SOLAR GROUPED PROJECT BY ACME GROUP (EKIESL-VCS-AUG-16-01)

Document Prepared by EKI Energy Services Limited

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1 PROJECT DETAILS

1.1 Summary Description of the Implementation Status of the Project

The grouped project activity is a step towards supporting the implementation and installation of grid connected renewable energy power plants in India. The implementation of grouped project activity ensures energy security, diversification of the grid generation mix and sustainable growth of the electricity generation sector in India.

The grouped project activity is a voluntary action and each SPV is the Project Proponent for their project activity Instance. ACME Group as a parent company formed different SPV (Special Purpose Vehicles) for solar projects and projects are developed by name of SPVs. There are no mandatory laws or regulations existing in India requiring PP or any other party to develop a programme for renewable generation plants. The project activity instance is running very smoothly with scheduled maintenance activity since commissioning.

The details of 11 project proponents and 13 project activity instances involved in current monitoring period are as below

Project Activity instance	PP (SPV) Name	Commercial Operation Date	MW
1	Mihit Solar Power Private Ltd. 25 MW	21-March-2016	74
	Mihit Solar Power Private Ltd. 25 MW	21-March-2016	
	Mihit Solar Power Private Ltd. 24 MW	28-February-2016 (for 11.5 MW) 30-March-2016 (for 12.5 MW)	
2	ACME Jaisalmer Solar Power Private Ltd.	12-May-2016	20
3	Aarohi Solar Private Ltd.	29-March-2016	50
4	Dayanidhi Solar Power Private Ltd.	01-April-2016	40
5	Niranjana Solar Energy Pvt. Ltd.	31-March-2016	20
6	Vishwatma Solar Energy Private Ltd.	02-April-2016 (for 10 MW) 30-April-2016 (for 20 MW)	30
7	Acme Raipur Solar Power Private Ltd.	09-January-2016 (for 23 MW) 15-March-2016 (for 7 MW)	30
8	Dayakara Solar Power Private Ltd.	21-June-2016	30
9	Grahati Solar Energy Pvt Ltd	20-July-2016 (for 20 MW) 03-August-2016 (for 30 MW)	50
10	Acme Odisha Solar Power Private Ltd.	22-June-2015	25
11	Eminent Solar Power Private Ltd.	09-February-2017	12.5
Total Capacity			**381.5**

The total GHG Emission reductions generated in current monitoring period of 01-May-2022 to 31-January-2023 are 472,857 tCO2e. No More project activity instance is included in the grouped project activity during current monitoring period.

Audit Type	Period	Program	VVB Name	Number of years
Validation/ Verification (joint)	22-June-2015-- 31-January-2017	Verified Carbon Standard (VCS)	Carbon Check (India) Pvt. Ltd.	1 Year 7 Months 9 Day
Verification	01-February-2017—30-November-2017	Verified Carbon Standard (VCS)	LGAI Technological Center S.A. (Applus+ Certification)	10 Months
Verification	01-December-2017—30-September-2018	Verified Carbon Standard (VCS)	LGAI Technological Center S.A. (Applus+ Certification)	10 Months
Verification	01-October-2018—31 August-2019	Verified Carbon Standard (VCS)	LGAI Technological Center S.A. (Applus+ Certification)	11 Months
Verification	01-September-2019—31 December-2020	Verified Carbon Standard (VCS)	LGAI Technological Center S.A. (Applus+ Certification)	1 Year 4 Months
Verification	01-January-2021—31-August-2021	Verified Carbon Standard (VCS)	LGAI Technological Center S.A. (Applus+ Certification)	8 Months
Verification	01-September-2021—30-April--2022	Verified Carbon Standard (VCS)	LGAI Technological Center S.A. (Applus+ Certification)	8 Months
Verification	01-May-2022—31-January-2023	Verified Carbon Standard (VCS)	LGAI Technological Center S.A. (Applus+ Certification)	9 Months
Total				7 years 7 month 9 days

1.2 Sectoral Scope and Project Type

The project activity falls under consideration of the grouped project activity. The project activity instances as part of the grouped project will have the following parameters

Sectoral Scope : 01 - Energy industries (renewable / non-renewable sources)
Project Type : I - Renewable Energy Projects
Project Category: For each project activity instances will apply only solar technology. However, each project activity instances will be either small scale or large scale and not the combination of two.

For large scale project activities, below large scale methodology is applied

Methodology : ACM0002: Grid-connected electricity generation from renewable sources - Version 17.0[1]

For small scale project activities, below small-scale methodology is applied

AMS-I.D." Grid Connected renewable electricity generation – Version 18.0[2]

1.3 Project Proponent

Organization name	Eminent Solar Power Pvt Ltd
Contact person	Gursharan Jassal
Title	Director
Address	Plot No.152, Sector – 44, Gurgaon -122 002, Haryana, India
Telephone	+91-124-7117001
Email	info@acme.in

Organization name	Mihit Solar Power Private Ltd.
Contact person	Gursharan Jassal
Title	Director
Address	Plot No.152, Sector – 44, Gurgaon -122 002, Haryana, India
Telephone	+91-124-7117001

[1] https://cdm.unfccc.int/UserManagement/FileStorage/D5YFS9I3VKBT18MQNGX0LPZ6U7AWCO

[2] http://cdm.unfccc.int/UserManagement/FileStorage/2P7FS6ZQAR84LG3NMKYUH50WI9ODBC

Email	info@acme.in

Organization name	ACME Jaisalmer Solar Power Pvt. Ltd.
Contact person	Gursharan Jassal
Title	Director
Address	Plot No.152, Sector – 44, Gurgaon -122 002, Haryana, India
Telephone	+91-124-7117001
Email	info@acme.in

Organization name	Aarohi Solar Pvt. Ltd
Contact person	Jyoti Arora
Title	Director
Address	Plot No.152, Sector – 44, Gurgaon -122 002, Haryana, India
Telephone	+91-124-7117001
Email	info@acme.in

Organization name	Dayanidhi Solar Power Pvt. Ltd.
Contact person	Manish Karna
Title	Director
Address	Plot No.152, Sector – 44, Gurgaon -122 002, Haryana, India
Telephone	+91-124-7117001
Email	info@acme.in

Organization name	Niranjana Solar Energy Pvt. Ltd.
Contact person	Yudhvir Singh Gulia
Title	Director

Address	Plot No.152, Sector – 44, Gurgaon -122 002, Haryana, India
Telephone	+91-124-7117001
Email	info@acme.in

Organization name	Vishwatma Solar Energy Pvt Ltd.
Contact person	Ashish K. Saxena
Title	Director
Address	Plot No.152, Sector – 44, Gurgaon -122 002, Haryana, India
Telephone	+91-124-7117001
Email	info@acme.in

Organization name	Acme Raipur Solar Power Pvt. Ltd.
Contact person	Rajesh Sodhi
Title	Director
Address	Plot No.152, Sector – 44, Gurgaon -122 002, Haryana, India
Telephone	+91-124-7117001
Email	info@acme.in

Organization name	Dayakara Solar Power Pvt Ltd
Contact person	Rajesh Sodhi
Title	Director
Address	Plot No.152, Sector – 44, Gurgaon -122 002, Haryana, India
Telephone	+91-124-7117001
Email	info@acme.in

Organization name	Grahati Solar Energy Pvt Ltd

Contact person	Jyoti Arora
Title	Director
Address	Plot No.152, Sector – 44, Gurgaon -122 002, Haryana, India
Telephone	+91-124-7117001
Email	info@acme.in

Organization name	Acme Odisha Solar Power Pvt Ltd
Contact person	Gursharan Jassal
Title	Director
Address	Plot No.152, Sector – 44, Gurgaon -122 002, Haryana, India
Telephone	+91-124-7117001
Email	info@acme.in

ACME Cleantech Solutions Private Limited as a parent company of all project activity instances formed as different SPV (Special Purpose Vehicles) for solar projects and projects are developed by name of SPVs.

1.4 Other Entities Involved in the Project

Organization name	EKI Energy Services Limited
Role in the Project	Project Consultant
Contact person	Ms. Bhavini Pandey
Title	Project Manager
Address	Office No 201, Plot No 48, Scheme 78, Vijay Nagar Part- II, Indore 452010, India
Telephone	+91-9532180246
Email	regsitry@enkingint.org

1.5 Project Start Date

The first project activity instance of the grouped project under consideration was commissioned and power generation started on 22-June-2015. This project activity instance is SPV- Acme Odisha Solar Power Pvt Ltd under ACME group having installed capacity of 25 MW. Hence the project start date is defined as follows:

Project start date: 22-June-2015

1.6 Project Crediting Period

Project crediting period for grouped project activity is taken as 10 years renewable twice.

Accordingly, the start date of the first crediting period is 22-June-2015 and end date will be 21-June-2025.

First crediting period is from 22-June-2015 to 21-June-2025.

1.7 Project Location

All the project activity instances in the grouped project activity would be located within geographical boundaries of Republic of India. Thus, geographical area of grouped project is India.

The geographical boundary is delineated in the form of extreme geographic coordinates as follows[3]:

Latitude - 8°4' to 37°6' N
Longitude - 68°7' to 97°25' E

Each SPV location is being mentioned over section 3.1.

The map of India is as indicated in the following figure:

[3] Precise latitude and longitude details of each project instances are provided in section 3.1 of this monitoring report. Please refer below web link for the range of co-ordinates https://en.wikipedia.org/wiki/Geography_of_India

The location details of each instances of the project activity is mentioned in the table below:-

SPV Name	MW	State	Project Location /Sub Station	Village	Tehsil	District
Mihit Solar Power Private Ltd.	25	Punjab	Kherakhurd	Khaira Khurd	Sardulgarh	Mansa
Mihit Solar Power Private Ltd.	25	Punjab	Mankhera	Mankhera	Sardulgarh	Mansa
Mihit Solar Power Private Ltd.	24	Punjab	Jandekalan	Jhande Kalan	Sardulgarh	Mansa
ACME Jaisalmer Solar Power Pvt. Ltd.	20	Andhra Pradesh	Rayachotti	Pothukurupalli	Ramapuram Mandal	Kadapa
Aarohi Solar Pvt. Ltd.	50	Andhra Pradesh	Hindupur	Kalipi	Roddam Mandal	Anathapur
Dayanidhi Solar Power Pvt. Ltd.	40	Andhra Pradesh	Santipuram	Gunjarlapalle & Morasanapalle	Santipuram Mandal	Chittoor
Niranjana Solar Energy Pvt. Ltd.	20	Andhra Pradesh	Pattikonda	Puchakayalamanda	Pattikonda Mandal	Kurnool
Vishwatma Solar Energy Pvt Ltd.	30	Andhra Pradesh	Yemmiganur	Kadivella	Yemmiganur	Kurnool
Acme Raipur Solar Power Pvt. Ltd.	30	Chhattisgarh	Bagbahara	Bhikapali	Bagbahara	Mahasamund
Dayakara Solar Power Pvt Ltd	30	Telangana	Maddur	Damkanpur	Maddur	Mehbubnagar

Grahati Solar Energy Pvt Ltd	50	Telangana	Balanagar	Narellapalli	Balanagar	Mehbubnagar
Acme Odisha Solar Power Pvt Ltd	25	Odisha	Bolangir	Mursing & Sikuan	Deogaon	Bolangir
Eminent Solar Power Pvt Ltd.	12.5	Uttarakhand	Udham Singh Nagar	Ratanpur Bazpur	Bajpur	Udham Singh Nagar
Total (MW)	**381.5**					

1.8 Title and Reference of Methodology

The methodology for the project activity is approved methodology for large-scale CDM project activities. The details of the methodology are as follows:

Methodology: ACM0002
Project Type : Type-I: Renewable Energy Projects
Title : Grid-connected electricity generation from renewable sources
Version No. : Version 17.0;
Reference : CDM Methodology[4]

The methodology refers to following CDM Tools:

- Tool for the demonstration and assessment of additionality[5] (Version 07.0.0, EB 70, Annex 8)
- Tool to calculate emission factor for an electricity system[6] (Version 05.0)

The methodology for small scale project activity instances will be the approved methodology for small-scale CDM project activities. The details of the methodology are as follows:

Methodology : AMS I.D
Project Type : Type-I: Renewable Energy Projects
Title : Grid connected renewable electricity generation
Version No. : Version 18;
Reference : CDM Methodology[7]

The methodology refers to following CDM Tools:
- Tool to calculate emission factor for an electricity system[8] (Version 05.0)

[4] https://cdm.unfccc.int/methodologies/DB/8W400U6E7LFHHYH2C4JR1RJWWO4PVN

[5] http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v7.0.0.pdf

[6] http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v5.0.pdf

[7] https://cdm.unfccc.int/methodologies/DB/W3TINZ7KKWCK7L8WTXFQQOFQQH4SBK

[8] http://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v5.0.pdf

1.9 Participation under other GHG Programs

Not Applicable, as the project activity is not registered with any other program. The undertaking from PP has been submitted for no any double accounting for current monitoring period and project activity is not participated any other GHG program other than VCS.

The project activity is not availing any REC/IREC benefits and the same can be confirmed from publically available link of REC generators.

Web-link: https://www.recregistryindia.nic.in/index.php/general/publics/registered_regens and https://evident.services/device-register. PP has also submitted undertaking for not availing other forms of environmental credit for the same crediting period under consideration.

1.10 Other Forms of Credit and Supply Chain (Scope 3) Emissions

Not applicable as the project activity is not falls under Scope 3 emissions. Hence, this part has not completed on purpose.

1.11 Sustainable Development Contributions

The project activity has beneficial effect on the local environment and employment in the nearby region. Clean Electricity generation through Solar PV result in avoidance of consumption of fossil fuels which results in contribution to SDG 7. The emission avoidance through these activities results in contribution to SDG 13. All the workers at site are trained which results in increase of skills, which contributes to SDG 4. Detailed indicators are mentioned in table 1. This is a voluntary project activity doesn't contribute to achieving any nationally stated sustainable development priorities. There is no compliance for monitoring and reporting the emission reduction and SDG contribution from the project activity.

Table 1: Sustainable Development Contributions

Row number	SDG Target	SDG Indicator	Net Impact on SDG Indicator	Current Project Contributions	Contributions Over Project Lifetime
1)	7.2	7.2.1: Renewable energy share in the total final energy consumption	Implemented activities to increase	About 483,649 MWh renewable electricity has been supplied to Indian grid during the reported period that helps to increase the renewable energy share in the energy mix.	Overall, 915,917 (483,649+ 432,268) MWh renewable electricity has been supplied to Indian grid that helps to increase the renewable energy share in the energy mix.
2)	4.4	4.4.1 Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill	Implemented activities to increase	Together with the technology supplier, the Project organize 272 training during current monitoring period. The training documents can be referred in APPENDIX 2: TRAINING DETAILS	Overall, 450 (272 +178) trainings are provided.
3)	13.0	Total greenhouse gas emissions avoided or removed.	Implemented activities to increase	By supplying 483,649 MWh clean electricity (generated through Solar PV) to Indian grid, the project avoided release of 472,857 tCO_2e in to the atmosphere during the reporting period.	Overall prevented the release of 895,489 (472,857+422,632) tCO_2e into the atmosphere

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 project is solar based power project, it does not involve any potential negative environmental and socio-economic impacts.

Section 3.3 and 3.4 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 same[9].

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.

2.2 Local Stakeholder Consultation

As a part of continual improvement process, feedback from the associated stakeholders is vital, therefore a dedicated Visitor register cum grievance register has been placed at the project site (Security office at the main gate & plant office) which is accessible to stakeholders anytime to provide their feedback on the project. It is appropriate publicly accessible location at which local stakeholders can provide their feedback on the project. This location is also conducive to continuous and regular checks for stakeholder comments. For the global stakeholders, the suggestion and the grievance can be submitted to info@acme.in

Stakeholder meetings were organized at the time of registration of project activity in order to identify the major challenges around the area, stakeholders were invited well in advance through printed invitation, calls, meeting and a notice is placed around the local common areas. Various CSR activities around site are carried out. The stakeholder are also request to share their experiences and grievances on continuous basis. Registers is used to records the grievances and feedback.

During the current monitoring period, positive feedback has been received regarding site operation. Records of grievances received during the current monitoring period is mentioned below: -

[9] https://smartnet.niua.org/sites/default/files/resources/report-on-developmental-impacts-of-RE.pdf

S. No.	SPV Name	Complaint Received From	Date of Complaint	Complaint Details	Action taken by PP	Remark from PP
1.	Vishwatma Solar Energy Pvt Ltd.	Local Government School (Head Master)	02-July-2022	In local village school, surrounding fully grass grown on playground, she asked to clean	Grass cutter have cleaned the grass and now surrounding area is clean	Completed
2	Vishwatma Solar Energy Pvt Ltd.	Chandranna (Driver)	18-July-2022	In Block-2 area, road was damaged due to heavy rain in recent time, road movement is very difficult.	Sand and stone chips were filled and road has been repaired	Completed
3	Mihit Solar Power Private Limited (Mankhera)	Mr. Sharanjeet Singh, Balwinder Singh, Ranjeet Singh, Nindepal Singh	13-July-2022	Asked to cut unwanted grass as to avoid prevent avoid reptiles, snakes entering in village house	Grass cutter was hired and asked to cut the unwanted grass	Completed
4	Niranjana Solar Energy Pvt. Ltd.	Kashi	05-June-2022	Village people asking for trees	Trees were provided to villagers	Closed

All the grievances received during the current monitoring period has been properly discussed with the plant head office and implemented by the site incharge. The grievance copies have been submitted to VCS VVB.

2.3 AFOLU-Specific Safeguards

Not Applicable to this as this is not an AFOLU project activity.

3 IMPLEMENTATION STATUS

3.1 Implementation Status of the Project Activity

The project activity involves the installation of Solar Power Projects. The total capacity of the project is 381.5 MW. The project is promoted by ACME Cleantech Solution Private Limited with its different group SPVs. The project activity is using solar energy to generate direct current (DC) using photovoltaic modules that converts into alternating current by inverters. The project activity instances under grouped project activity is grid connected and will install a new power plant (i.e. solar PV) at a site where no renewable power plant was operating prior to the implementation of the project activity (green-field plant). The generated electricity is being supplied to grid or uses grid network for captive or third-party sale.

The project activity instances are small scale project activities (with power generation capacity less than 15 MW) and large-scale project activities (with power generation capacity more than 15 MW). The Project activity follows AMS I.D. Version 18 or ACM0002 Version 17.0 based on scale of project activity instances.

The solar power generated from the Project is displacing the electricity generated from thermal power stations feeding into Indian grid and replacing the usage of diesel generators for meeting the power demand during shortage periods. Since, the solar power is Green House Gas (GHG) emissions free, the power generated prevent the anthropogenic GHG emissions generated by the fossil fuel based thermal power stations comprising coal, diesel, furnace oil and gas. The estimation of GHG reductions by this project is limited to carbon dioxide (CO_2) only.

All project activity instances are photovoltaic (PV) plant/unit, the project activity instances would use solar energy to generate direct current from photo voltaic modules that will be converted into alternating current by inverters. The technical specifications of the plants are tabulated below:

The geo co-ordinates and the commissioning information of each instances of the project activity are mentioned in the table below

PP Name	MW	COD	State	Project Location	Latitude (N)	Longitude (E)
Mihit Solar Power Private Ltd.	25	21/03/2016	Punjab	Kherakhurd	29.66	75.26

Mihit Solar Power Private Ltd.	25	21/03/2016	Punjab	Mankhera	29.59	75.24
Mihit Solar Power Private Ltd.	24	28/02/2016 (for 11.5 MW) 30/03/2016 (for 12.5 MW)	Punjab	Jandekalan	29.62	75.20
ACME Jaisalmer Solar Power Pvt. Ltd.	20	12/05/2016	Andhra Pradesh	Rayachotti	14.11	78.78
Aarohi Solar Pvt. Ltd.	50	29/03/2016	Andhra Pradesh	Hindupur	13.98	77.48
Dayanidhi Solar Power Pvt. Ltd.	40	01/04/2016	Andhra Pradesh	Santipuram	12.88	78.38
Niranjana Solar Energy Pvt. Ltd.	20	31/03/2016	Andhra Pradesh	Patthikonda	15.36	77.49
Vishwatma Solar Energy Pvt Ltd.	30	02/04/2016 (for 10 MW) 30/04/2016 (for 20 MW)	Andhra Pradesh	Yemmiganur	15.67	77.47
Acme Raipur Solar Power Pvt. Ltd.	30	09/01/2016 (for 23 MW) 15/03/2016 (for 7 MW)	Chattishgarh	Bagbahara	21.12	82.48
Dayakara Solar Power Pvt Ltd	30	21/06/2016	Telangana	Maddur	16.88	77.58
Grahati Solar Energy Pvt Ltd	50	20/07/2016 (for 20 MW) 03/08/2016 (for 30 MW)	Telangana	Balanagar	16.93	78.13
Acme Odisha Solar Power Pvt Ltd	25	22/06/2015	Odisha	Balongir,	20.54	83.38
Eminent Solar Power Pvt Ltd.	12.5	09/02/2017	Uttrakhand	Uddham Singh Nagar	29.2	79.1

Technical Specifications of the 13 project activity instances and 11 different PPs

1. Mihit Solar Power Private Ltd.

   a) Mihit Solar Power Private Ltd kherakhurd 25 MW

Technical detail of the equipment	**Remark**
PV Technology and Make	Poly and Make- Talesun, BYD, Telsun
Specification of Module	250 Wp, 255 Wp, 260 Wp
Total No of Module	102744
AC Capacity	25 MW
DC Capacity	26.24 MW
Tilt Details	Seasonal Tilt
Inverter Details	
Make	Schneider Electric
AC Power	680
Total No. of Inverter	29
Transformer Details	

Make	Schneider Electric
Transformer KVA	25 Mva
Total Numb PT & Trafo	1

b) Mihit Solar Power Private Ltd. Mankhera 25 MW

Technical detail of the equipment	Remark
PV Technology and Make	Poly and Make- BYD, telsun, waree
Specification of Module	255 Wp, 260 Wp, 250 Wp
Total No of Module	102528
AC Capacity	25 MW
DC Capacity	26.25 MW
Tilt Details	Seasonal Tilt
Inverter Details	
Make	Schineder Electric
AC Power	680
Total No. of Inverter	29
Transformer Details	
Make	Schneider Electric
Transformer KVA	25 Mva
Total Numb PT & Trafo	1

c) Mihit Solar Power Private Ltd. Jhandekalan 24 MW

Technical detail of the equipment	Remark
PV Technology and Make	Poly and Waree, BYD, Telsun
Specification of Module	250 Wp, 260 Wp, 275 Wp, 265 Wp, 255 Wp
Total No of Module	98616
AC Capacity	24 MW
DC Capacity	25.20 MW
Tilt Details	Seasonal Tilt
Inverter Details	
Make	ABB, TBEA, Delta
AC Power	1000
Total No. of Inverter	19
Transformer Details	
Make	Schneider Electric
Transformer KVA	25 Mva
Total Numb PT & Trafo	1

2. ACME Jaisalmer Solar Power Pvt. Ltd., Rayachotti (20 MW)

Technical detail of the equipment	Remark
PV Technology and Make	Poly and BYD, Telsun

Specification of Module	260 Wp, 255 Wp, 250 Wp
Total No of Module	99095
AC Capacity	20 MW
DC Capacity	25.31 MW
Tilt Details	Seasonal Tilt
Inverter Details	
Make	ABB, TBEA
AC Power	1000
Total No. of Inverter	20
Transformer Details	
Make	Electrotherm
Transformer KVA	4Mva (4), 2Mva (2)
Total Numb PT & Trafo	6

3. Aarohi Solar Pvt. Ltd., Hindupur (50 MW)

Technical detail of the equipment	**Remark**
PV Technology and Make	Poly & Thinfilm, Make-Solar frontier, telsun,GCL
Specification of Module	165 Wp, 170 Wp, 265 Wp, 260 Wp
Total No of Module	334632
AC Capacity	50 MW
DC Capacity	58.04 MW
Tilt Details	Seasonal Tilt
Inverter Details	
Make	ABB
AC Power	1000
Total No. of Inverter	50
Transformer Details	
Make	ABB
Transformer KVA	25 Mva
Total Numb PT & Trafo	2

4. Dayanidhi Solar Power Pvt. Ltd., Santipuram (40 MW)

Technical detail of the equipment	**Remark**
PV Technology and Make	Poly and Make- BYD, Talesun, GCL
Specification of Module	260 Wp, 255 Wp, 250 Wp
Total No of Module	188280
AC Capacity	40 MW
DC Capacity	48.38 MW
Tilt Details	Seasonal Tilt
Inverter Details	
Make	ABB, TBEA
AC Power	1000

Total No. of Inverter	38
Transformer Details	
Make	Schneider Electric
Transformer KVA	20 Mva
Total Numb PT & Trafo	2

5. Niranjana Solar Energy Pvt. Ltd., Pattikonda (20 MW)

Technical detail of the equipment	**Remark**
PV Technology and Make	Poly and Make-BYD, Talsen, Telsun
Specification of Module	250 Wp, 255 Wp, 260 Wp
Total No of Module	97848
AC Capacity	20 MW
DC Capacity	25.04 MW
Tilt Details	Seasonal Tilt
Inverter Details	
Make	ABB, Delta
AC Power	1000
Total No. of Inverter	20
Transformer Details	
Make	SUDHIR POWER TRANSFORMER, SERVOMAX
Transformer KVA	Sudhir -2Mva-(1),4Mva (4), Servo- 2Mva (1)
Total Numb PT & Trafo	6

6. Vishwatma Solar Energy Pvt Ltd., Yemmiganur (30 MW)

Technical detail of the equipment	**Remark**
PV Technology and Make	Poly and Make- BYD, Talesun, Telsun, Waree
Specification of Module	260 Wp, 255 Wp, 250 Wp, 245 Wp
Total No of Module	146040
AC Capacity	30 MW
DC Capacity	36.68 MW
Tilt Details	Seasonal Tilt
Inverter Details	
Make	ABB, TBEA
AC Power	1000
Total No. of Inverter	30
Transformer Details	
Make	Schneider Electric
Transformer KVA	4 Mva
Total Numb PT & Trafo	1

7. Acme Raipur Solar Power Pvt. Ltd., Chattisgrarh (30 MW)

Technical detail of the equipment	**Remark**

PV Technology and Make	Poly and Make- Talesun, BYD, Telsun
Specification of Module	250 Wp, 255 Wp,260 Wp
Total No of Module	126192
AC Capacity	30 MW
DC Capacity	32.25 MW
Tilt Details	Seasonal Tilt
Inverter Details	
Make	ABB, Sungrow, Tbea
AC Power	1140, 630, 1250
Total No. of Inverter	28
Transformer Details	
Make	ABB
Transformer KVA	30 Mva
Total Numb PT & Trafo	1

8. Dayakara Solar Power Pvt Ltd., Maddur (30 MW)

Technical detail of the equipment	**Remark**
PV Technology and Make	Poly and Make- Raisen, suntech, BYD, telsun
Specification of Module	260 Wp, 265 Wp, 255 Wp, 269 Wp
Total No of Module	149040
AC Capacity	30 MW
DC Capacity	38.80 Wp
Tilt Details	Seasonal Tilt
Inverter Details	
Make	ABB, Tmeic
AC Power	1000
Total No. of Inverter	30
Transformer Details	
Make	ABB
Transformer KVA	30 Mva
Total Numb PT & Trafo	1

9. Grahati Solar Energy Pvt Ltd., Balanagar (50 MW)

Technical detail of the equipment	**Remark**
PV Technology and Make	Poly and Make- BYD, Risen, Sintek, Telsun
Specification of Module	260 Wp, 255 Wp, 265 Wp
Total No of Module	248784
AC Capacity	50 MW
DC Capacity	64.5 MW
Tilt Details	Seasonal Tilt
Inverter Details	
Make	ABB, Tmeic

AC Power	1000
Total No. of Inverter	50
Transformer Details	
Make	ABB
Transformer KVA	25 Mva
Total Numb PT & Trafo	2

10. Acme Odisha Solar Power Pvt Ltd, Bolangir, Odisha (25 MW)

Technical detail of the equipment	**Remark**
PV Technology and Make	Poly and Make- BYD, Trina
Specification of Module	250 Wp, 255 Wp, 260 Wp
Total No of Module	123624
AC Capacity	25 MW
DC Capacity	31.68 MW
Tilt Details	Seasonal Tilt
Inverter Details	
Make	SCHEINDER, TBEA
AC Power	680, 630
Total No. of Inverter	37
Transformer Details	
Make	CGL
Transformer KVA	25 Mva
Total Numb PT & Trafo	1

11. Eminent Solar Power Pvt Ltd., Udham Singh Nagar District, Uttrakhand (12.5 MW)

Technical detail of the equipment	**Remark**
PV Technology and Make	Poly and Make- Talesun, BYD
Specification of Module	260 Wp, 265 Wp
Total No of Module	59400
AC Capacity	12.5 MW
DC Capacity	15.75 MW
Tilt Details	Seasonal Tilt
Inverter Details	
Make	TBEA
AC Power	1000
Total No. of Inverter	12
Transformer Details	
Make	Electrotherm
Transformer KVA	4.5 Mva (1), 4 MVA (2)
Total Numb PT & Trafo	3

The respective project is running smoothly, there were no any instances occurred that would alter the GHG reductions, methodology applicability and monitoring procedure. The plant went for the schedule maintenance at regular intervals. There were zero breakdown subsequently no impact in emission reduction. There are also no changes to the project proponent.

3.2 Deviations

3.2.1 Methodology Deviations

No methodology deviation is applied during the monitoring period.

3.2.2 Project Description Deviations

Deviation-1

Nature of Deviation is permanent.

Deviation took place during the 7th monitoring period. In technology description there are some revisions in plant configuration (make, ratings and number of equipment) due to maintenance of the project activity. The detail of changes are as follows

Description	Changes happed during 7th Monitoring Period
Mihit Solar Power Private Ltd. 25 MW Mihit Solar Power Private Ltd. 25 MW Mihit Solar Power Private Ltd. 24 MW ACME Jaisalmer Solar Power Pvt. Ltd. Aarohi Solar Pvt. Ltd. Dayanidhi Solar Power Pvt. Ltd. Niranjana Solar Energy Pvt. Ltd. Vishwatma Solar Energy Pvt Ltd. Acme Raipur Solar Power Pvt. Ltd. Dayakara Solar Power Pvt Ltd Grahati Solar Energy Pvt Ltd Acme Odisha Solar Power Pvt Ltd Eminent Solar Power Pvt Ltd.	No. of Module
Mihit Solar Power Private Limited (Kherakhurd) Aarohi Solar Pvt. Ltd.	Transformer KVA ratings
Niranjana Solar Energy Pvt. Ltd.,	Inverter make
Vishwatama Solar Energy Pvt. Ltd.	Transformer KVA and Central Inverter KVA rating
Acme Raipur Solar Power Pvt. Ltd. Eminent Solar Power Pvt. Ltd. Dayakara Solar Power Pvt. Ltd.	Central Inverter KVA rating
Mihit Solar Power Private Limited (Jhandekalan) Grahati Solar Energy Pvt Ltd Vishwatama Solar Energy Pvt. Ltd. Acme Jaisalmer Solar Power Pvt Ltd	Module specification

Aarohi Solar Pvt Ltd Dayakara Solar Power Pvt Ltd,	
Eminent Solar Power Pvt Ltd Acme Odhisha Solar Power Pvt Ltd. Mihit Solar Power Private Limited (Mankhera)	Module make

There is no impact of these changes on plant capacity, scale, baseline emission calculation, additionality and PLF of the of the project activity. These changes happened in last quarter of 2021 (04-September 2021 to 15 December 2021). Nature of Deviation is permanent.

3.3 Grouped Projects

The project activity is grouped project activity. However, no new project activity instances have been added in this grouped project during the current monitoring period. Thus original 13 project activity instances are part of current monitoring period.

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 11, April 2016
Value applied	0.9941
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 05.0.0" as 3-year generation weighted average using data for the years 2012-2013, 2013-2014 & 2014- 2015. The data are obtained from "CO_2 Baseline Database for Indian Power Sector" version 11.0, 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 11, April 2016
Value applied	0.9285
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 05.0.0" as 3-year generation weighted average using data for the years 2012-2013, 2013-2014 & 2014- 2015. The data are obtained from "CO_2 Baseline Database for Indian Power Sector" version 11.0, 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 11, April 2016
Value applied	0.9777
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 CO_2 emission factor in year y (tCO_2/MWh) $EF_{grid,OM,y}$= Operating margin CO_2 emission factor in year y (tCO_2/MWh) W_{OM} = Weighting of operating margin emissions factor (%) = 75% W_{BM}= Weighting of build margin emissions factor (%) = 25% Calculated as per "Tool to calculate the emission factor for an electricity system, version 05.0.0". The data is obtained from "CO_2 Baseline Database for Indian Power Sector" Version 11, April 2016, 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.

4.2 Data and Parameters Monitored

Data / Parameter	$EG_{facility,y}$
Data unit	MWh

Description	Quantity of net electricity generation supplied by the project (Solar) plant/unit to the grid in year y
Source of data	Credit note/ JMR/Form B reports/ monthly generation report from respective state electricity board/DISCOM
Description of measurement methods and procedures to be applied	**Data Type:** Measured **Monitoring equipment:** Energy Meters are used for monitoring **Recording Frequency:** Continuous monitoring and Monthly recording from Energy Meters, Summarized Annually **Archiving Policy:** Paper & Electronic **Calibration frequency:** One in five years Electricity exported/imported to the grid is in kWh. However for the calculation purpose electricity exported is converted in MWh. The Net electricity supplied to the grid by the project activity is calculated as a difference of electricity exported to the grid, electricity imported from the grid obtained from joint meter reading certificates/credit notes issued by state electricity board as per below equation: $EG_{facility,y} = EG_{Export} - EG_{Import}$ The joint reading at metering point is carried out once in a month in presence of O&M officials and state electricity board personnel. The calculations/measurement of net electricity supplied to grid is under purview of state electricity board and the PP/Project activity Instance owner has no role on it. PP/Project activity Instance owner gets value of net electricity supplied to grid and hence this parameter is mentioned as a part of monitoring plan. **Cross Checking:** Quantity of net electricity supplied to the grid can be cross checked from the invoices raised by the PP to the State Electricity Board or invoices with third party.
Frequency of monitoring/recording	Continuous monitoring and monthly recording
Value monitored	483,649
Monitoring equipment	Monitoring equipment are energy meters installed at each of the project activity instance site. Readings can be cross checked with back up meter. The accuracy class of meters, calibration

	frequency of meters is totally under purview of state electricity board and PP do not have any control on it. The meter details, make, calibration date, due date and respective accuracy class are mentioned in the **Error! Reference source not found.**
QA/QC procedures to be applied	The calibration of all the meters is undertaken once in five years[10] and faulty meters are duly replaced immediately. The calibration details is being provided in **Error! Reference source not found.**. The meters are of accuracy class 0.5s or higher. The meter accuracy class and calibration interval is under purview of state electricity board and PP/Project Activity Instances owner do not have any control on it. It is also noted that apportioning procedure (if applicable for project activity instances) is under control of state electricity board and PP do not have any control on it. The available parameter to PP/project activity instance owner is the net electricity supplied to grid and same parameter is mentioned as monitoring parameter.
Purpose of the data	The Data/Parameter is required to calculate the baseline emission.
Calculation method	The parameter is measured and if any calculation is required, the calculation is based on measured parameters.
Comments	Data is archived electronically for a period of 2 years beyond the end of crediting period

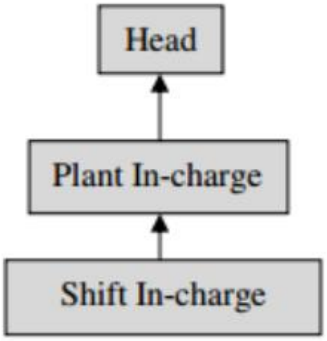
4.3 Monitoring Plan

The monitoring plan, which is implemented by the PP describes about the monitoring organization, 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 results with the PP. PP follows the mentioned structure for data monitoring, collection, data archiving and calibration of equipment for this project activity instances. The team comprises of the following members:

[10] http://www.aegcl.co.in/Metering_Regulations_Of_CEA_17_03_2006.pdf

Organisational Structure for Monitoring



PP has assigned the responsibility of operation and maintenance of project activity instances with relevant and authorized O&M contractors. The Plant In-charge and Shift In-Charge have been deployed by O&M contractors.

Responsibilities of Head: Overall functioning and maintenance of the data.
Responsibilities of Plant In-charge: Responsibility for Maintains the data records, ensures completeness of data, and reliability of data (calibration of equipment).
Responsibilities of Shift In-charge: Responsibility for day-to-day data collection and maintains day to day log book for monitored data.

In the event when the individual verification period dates and billing cycle dates of the project activity do not coincide, then the electricity export will be apportioned based on number of days.
The ratio of number of days under monitoring period and total number of days under billing cycle will multiplied to total electricity export to billing cycle and the same is used in this monitoring period.

For project activity instances which involves solar projects with common metering, apportioning is followed to determine net electricity export to grid. The apportioning procedure is not under control of PP, thus value of net electricity supplied to grid is available to PP and same is mentioned as monitoring parameter. The value of net electricity supplied to grid is used for ER calculations.

It is to be noted that the metering arrangement, accuracy class of meters, feeder arrangements, calibration frequency of meters are under control of state electricity board and PP do not have any control on it. Thus, any deviation at actual site or during verification is accepted.

QA & QC Procedures to be followed
Necessary check meters as required have been installed, to operate in standby mode or when the main meters are not working. All meters are calibrated at least once in five year as per CEA notification. Records of calibration certificates are maintained for verification. Hence, high

quality is ensured with the above parameters. The calibration of meters is under purview of state electricity board and CME/ project activity instances owner do not have any control on it.

Data Recording and Storage

For measuring the net energy supplied to grid by the project activity instances at the interconnection point, one set of Main meter and Check Meter is provided. Representatives of both project activity instances Owner and State Utility are present to record the monthly meter readings. The state utility prepares the credit report for the net energy supplied to the grid and same is used as a basic document for monitoring and verification of the net energy supplied to the grid. Based on the monthly credit report, the project activity instances Owner raise an invoice to the utility. Utility pays to the project activity instances Owner based on this document.

The above documents are kept at safe storage for verification of emission reductions generated from the project activity. The period of data storage will be 2 years beyond crediting period.

Emergency preparedness

The project activity does not result in any unidentified activity that can result in substantial emissions from the project activity. However, in case monitoring equipment get failed or is found faulty, they are replaced with calibrated meters as quickly as possible. In case main meter get failed or is found faulty, the reading of check meter will be considered.

Internal audits

The project proponent representatives do the internal audit on yearly basis and crosscheck the emissions reductions estimated in the PDD with respect to actual emissions reduction. For any deviation from the actual emission reduction values and reported values corrective action is suggested by the representatives to calculate the conservative emission reduction. During the current monitoring report, there are no non-conformities has been observed during inspection and audit. Internal audit was carried out on 05-01-2022 and 02-01-2023.

Personnel training

In order to ensure a proper functioning of the project activity instances and a properly monitoring of emission reductions, the staff are trained. The Shift In-charge and Plant In-charge are trained in equipment operation, data recording, operation and maintenance and emergency procedures in compliance with the monitoring plant.

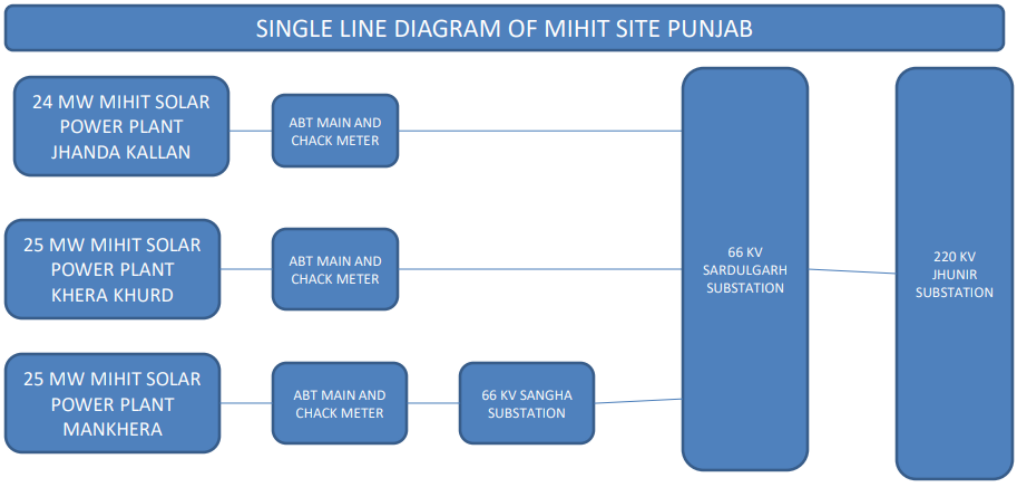


Figure 1. Metering block layout of Mihit Solar Power Private Ltd.

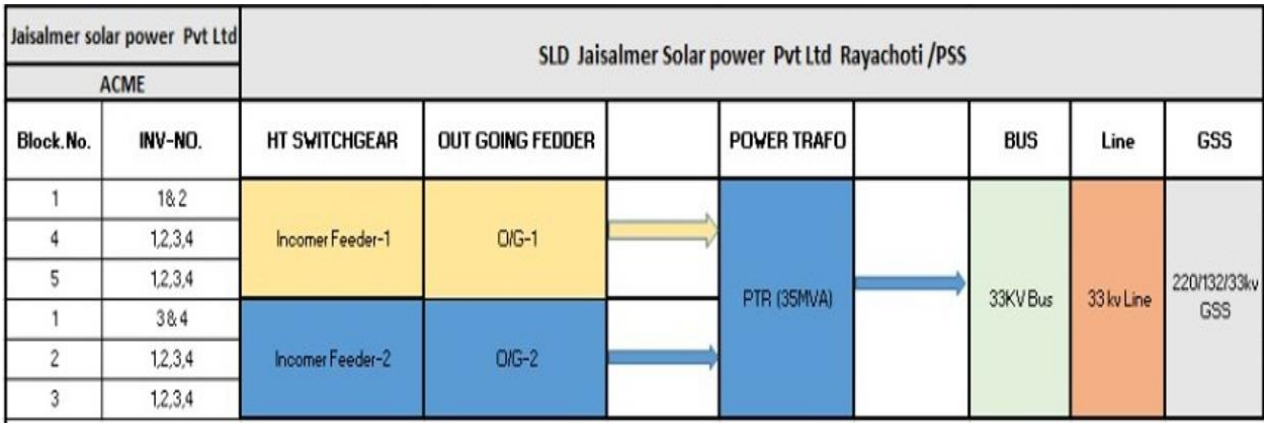


Figure 2. Metering block layout of Acme Jaisalmer Solar Power Pvt. Ltd.

Aarohi solar Pvt Ltd		SLD Aarohi Solar Pvt Ltd Hindupur /PSS/GSS							
ACME									
Block.No.	INV-NO.	HT SWITCHGEAR	OUT GOING FEDDER		POWER TRAFO		BUS	Line	GSS
1	1,2,3,4	Incomer Feeder-1	O/G-2		PTR-2(25MVA)		132KV Bus	132 kv Line	220/132/33kv GSS
2	1,2,3,4	Incomer Feeder-2							
3	1,2,3,4	Incomer Feeder-3							
4	1,2,3,4	Incomer Feeder-4							
5	1,2,3,4	Incomer Feeder-5							
6	1,2,3,4	Incomer Feeder-6							
7	1,2,3,4	Incomer Feeder-7	O/G-1		PTR-1(25MVA)				
8	1,2,3,4	Incomer Feeder-8							
9	1,2,3,4	Incomer Feeder-9							
10	1,2,3,4	Incomer Feeder-10							
11	1,2,3,4	Incomer Feeder-11							
12	1,2,3,4	Incomer Feeder-12							
13	1,2	Incomer Feeder-13							

Figure 3. Metering block layout of Aarohi Solar Pvt. Ltd.

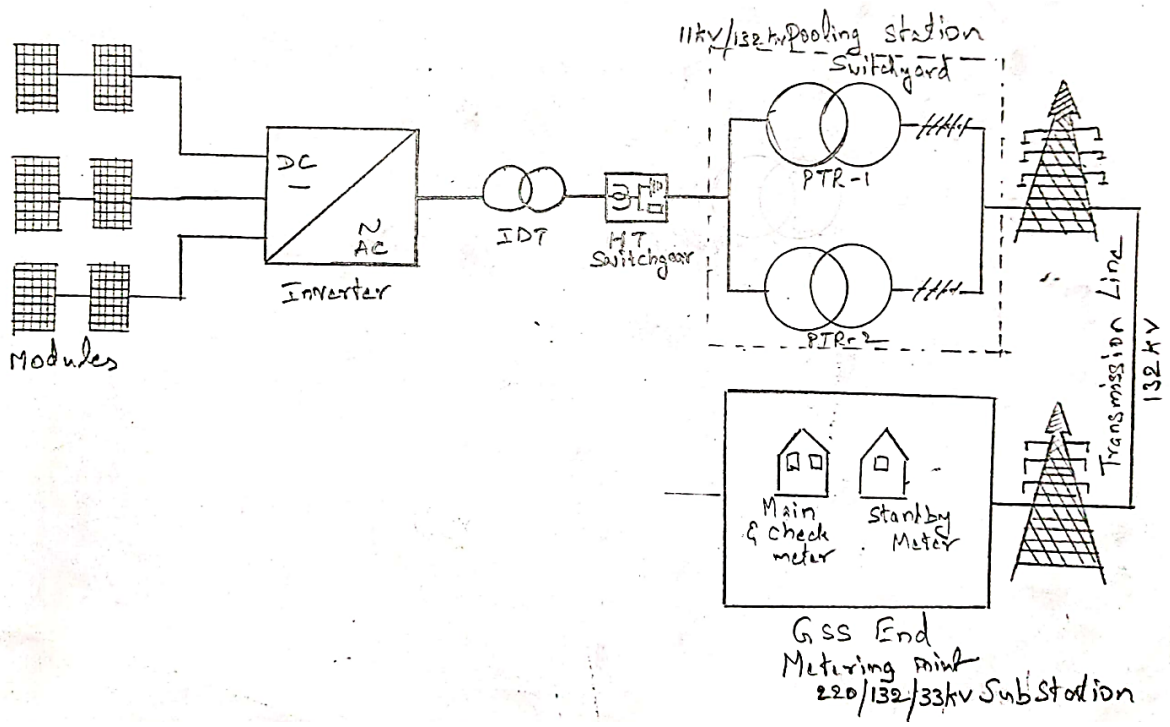


Figure 4. Metering block layout of Dayanidhi Solar Power Pvt. Ltd.

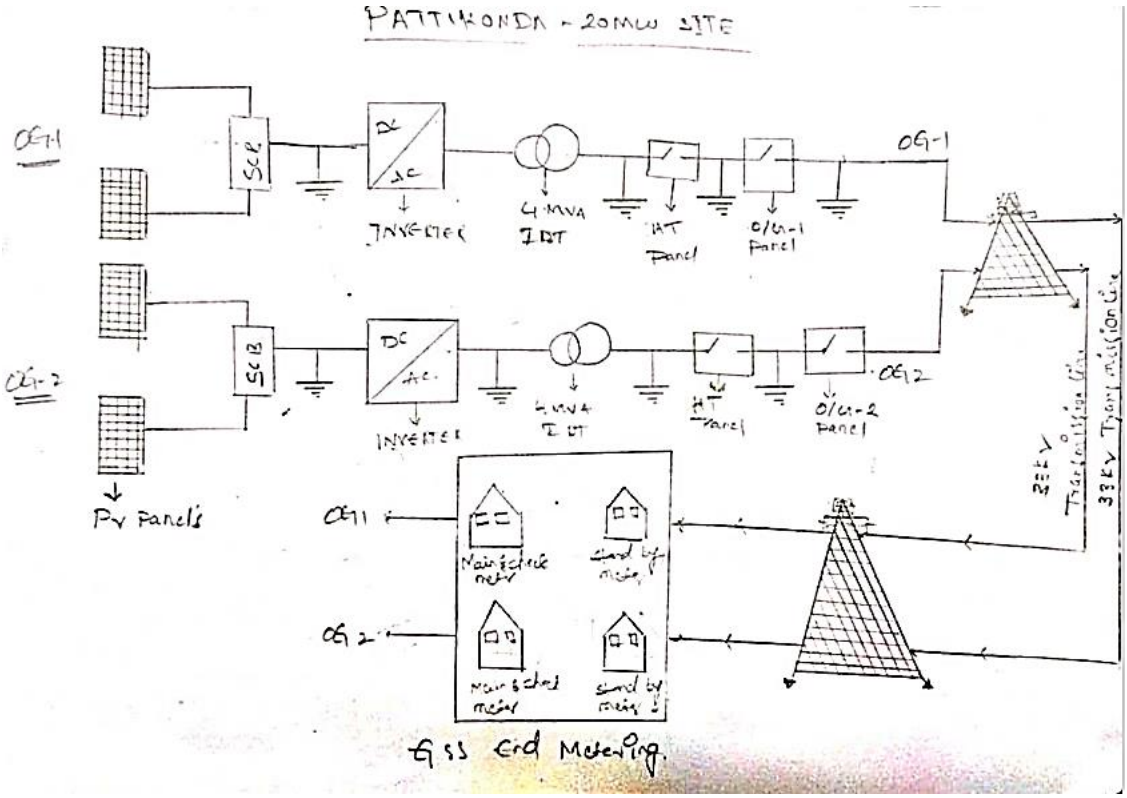


Figure 5. Metering block layout of Niranjana Solar Energy Pvt. Ltd.

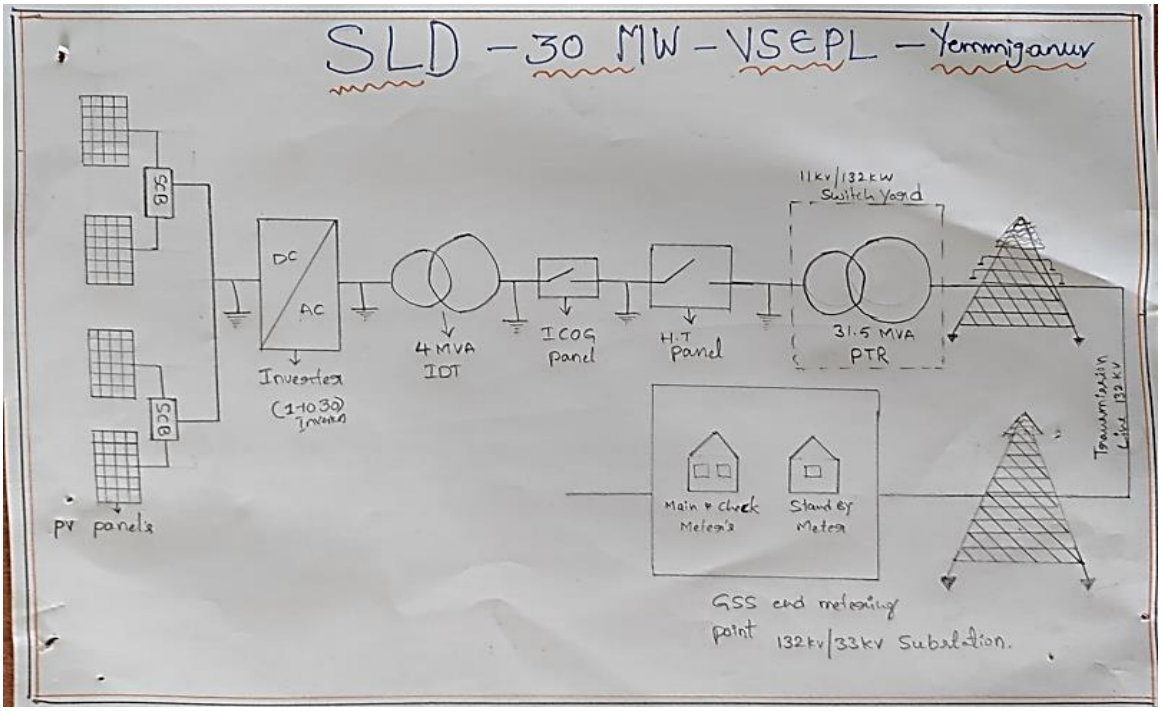


Figure 6. Metering block layout of Vishwatama Solar Energy Pvt. Ltd.

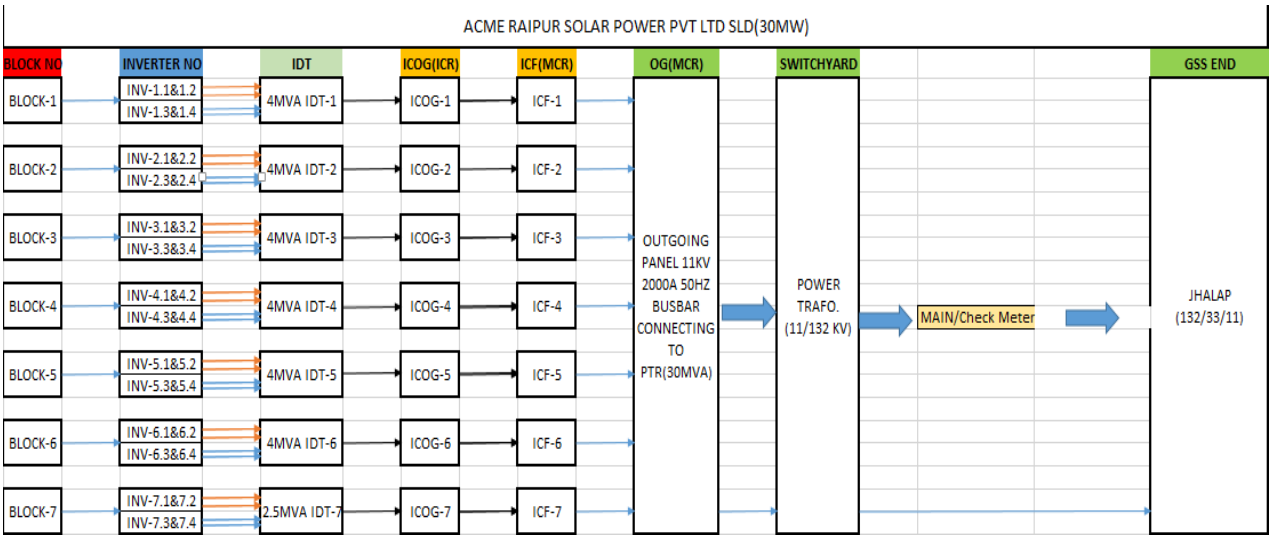


Figure 7. Metering block layout of Acme Raipur Solar Power Pvt. Ltd.

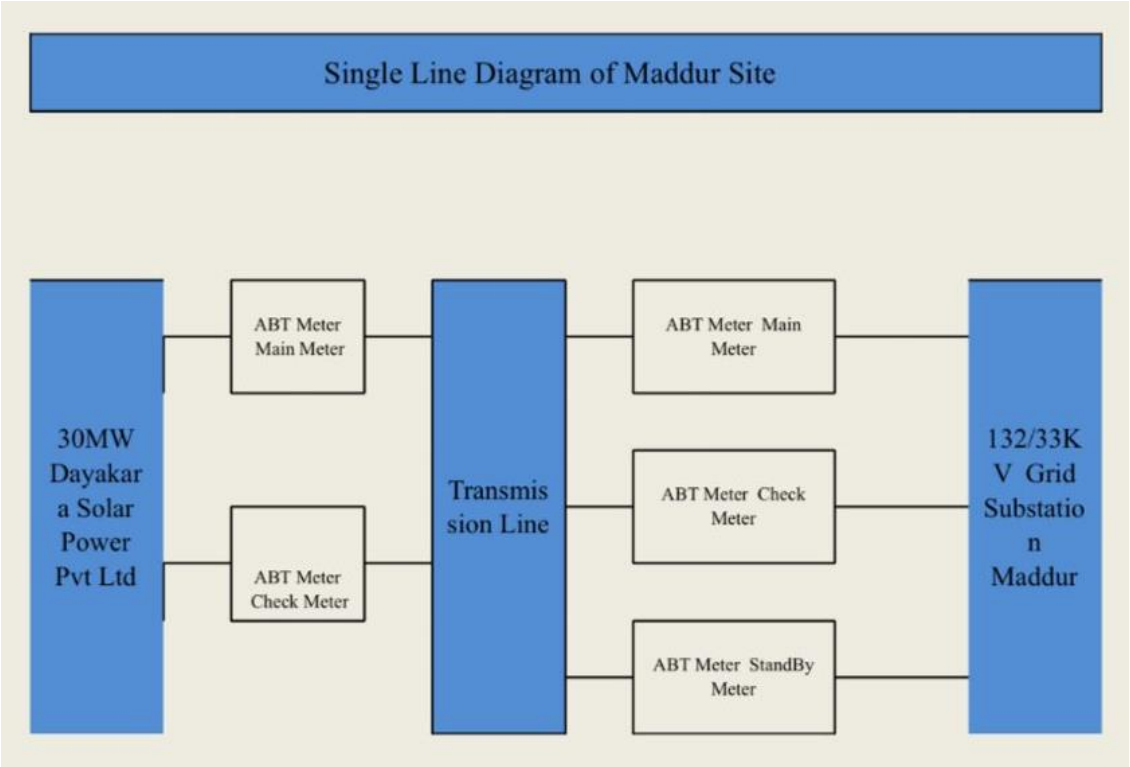


Figure 8. Metering block layout of Dayakara Solar Power Pvt. Ltd.

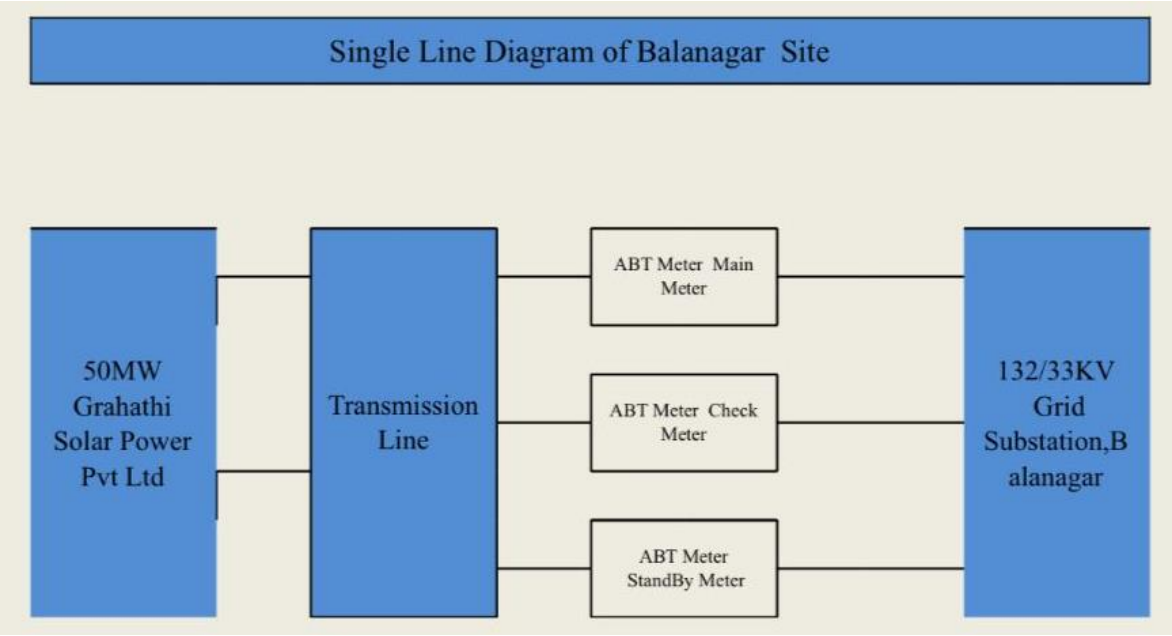


Figure 9. Metering block layout of Grahati Solar Energy Pvt. Ltd.

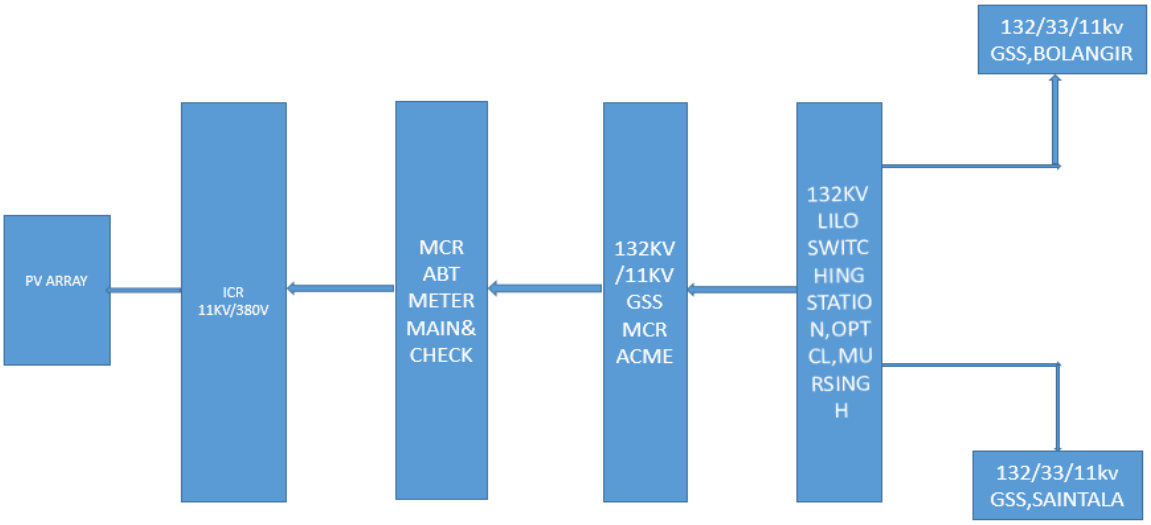


Figure 10. Metering block layout of Acme Odhisha Solar Power Pvt Ltd

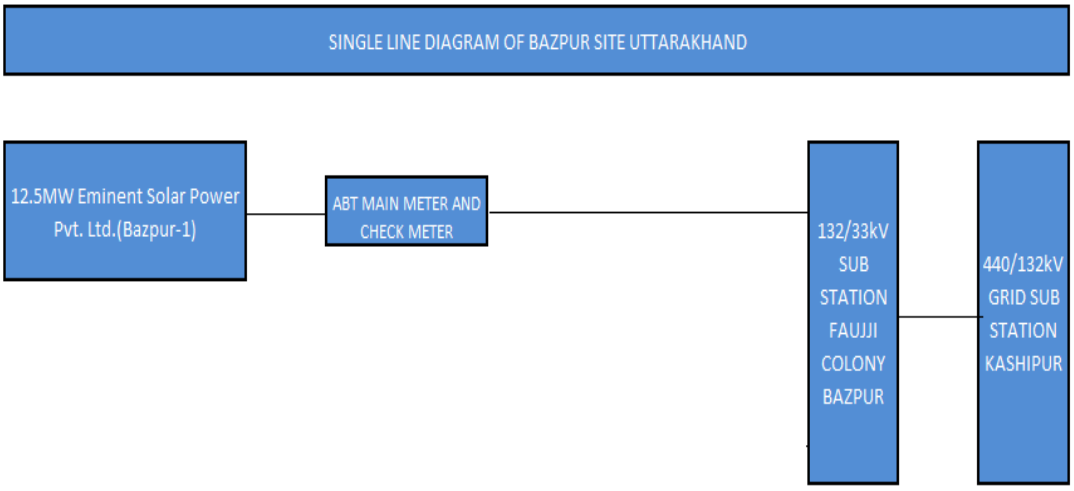


Figure 11. Metering block layout of Eminent Solar Power Pvt Ltd.

For Punjab state projects (74 MW), the project activity meters are connected to 66 kV supply line (CT/PT connected to 66 kV/110 V) and for rest sites the solar plants are connected at 132 kV/33 kV substation.

5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

5.1 Baseline Emissions

The baseline emission calculation for the project activity instances is attributable to the CO_2 Emission that could have been produced by the fossil fuel based power plants in absence of the project activity. Therefore, the amount electricity supplied to the Indian grid will be multiplied by the grid emission factor of Indian grid to calculate the baseline emissions reduced by the project activity.

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

Where,

BE_y	=	Baseline Emissions in year y; tCO_2e
$EG_{facility,y}$	=	Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh)
$EF_{grid,CM,y}$	=	CO_2 emission factor of the grid in year y; tCO_2e/MWh

Thus,

$EG_{facility,y}$= 483,649MWh

$EF_{grid,CM,y}$ = 0.9777 tCO_2e
BE_y = 483,649* 0.9777
= 472,857 tCO_2e (round down values)

Note that above value of emissions is summation of rounded down for each SPV, thus overall value is less than simply multiplication of 483,649* 0.9777.

5.2 Project Emissions

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

5.3 Leakage

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

5.4 Net GHG Emission Reductions and Removals

The Formula used to calculate the net emission reduction for the project activity is

$ER_y = BE_y - PE_y - LE_y$

Where,

ER_y = Emission Reduction in tCO_2/year
BE_y = Baseline emission in tCO_2/year
PE_y = Project emissions in tCO_2/year
LE_y = Leakage Emissions in tCO_2/year

For the project activity during the current monitoring period, as per section 5.1

BE_y = 472,857 tCO_2e
PE_y = 0 tCO_2e
LE_y = 0 tCO_2e
ER_y =472,857-0-0

=472,857 tCO_2e

Year	Baseline emissions or removals (tCO_2e)	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)
01-May-2022 to 31-December-2022	416,507	0	0	416,507
01-January-2023 to 31-January-2023	56,350	0	0	56,350
Total	**472,857**	0	0	**472,857**

The actual emission reductions achieved is 472,857 tCO_2 which is 14.39 % lower than estimated i.e. 552,346. The lower emission reduction achieved is justified due to lower generation in the current monitoring period.

Ex-ante emissions reductions/ removals	Achieved emissions reductions/removals	Percent difference	Justification for the difference
552,346	472,857	14.39 %	The lower emission reduction achieved is justified due to lower generation in the current monitoring period. The generation of electricity depends upon many other climatic conditions, which are not within the control of the project participant.

SPV wise emission reduction are tabulated below:

SPVs	State	Capacity (MW)	2022 tCO_2e Emissions	2023 tCO_2e Emissions	Total tCO_2e Emissions
Mihit Solar Power Private Ltd. 25 MW	Punjab	25	23,400	2,088	25,488
Mihit Solar Power Private Ltd.	Punjab	25	24,661	2,207	26,868

25 MW					
Mihit Solar Power Private Ltd. 24 MW	Punjab	24	25,254	2,271	27,525
ACME Jaisalmer Solar Power Pvt. Ltd.	Andhra Pradesh	20	22,808	3,372	26,180
Aarohi Solar Pvt. Ltd.	Andhra Pradesh	50	54,790	8,356	63,146
Dayanidhi Solar Power Pvt. Ltd.	Andhra Pradesh	40	44,071	6,465	50,536
Niranjana Solar Energy Pvt. Ltd.	Andhra Pradesh	20	21,879	3,365	25,244
Vishwatma Solar Energy Pvt Ltd.	Andhra Pradesh	30	34,053	5,015	39,068
Acme Raipur Solar Power Pvt. Ltd.	Chattishgarh	30	29,262	3,688	32,950
Dayakara Solar Power Pvt Ltd	Telangana	30	34,709	5,616	40,325
Grahati Solar Energy Pvt Ltd	Telangana	50	58,352	8,940	67,292
Acme Odisha Solar Power Pvt Ltd	Odisha	25	29,423	3,977	33,400
Eminent Solar Power Pvt Ltd.	Uttrakhand	12.5	13,845	990	14,835
Total		**381.5**	**416,507**	**56,350**	**472,857**

APPENDIX 1: CALIBRATION RECORDS

The meter serial number (0.2 s Accuracy class) and their calibration dates project activity instances are as below.

PP Name	MW	State	Project Location	Main Meter serial number	Check Meter Serial Number	Stand By Meter if available	Calibration Date
Mihit Solar Power Private Ltd.	25	Punjab	Kherakhurd	PBB48607	PBB48608	NA	05-April-2019 01-June-2021 21-February-2022
Mihit Solar Power Private Ltd.	25	Punjab	Mankhera	PBB48603	PBB48604	NA	02-September-2020 21-February-2022
Mihit Solar Power Private Ltd.	24	Punjab	Jhandekalan	PBB48610	PBB48609	NA	10-August-2020 09-August-2022
ACME Jaisalmer Solar Power Pvt. Ltd.	20	Andhra Pradesh	Rayachotti	APX00910 & APX00913	APX00911 & APX00914	APX00912 & APX00915	21-October-2021
Aarohi Solar Pvt. Ltd.	50	Andhra Pradesh	Hindupur	APX00584	APX00585	APX00586	13-December-2021 & 14-December-2021
Dayanidhi Solar Power Pvt. Ltd.	40	Andhra Pradesh	Santipuram	APX00604	APX00605	APX00600	20-December-2021
Niranjana Solar Energy Pvt. Ltd.	20	Andhra Pradesh	Pattikonda	15196518 & 15196512	15196519 & 15196521	15196516 & 15197462	26-February-2020 15-June-2021
Vishwatma Solar Energy Pvt Ltd.	30	Andhra Pradesh	Yemmiganur	15197463	15197470	15196511	27-February-2020 16-June-2021
Acme Raipur Solar Power Pvt. Ltd.	30	Chhattisgarh	Bagbahara	Old Meter MSP54469	NA	NA	07-December-2015
				CSE52062	NA	NA	28-December-2019
Dayakara Solar Power Pvt Ltd	30	Telangana	Maddur	APX00907	APX00908	APX00909	05-Febuary-2020 02-September-2021
Grahati Solar Energy Pvt Ltd	50	Telangana	Balanagar	APX00971	APX00972	APX00973	05-September-2020 25-November-2021
Acme Odisha Solar Power Pvt Ltd	25	Odisha	Bolangir	OPT01170	OPT01399	NA	16-October-2019 12-November-2021
Eminent Solar Power Pvt Ltd.	12.5	Uttarakhand	Uddham Singh Nagar	UKD02407	UKD02412	NA	01-November-2019

The calibration frequency of the energy meters are once in five year. The calibrations are still valid during the current monitoring period. As a result, error factor is not applicable to the generation data.

For Punjab state projects (74 MW), the project activity meters are connected to 66 kV supply line (CT/PT connected to 66 kV/110 V) and for rest sites the solar plants are connected at 132 kV/33 kV substation.

APPENDIX 2: TRAINING DETAILS

SPVs	State	No. of Trainings
Mihit Solar Power Private Ltd. 25 MW	Punjab	31
Mihit Solar Power Private Ltd. 25 MW	Punjab	15
Mihit Solar Power Private Ltd. 24 MW	Punjab	17
ACME Jaisalmer Solar Power Pvt. Ltd.	Andhra Pradesh	10
Aarohi Solar Pvt. Ltd.	Andhra Pradesh	25
Dayanidhi Solar Power Pvt. Ltd.	Andhra Pradesh	27
Niranjana Solar Energy Pvt. Ltd.	Andhra Pradesh	28
Vishwatma Solar Energy Pvt Ltd.	Andhra Pradesh	8
Acme Raipur Solar Power Pvt. Ltd.	Chhattisgarh	16
Dayakara Solar Power Pvt Ltd	Telangana	39
Grahati Solar Energy Pvt Ltd	Telangana	4
Acme Odisha Solar Power Pvt Ltd	Odisha	39
Eminent Solar Power Pvt Ltd.	Uttarakhand	13
Total		**272**