, kWh. If share certificate/JMR mentioned only net electricity export to grid, and does not mention any export and import separately, then net electricity supplied to grid is considered directly.
Comments	Data is archived in paper & electronic form for two years after the end of crediting period or of the last issuance of VERs for this project activity, whichever occurs later.

For Madhya Pradesh Site

Data / Parameter	EG_{PJ, y,MP}
Data unit	MWh/y
Description	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh

Source of data	Monthly joint meter reading reports
Description of measurement methods and procedures to be applied	The difference of final value of export and import is used for monthly values of net electricity supplied to the grid by the project activity and same value is considered for ER calculations.
Frequency of monitoring/recording	Continuous measurement & monthly recording
Value monitored	59,783 MWh
Monitoring equipment	The electricity exported / supplied by the plant to pooling substation and further to substation. This meter also measures electricity imported by the plant from the grid.
QA/QC procedures to be applied	The meters is approved, tested & sealed by the State Utility. The meters are in the custody of State Utility. The frequency of calibration is once in 5 years. The monthly electricity supplied/exported by the project activity in the JMR report is cross checked with the monthly invoices of sale. In the absence or delay in the meter calibration appropriate Guidelines are applied appropriately to confirm the conservativeness of metering. The metering arrangement, accuracy class of meters, calibration frequency is under control of state electricity board and PP do not have any control on it. PP is getting value of net electricity supplied to grid and the same is considered the monitoring parameter. The meter and meter calibration details are given in Appendix I of Monitoring Report. The billing is raised based on substation meters.
Purpose of the data	Calculation of baseline emissions
Calculation method	Thus, Net electricity supplied to the grid by the project plant in a given month = Export, kWh– Import, kWh. If share certificate/JMR mentioned only net electricity export to grid, and does not mention any export and import separately, then net electricity supplied to grid is considered directly.
Comments	Data is archived in paper & electronic form for two years after the end of crediting period or of the last issuance of VERs for this project activity, whichever occurs later.

For Rajasthan Site

Data / Parameter	$EG_{PJ, y, RJ}$
Data unit	MWh/y
Description	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh
Source of data	Monthly joint meter reading reports
Description of measurement methods and	The difference of final value of export and import is used for monthly values of net electricity supplied to the grid by the project activity and same value is considered for ER calculations.

procedures to be applied	
Frequency of monitoring/recording	Continuous measurement & monthly recording
Value monitored	72,466.662 MWh
Monitoring equipment	The electricity exported / supplied by the plant to pooling substation and further to substation. This meter also measures electricity imported by the plant from the grid.
QA/QC procedures to be applied	The meters is approved, tested & sealed by the State Utility. The meters are in the custody of State Utility. The frequency of calibration is once in 5 years. The monthly electricity supplied/exported by the project activity in the JMR report is cross checked with the monthly invoices of sale. In the absence or delay in the meter calibration appropriate Guidelines are applied appropriately to confirm the conservativeness of metering. The metering arrangement, accuracy class of meters, calibration frequency is under control of state electricity board and PP do not have any control on it. PP is getting value of net electricity supplied to grid and the same is considered the monitoring parameter. The meter and meter calibration details are given in Appendix I of Monitoring Report. The billing is raised based on substation meters.
Purpose of the data	Calculation of baseline emissions
Calculation method	Thus, Net electricity supplied to the grid by the project plant in a given month = Export, kWh– Import, kWh. If share certificate/JMR mentioned only net electricity export to grid, and does not mention any export and import separately, then net electricity supplied to grid is considered directly.
Comments	Data is archived in paper & electronic form for two years after the end of crediting period or of the last issuance of VERs for this project activity, whichever occurs later.

For Telangana Site

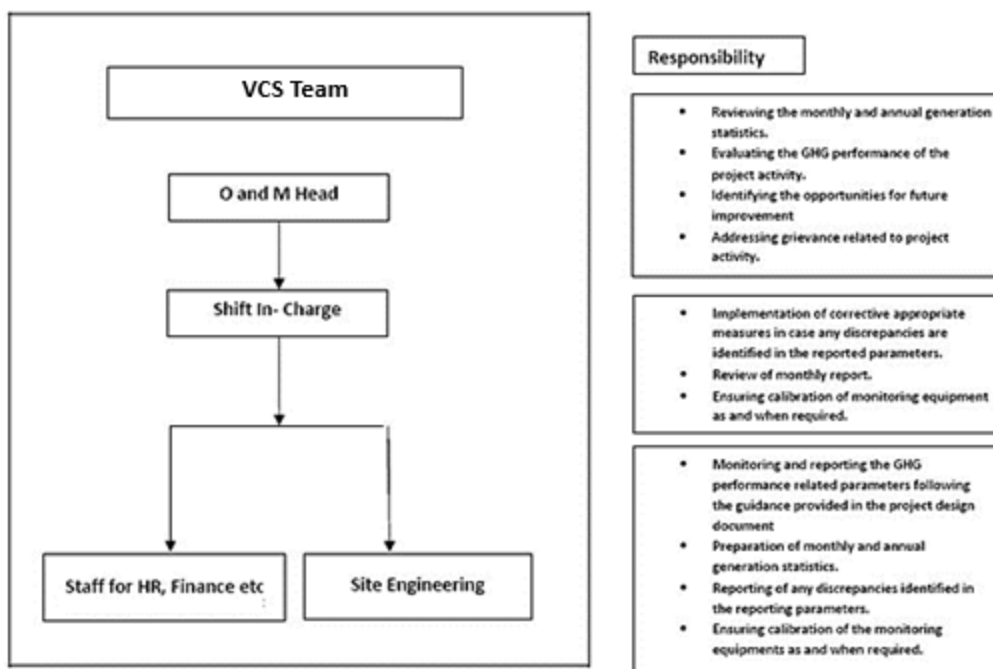
Data / Parameter	EG_{PJ, y, TL}
Data unit	MWh/y
Description	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh
Source of data	Monthly joint meter reading reports
Description of measurement methods and procedures to be applied	The difference of final value of export and import is used for monthly values of net electricity supplied to the grid by the project activity and same value is considered for ER calculations.
Frequency of monitoring/recording	Continuous measurement & monthly recording
Value monitored	463,209.112 MWh

Monitoring equipment	The electricity exported / supplied by the plant to pooling substation and further to substation. This meter also measures electricity imported by the plant from the grid.
QA/QC procedures to be applied	The meters is approved, tested & sealed by the State Utility. The meters are in the custody of State Utility. The frequency of calibration is once in 5 years. The monthly electricity supplied/exported by the project activity in the JMR report is cross checked with the monthly invoices of sale. In the absence or delay in the meter calibration appropriate Guidelines are applied appropriately to confirm the conservativeness of metering. The metering arrangement, accuracy class of meters, calibration frequency is under control of state electricity board and PP do not have any control on it. PP is getting value of net electricity supplied to grid and the same is considered the monitoring parameter. The meter and meter calibration details are given in Appendix I of Monitoring Report. The billing is raised based on substation meters.
Purpose of the data	Calculation of baseline emissions
Calculation method	Thus, Net electricity supplied to the grid by the project plant in a given month = Export, kWh– Import, kWh. If share certificate/JMR mentioned only net electricity export to grid, and does not mention any export and import separately, then net electricity supplied to grid is considered directly.
Comments	Data is archived in paper & electronic form for two years after the end of crediting period or of the last issuance of VERs for this project activity, whichever occurs later.

4.3 Monitoring Plan

The monitoring plan is developed in accordance with the modalities and procedures for VCS project activities and is proposed for grid-connected solar power project being implemented. The monitoring plan, which is implemented by the project participant describes about the monitoring organisation, parameters to be monitored, monitoring practices, quality assurance, quality control procedures, data storage and archiving.

The authority and responsibility for registration, monitoring, measurement, reporting and reviewing of the data rests with the project participant. PP proposed the following structure for data monitoring, collection, data archiving and calibration of equipments for this project activity. The team comprises of the following members:



Data Measurement

The export and import energy is measured continuously using above mentioned Main and Check meters located at the substations. Readings of meters are taken on monthly basis by authorized officer of SEB in the presence of PP or representative of PP. Based on the Meter Reading Statement to PP, invoices are raised. These invoices can be used for cross checking the meter readings taken for the respective project activity.

Data collection and archiving

Readings from meters are collected in the presence of the plant in-charge. Export and Import data would be recorded and stored in logs as well as in electronic form on a daily basis. The records are checked periodically by the Plant Manager and discussed thoroughly with the plant supervisor. The period of storage of the monitored data is 2 years after the end of crediting period or till the last issuance of VERs for the project activity whichever occurs later.

Emergency preparedness

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

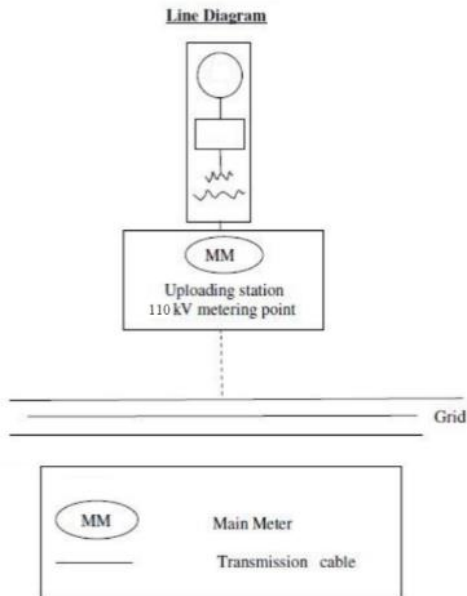
Personnel training

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

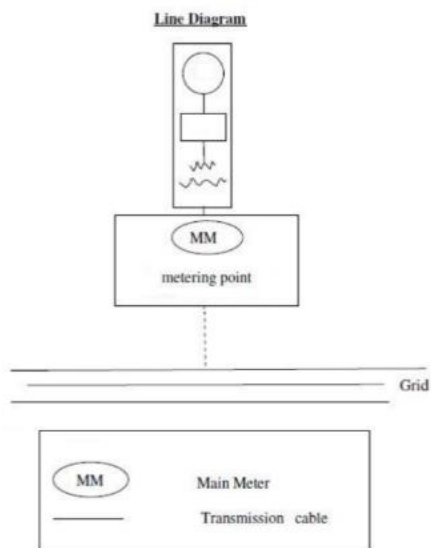
Metering Arrangement

Line diagram with metering arrangement for the solar project activity is shown below.

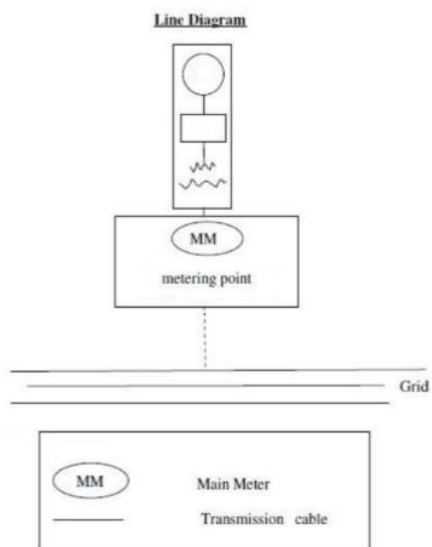
For Karnataka Site



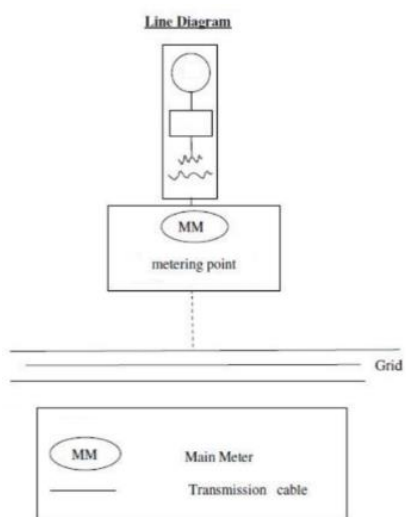
For Rajasthan Site



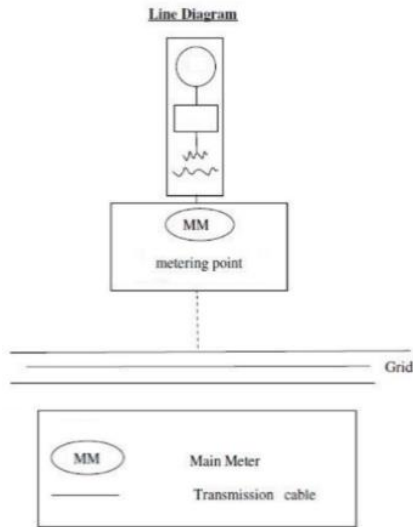
For Telangana Site



For Madhya Pradesh Site



For Gujarat Site



5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

5.1 Baseline Emissions

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

Where:

BE_y : Baseline emissions in year y (tCO₂e/yr)

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

$EF_{grid,CM,y}$: Combined margin CO₂ emission factor for grid connected power generation in year y calculated using the latest version of the "Tool to calculate the emission factor for an electricity system" (tCO₂e/MWh).

To calculate $EG_{PJ,y}$:

$$EG_{PJ,y} = EG_{PJ,y,KA} + EG_{PJ,y,GJ} + EG_{PJ,y,MP} + EG_{PJ,y,RJ} + EG_{PJ,y,TL}$$

For Karnataka Sites:

$EG_{PJ,y,KA}$: Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh (For the Karnataka site)

The net electricity supplied to the grid is calculated as the difference between the total electricity supplied to the grid and 115% of the total electricity imported from the grid i.e.

$$EG_{PJ,y,KA} = \text{Export (MWh)} - 115\% * \text{Import (MWh)} \quad (\text{Where applicable}) = 356,528.63 \text{ MWh}$$

For Gujarat sites:

$EG_{PJ, y, GJ}$: Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh (For the Gujarat site)

The net electricity supplied to the grid is calculated as the difference between the total electricity supplied to the grid and total electricity imported from the grid i.e.

$$EG_{PJ, y, GJ} = \text{Export (MWh)} - \text{Import (MWh)} = 45,339.231 \text{ MWh}$$

For Madhya Pradesh Sites:

$EG_{PJ, y, MP}$: Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh (For the Madhya Pradesh site)

The net electricity supplied to the grid is calculated as the difference between the total electricity supplied to the grid and total electricity imported from the grid i.e.

$$EG_{PJ, y, MP} = \text{Export (MWh)} - \text{Import (MWh)} = 59,783 \text{ MWh}$$

For Rajasthan Sites:

$EG_{PJ, y, RJ}$: Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh (For the Rajasthan site)

The net electricity supplied to the grid is calculated as the difference between the total electricity supplied to the grid and total electricity imported from the grid i.e.

$$EG_{PJ, y, MP} = \text{Export (MWh)} - \text{Import (MWh)} = 72,466.662 \text{ MWh}$$

For Telangana Sites:

$EG_{PJ, y, TL}$: Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh (For the Telangana site)

The net electricity supplied to the grid is calculated as the difference between the total electricity supplied to the grid and total electricity imported from the grid i.e.

$$EG_{PJ, y, TL} = \text{Export} - \text{Import (MWh)} = 463,209.112 \text{ MWh}$$

Hence:

$$EG_{PJ, y} = 356,528.63 + 45,339.231 + 59,783 + 72,466.662 + 463,209.112$$

$$EG_{PJ, y} = 997,326.639 \text{ MWh}$$

Total Baseline emission for the Monitoring period:

Parameter	Unit	Value
$EG_{PJ, y}$	MWh	997,326.639
$EF_{grid, CM, y}$	tCO ₂ e/MWh	0.9475
BE_y	=	997,326.639 * 0.9475
	=	944,966 (Round down)

$$BE_y = 944,966 \text{ tCO}_2\text{e (Round down value)}$$

5.2 Project Emissions

Not Applicable, since project emissions from the solar project activity is zero as per ACM0002 methodology. Hence, $PE_y = 0$.

5.3 Leakage

Not Applicable, since leakage emissions from the solar project activity is zero as per ACM0002 methodology. Hence, $LE_y = 0$.

5.4 Net GHG Emission Reductions and Removals

Emission Reductions are calculated as follows:

$$ER_y = BE_y - PE_y$$

Where:

ER_y = Emission reductions in the year y (tCO₂e/yr)

BE_y = Baseline emissions in the year (tCO₂e/yr)

PE_y = Project emissions in the year y (tCO₂e/yr)

Baseline emissions:

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

Where:

BE_y : Baseline emissions in year y (tCO₂e/yr)

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

$EF_{grid,CM,y}$: Combined margin CO₂ emission factor for grid connected power generation in year y calculated using the latest version of the "Tool to calculate the emission factor for an electricity system" (tCO₂e/MWh).

$$BE_y = 997,326.639 \text{ MWh} * 0.9475 \text{ tCO}_2\text{e/MWh}$$

$$BE_y = 944,966 \text{ tCO}_2\text{e (Round down)}$$

As per the ACM0002 methodology, Project emissions (PE_y) are Zero.

Hence,

$$ER_y = BE_y - PE_y$$

$$ER_y = 944,966 \text{ tCO}_2\text{e (Round down)}$$

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
01-January-2022 to 30-June-2022	944,966	0	0	944,966
Total	944,966	0	0	944,966

It is to be noted here that as per the estimated emission reduction to be achieved from the project activity for the current monitoring period is 876,377 tCO₂e, whereas actual emission reductions achieved are 944,966 tCO₂e, which is approximately 7.83% higher than the estimated emission reductions. The generation of electricity depends upon many other climatic conditions, which are not within the control of the project participant. The higher generation during the current verification period is due to certain natural conditions and it doesn't breach the additionality of the project. Hence, it is acceptable.

APPENDIX I: <METER CALIBRATION DETAILS>

S. No.	SPV Name	Location	Meter Number	Meter Type	Meter Manufacturer	Meter Accuracy Class	Date of Calibration	Due date of calibration
1	Tarun Kiran Bhoomi Private Limited(20 MW)	Alland	16193095	Main Meter	L & T	0.2 s	04-September-2019, 19-June-2020	03-September-2024, 18-June-2025
			21004943 ¹²	Main Meter	L&T	0.2s	05-April-2022	04-April-2027
			13192165	Check Meter	L & T	0.2 s	04-September-2019, 19-June-2020	03-September-2024, 18-June-2025
			21005013	Check Meter	L&T	0.2s	05-April-2022	04-April-2027
2	Renew Clean Energy Private Limited(51 MW)	Ashoken agar	XE518730 XE518731		Secure	0.2 s	10-August-2020	09-August-2025
3	Renew Wind Energy (TN2) Private Limited(50 MW)	Tumkur(Pavagada)	16195517	Main Meter	L & T	0.2 s	08-December-2017	07-December-2022, 09-January-2027
			LT-0834-A ¹³	Main Meter	L & T	0.2	10-January-2022	
			16195508	Check Meter	L & T	0.2 s	08-December-2017	
			LT-0795-A ¹⁴	Check Meter	L & T	0.2s	10-January-2022	
			16195519	Main Meter	L & T	0.2 s	08-December-2017	

¹² Meter No. 16193095 & 13192165 were replaced by new meter no. 21004943 & 21005013 respectively on 05/04/2022.

¹³ Meter No. 16195517 was replaced by new meter no. LT-0834-A on 10-January-2022.

¹⁴ Meter No. 16195508 was replaced by New Meter No. LT-0795-A on 10-January-2022.

			LT-0921-A ¹⁵	Main Meter	L & T	0.2	10-January-2022	
			16195523	Check Meter	L & T	0.2 s	08-December-2017	
			LT-0922-A ¹⁶	Check Meter	L & T	0.2s	10-January-2022	
4	Renew Wind Energy (Karnataka 3) Private Limited(20 MW)	Bhalki	16113413	Main Meter	L & T	0.2 s	28-January-2021	27-January-2026
			16113221	Check Meter	L & T	0.2 s	28-January-2021	
5	Renew Wind Energy (MP Four) Private Limited(20 MW)	Chincholi	16083161	Main Meter	L & T	0.2 s	10-June-2021	09-June-2026
			16083118	Check Meter	L & T	0.2 s	10-June-2021	
6	Bhumi Prakash Private Limited(20 MW)	Devadurga	15197833	Main Meter	L & T	0.2 s	25-December-2019	24-December-2024
			15197834	Check Meter	L & T	0.2 s	25-December-2019	
7	ReNew Solar Energy (Telangana) Private Limited (143 MW)	Dichpally	APX01166	Main Meter	Secure	0.2 s	27-July-2021	26-July-2026
			APX01167	Check Meter	Secure	0.2 s	27-July-2021	
			APX01168	Stand by Meter	Secure	0.2 s	27-July-2021	
8	Renew Wind Energy (MP Three) Private Limited(20 MW)	Honnali	16112933	Main Meter	L & T	0.2 s	27-September-2017	26-September-2022
			16112921	Check Meter	L & T	0.2 s	27-September-2017	
9	Renew Wind Energy (Karnataka 4) Private	Humnabad	16083139	Main Meter	L & T	0.2 s	11-February-2021	10-February-2026
			16083133	Check Meter	L & T	0.2 s	11-February-2021	

¹⁵ Meter No. 16195519 was replaced by New Meter No. LT-0921-A on 10-January-2022.

¹⁶ Meter No. 16195523 was replaced by New Meter No. LT-0922-A on 10-January-2022.

	Limited(20 MW)							
10	Renew Mega Solar Power Pvt Limited (48 MW)	Mandam arri	APX01147	Main Meter	Secure	0.2 s	10-July-2020	09-July-2025
			APX01148	Check Meter	Secure	0.2 s	10-July-2020	
			APX01149	Stand by Meter	Secure	0.2 s	10-July-2020	
11	Renew Wind Energy (TN2) Private Limited (100 MW)	Mahbubn agar	APZ00378	Main Meter	Apex 150	0.2 s	09-January-2020	08-January-2025
			APZ00379	Check Meter	Apex 150	0.2 s	09-January-2020	
			APZ00380	Stand by Meter	Apex 150	0.2 s	09-January-2020	
12	Renew Saur Shakti Private Limited (65 MW)	Minpur	16196322	Main Meter	L & T	0.2 s	18-February-2020	17-February-2025
			16196377	Check Meter	L & T	0.2 s	18-February-2020	
			16196411	Stand by Meter	L & T	0.2 s	18-February-2020	
13	Renew Saur Shakti Private Limited (30 MW)	Mulkanoo r	16196362	Main Meter	L & T	0.2 s	09-February-2021	08-February-2026
			16196398	Check Meter	L & T	0.2 s	09-February-2021	
			16196385	Stand by Meter	L & T	0.2 s	09-February-2021	
14	Abha Solarfarms Limited (10 MW)	Bap	17075486	Main Meter	L & T	0.2 s	03-April-2021	02-April-2026
			17075488	Check Meter	L&T	0.2s	03-April-2021	02-April-2026
15	Aalok Solarfarms Limited (10 MW)	Bap	17075514	Main Meter	L & T	0.2 s	03-April-2021	02-April-2026
			17075515	Check Meter	L&T	0.2s	03-April-2021	02-April-2026
16	Heramba Renewbles Limited (20 MW)	Bap	17075537	Main Meter (Project-I)	L & T	0.2 s	05-April-2021	04-April-2026
			17075539	Check Meter (Project-I)	L & T	0.2 s	05-April-2021	
			17075547	Main Meter (Project-I)	L & T	0.2 s	05-April-2021	

				Projec t-II)				
			17075548	Check Meter(Projec t-II)	L & T	0.2 s	05-April- 2021	
17	Shreyas Solarfarms Limited (20 MW)	Bap	17075525	Main Meter(Projec t-I)	L & T	0.2 s	04-April- 2021	03-April-2026
			17075526	Check Meter(Projec t-I)	L & T	0.2 s	04-April- 2021	
			17075530	Main Meter(Projec t-II)	L & T	0.2 s	04-April- 2021	
			17075531	Check Meter(Projec t-II)	L & T	0.2 s	04-April- 2021	
18	Prathames h Solarfarms Limited (50 MW)	Dodagunt apally	XD551233	Main Meter	Secure	0.2 s	25-March- 2021	24-March-2026
			XD551234	Check Meter	Secure	0.2 s	25-March- 2021	
			XD551235	Stand by Meter	Secure	0.2 s	25-March- 2021	
19	Renew Solar Energy (Karnataka Two) Private Limited (40 MW)	Charanka	GJ3713A	Main Meter	Secure	0.2 s	19-March- 2020	18-March-2025
			GJ3714A	Check Meter	Secure	0.2s	19-March- 2020	18-March-2025
			GJ3880A	Stand by Meter	Secure	0.2 s	19-March- 2020	18-March-2025
20	Renew Wind Energy (Rajasthan Four) Private Limited (20 MW)	Turuveke re	16112918	Main Meter	L & T	0.2 s	26- February- 2021	25-February- 2026
			16112913	Check Meter	L & T	0.2 s	26- February- 2021	
21	Renew Wind Energy (Maharash tra) Private Limited (20 MW)	Yadgir	16113430	Main Meter	L & T	0.2 s	01-April- 2021	31-March-2026
			16113436	Check Meter	L & T	0.2 s	01-April- 2021	

22	Renew Agni Power Private Limited(20 MW)	Siruguppa	16113386	Main Meter	L & T	0.2 s	13-January-2021	12-January-2026
			16113401	Check Meter	L & T	0.2 s	13-January-2021	
23	Renew Wind Energy (Budh 3) Private Limited (20 MW)	Eklara	17069178	Main Meter	L & T	0.2 s	26-November-2020	25-November-2025
			17069183	Check Meter	L & T	0.2 s	26-November-2020	
24	Renew Saur Urja Private Limited(50 MW)	Thalekan	17117926	Main Meter	L & T	0.2 s	25-February-2021	24-February-2026
			17117928	Check Meter	L & T	0.2 s	25-February-2021	
25	Renew Wind Energy (Budh 3) Private Limited (20 MW)	Nirna	17166928	Main Meter	L & T	0.2 s	12-June-2020	11-June-2025
			17166940	Check Meter	L & T	0.2 s	12-June-2020	
26	Renew Wind Energy (Budh 3) Private Limited (20 MW)	Wadager	17125589	Main Meter	L & T	0.2 s	01-April-2021	31-March-2026
			17125590	Check Meter	L & T	0.2 s	01-April-2021	