



**Verified Carbon
Standard**

RENEWABLE ENERGY POWER PROJECTS BY ATRIA POWER



Document Prepared by: Kosher Climate India Private Limited

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1 PROJECT DETAILS

1.1 Summary Description of the Implementation Status of the Project

The proposed project activity involves the installation of Wind and Solar Power Projects in Karnataka State of India. The purpose of the project activity is to generate clean electricity with utilization of wind & solar energy. The total installed capacity of the project is 148.8 MW; which involves operation of three wind projects of 39.6 MW capacity each (total capacity of 118.8 MW) and 1 Solar power plants with total capacity of 30 MW located at Karnataka, India. All the three wind projects are located in the same region and connected to Atria 33/220 kV pooling substation at Basavana Bagewadi. The pooling substation is connected with Karnataka Power Transmission Corporation Limited (KPTCL) 220/110/33/11 kV receiving substation at Basavana Bagewadi. The solar power project is connected with KPTCL 66/11 kV Kogali substation. The wind and solar power projects are promoted by subsidiaries of Atria Power Corporation Pvt. Limited. The details of which are as follows:

Wind Project Name	Project Promoters	Capacity (MW)	Purpose	Grid	District
Project 1	Atria Wind Power (Basavana Bagewadi) Pvt Ltd	39.60	Sale to Third Party	National	Vijayapura
Project 2	Atria Wind Power (Bijapur 1) Pvt Ltd	39.60	Sale to Third Party	National	Vijayapura
Project 3	Atria Wind Power (Chitradurga) Pvt Ltd	39.60	Sale to Third Party	National	Vijayapura

Solar Project Name	Project Promoters	Capacity (MW)	Purpose	Grid	District
Project 4	Atria Solar Power (Chamarajnagar) Pvt Ltd	30	Sale to Third Party	National	Bellary

All the projects are already commissioned and running.

Project Promoters (Wind)	Installed Capacity	WTGs	Feeder	Commissioning Date	Wheeling agreement with DISCOM
Atria Wind Power (Basavana Bagewadi) Pvt Ltd	39.6 MW	9 x 2.2 MW	Feeder 1	18-April-2018	HESCOM & CESC
		9 x 2.2 MW	Feeder 2	18-April-2018	
Atria Wind Power (Bijapur 1) Pvt Ltd	39.6 MW	9 x 2.2 MW	Feeder 3	18-April-2018	HESCOM & GESCOM
		9 x 2.2 MW	Feeder 4	18-April-2018	
Atria Wind Power (Chitradurga) Pvt Ltd	39.6 MW	9 x 2.2 MW	Feeder 5 & 6	27-April-2019	HESCOM & CESC
		9 x 2.2 MW	Feeder 5 & 6	29-April-2019	

Project Promoters (Solar)	Installed AC Capacity	Installed DC capacity	Commissioning Date	Wheeling agreement with DISCOM
Atria Solar Power (Chamarajnagar) Pvt Ltd	30 MW	37.5 MWp	25-January-2018	BESCOM

All the projects are connected with Indian national grid. The electricity generated by each project is sold to third party via wheeling agreement with following DISCOMs – Bangalore Electricity Supply Company Limited (BESCOM), Gulbarga Electricity Supply Company Limited (GESCOM), Hubli Electricity Supply Company Limited (HESCOM) & Chamundeshwari Electricity Supply Company Limited (CESC). The project activity will therefore displace an equivalent amount of electricity which would have otherwise been generated by fossil fuel dominant electricity grid. Since wind power is Greenhouse Gas (GHG) emissions free, the power generated will prevent the

anthropogenic gas emissions generated by fossil fuel based thermal power stations comprising coal, diesel, furnace oil and gas.

There was no activity at the site prior to implementation of the project activity. Hence the scenario existing prior to the project activity is same as baseline scenario which is continual use of highly carbon intensive electricity in the regional grid.

The estimation of GHG reductions by this project is limited to carbon dioxide (CO₂) only. The project activity leads to an annual average emission reduction of 314,814 tCO₂e per year or 3,148,137 tCO₂e for the chosen crediting period of 10 years.

The current monitoring period chosen is from 01-July-2021 to 31-December-2022 (inclusive of first & last date) and the GHG emission reductions calculated are 450,824 tCO₂e.

The Audit history is provided in the below table

Audit Type	Period	Program	VVB Name	Number of years
Joint Validation & verification	25-January-2018 to 30-November-2019(Inclusive of both the dates)	VCS	LGA Technological Centre, S. A	1 year 10 months
Verification	1-December-2019 to 30-June-2021(Inclusive of both the dates)	VCS	Earthood Services Private Limited	1 year 7 months
Verification	01-July-2021 to 31-December-2022 (On going) (Inclusive of both the dates)	VCS	VKU Certification Pvt. Ltd.	1 year 6 months
Total	25-January-2018 to 31-December-2022(Inclusive of both the dates)	VCS	-	4 years 11 months

	e of both the dates)			
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1.2 Sectoral Scope and Project Type

Sectoral Scope: 01- Energy Industries (Renewable/Non-Renewable Sources)

Project Type: Type I

Methodology: ACM0002: Grid-connected electricity generation from renewable sources, version 19.0

The project is not a grouped project; it consists of 3 independent wind power projects and 1 independent solar power project by 4 project developers with combined capacity of 148.8 MW

1.3 Project Proponent

Organization name	Atria Wind Power (Basavana Bagewadi) Pvt Ltd
Contact person	Kaushik Surender Rao
Title	Director
Address	11, Commissariat Rd, Ashok Nagar, Bangalore- 560025, Karnataka, India
Telephone	+91 80 4941 1411
Email	info@atriapower.com

Organization name	Atria Wind Power (Chitradurga) Pvt Ltd
Contact person	Kaushik Surender Rao
Title	Director
Address	11, Commissariat Rd, Ashok Nagar, Bangalore- 560025, Karnataka, India
Telephone	+91 80 4941 1411
Email	info@atriapower.com
Organization name	Atria Wind Power (Bijapur 1) Pvt Ltd

Contact person	Kaushik Surender Rao
Title	Director
Address	11, Commissariat Rd, Ashok Nagar, Bangalore- 560025, Karnataka, India
Telephone	+91 80 4941 1411
Email	info@atriapower.com

Organization name	Atria Solar Power (Chamarajnagar) Pvt Ltd
Contact person	Kaushik Surender Rao
Title	Director
Address	11, Commissariat Rd, Ashok Nagar, Bangalore- 560025, Karnataka, India
Telephone	+91 80 4941 1411
Email	info@atriapower.com

1.4 Other Entities Involved in the Project

Organization name	Kosher Climate India Private Limited
Role in the Project	Consultant /Bundling Agency
Contact person	Vamsi Krishna
Title	Global Business Head
Address	Zee Plaza, No.1678, Ground Floor, 27th Main Road, Sector 2, HSR Layout, Bengaluru, Karnataka 560102
Telephone	+91 80 49931177
Email	vamsi@kosherclimate.com , narendra@kosherclimate.com

1.5 Project Start Date

The start date for this project is 25-January-2018. This is the day on which the commissioning of the solar project (which is earliest commissioning amongst all the individual projects which are part of this Large-Scale Project).

1.6 Project Crediting Period

25-January-2018 to 24-January-2028 will be the 1st crediting period.

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

1.7 Project Location

The project activity is located in Karnataka state of India. The table provides details of location of each project:

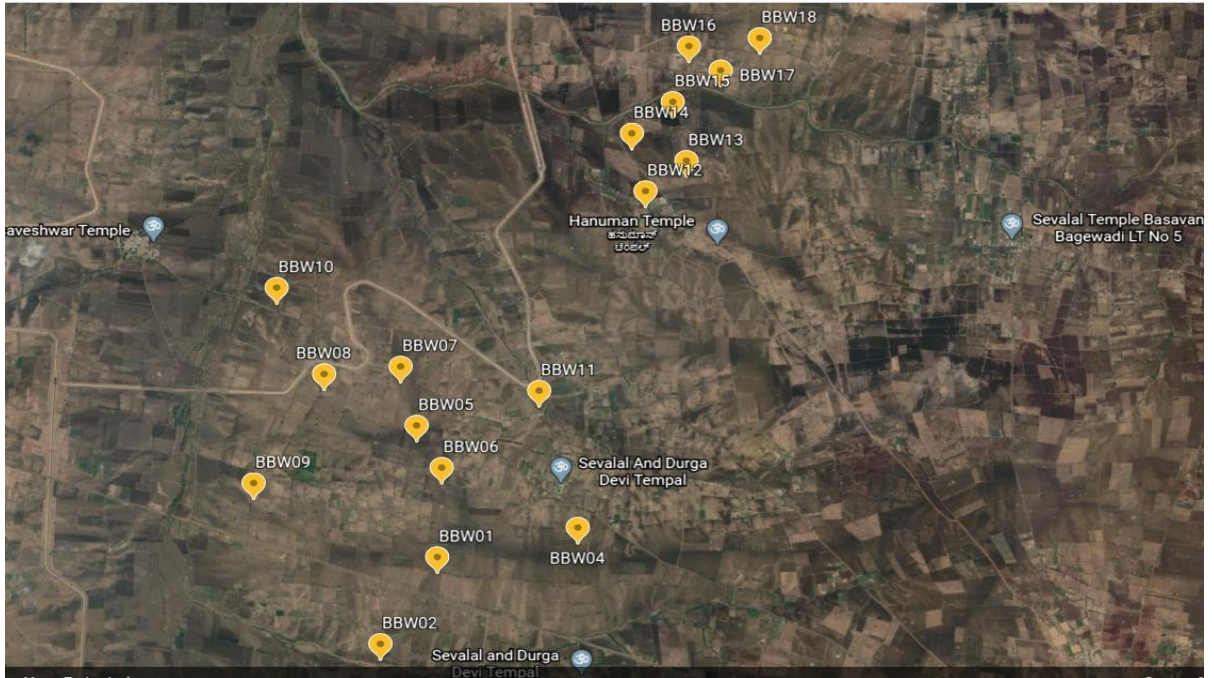
Project	Project Promoters	Capacity	Location
Project 1	Atria Wind Power (Basavana Bagewadi) Pvt Ltd	39.60 MW	Basavana Bagewadi Taluk Vijayapura District, Karnataka
Project 2	Atria Wind Power (Bijapur 1) Pvt Ltd	39.60 MW	Basavana Bagewadi Taluk Vijayapura District, Karnataka
Project 3	Atria Wind Power (Chitradurga) Pvt Ltd	39.60 MW	Basavana Bagewadi Taluk Vijayapura District, Karnataka
Project 4	Atria Solar Power (Chamarajnagar) Pvt Ltd	30 MW	Kogalli village, Hagaribommanahalli Taluk, Bellary District, Karnataka.

The geographical coordinates of the Wind projects are given below:

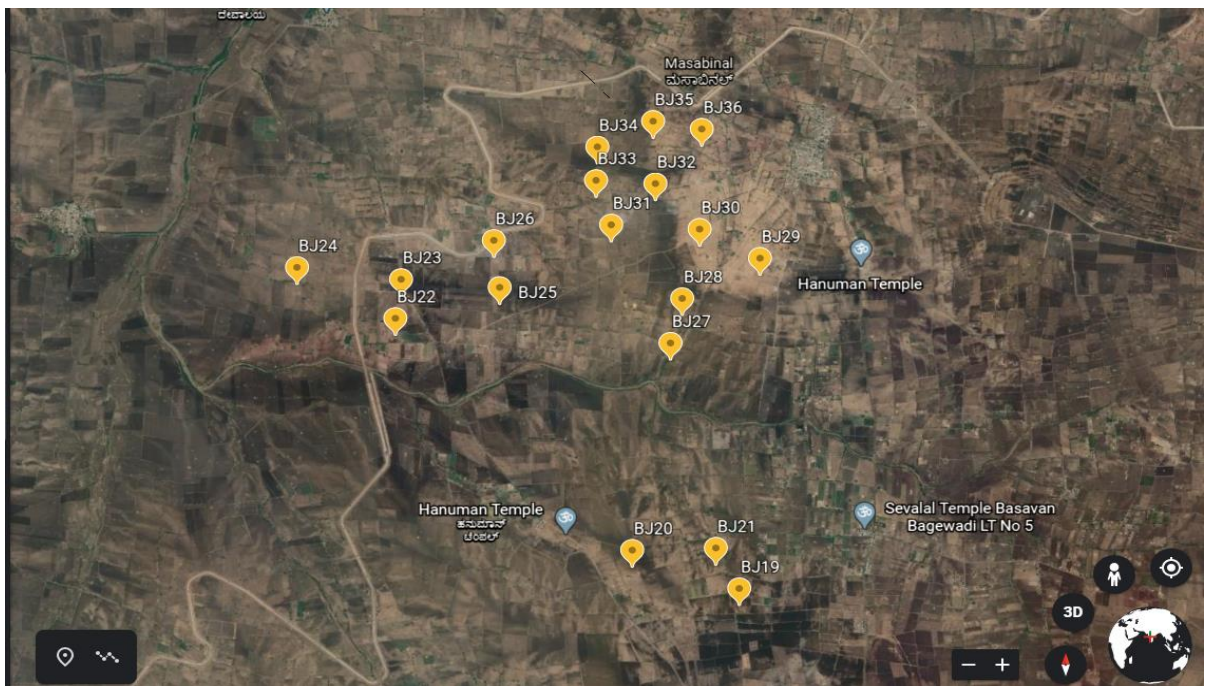
Project	New Turbine No	Feeder No.	WTG Coordinates	
			Latitude (° N)	Longitude (° E)
Project 1	BBW01	1	16.5970	75.9161
	BBW04	1	16.5998	75.9284
	BBW09	1	16.6040	75.9000
	BBW06	1	16.6055	75.9165

	BBW05	1	16.6095	75.9143
	BBW07	1	16.6151	75.9129
	BBW08	1	16.6144	75.9062
	BBW10	1	16.6226	75.9020
	BBW11	1	16.6128	75.9250
	BBW02	2	16.5887	75.9111
	BBW16	2	16.6456	75.9381
	BBW18	2	16.6464	75.9443
	BBW14	2	16.6373	75.9331
	BBW13	2	16.6347	75.9379
	BBW17	2	16.6433	75.9409
	BBW15	2	16.6403	75.9367
	BBW12	2	16.6318	75.9343
	BBW03	2	16.5998	75.9284
	BJ24	3	16.6507	75.9174
	BJ31	3	16.6545	75.9445
Project 2	BJ35	3	16.6638	75.9481
	BJ36	3	16.6631	75.9523
	BJ32	3	16.6582	75.9483
	BJ33	3	16.6585	75.9432
	BJ22	3	16.6461	75.9259
	BJ34	3	16.6615	75.9433
	BJ23	3	16.6496	75.9264
	BJ26	4	16.6531	75.9344
	BJ29	4	16.6515	75.9573
	BJ27	4	16.6439	75.9496
	BJ25	4	16.6489	75.9349

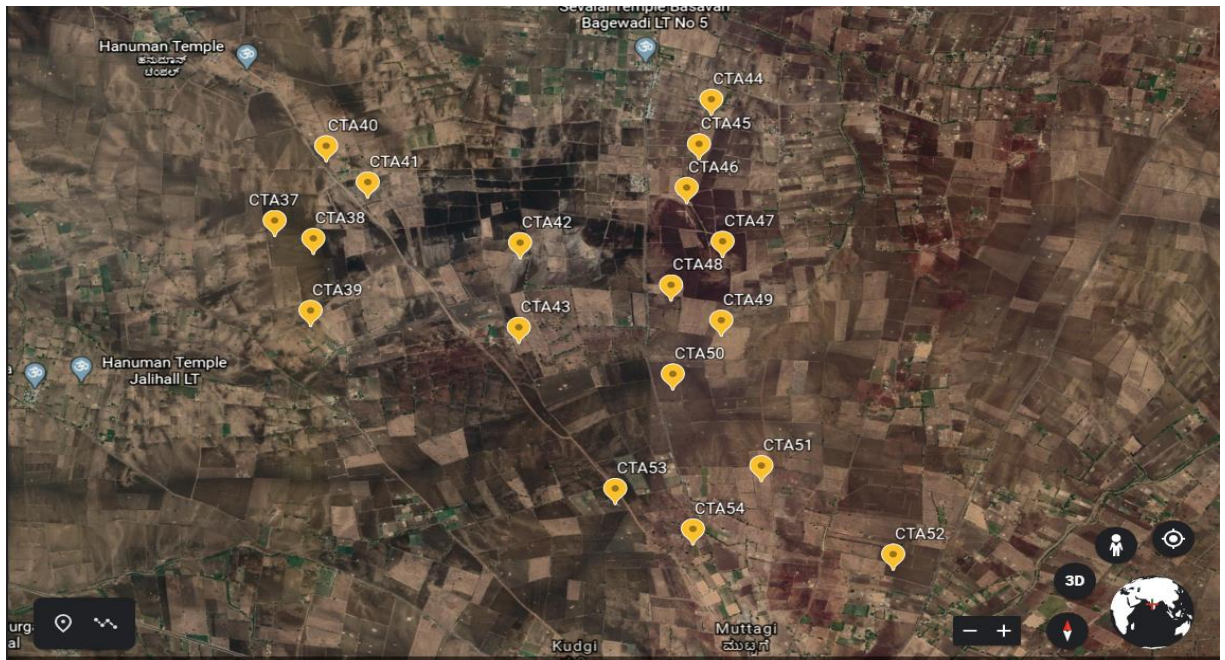
	BJ30	4	16.6541	75.9521
	BJ20	4	16.6253	75.9463
	BJ21	4	16.6255	75.9535
	BJ28	4	16.6479	75.9506
	BJ19	4	16.6219	75.9555
Project 3	CTA41	5	16.6191	75.9484
	CTA40	5	16.6217	75.9457
	CTA42	5	16.6148	75.9582
	CTA48	5	16.6118	75.9679
	CTA46	5	16.6187	75.9689
	CTA45	5	16.6218	75.9697
	CTA47	5	16.6149	75.9712
	CTA44	5	16.6250	75.9705
	CTA50	5	16.6055	75.9680
	CTA38	6	16.6151	75.9449
	CTA37	6	16.6164	75.9424
	CTA39	6	16.6100	75.9447
	CTA43	6	16.6088	75.9581
	CTA53	6	16.5974	75.9643
	CTA54	6	16.5945	75.9693
	CTA49	6	16.6093	75.9711
	CTA51	6	16.5990	75.9737
	CTA52	6	16.5927	75.9822



Project 1



Project 2



Project 3

Geographical coordinates of the Solar project is as below:

Project	Solar power plant Coordinates	
	Latitude (° N)	Longitude (° E)
Project 4	14.95	76.14



Project 4

1.8 Title and Reference of Methodology

The methodology applied for the project is Approved Large Scale Consolidated Methodology: ACM0002 “Grid-connected electricity generation from renewable sources” (Version 19.0, EB100)¹

ACM0002 draws upon the following tools which have been used in the PD:

- Methodological Tool: Tool to calculate the emission factor for an electricity system - Version 7.0, EB 100, Annex 6².
- Methodological Tool: Tool for the demonstration and assessment of additionality - Version 07.0.0, EB 70 Annex 8³.

1.9 Participation under other GHG Programs

The project is neither registered nor seeking registration under any other GHG programs.

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

The project is not included in any emissions trading program or any other mechanism that includes GHG allowance trading, and include details about any such programs or mechanisms.

The project has not sought or received another form of GHG-related environmental credit, including renewable energy certificates, during this monitoring period.

The project also does not affect emissions associated with a good or service that is included in the Supply Chain (Scope 3) Emissions.

1.11 Sustainable Development Contributions

The proposed project activity involves the installation of Wind and Solar Power Projects in Karnataka State of India. The purpose of the project activity is to generate clean electricity with utilization of wind & solar energy. The total installed capacity of the project is 148.8 MW; which involves operation of three wind projects of 39.6 MW capacity each (total capacity of 118.8 MW) and 1 Solar power plants with total capacity of 30 MW located at Karnataka, India.

The project supplies clean electricity from the wind power plant to the Indian National Grid hence displacing the electricity generated from grid connected fossil fuel power plants and thereby avoiding the equivalent Carbon dioxide which is a greenhouse gas. In the absence of the project activity, there won't be any avoidance of carbon dioxide.

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

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

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

Table 1: Sustainable Development Contributions

Row number	SDG Target	SDG Indicator	Net Impact on SDG Indicator	Current Project Contributions	Contributions Over Project Lifetime
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5	7.2	7.2.1 Renewable energy share in the total final energy consumption	Implemented activities to increase	About 481,239 MWh renewable electricity has supplied to Indian National grid during the reported period that helps to increase the renewable energy share in the energy mix.	Since commissioning, about 1,356,175 MWh renewable electricity has supplied to Indian National grid till this monitoring that helps to increase the renewable energy share in the energy mix. The calculations involved is shown below. <table><tr><th>Monitoring period</th><th>Net Generation (MWh)</th></tr><tr><td>25/January/2018 to 30/November/2019</td><td>375,764</td></tr><tr><td>01/December/2019 to 30/June/2021</td><td>499,172</td></tr><tr><td>01/July/2021 to 31/December/2022 (On going)</td><td>481,239</td></tr><tr><td>25/January/2018 to 31/December/2022</td><td>1,356,175</td></tr></table>	Monitoring period	Net Generation (MWh)	25/January/2018 to 30/November/2019	375,764	01/December/2019 to 30/June/2021	499,172	01/July/2021 to 31/December/2022 (On going)	481,239	25/January/2018 to 31/December/2022	1,356,175
Monitoring period	Net Generation (MWh)														
25/January/2018 to 30/November/2019	375,764														
01/December/2019 to 30/June/2021	499,172														
01/July/2021 to 31/December/2022 (On going)	481,239														
25/January/2018 to 31/December/2022	1,356,175														
6	8.5	Number of employment opportunities created	Implemented activities to increase	About 79 employment opportunities has been created during the current reporting period.	The project has created about 79 employment opportunities since commissioning.										

7	13.0	13.0 Tonnes of greenhouse gas emissions avoided or removed	Implemented activities to increase	By supplying 481,239 MWh clean electricity to national grid, the project avoided release of 450,824 tCO ₂ e into the atmosphere during the reporting period and contributed to the sustainable development goal 13.	Prevented the release of 1,270,462 tCO ₂ e into the atmosphere since its commissioning. The calculations involved is shown below.										
					<table><tr><th>Monitoring period</th><th>Emission Reduction and Removal (tCO₂e)</th></tr><tr><td>25/January/2018 to 30/November/2019</td><td>352,015</td></tr><tr><td>01/December/2019 to 30/June/2021</td><td>467,623</td></tr><tr><td>01/July/2021 to 31/December/2022 (On going)</td><td>450,824</td></tr><tr><td>25/January/2018 to 31/December/2022</td><td>1,270,462</td></tr></table>	Monitoring period	Emission Reduction and Removal (tCO ₂ e)	25/January/2018 to 30/November/2019	352,015	01/December/2019 to 30/June/2021	467,623	01/July/2021 to 31/December/2022 (On going)	450,824	25/January/2018 to 31/December/2022	1,270,462
Monitoring period	Emission Reduction and Removal (tCO ₂ e)														
25/January/2018 to 30/November/2019	352,015														
01/December/2019 to 30/June/2021	467,623														
01/July/2021 to 31/December/2022 (On going)	450,824														
25/January/2018 to 31/December/2022	1,270,462														

2 SAFEGUARDS

2.1 No Net Harm

The project is renewable energy project. PP has also conducted an Environmental and social impact assessment study prior to implementation of the project activity. As per the ESIA report, there were no harm identified from the project and hence no mitigations measures are applicable.

2.2 Local Stakeholder Consultation

Local stakeholder consultation was conducted as a part of Environmental and social impact assessment study on 20-April-2018 & 21-April-2018. No negative comments received from the stakeholder.

PP also conducted stakeholder consultation on 01-October-2019 and 02-October-2019. PP decided the date and venue for local stakeholder consultation and informed local stakeholder regarding the meeting. The followings are the local stakeholders for the project activity:

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

Since project 1, 2 & 3 are located in same region, the stakeholder consultation for these 3 projects is conducted combinedly. Invitation notices were put up in the local panchayats at least a week in advance of the consultations. In the introductory speech, the representatives of Atria Power welcomed the gathering and informed the stakeholders about the project activity; project's associated benefits with respect to CO2 emission reductions and explained the purpose of conducting the stakeholder meeting in order to gather the views and comments of the local stakeholders on the project activity. Subsequent to the introductory speech, comments were received from the stakeholders.

Project	Meeting date	Location
Project 1, 2 & 3	01-October-2019	Atria Pooling station, Basavana Bagewadi, Vijayapura District, Karnataka
Project 4	02-October-2019	Site office, Kogli Village Hagaribommanahalli Taluk, Bellary District, Karnataka.

Only doubts and clarification requests are received from the stakeholders and representative from the Atria power has clarified all the doubts asked by the stakeholders. The questions asked by stakeholders and response by Atria power has explained below:

Project 1, 2 &3

Questions by stakeholder	Clarification by Atria Power
Can the wind power generated from the wind mill be supplied to households?	No, the electricity generated from the wind mills are at high voltage which are not suitable for households. However, the power supplied to grid and the electricity from the grid is supplied to households after voltage reduction.
Are the wind turbines being safe?	Yes, the wind power technology is proven and turbines are operating successfully throughout the world. Moreover, the wind turbines are purchased from reputed manufacturer i.e., Vestas. Hence, there is no safety risk because of wind turbines
Will the additional CSR activities be undertaken in our village?	Depends on the annual CSR budget, the CSR activities will be taken based on the priority of the activity. The local people will be consulted to check the priority requirements.

Project 4

Questions by stakeholder	Clarification by Atria Power
Will additional jobs be provided?	Currently all the vacancies are filled. If any new opening available in the future then the new recruitment will happen.
Will the preference be given to local people?	Yes, preference will be given to the local people only. Only if the person with required skills are not available locally then the people from other location will be recruited.
Will the additional CSR activities be undertaken in our village?	Depends on the annual CSR budget, the CSR activities will be taken based on the priority of the activity. The local people will be consulted to check the priority requirements.

What is the life of the solar power plant?	The life time of the Power plant is about 25 years.
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No Negative feedback was received from any of the stakeholders. All of them supported the initiative and appreciated the project proponent for carrying out such an activity in the region. Hence no comments warranting action from the project proponent were received.

On-going communication with local stakeholders

The project proponent also maintains a grievance register at the site. Stakeholders can anytime provide their inputs or concerns over the project. The site manager is responsible for addressing the grievances received from stakeholders. The same is informed during the stakeholder consultation meeting. This mechanism will ensure to continue to engage with local stakeholder in an ongoing proactive manner. During the monitoring period no grievances received from any stakeholders.

2.3 AFOLU-Specific Safeguards

The project activity is the construction and generation of electricity from greenfield solar and wind plants. This does not fall under AFOLU projects, hence this section is not applicable to this project activity.

3 IMPLEMENTATION STATUS

3.1 Implementation Status of the Project Activity

All the four projects are commissioned and operating as per the description provided in the registered PD. There were few major breakdowns in the wind project listed in the section 4.3, apart from this there were no events impacting the GHG ERs. The details of implementation are given below:

Project Promoters (Wind)	Installed Capacity	WTGs	Feeder	Commissioning Date
Atria Wind Power (Basavana Bagewadi) Pvt Ltd	39.6 MW	9 x 2.2 MW	Feeder 1	18-April-2018
		9 x 2.2 MW	Feeder 2	18-April-2018
Atria Wind Power (Bijapur 1) Pvt Ltd	39.6 MW	9 x 2.2 MW	Feeder 3	18-April-2018
		9 x 2.2 MW	Feeder 4	18-April-2018

Atria Wind Power (Chitradurga) Pvt Ltd	39.6 MW	9 x 2.2 MW	Feeder 5 & 6	27-April-2019
		9 x 2.2 MW	Feeder 5& 6	29-April-2019

Project Promoters (Solar)	Installed AC Capacity	Installed capacity DC	Commissioning Date
Atria Solar Power (Chamarajnagar) Pvt Ltd	30 MW	37.5 MWp	25-January-2018

The project activity consists of a 3 x 39.6 MW wind power project and 1 x 30 MW solar power project as given below:

Wind Project Name	Project Promoters	Capacity (MW)	Number of WTG	Capacity of WTG	WTG Make
Project 1	Atria Wind Power (Basavana Bagewadi) Pvt Ltd	39.60	18	2.2	Vestas (V110)
Project 2	Atria Wind Power (Bijapur 1) Pvt Ltd	39.60	18	2.2	Vestas (V110)
Project 3	Atria Wind Power (Chitradurga) Pvt Ltd	39.60	18	2.2	Vestas (V110)

Solar Project Name	Project Promoters	AC/DC Capacity	Module Make	Module Capacity & number	Inverter Make	Inverter capacity & number
Project 4	Atria Solar Power (Chamarajnagar) Pvt Ltd	30 MW/ 37.5 MWp	Canadian Solar/JA Solar	325Wp – 67385 330Wp – 47273	Games a Electric	1375 kW – 20 1250 kW - 2

Wind Energy Technology

The technology employed, converts wind energy to electrical energy. In wind power generation, energy of wind is converted into mechanical energy and subsequently into electrical energy. The project activity is the installation of an environmentally safe and sound technology since there are no GHG emissions associated with the electricity generation.

The technical specifications of the WTGs have been provided as below

Project 1, 2 & 3: Vestas's wind energy technology by implementing V110 model 2200kW WTGs.

Vestas V110-2.2 MW	
Operational Data	
Rated power:	2,200.0 kW
Cut-in wind speed:	3.0 m/s
Cut-out wind speed:	20.0 m/s
Re cut-in wind speed:	18.0 m/s
Wind Class	IEC S
Standard operating Temperature	-20 °C to 45 °C
Rotor	
Diameter:	120.0 m
Swept area:	11310 m ²
Number of blades:	3
Air brake	Full blade feathering with 3 pitch cylinders
Electrical	
Frequency	50/60 Hz
Voltage generated	690V
Generator type	4-pole (50 Hz)/6-pole (60 Hz) doubly fed generator, slip ring
Voltage supplied (grid)	33kV
Gear box	
Type:	one planetary stage and two helical stages
Tower	
Hub Height	110 m
Nacelle dimension	
Height for transport	4 m
Height installed (incl. CoolerTop®)	5.4 m
Length	10.4 m
Width	3.5 m
Hub Dimension	
Max. transport height	3.6 m
Max. transport width	4 m
Max. transport Length	4.2 m
Blade Dimension	
Length	59 m
Max. chord	3.9 m
Max. weight per unit for transportation	70 tonne

Solar Energy Technology:

The technology employed, converts solar energy to electrical energy. In solar power generation, solar radiation is converted into electrical energy. The project activity is the installation of an environmentally safe and sound technology since there are no GHG emissions associated with the electricity generation.

The technical specifications of the solar power plant have been provided as below:

Solar PV Module	
Module Make	Canadian Solar/JA Solar
Module Rating	325 Wp & 330 Wp
Number of modules	325Wp – 67,385 Nos 330Wp – 47,273 Nos
Total Capacity	37,500 kWp
Specification	https://www.canadiansolar.com/upload/2e46a5e4e1c8ba14/9da8c57eb4c725d5.pdf http://www.jasolar.com/uploadfile/2018/0927/20180927023402370.pdf
Inverter	
Inverter Make	Gamesa Electric
Inverter rating	1375 kW & 1250 kW
Number of inverter	1375 kW – 20 Nos 1250 kW – 2 Nos
Total Capacity	30,000 kW
Model	Gamesa E-1.25v1 & E-1.4MVA (1.375 MW)_Var_Rev_2
No. of ICR	6
Inverter Transformer	
Rating	450 V/33kV
Capacity	6 MVA & 4.5 MVA
Number of transformer	6 MVA – 5 Nos 4.5 MVA – 1 No
Total Capacity	34.5 MVA
Power transformer	
Rating	33kV/66 kV
Capacity	31.5 MVA
Number of transformer	1
Total Capacity	31.5 MVA
Input Voltage (DC)	1000 V
Output Voltage (AC)	33Kv/400 V

The switch yard use arc insulation to prevent accidental sparks at inadvertent high voltages.

Since commissioning, all the WTGs are operational continuously without any major outages.

During the monitoring period, there is no major events occurred that may impact the GHG emission reductions or removals and monitoring

No other changes to the project such as change in project proponent or other entity happened during the monitoring period.

3.2 Deviations

3.2.1 Methodology Deviations

There is no methodology deviation applied during this monitoring period.

3.2.2 Project Description Deviations

The following deviation applied in the monitoring report:

In the section 5.2 of approved VCS-PD, it is mentioned that $EG_{facility,y}$ will be sourced from monthly JMR/B-Forms which can be cross-checked from the invoice raised to DISCOM.

The electricity is not sold to DISCOM but sold to third parties and the invoices raised to third party will be based on the net electricity supplied at consumer end after transmission and wheeling charges. So, the net electricity supplied to grid cannot be cross verified from the invoices. Hence the crosschecking reference is removed under section 4.2.

It shall be noted that the project was conceptualized as third-party power selling project and it is selling power to third party since its commissioning. The additionality was also justified based on the third-party tariff. Hence there is no change in the power selling mode after registration of the project. This is mere correction in section 4.2 of the registered PD where it was mistakenly mentioned that *"The value of net electricity generation supplied to the grid as per Monthly Joint Meter Reading Report forms (B-Forms) the basis for calculation of the emission reductions, which can be cross-checked from the invoice raised to DISCOM"*

Since, this is just a correction in a sentence mentioned PD and there is no design change involved. Hence, there is no impact in the additionality of the project due to this change.

There are no other project description deviations applied during this monitoring period or in previous monitoring reports.

3.3 Grouped Projects

The project is not a grouped project.

4 DATA AND PARAMETERS

4.1 Data and Parameters Available at Validation

Data / Parameter	$EF_{om,y}$
Data unit	tCO ₂ /MWh
Description	Operating margin CO ₂ emission factor of INDIAN Grid
Source of data	Central Electricity Authority: CO ₂ Emission Database CEA CO ₂ Baseline database Version 14
Value applied:	0.9610

Justification of choice of data or description of measurement methods and procedures applied	Calculated in line with “Tool to calculate the emission factor for an electricity system” using data from Central Electricity Authority of India’s (CEA) “Baseline Carbon Dioxide Emission Database Version 14”. The value used is calculated ex-ante as generation based weighted average of last three years of the operating margin provided in the CEA database. Weighted average $= \frac{\sum_{i=1 \text{ to } n} (\text{Net generation in operating margin in year } i * \text{Simple operating margin in year } i)}{\sum_{i=1 \text{ to } n} (\text{Net generation in operating margin of year } i)}$
Purpose of Data	Baseline Emission calculation
Comments	The operating margin emission factor is a 3-year generation-weighted average (2015-18). The operating Margin is calculated ex ante and fixed during the crediting period

Data / Parameter	EFBM,y
Data unit	tCO2/MWh
Description	Build margin CO2 emission factor of INDIAN grid
Source of data	Central Electricity Authority: CO2 Emission Database CEA CO2 Baseline database Version 14
Value applied:	0.8644
Justification of choice of data or description of measurement methods and procedures applied	Calculated in line with “Tool to calculate the emission factor for an electricity system” using data from Central Electricity Authority of India’s (CEA) “Baseline Carbon Dioxide Emission Database Version 14”. The value is calculated ex-ante as most recent build margin provided by the CEA
Purpose of Data	Baseline Emission calculation
Comments	The Build Margin would be calculated ex ante and fixed during the crediting period. For ex ante calculation the most recent data

	(2017-18) available has been used and the build margin is thus calculated.
--	--

Data / Parameter	$EF_{grid,CM,y}$
Data unit	tCO ₂ /MWh
Description	Combined margin CO ₂ emission factor of INDIAN grid
Source of data	Central Electricity Authority: CO ₂ Emission Database CEA CO ₂ Baseline database Version 14
Value applied:	0.9368
Justification of choice of data or description of measurement methods and procedures applied	The date has been considered in accordance to the Tool to calculate emission factor of an electricity system. The tool guides to take 75% weightage of $EF_{grid,OMsimple}$, & 25% weightage of $EF_{grid,BM,y}$.
Purpose of Data	Baseline Emission calculation
Comments	The combined margin would be calculated ex-ante and fixed for the entire crediting period and the combined margin thus calculated is 0.9368.

4.2 Data and Parameters Monitored

Data / Parameter	$EG_{facility,y}$ ⁴
Data unit	MWh
Description	Quantity of net electricity supplied by the project activity (wind & solar) to the grid in the year y
Source of data	JMR (Joint Meter Reading) issued by DISCOM
Description of measurement methods and procedures to be applied	Data Type: Measured & Calculated. Monitoring equipment: Energy meters of accuracy class 0.2s Archiving Policy: Paper & Electronic. The value of net electricity generation supplied to the grid as per Monthly Joint Meter Reading Report forms (B-Forms) the basis for calculation of the emission reductions;

⁴If the project activity is the installation of a Greenfield power plant, then: $EGPJ,y = EG_{facility,y}$

	Wind The Net electricity supplied to the grid by each wind project is estimated as below Net electricity = Export – Import – Transmission loss The calculation monthly net electricity supplied to grid will be provided in the Joint meter reading <u>B-Form of the respective project/Feeder.</u> Solar The Net electricity supplied to the grid by solar project is estimated as below Net electricity = Export – Import The calculation monthly net electricity supplied to grid will be provided in the Joint meter reading B-Form itself.																														
Frequency of monitoring/recording	Measurement: Continuous Recording: Monthly																														
Value monitored	<table><tr><td>Vintage</td><td>Generation</td></tr><tr><td>2021</td><td>160,798 MWh</td></tr><tr><td>2022</td><td>320,441 MWh</td></tr><tr><td>Total</td><td>481,239 MWh</td></tr></table>	Vintage	Generation	2021	160,798 MWh	2022	320,441 MWh	Total	481,239 MWh																						
Vintage	Generation																														
2021	160,798 MWh																														
2022	320,441 MWh																														
Total	481,239 MWh																														
Monitoring equipment	<u>Project 1:</u> Meter Details: <table><tr><td>Details</td><td>Feeder-1</td><td>Feeder-2</td></tr><tr><td>Meter Number</td><td>Main:17166962 Check: 17166964</td><td>Main:17166967 Check: 17166977</td></tr><tr><td>Make & Model</td><td>L&T Electronic Trivector Meter</td><td>L&T Electronic Trivector Meter</td></tr><tr><td>Accuracy</td><td>0.2s</td><td>0.2s</td></tr><tr><td>Location</td><td>Pooling station</td><td>Pooling station</td></tr></table> <u>Project 2:</u> Meter Details: <table><tr><td>Details</td><td>Feeder-3</td><td>Feeder-4</td></tr><tr><td>Meter Number</td><td>Main:17166983 Check: 17125600</td><td>Main: 17125701 Check: 17167005</td></tr><tr><td>Make & Model</td><td>L&T Electronic Trivector Meter</td><td>L&T Electronic Trivector Meter</td></tr><tr><td>Accuracy</td><td>0.2s</td><td>0.2s</td></tr><tr><td>Location</td><td>Pooling station</td><td>Pooling station</td></tr></table> <u>Project 3:</u>	Details	Feeder-1	Feeder-2	Meter Number	Main:17166962 Check: 17166964	Main:17166967 Check: 17166977	Make & Model	L&T Electronic Trivector Meter	L&T Electronic Trivector Meter	Accuracy	0.2s	0.2s	Location	Pooling station	Pooling station	Details	Feeder-3	Feeder-4	Meter Number	Main:17166983 Check: 17125600	Main: 17125701 Check: 17167005	Make & Model	L&T Electronic Trivector Meter	L&T Electronic Trivector Meter	Accuracy	0.2s	0.2s	Location	Pooling station	Pooling station
Details	Feeder-1	Feeder-2																													
Meter Number	Main:17166962 Check: 17166964	Main:17166967 Check: 17166977																													
Make & Model	L&T Electronic Trivector Meter	L&T Electronic Trivector Meter																													
Accuracy	0.2s	0.2s																													
Location	Pooling station	Pooling station																													
Details	Feeder-3	Feeder-4																													
Meter Number	Main:17166983 Check: 17125600	Main: 17125701 Check: 17167005																													
Make & Model	L&T Electronic Trivector Meter	L&T Electronic Trivector Meter																													
Accuracy	0.2s	0.2s																													
Location	Pooling station	Pooling station																													

QA/QC procedures to be applied	Meter Details:		
	Details	Feeder-5	Feeder-6
	Meter Number	Main:17167007 Check: 17167012	Main: 17167017 Check: 17167025
	Make & Model	L&T Electronic Trivector Meter	L&T Electronic Trivector Meter
	Accuracy	0.2s	0.2s
	Location	Pooling station	Pooling station
	Bulk meter at KPTCL substation (applicable for Project 1,2 &3):		
	Meter Details:		
	Details		
	Meter Number	Main: 17125678 Check: 17125587	
	Make & Model	L&T Electronic Trivector Meter	
	Accuracy	0.2s	
	Location	KPTCL Substation	
Project 4:			
Meter Details:			
Details	Old Meter (Till Date: 20-October-2022)	New Meter (From: 20-October-2022 onwards)	
Meter Number	Main: 17002897 Check: 17069213	Main: 22005307 Check: 22005311	
Make & Model (Old and New Meter)	L&T Electronic Trivector Meter	L&T Electronic Trivector Meter	
Accuracy	0.2s	0.2s	
Location	KPTCL Substation	KPTCL Substation	
The meter(s) shall be calibrated and maintained by the state utility as per their own schedule, and this frequency of meter calibration is not within the control of the Project Proponent.			
Calibration of electricity meters is carried out in-line with the Nation standard ⁵ which recommends at least once in 5 year calibration or whenever abnormal difference/inconsistency is observed between main meter and check meter. The details of the calibration are given below:			
Project	Energy Meter	Calibration date	Calibration due date
Project 1	Feeder 1 Main:17166962	10-December-2019	09-December-2024
		24-March-2022	23-March-2027

⁵ (Page number 12 of) http://www.aegcl.co.in/Metering_Regulations_Of_CEA_17_03_2006.pdf

		Check: 17166964		
		Feeder 2 Main:17166967	10-December-2019	09-December-2024
		Check: 17166977	24-March-2022	23-March-2027
	Project 2	Feeder 3 Main:17166983	10-December-2019	09-December-2024
		Check: 17125600	24-March-2022	23-March-2027
		Feeder 4 Main:17135701	10-December-2019	09-December-2024
		Check: 17167005	24-March-2022	23-March-2027
	Project 3	Feeder 5 Main:17167007	10-December-2019	09-December-2024
		Check: 17167012	24-March-2022	23-March-2027
		Feeder 6 Main:17167017	10-December-2019	09-December-2024
		Check: 17167025	24-March-2022	23-March-2027
	Project 1-3	Bulk meter Main:17125678	10-December-2019	09-December-2024
		Check: 17125587	24-March-2022	23-March-2027
	Project 4 (Old Meter details)	Old Meter Main: 17002897 Check: 17069213	12-May-2020	11-May-2025
	Project 4 (New meter details)	New Meter Main:22005307 Check: 22005311	20-October-2022	19-October-2027
Purpose of the data		Calculation of baseline emissions		
Calculation method		-		
Comments		The data would be archived electronically and maintained for the entire crediting period plus two years.		

4.3 Monitoring Plan

All the three wind projects in the bundle have entered into agreement with the respective WTG Suppliers for the operation and maintenance of WTGs. And the solar project has entered into agreement with the O&M contractor Vestas Wind Technology India Private Ltd (Wind), Aarudhra Wind Energy (p) Limited (Wind) & Siemens Gamesa Renewable Private Limited (Solar) for the operation and maintenance of the project. O&M contractor has provided a monthly report, which includes generation data, major breakdown events and machine availability. Project manager is

responsible for recording of monthly meter readings of export and import. Monthly power export and import data has been sent regularly to site in charge of each project separately.

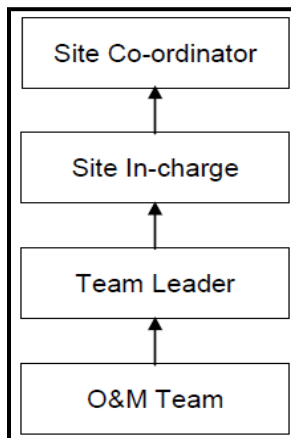
Major Breakdown details of wind project (Project 1,2,3)

Days from	Days to	WTG ID	Hours	Reason
02-Sep-21	14-Sep-21	BBW04	312	Gearbox highspeed intermediate gear failure
23-Sep-21	06-Oct-21	CTA40	336	Gearbox LSS teeth damaged
09-Oct-21	07-Nov-21	CTA40	720	Gearbox LSS teeth damaged
Total			1368	

There was no major breakdown witnessed in solar project (Project 4) during the monitoring period. The breakdown sheet for solar site is submitted and it doesn't have any major breakdown more than 24 hours as all the breakdown are minor (less than 12 hours).

Organizational structure and responsibilities or personnel:

The data for the project is compiled by the O&M Contractor and subsequently stored by the PP, the reporting and data flows as per the below mentioned flow chart starting from Site O&M team which monitors day to day operational data and monthly recording. The reporting responsibilities for the project are described as below;



The Site In-charge will be responsible for carrying out internal auditing and QA/QC. All the values from generation record has been checked with B-forms for consistency. In case there are any non-conformances identified. The Site In-charge investigate the error and revise the record to correct it. In any case where values have slightest of variation in different records the most conservative value have been taken in the project monitoring report.

Personal Training:

The training for operating and maintaining the plant has been provided to the O&M team whenever there would be necessity or any technological up gradation.

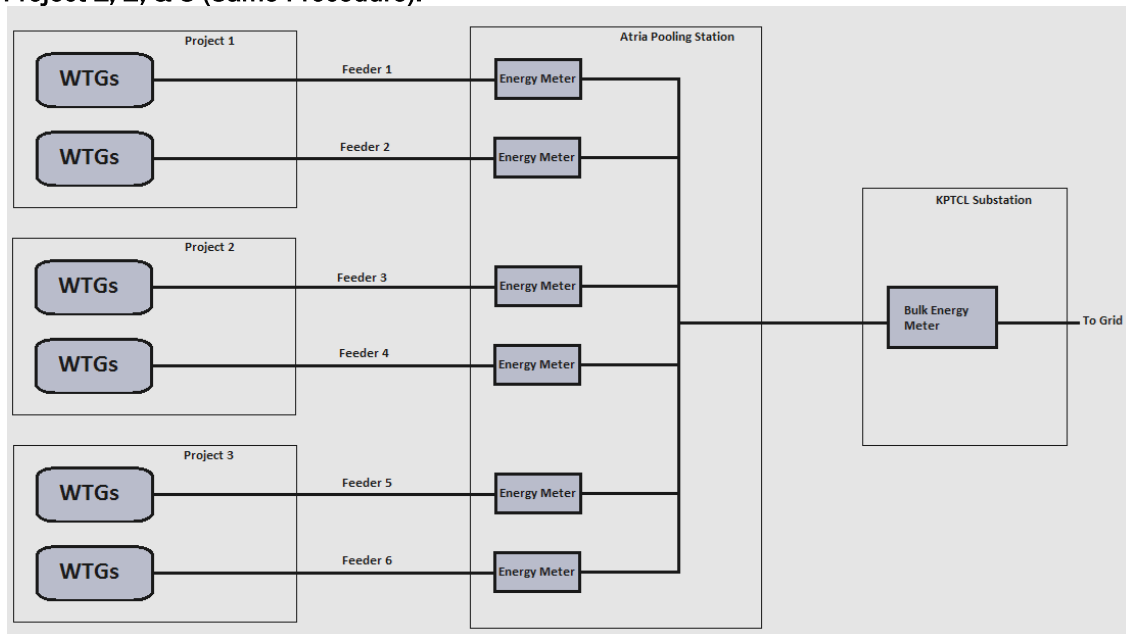
Emergency preparedness:

The meter readings are the only source for measuring energy generation. In case Main meter or Check meter is found to be outside the acceptable limits of accuracy or faulty or not functioning properly, it will be repaired, recalibrated or replaced as soon as possible. In the event that the Main meter is not in service as a result of maintenance, repairs or testing, the Check meter have been used for readings. In the event of both the main meter and check meter fails both meters will be calibrated immediately and corrections applied to the reading registered by the main meter to arrive at the correct reading of energy supplied for billing purpose for the period from last month's meter reading up to the current test. Billing for the period thereafter till the next monthly meter reading shall be as per the calibrated meter.

Data recording & archiving: The project proponent have maintained data both in electronic form and hard copies. The monitored data shall be archived till 2 years after the completion of crediting period.

Methods for measuring, recording, storing, aggregating, collating and reporting data and parameters

Project 1, 2, & 3 (Same Procedure):



The above diagram shows the metering arrangements for the wind power projects (project 1,2 & 3). Monthly Joint meter reading is taken from energy meters installed at each feeder at pooling station and bulk energy meter installed at the KPTCL substation by representative of DISCOM and O&M team/service provider (on behalf of the project proponent). It must be noted here that the meter readings as mentioned above shall be calculated as the product of meter multiplication factor and the difference of the current and previous meter readings. There are two different JMR statement will be prepared for the project

Bulk Meter JMR statement: Export & Import reading at the bulk meter installed at substation will be recorded in this.

Feeder JMR statement: Import & export reading of the energy meter reading installed at each feeder in the pooling station will be recorded. Also the net electricity supplied from each feeder will be calculated as below:

Net energy supplied = Feeder Export – Feeder Import – Transmission loss.

Calculation of Transmission loss:

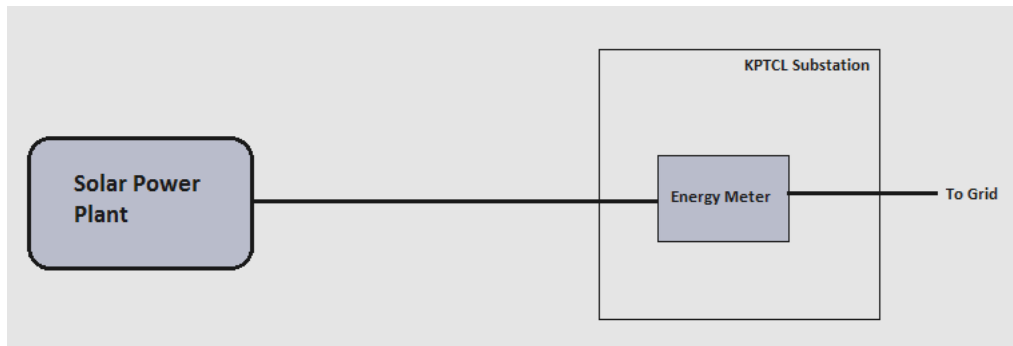
DISCOM will calculate percentage of transmission loss for each feeder every month. The total transmission loss between pooling station and KPTCL substation will be apportioned to each feeder based on the proportion of energy exported from each feeder for the respective month. Example of transmission loss for a month is given below:

Since only these three wind projects are connected to the bulk energy meter in KPTCL substation, the difference between export and import taken from 'Bulk meter JMR statement' shall be also directly taken for net electricity supplied by the three wind projects.

ATRIA WIND POWER (Basavana Bagewadi) PVT LTD				
PERCENTAGE OF TRANSMISSION LINE LOSSES				
MONTH : JUNE- 2021				
Sl. No.	MONTHLY GENERATION OF INDIVIDUAL METERING POINT	METER READINGS		
		33KV METERING POINTS	MAIN METER	CHECK METER
1	Y= M/S ATRIA WIND POWER (Basavana Bagewadi) Pvt Ltd, 220KV Line 01 Bulk meter	RR No : BGDIPP- 24	1,84,73,000	1,84,66,000
2	Y= M/S ATRIA WIND POWER (Basavana Bagewadi) Pvt Ltd, 220KV Line 01 Bulk meter	RR No : BGDIPP- 24G	1,85,50,000	1,85,36,000
3	X= M/S ATRIA WIND POWER (Basavana Bagewadi) Pvt Ltd, 33KV, F#1 Meter	RR No : BGDIPP-24A	62,90,400	62,90,400
4	X= M/S ATRIA WIND POWER (Basavana Bagewadi) Pvt Ltd, 33KV, F#2 Meter	RR No : BGDIPP-24B	61,15,200	61,15,200
5	X= M/S ATRIA WIND POWER (Bijapur-1) Pvt Ltd, 33KV, F#3 Meter	RR No : BGDIPP-24C	60,22,800	60,21,600
6	X= M/S ATRIA WIND POWER (Bijapur-1) Pvt Ltd, 33KV, F#4 Meter	RR No : BGDIPP-24D	58,28,400	58,28,400
7	X= M/S ATRIA WIND POWER (Chitradurga) Pvt Ltd, 33KV, F#5 Meter	RR No : BGDIPP-24E	64,65,600	64,68,000
8	X= M/S ATRIA WIND POWER (Chitradurga) Pvt Ltd, 33KV, F#6 Meter	RR No : BGDIPP-24F	65,46,000	65,44,800
		TOTAL	3,72,68,400	3,72,68,400
MAIN METER		CHECK METER		
Z= $\frac{(X - Y) \times 100}{(X)}$		Z= $\frac{(X - Y) \times 100}{(X)}$		
Z= $\frac{(3,72,38,400 - 3,70,23,000)}{3,72,68,400} \times 100$		Z= $\frac{(3,72,68,400 - 3,70,02,000)}{3,72,68,400} \times 100$		
Z= MAIN METER % LOSS = 0.658%		Z= CHECK METER % LOSS = 0.715%		
 M/S Atria Wind Power (Basavana Bagewadi) Pvt Ltd		 EXECUTIVE ENGINEER (Ele) O & M Div. HESCOM BASAVANA BAGEWADI		

The JMRs will be stored in Atria head office in hard and soft copies. During the verification, the net energy supplied to grid will be taken from the JMR. The period of storage of the monitored data will be 2 years after the end of crediting period or till the last issuance of VCU for the project activity whichever occurs later.

Project 4



The above diagram shows the metering arrangements for the solar power project (project 4). Monthly Joint meter reading is taken from energy meters installed at the KPTCL substation by representative of DISCOM and O&M team/service provider (on behalf of the project proponent). It must be noted here that the meter readings as mentioned above shall be calculated as the product of meter multiplication factor and the difference of the current and previous meter readings.

Import & export reading of the energy meter reading installed KPTCL substation will be recorded. Also, the net electricity supplied from the project will be calculated in the JMR as below:

$$\text{Net energy supplied} = \text{Export} - \text{Import}$$

The JMRs will be stored in Atria head office in hard and soft copies. During the verification, the net energy supplied to grid will be taken from the JMR. The period of storage of the monitored data will be 2 years after the end of crediting period or till the last issuance of VCUs for the project activity whichever occurs later.

Procedures for calibrating equipment:

The energy meters at the feeders are maintained and owned by KPTCL. Neither the project proponent nor the site personnel have any control over it. The meters are calibrated by KPTCL at least once in five years.

Policies for oversight and accountability:

The energy meter readings will be recorded by KPTCL in presence of project representatives. Meter reading of main meter and check meter are compared for any error in the meter or oversight in recording the meter reading. The JMR is issued by KPTCL and the project proponent does not have any control over it.

Procedures for internal auditing and QA/QC & Procedures for handling non-conformities:

The energy meters at the feeders are maintained and owned by state electricity board. Neither the project proponent nor the site personnel have any control over it. JMR also prepared by KPTCL and hence no internal audit is required on the monitoring.

Sampling approaches:

All the parameters are monitored 100%. No parameter is monitored on sampling basis.

5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

5.1 Baseline Emissions

As per description earlier under this document:

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

$EF_{grid,CM,y}$ is 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” (tCO2/MWh) (i.e, 0.9368 tCO2/MWh).

and;

$$EG_{PJ,y} = EG_{facility, y}$$

Net Electricity- Project wise:

Net electricity supplied to grid (MWh)					
Month	Project 1	Project 2	Project 3	Project 4	Total
Jul-21	13491	12985	14662	3633	44772
Aug-21	9842	9409	10538	4389	34179
Sep-21	9437	9337	10441	4191	33405
Oct-21	3381	3651	3889	4280	15201
Nov-21	4177	4345	5033	3175	16730
Dec-21	3925	3660	4143	4783	16511
Jan-22	4157	4205	4719	5671	18752
Feb-22	4645	4511	5034	5405	19596
Mar-22	5313	5200	5924	5497	21934
Apr-22	4561	3523	4803	5041	17928
May-22	10432	9959	11292	4489	36173
Jun-22	11237	10726	11995	4559	38517
Jul-22	14326	13841	15120	3834	47121
Aug-22	12130	11878	13007	3849	40865
Sep-22	7407	7274	8116	4432	27229
Oct-22	3295	3554	3957	4553	15359
Nov-22	3835	4149	4803	4335	17123
Dec-22	4639	4704	5761	4742	19846
Total	130,232	126,912	143,237	80,858	481,239

Project wise estimation of baseline emission reduction:

Month	Net Generation (MWh)	Emission Factor (tCO ₂ /MWh)	Baseline emissions* (tCO ₂ e) EG _{PJ,y} (MWh) x EF _{grid,CM,y} (tCO ₂ /MWh)
Project 1	130,232	0.9368	122,001
Project 2	126,912	0.9368	118,891
Project 3	143,237	0.9368	134,184
Project 4	80,858	0.9368	75,748
Total	479,235	0.9368	450,824

*Rounded down values

Vintage wise of baseline emissions:

Year	Net Electricity (MWh)	Grid Emission Factor tCO ₂ /MWh	Baseline Emissions* (tCO ₂) EG _{PJ,y} (MWh) x EF _{grid,CM,y} (tCO ₂ /MWh)
2021	160,798	0.9368	150,635
2022	320,441	0.9368	300,189
TOTAL	481,239	0.9368	450,824

*Rounded down values.

5.2 Project Emissions

The project activity involves in harnessing wind & solar power. So, the emissions from the project are zero. Solar panels are cleaned by the water pipe system arranged. Energy source for pumping water is auxiliary energy is already accounted in the ERs.

5.3 Leakage

No leakage emissions have been considered and hence the leakage emission is zero.

5.4 Net GHG Emission Reductions and Removals

As per the applied methodology, emission reductions are calculated as follows:

$$ER_y = BE_y - PE_y$$

Where,

ER_y = Emission Reduction in tCO₂e/year

BE_y = Baseline emission in tCO₂/year

PE_y = Project emissions in tCO₂e/year

Project wise emission reduction:

Project	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)
Project 1	122,001	0	0	122,001
Project 2	118,891	0	0	118,891
Project 3	134,184	0	0	134,184
Project 4	75,748	0	0	75,748
Total	450,824	0	0	450,824

Year wise emission reduction:

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)
Year 2021 (From 01-July-2021 to 31-December-2021)	150,635	0	0	150,635
Year 2022 (From 01-January-2022 to 31-December-2022)	300,189	0	0	300,189
Total	450,824	0	0	450,824

Comparison of estimated emission reduction with actual:

Details	Project 1	Project 2	Project 3	Project 4	Total
Start date of monitoring period	01-July-21	01-July-21	01-July-21	01-July-21	01-July-21
End date of Monitoring period	31-December-22	31-December-22	31-December-22	31-December-22	31-December-22
Total days of generation in the monitoring period	549	549	549	549	549
Estimated annual emission Reduction As per PD (tCO ₂ e)	94,274	92,195	91,675	52,439	332,778
Estimated ERs for this monitoring period (tCO ₂ e)	141,799	138,671	137,889	78,874	500,535
Actual Emission Reduction (tCO ₂ e)	122,001	118,891	134,184	75,748	450,824
Difference in Emission reduction	-13.96%	-14.26%	-2.69%	-3.96%	-9.93%

Summary:

<u>Ex-ante emissions reductions/removals</u>	<u>Achieved emissions reductions/removals</u>	<u>Percent difference</u>	<u>Justification for the difference</u>
500,535 tCO₂e	450,824 tCO ₂ e	-9.93%	Since actual emission reduction of all the projects are less than estimated emission reduction, no further justification is required

[illegible]

ATTENDANCE		CREATIVE INTEGRATED SERVICES PRIVATE LIMITED		Date: 31/12/2022																															
Name of the Unit: Afternoon Kigali Site		Month: 12		Year: 2022																															
Sl. No.	ID No.	NAME	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total	
1	9706	Kagame, K.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	31	
2	9707	Sikunda, H.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	31	
3	9708	Sikunda, H.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	18	
4	9710	Kamukama, N.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	30	
5	9711	Kamukama, N.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	26	
6	9712	Kamukama, N.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	26	
7	9713	Kamukama, N.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	22	
8	9714	Kamukama, N.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	29	
9	9715	Kamukama, N.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	26	
10	9716	Kamukama, N.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	29	
[LOT]																																			274
1	9717	Kamukama, N.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	07	
2	9718	Kamukama, N.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	05	
3	9719	Kamukama, N.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	04	
4	9720	Kamukama, N.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	04	
5	9721	Kamukama, N.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	02	
[LOT]																																			296

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The sample attendance sheet is submitted. Entire attendance sheet is uploaded in the google drive link for the same is https://drive.google.com/drive/folders/1JOSfS99e-Yk_rkvPRDIWnpsxiRZoIXaK