



WIND BASED POWER GENERATION BY MYTRAH ENERGY (INDIA) LIMITED (EKIESL- VCS-JANUARY-16-01)



Project title	Wind Based Power Generation by Mytrah Energy (India) Limited (EKIESL-VCS-January-16-01)
Project ID	VCS 1521
Monitoring period	01-July-2023 to 20-February-2024 (Inclusive of both date)
Original date of issue	26-September-2024
Most recent date of issue	30-November-2024
Version	03
VCS Standard Version	4.7
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PROJECT DETAILS

1.1 Summary Description of the Implementation Status of the Project

The purpose of the project activity is to generate electrical energy using renewable energy source (wind) for the purpose of captive utility. The project activity generates electricity using wind potential and converts it into kinetic energy using Wind turbines, which drives the alternators to generate energy. The generated electricity is exported to the regional grid system which is under the purview of the Southern grid of India (Now INDIAN Grid).

This project activity involves the installation of Wind Power Projects. The total installed capacity of the project is 233.1 MW; which involves operation of: -

1) 156 Wind Turbine Generators (WTGs) with capacity of 0.85 MW each located at Karnataka (112 WTGs) Andhra Pradesh (44 WTGs) implemented by Mytrah Vayu Krishna Private Limited.

2) 67 Wind Turbine Generator (WTGs) of 1.5 MW implemented by Mytrah Vayu (Manjira) Private Limited Tamil Nadu state in India.

These are the subsidiary companies of Mytrah Energy (India) Limited. However, the project is promoted by Mytrah Energy (India) Limited, which is also the project proponent in the project activity.

The commissioning dates of the project activity is mentioned in APPENDIX 3: Date of Commissioning. The first WTG was commissioned on 21-February-2014 and last WTG was commissioned on 26-February-2015.

The power produced displaces an equivalent amount of power from the grid, which is fed mainly by fossil fuel fired power plants. Hence, it results in reduction of GHG emissions.

The Project activity is a new facility (Greenfield) and the purpose of the project activity is to generate electricity by the utilization of wind velocity, and selling the generated electrical energy from 132.6 MW project implemented by Mytrah Vayu Krishna Private Limited to respective state utilizes under the Indian Grid. Further energy generation from 100.5 MW wind mill project implemented by Mytrah Vayu (Manjira) Private Limited is for captive utilization through state grid, under Tamil Nadu state. In this process there is no consumption of any fossil fuel and hence the project does not lead to any greenhouse gas emissions. Thus, electricity would be generated through sustainable means without causing any negative impact on the environment.

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The current monitoring period is 9th verification from 01-July-2023 to 20-February-2024 (Including both the dates). The electricity generated during the current monitoring period is 218,962.65 MWh and total GHG emission reduction achieved is 214,952 tCO₂e.

1.2 Audit History

Audit type	Period	Program	Validation/verification body name	Number of years
Validation	21-February-2014-- 20-February-2024	VCS	EPIC Sustainability Services Private Limited	Ten years
Verification	21-February-2014 - 01-April-2016	VCS	EPIC Sustainability Services Private Limited	Two years one month twelve days
Verification	02-April-2016 - 01-May-2018	VCS	LGAI Technological Center S.A. (Applus+ Certification)	Two years one month
Verification	02-May-2018 - 01-August-2019	VCS	LGAI Technological Center S.A. (Applus+ Certification)	One year three months
Verification	02-August-2019 - 31-March-2020	VCS	LGAI Technological Center S.A. (Applus+ Certification)	Seven months thirty days
Verification	01-April-2020 - 31-May-2021	VCS	KBS Certification Services Pvt. Ltd.	One year two months
Verification	01-June-2021 - 28-February-2022	VCS	LGAI Technological Center S.A. (Applus+ Certification)	Nine months
Verification	01-March-2022 - 31-March-2022	VCS	LGAI Technological Center S.A. (Applus+ Certification)	One month
Verification	01-April-2022 - 30-June-2023	VCS	VKU Certification Pvt. Ltd.	one year three months
Verification	01-July-2023 - 20-February-2024	VCS	LGAI Technological Center S.A.	Seven months twenty days

1.3 Sectoral Scope and Project Type

Complete the table below with information relevant for non-AFOLU projects:

Sectoral scope ¹	01- Energy (renewable/non-renewable)
Project activity type	I – Energy industries (renewable/non-renewable)

1.4 Project Proponent

Organization name	JSW Neo Energy Limited
Contact person	Mr. Someswara Prasad
Title	AGM
Address	JSW Energy 8001, Q city, Nanakramguda, Gachibwli, Hyderabad, Telengana
Telephone	+91 9663376046
Email	someswaraprasad.kathrikimatam@jsw.in

1.5 Other Entities Involved in the Project

Organization name	EKI Energy services limited
Role in the project	Carbon consultant
Contact person	Vipul Sahu
Title	Project Manager
Address	Office No. 201, Plot 48, Scheme 78, Part 2 Vijay Nagar, Near brilliant Convention Centre, Indore- 452010 Madhya Pradesh, India
Telephone	+91-9111112889
Email	registry@enkingint.org , vipul.sahu@enkingint.org

1.6 Project Start Date

Project start date	21-February-2014
Justification	As per VCS standard Version 4.7, the start date for a non-AFOLU project is the date on which the project began generating GHG emission reductions or removals. So, the earliest commissioning

¹ Projects, activities, or methodologies may be developed under any of the 16 VCS sectoral scopes: <https://verra.org/programs/verified-carbon-standard/vcs-program-details/#sectoral-scopes>

date of the project activity is considered as the start date of the project activity.

1.7 Project Crediting Period

Crediting period	☐ Seven years, twice renewable ☐ Ten years, fixed ☒ Other (10 years twice renewable as per approved PROJECT DESCRIPTION Version 2 Dated 10-February-2016)
Start and end date of first or fixed crediting period	21-February-2014 to 20-February-2024 (Inclusive of Both Date)

1.8 Project Location

The location of the project activity is as such –

S No.	Project site	Address
1.	Vagrai	Manakadavu, Ponnivadi, Nallampalayam, Kongoor, Alampalayam, Vellaviputhur, Paruthiyur, Koothampoondi, Pungamuthur, Appiyampatti Taluka: - Dharapuram, Ottanchatiram, Dharapuram District: - Tirupur and Dindigul, Tamil Nadu India
2.	Burgula	Village Burgula, District: - Kurnool, Andhra Pradesh, India
3.	Savalsung	Village: Savalsang, Kannuru, Kolurgi, Domnal, Inchageri, Mahaveeranagar, Jigagivani, Hadalasang. District: Bijapur, Karnataka, India

The geo-coordinates of each WTG are as such –

For Tamil Nadu

S No.	Machin ID	Feeder Nos.	Latitude (N)	Longitude (E)
1	KOO-518	Feeder 9	10.69948341	77.6882558
2	KOO-1359		10.66563968	77.65962324
3	APY-241	Feeder 5	10.65021639	77.64901256
4	APY-416		10.67020783	77.62907088
5	PAR-09		10.66760795	77.6115463
6	PON-534		10.68803933	77.59283778

7	PON-1043		10.68473981	77.60821209
8	NAL-119	Feeder 2	10.7208402	77.58716885
9	NAL-81	Feeder 5	10.72735208	77.58532376
10	NAL-57		10.72995488	77.57654703
11	MAN-210	Feeder 9	10.69502488	77.57087056
12	MAN-898		10.67605028	77.57193498
13	MAN802		10.67881165	77.55364153
14	KON-556	Feeder 4	10.6625153	77.55755231
15	KON-563		10.65892169	77.56165127
16	KON-590		10.65451458	77.55915715
17	KON-640		10.65735343	77.55342588
18	KON-658		10.65283678	77.54550489
19	KON-621		10.64871125	77.55058605
20	KON-501	Feeder 3	10.66499329	77.52838599
21	ALA-1639	Feeder 8	10.76318948	77.61626788
22	ALA-1946		10.76326328	77.62570771
23	NAL-434	Feeder 6	10.73760525	77.62759636
24	KON-234		10.64497336	77.52904287
25	PAR-50	Feeder 5	10.67281499	77.60039121
26	MAN-625	Feeder 3	10.67788177	77.53579195
27	MAN-604	Feeder 2	10.68348459	77.53683425
28	ALA-2301	Feeder 8	10.75886068	77.63132567
29	ALA-1569		10.75463624	77.6265833
30	ALA-2352		10.74110802	77.63007535
31	KOO-1157	Feeder 2	10.68178844	77.68985383
32	PON-1081		10.68348435	77.61787566
33	MAN-940	Feeder 9	10.66893415	77.56925334
34	PON-1565		10.69642995	77.65552456
35	PON-1568	Feeder 6	10.69303118	77.6535857
36	VEL-1936	Feeder 8	10.73813524	77.68816772
37	ALA-1618	Feeder 9	10.75944434	77.6049963

38	PON-908	Feeder 8	10.71374814	77.62914446
39	PON-1203	Feeder 6	10.69438029	77.63405677
40	MAN-963	Feeder 7	10.66329726	77.56688572
41	PON-1021	Feeder 6	10.68974267	77.61070314
42	KOL-652	Feeder 5	10.7374949	77.57384237
43	PON-4		10.71893637	77.58140577
44	MAN-828	Feeder 9	10.67012558	77.55507631
45	KON-618	Feeder 3	10.6446245	77.54867946
46	KON-395		10.64247133	77.52219864
47	KON-451	Feeder 2	10.65236689	77.52989861
48	APA-84	Feeder 3	10.64182591	77.56167279
49	PUN-270		10.60746419	77.54929363
50	PUN-34		10.63256556	77.56924986
51	VEL-1702	Feeder 9	10.75513671	77.69153445
52	KAL-093	Feeder 8	10.76334694	77.69804901
53	ALA-2290		10.76527764	77.63428714
54	PON-775	Feeder 6	10.71842551	77.61554436
55	ALA-2260		10.75628612	77.6376538
56	MET-164	Feeder 7	10.61592339	77.56684556
57	NAL-445		10.73391078	77.63495601
58	KOO-1036	Feeder 6	10.68513012	77.6699966
59	VEL-1540		10.75739179	77.66053403
60	KOO-1174	Feeder 7	10.67220444	77.68962334
61	KOO-1000		10.67217045	77.67146366
62	PON-1304		10.70991951	77.63314951
63	APY-247		10.65429232	77.65102078
64	KON-411		10.64434508	77.51504326
65	KOO-581		10.69196175	77.68144785
66	VEL-2119		10.72574112	77.64794111
67	ALA-1385		10.71111522	77.64877317

For Andhra Pradesh

S No.	Location No.	Feeder Nos.	Latitude (N)	Longitude (e)
1	508	Feeder 1	15.154461	77.922135
2	510		15.157268	77.921522
3	511		15.158979	77.923322
4	513		15.161872	77.923761
5	514		15.163549	77.923292
6	515		15.165388	77.922815
7	516		15.166574	77.921892
8	517		15.167997	77.920787
9	518		15.16929	77.919977
10	519		15.170968	77.918066
11	520		15.172449	77.918783
12	528	Feeder 2	15.185218	77.923655
13	529		15.186921	77.923976
14	530		15.189489	77.925118
15	531		15.190881	77.925026
16	532	Feeder 3	15.206692	77.937622
17	533		15.208101	77.938972
18	534		15.209818	77.940958
19	535		15.211871	77.942781
20	536		15.215178	77.947515
21	537		15.216917	77.949166
22	538		15.218416	77.950564
23	539		15.221591	77.953603
24	540		15.225099	77.957372
25	541		15.226569	77.958248
26	542		15.228387	77.959399
27	543		15.229998	77.960501
28	545		15.223820	77.956471
29	546	Feeder 3	15.213598	77.946804

30	547		15.204944	77.93730
31	551	Feeder 2	15.188055	77.924987
32	509	Feeder 1	15.155886	77.920862
33	512		15.160386	77.923416
34	521	Feeder 2	15.174326	77.91959
35	522		15.175897	77.92030
36	523		15.177475	77.921177
37	524		15.179081	77.921943
38	525		15.180875	77.922916
39	526		15.182457	77.923515
40	527		15.183845	77.923022
41	544	Feeder 3	15.231485	77.961368
42	548		15.202938	77.936743
43	549		15.201556	77.936035
44	550	Feeder 2	15.192441	77.927995

For Karnataka

S No.	Machine ID	Feeder Nos.	Latitude (N)	Longitude (E)
1	SVG15	Feeder 01	17.1604	75.717
2	SVG16		17.1588	75.7173
3	SVG17		17.1582	75.7219
4	SVG18		17.1568	75.7226
5	SVG19		17.1546	75.7241
6	SVG20		17.1531	75.7245
7	SVG22		17.151	75.7408
8	SVG23		17.1477	75.7429
9	SVG25		17.1441	75.7392
10	SVG26		17.1429	75.7406
11	SVG27		17.1406	75.7408
12	SVG28		17.1332	75.7316
13	SVG29		17.1316	75.7308
14	SVG30	Feeder 02	17.1507	75.7137

15	SVG31		17.1493	75.7122
16	SVG32		17.1475	75.7111
17	SVG33		17.146	75.7116
18	SVG34		17.1434	75.7105
19	SVG35		17.1421	75.7089
20	SVG37		17.139	75.713
21	SVG39		17.1448	75.715
22	SVG40		17.1432	75.7164
23	SVG41		17.1415	75.7166
24	SVG42		17.1395	75.7167
25	SVG43		17.1368	75.7175
26	SVG47		17.1304	75.7266
27	SVG48		17.1497	75.742
28	SVG49		17.1479	75.7089
29	SVG50		17.1233	75.734
30	SVG51		17.1217	75.7234
31	SVG52		17.12	75.7237
32	SVG53		17.1184	75.7267
33	SVG54		17.1395	75.7064
34	SVG57		17.1086	75.7305
35	SVG58		17.1066	75.7298
36	SVG60		17.1007	75.7422
37	SVG62		17.0982	75.7389
38	SVG63		17.0949	75.7388
39	SVG64		17.0968	75.7364
40	SVG65		17.1013	75.7321
41	SVG66		17.0997	75.7317
42	SVG68	Feeder 03	17.1176	75.6977
43	SVG74		17.1105	75.7321
44	SVG75		17.1099	75.7232
45	SVG76		17.108	75.7233

46	SVG83		17.1248	75.7104
47	SVG84		17.1231	75.7170
48	SVG85		17.1179	75.7158
49	SVG88		17.0999	75.7254
50	SVG90		17.1005	75.7082
51	SVG91		17.0986	75.7059
52	SVG94		17.0945	75.7117
53	SVG96	Feeder 04	17.0976	75.7314
54	SVG97		17.0918	75.7302
55	SVG101		17.1176	75.706
56	SVG103		17.0897	75.697
57	SVG105		17.1145	75.7027
58	SVG106		17.0986	75.6774
59	SVG107		17.097	75.678
60	SVG108		17.0953	75.6778
61	SVG109		17.0937	75.6776
62	SVG110		17.0921	75.6772
63	SVG111		17.0906	75.6761
64	SVG112		17.089	75.6753
65	SVG118		17.0872	75.6758
66	SVG119		17.0814	75.6768
67	SVG120		17.0798	75.678
68	SVG122		17.0903	75.6907
69	SVG123		17.0879	75.6967
70	SVG125		17.1163	75.7161
71	SVG126		17.0909	75.7251
72	SVG128		17.0795	75.6956
73	SVG129		17.0766	75.6981
74	SVG131	Feeder 05	17.0736	75.7047
75	SVG132		17.0716	75.7049
76	SVG134		17.081	75.7148

77	SVG135		17.0787	75.7162
78	SVG136		17.0755	75.717
79	SVG137		17.0737	75.7168
80	SVG138		17.0859	75.7285
81	SVG139		17.085	75.7305
82	SVG140		17.0814	75.7319
83	SVG141		17.0793	75.7336
84	SVG143		17.0744	75.7359
85	SVG144		17.0722	75.7368
86	SVG145		17.0701	75.7373
87	SVG147		17.0636	75.74
88	SVG148		17.0654	75.7397
89	SVG150		17.0827	75.7137
90	SVG153		17.0691	75.7396
91	SVG154		17.1383	75.7416
92	SVG155	Feeder 06	17.1144	75.7334
93	SVG156		17.1128	75.7333
94	SVG157		17.1044	75.7275
95	SVG165		17.0963	75.7114
96	SVG166		17.094	75.7293
97	SVG168		17.0753	75.692
98	SVG170		17.1415	75.7129
99	SVG172		17.0956	75.7194
100	SVG173		17.0681	75.7294
101	SVG174		17.0792	75.7598
102	SVG175		17.0763	75.76
103	SVG176		17.0777	75.7537
104	SVG177		17.0747	75.7526
105	SVG178		17.0669	75.7516
106	SVG179		17.0635	75.7549
107	SVG180		17.0616	75.7544

108	SVG193		17.0623	75.7469
109	SVG194		17.064	75.7469
110	SVG195		17.0707	75.762
111	SVG196		17.0725	75.7623
112	SVG197		17.1227	75.7171

1.9 Title and Reference of Methodology

Type (methodology, tool or module).	Reference ID, if applicable	Title	Version
Methodology	ACM0002	Grid-connected electricity generation from renewable sources (Sectoral Scope: 01, EB 81, Annex 9)	16.0 ²
Tool	TOOL01	Tool for the demonstration and assessment of additionality (Version 07.0.0, EB 70, Annex 8)	07.0.0 ³
Tool	TOOL07	Tool to calculate the emission factor for an electricity system (- Version 05.0, EB 87, Annex 09)	05.0 ⁴

1.10 Double Counting and Participation under Other GHG Programs

1.10.1 No Double Issuance

Is the project receiving or seeking credit for reductions and removals from a project activity under another GHG program?

☐ Yes ☒ No

1.10.2 Registration in Other GHG Programs

Was the project registered or seeking registration under any other GHG programs?

☐ Yes ☒ No

² <https://cdm.unfccc.int/methodologies/DB/EY2CL7RTEHRC9V6YQHLAR6MJ6VEU83>

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

⁴ <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-07-v5.0.pdf>

1.11 Double Claiming, Other Forms of Credit, and Scope 3 Emissions

- Emission Trading Programs and Other Binding Limits: The PP has not applied this project in any Emission Trading Programs and other Binding Limits.
- Other Forms of Environmental Credit: The PP has not applied this project in any other form of environmental credits other than Tamil Nadu 45 MW WTGs. The electricity generated from 45 MW REC component of Tamil Nadu are not included for VCU calculations to avoid any double accounting. The HTSC numbers DRA 01,03,04,05,06,07,08,09,12,13,15,17,18,21,22,23,24,25,26,27,31,32,33,43,44,46,47,48,49,54 (TOTAL 30 WTGs of 1.5 MW from Tamil Nadu site) are availing REC. Thus electricity generated from these WTGs having REC component are not considered for VCU calculations for current complete monitoring period. Furthermore, the project activity is not availing any benefits from CDM/GS/GCC/UCR/RECs (except from mentioned above) mechanism which can be confirmed from the links below: https://www.recregistryindia.nic.in/index.php/publics/accredited_regens
- The project Activity is a wind power project and does not involve any supply chain in the project such as manufacturers, wholesalers, distributors and retailers. So, no indirect upstream and downstream GHG emissions are involved in the project activity. Thus, the Scope 3 emissions are not applicable in this project activity.

1.11.1 No Double Claiming with Emissions Trading Programs or Binding Emission Limits

Are project reductions and removals or project activities also included in an emissions trading program or binding emission limit? See the *VCS Program Definitions* for definitions of emissions trading program and binding emission limit.

☐ Yes ☒ No

1.11.2 No Double Claiming with Other Forms of Environmental Credit

Has the project activity sought, received, or is planning to receive credit from another GHG-related environmental credit system? See the *VCS Program Definitions* for definition of GHG-related environmental credit system.

☐ Yes ☒ No

1.11.3 Supply Chain (Scope 3) Emissions

Do the project activities affect the emissions footprint of any product(s) (goods or services) that are part of a supply chain?

☐ Yes ☒ No

1.12 Sustainable Development Contributions

The proposed project activity involves the installation of Wind Power Projects. The total installed capacity of the project is 233.1 MW; which involves operation of 156 Wind Turbine

Generators (WTGs) with capacity of 0.85 MW located at Karnataka, Andhra Pradesh and Tamil Nadu. The Wind power or wind energy describes the process by which the wind is used to electricity. Wind turbines convert the kinetic energy in the wind into mechanical power and further converted to electrical energy. The project is contributing in sustainable development by generating electricity and reduction of CO₂ emissions due to implementation of project activity and generates employment to the local stakeholders. Through Project activity economic development has been achieved in the project location by creating opportunities of employment during the project lifetime. Project owner monitors the carbon emission with help of the record of electricity generated.

This project contributes to the following Sustainable Development Goals (SDGs):

SDG 7: By generating electricity from wind energy, the project ensures the supply of affordable, clean energy. SDG 8: It creates both skilled and unskilled employment, promoting full and productive employment and decent work. & SDG 13: The project reduces greenhouse gas (GHG) emissions by utilizing wind energy, thus reducing reliance on fossil fuel-based electricity generation.

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 218,962.65 MWh of renewable electricity has been supplied to the INDIAN grid during the reported monitoring period.	Monitoring period	Contribution (MWh)
					21-February-2014 to 01-April- 2016	566,713
					02-April-2016 to 01 to May-2018	714,121
					02-May-2018 to 01 to August 2019	496,789
					02-August-2019 to 31-March-2020	171,511
					01-April -2020 to 31-May-2021	312,899
					01-June-2021 to 28-February-2022	245,786
					01-March-2022 to 31-March-2022	13,130
					01-April-2022 to 30-June-2023	375,917.13
					01-July-2023 to 20-February-2024	218,962.65
					Total	3,115,829.78

2	8.6	8.6.1 Proportion of youth (aged 15-24) not in education, employment or training	Implemented activities to increase	84 Peoples employed during reporting period and 30 trainings are given in the reported monitoring period.	Project activity has given employment to 178 (94+84) Peoples till date. 60 (30+30) Number of trainings are given since commissioning.	
3	13.0	Tonnes of greenhouse gas emissions avoided or removed.	Implemented activities to increase	By supplying the 218,962.65 MWh of electricity 214,952 tCO ₂ e is avoided in the reported monitoring period.	Monitoring period	Contribution (tCO ₂)
					21-February-2014 to 01-April- 2016	556,341
					02-April-2016 to 01 to May-2018	701,051
					02-May-2018 to 01 to August 2019	487,697
					02-August-2019 to 31-March-2020	168,371
					01-April -2020 to 31-May-2021	307,153
					01-June-2021 to 28-February-2022	241,287
					01-March-2022 to 31-March-2022	12,889
					01-April-2022 to 30-June-2023	369,034
					01-July-2023 to 20-February-2024	214,952
					Total	3,058,775

1.13 Commercially Sensitive Information

There is no commercial sensitive information that has been excluded from the public version of the monitoring period.

2 SAFEGUARDS AND STAKEHOLDER ENGAGEMENT

2.1 Stakeholder Engagement and Consultation

2.1.1 Stakeholder Identification

Please refer to the registered PD version 02 dated 10-February-2026 section 6 Stakeholder Comments.

The web link of the same is given below: <https://registry.verra.org/app/projectDetail/VCS/1521>

Stakeholder Identification	Since the local stakeholder consultation was conducted prior to the implementation of the project activity during validation. The consultation process involved relevant stakeholders such as the local village head, villagers, NGOs, PP representative and Local Government representatives. The local stakeholder consultation is held as such- <table><tr><th>Sl. No.</th><th>State</th><th>Meeting date</th></tr><tr><td>1</td><td>Tamil Nadu</td><td>23-October-2012 24-October-2012 25-October-2012</td></tr><tr><td>2</td><td>Andhra Pradesh</td><td>22-April-2013</td></tr><tr><td>3</td><td>Karnataka</td><td>21-April-2013</td></tr></table>	Sl. No.	State	Meeting date	1	Tamil Nadu	23-October-2012 24-October-2012 25-October-2012	2	Andhra Pradesh	22-April-2013	3	Karnataka	21-April-2013
Sl. No.	State	Meeting date											
1	Tamil Nadu	23-October-2012 24-October-2012 25-October-2012											
2	Andhra Pradesh	22-April-2013											
3	Karnataka	21-April-2013											
Legal or customary tenure/access rights	Not Applicable, There are no legal or customary tenure/access rights to territories and resources, including collective and conflicting rights held by stakeholders, indigenous people (Ips), Local communities (LCs), and customary rights holders with regards to the project. The project is wind energy generation and it is established on the project proponent's land.												

Stakeholder diversity and changes over time	Stakeholders identified for this project activity are diverse in nature – in terms of socio-economic status, age and gender wise and the diversity is unlikely to change over time.
Expected changes in well-being	Expected changes 1. Economic well-being – The project activity is likely to provide employments to the locality thus economic well beings are expected. 2. Environmental well-being – As this project activity reduces the dependence on fossil fuels and conserves natural resources which are on the verge of depletion. Due to its zero emission the Project activity also helps in avoiding significant amount of GHG emissions and specific pollutants like SO_x, NO_x, and SPM associated with the conventional thermal power generation facilities.
Location of stakeholders	The location of the stakeholder is nearby villages of the project activity. The LSC is conducted in below villages 1. Burgula 2. Salvasang 3. Vagarai
Location of resources	Not Applicable. There no the location of territories and resources which stakeholders own or to which they have customary access.

2.1.2 Stakeholder Consultation and Ongoing Communication

Ongoing consultation	Stakeholders' consultation is a continuous process and hence a feedback register is kept at the project site office where any stakeholder can come and share his/her feedback. The feedback irrespective of the type is taken care by PP with utmost priority.
Date(s) of stakeholder consultation	(Initial LSC conducted at the time of registration) For Tamil nadu 23-October-2012

	24-October-2012 25-October-2012 For Andhra Pradesh 22-April-2013 For Karnataka 21-April-2013
Communication of monitored results	the meeting was outlined towards making aware local stakeholders including local community, local administration representatives, NGOs working for environmental cause etc., about the project activity that involves electricity generation using wind produced by wind plant with the primary objective of reducing emissions of GHGs in compared to pre-project or baseline scenario.
Consultation records	Minutes of meeting from LSH, Invitation letter
Stakeholder input	The feedbacks/comments received from stakeholders were quite positive and no negative comments were received. The questions asked by stakeholders were only on process and these are explained by PP representatives

2.1.3 Free, Prior, and Informed Consent

Consent	There are no ongoing or unresolved conflicts related to the project, as a comprehensive stakeholders meeting was conducted before the initiation of project activities. All relevant stakeholders were invited to participate through formal invitations and were encouraged to raise any concerns or questions. The project proponent addressed all queries during the meeting, ensuring that any potential issues were resolved before the project began. As a result, the project does not exacerbate or influence the outcomes of any unresolved conflicts, as it was designed with transparency and neutrality, ensuring all stakeholders' concerns were adequately addressed and mitigated in advance.
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Outcome of FPIC	The project has not encroached on land, relocated people, or caused any physical or economic displacement. All necessary assessments and consultations were conducted to ensure compliance with legal requirements, and no individuals or communities have been displaced by the project.
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2.1.4 Grievance Redress Procedure

Grievances received	Resolution and outcome
No grievances received	The project owner has operating complaint procedure. The PP has kept the register on plant site office for logging the ongoing communication or any grievance from the stakeholder which is easily accessible to the all stakeholders. This procedure of ongoing communication log & addressal is used for the project. No action required as no grievance received for the current monitoring period 01-July-2023 - 20-February-2024.

2.1.5 Public Comments

Summary of comments received	Actions taken
No comments received	No action required as no comments were received.

2.2 Risks to Stakeholders and the Environment

2.2.1 Management Experience

The management team of the project proponent has significant expertise and experience in implementing similar project activities, including community engagement. There are no new entities involved in the project's design or implementation, ensuring continuity and stability within the project's management. The team has a proven track record of managing construction, operations, and community engagement, with a particular focus on environmental and social aspects. This includes overseeing registration, monitoring, measurement, reporting, and review processes.

The project team operates within an organizational structure approved by the board members and consists of professionals with diverse expertise in environmental management, data handling, and project management. This combined experience ensures the effective implementation and monitoring of the project, fully compliant with Verra requirements.

In case there are any areas where additional experience is needed, the project proponent has the necessary internal and external resources to address these gaps and ensure successful project delivery.

2.2.2 Risk assessment

	Risk identified	Mitigation or preventative measure(s) taken
Natural and human-induced risks to stakeholders' wellbeing	No risk identified	The project proponent adheres to the environmental and social performance standards set by the Indian government. A briefing was conducted for stakeholders to inform them about the project, and safety concerns were addressed during the consultation meetings. The project is located in a remote area, posing no risks to stakeholder well-being. Despite the location, the proponent has established a policy for workplace safety, with an emergency plan and first aid management available at the plant. It has been confirmed that the local community has not experienced any adverse impacts, and no grievances have been raised.
Risks to stakeholder participation	No risk identified	There are no exclusions, lack of communications or barriers in the project activity that might prevent stakeholders from engaging or participating.
Working conditions	Risk identified	Regarding the working and safety procedures: Accident at work: implementing permit to work, identify the hazard, risk and mitigation, tools required (working at height, lifting and hoist). Fire hazard & emergency condition: implementing emergency response procedure, fire extinguisher inspection. Site safety: plant security and visitor procedure Unsafety action: Internal audit procedure Waste spill: scheduled waste management Accident, incident: Reporting, first aid treatment.

Safety of women and girls	No risk identified	As the safety procedures implemented for each employee as described above, respect human rights, follow all the applicable laws and regulation.
Safety of minority and marginalized groups, including children	No risk identified	HR policies are in place and also the company follows the statutory rules which ensures Safety of minority and marginalized groups, including children. Child labor is prohibited in the project plant.
Pollutants (air, noise, discharges to water, generation of waste, and release of hazardous materials and chemical pesticides and fertilizers)	No risk identified	Noise Pollution: There is some noise generated by the wind turbine, but it remains within the permissible limits of environmental law, indicating that the impact is controlled and compliant with regulations. Air Pollution: There is no risk of air pollutants being emitted from the wind turbine. Discharges to Water: No discharges to water bodies are anticipated, which suggests minimal to no risk of water pollution. Generation of Waste: The turbine operation does not generate significant waste. Hazardous Materials: No hazardous materials or chemicals, such as pesticides or fertilizers, are released as part of the wind turbine's operation.

2.3 Respect for Human Rights and Equity

2.3.1 Labor and Work

	Risks identified ⁵	Mitigation or preventative measure(s) taken
Discrimination	No risk identified	During the monitoring period, all work and labor practices will be conducted fairly and equitably, with a commitment to non-discrimination.
Sexual harassment	No risk identified	There is a HR policy, that no sexual harassment will occur related to work and labor during the monitoring period

⁵ The identified risks and commensurate mitigation or preventative measure(s) for forced labor, child labor, and human trafficking, must be inclusive of staff and contracted workers employed by third parties.

Gender equity in labor and work	No risk identified	PP provides equal opportunities in the context of gender equity and pay for labor and work
Forced labor	No risk identified	PP has implemented HR policy where forced labour is strictly prohibited as per labour law.
Child labor	No risk identified	PP does not provide employment to child labor and follows the Indian labour law on child labour prohibition.
Human trafficking	No risk identified	PP does not use victims of human trafficking and is not involved in any such kind of activities.

2.3.2 Human Rights

Risks identified	Mitigation or preventative measure(s) taken
No risk identified	There is no any risk related to recognizing, respecting, and promoting the protection of the rights of IPs, LCs, and customary rights holders in line with applicable international human rights law, and the United Nations Declaration on the Rights of Indigenous Peoples and ILO Convention 169 on Indigenous and Tribal Peoples. PP has taken FPIC from the Local stakeholders before implementing the project activity.

2.3.3 Indigenous Peoples and Cultural Heritage

Risks identified	Mitigation(s) or preventative measure taken
No risk identified	The project activity is implemented on the Projects owner's land; hence, no Indigenous Peoples tangible & cultural heritage has been hampered for the project activity. However, PP is committed to protect regional as well as national cultural heritage.

2.3.4 Property Rights

Risks identified	Mitigation or preventative measure(s) taken
No risk identified	The project activity is implemented on Project owners land and PP is committed to protecting and preserving the property rights of IPs, LCs, and customary rights holders, and to protecting legal or customary tenure/access rights to territories, property, and resources.

2.3.5 Benefit Sharing

Summary of the benefit sharing plan	Not applicable, Since the benefits of the carbon credits lies with the project proponent. Also, the section 2.3.4 property rights of the monitoring report are not applicable.
Benefit sharing during the monitoring period	Not Applicable since PP is the sole owner of the revenue generated from the project activity.

2.4 Ecosystem Health

	Risk identified	Mitigation or preventative measure(s) taken during the monitoring period
Impacts on biodiversity and ecosystems	No risk identified	This project activity doesn't result in adverse effects; instead, it positively impacts on the biodiversity and ecosystem by decreasing air pollution and mitigating climate change.
Soil degradation and soil erosion	No risk identified	This project is a wind power project and does not result adverse effects on Soil degradation and soil erosion.
Water consumption and stress	No risk identified	This project activity is wind power project and does not have any negative impacts on water consumption or does not lead to water stress in any way.

2.4.1 Rare, Threatened, and Endangered species

Species or habitat	The project is not located in or adjacent to habitat for rare, threatened or endangered species, hence no species is likely to be harmed.
Areas needed for habitat connectivity	There is no area needed for habitat connectivity as the project activity is not located in or adjacent to habitat for rare, threatened or endangered species.

	Risks identified	Mitigation or preventative measure(s) taken
Habitats for rare, threatened, and endangered species	No risk identified	The project is not located in or adjacent to habitat for rare, threatened or endangered species, hence no species is likely to be harmed

Areas for habitat connectivity	No risk identified	There is no area needed for habitat connectivity as the project activity is not located in or adjacent to habitat for rare, threatened or endangered species.
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2.4.2 Introduction of species

The section 2.4.2 on Species Introduced and Classification is not applicable because no new species have been introduced as part of this project at the time of validation and current verification. Therefore, no justification for use is required, and there are no adverse effects or mitigation measures to address.

Species introduced	Classification	Justification for use	Adverse effects and mitigation
N/A	N/A	N/A	N/A

Existing invasive species	Mitigation measures to prevent the spread or continued existence of invasive species
No Existing invasive species affected	The section on Existing Invasive Species and Mitigation Measures is not applicable because, at the time of validation and Current Verification, no invasive species were identified within the project area. Therefore, no measures are required to prevent.

	Risks identified	Mitigation or preventative measure(s) taken
Invasive species	No risk identified	There is no invasive species identified hence no mitigation measure is required.

2.4.3 Ecosystem conversion

	Risks identified	Mitigation or preventative measure(s) taken
Ecosystem conversion	No risk identified	Not Applicable, since the project activity is not ARR, ALM WRC or ACoGS project.

3 IMPLEMENTATION STATUS

3.1 Implementation Status of the Project Activity

The Project Activity envisages implementation of a 233.1 MW wind power project consisting of 223 Wind Turbine Generators (WTGs) in which 44 WTGs of individual capacity 0.85 MW of Gamesa 58 in Andhra Pradesh and 112 WTGs in Karnataka state of India by Mytrah Vayu Krishna Private Limited. and another 67 Wind Electric Generators of individual capacity 1.5 MW VENSYS 87 in Tamil Nadu state of India by Mytrah Vayu (Majira) Private Limited. All the 223 Wind Turbine Generators (WTGs) which are part of the project activity are commissioned and the commissioning details are provided in Appendix-3. The Project activity is a new facility (Greenfield) and the electricity generated by the project is exported to the Indian electricity grid. The project therefore displaces an equivalent amount of electricity which would have otherwise been generated by fossil fuel dominant electricity grid. The Project Proponent avails the VCS benefits for the project. The plant was commissioned on 21-February-2014 and it running smoothly with specific schedule maintenance works. In the Pre- project scenario, the entire electricity, delivered to the grid by the project activity, would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources. No any changes occurred during the current monitoring activity which can alter the design of the project activity. No change in project proponent or other entity. The details are same as the registered PD.

The technical specifications are as follows:

For Vagrai site

VENSYS 87 (Regen Powertech)	
Power	
Rated power	1500 kW
Cut-in wind speed	3 m/s
Rated Wind Speed	13 m/s
Cut-out wind speed	22 m/s
Survival wind speed	52.5 m/s
Generator	Variable Speed, Multi-pole Synchronous with Permanent Magnet Excitation
Rotor	
Diameter	87
Swept area	5942 sq.m
Speed range (variable)	9 to 17.3 rpm
Tower and foundation	
Hub height	85 m
Design	Tubular, Four sections
Foundation type	Floating foundation
Control and safety systems	

Control of output	Pitch Regulation
Speed control	Variable, Micro-controller based
Low Voltage Ride Through (LVRT)	3 seconds
Primary brake system	Aerodynamic Brake, Single Pitch Control/triple redundant
Pitch System	Electromechanical, Maintenance Free Toothed Belt Drive (Patented)
Remote Monitoring	VPN, Visualization via web-browser
Type classes	
Wind turbine type class	GK III B
Blade	
Blade Model	LM 42.1 P2
Make	LM
Length	42.1 Mtr.
Generator	
Capacity	1.5 MW
Rated Voltage	690 V
Generator type	Direct Drive synchronous PM Excited
Number of pole	88
Winding type	LAP winding
Rated RPM	17.3
No. of phases	2 x 3 phases AC y
Insulation class	F
Protection Class	IP 23
Cooling system	Passive Air cooling
Converter/grid output	
Rated output Voltage	620 V
Rated output frequency	50Hz
Rated current	1450 A

For Burgula and Savalsung Site

Model: Gamesa G58	
Rated power	0.85 MW
Startup WS (Wind speed)	3.0 m/s
Rated wind speed	12 m/s
Cut-out wind speed	21.0 m/s
Rotor	
Diameter	58 m
Swept area:	2,642m ²
Number of blades	3

Rotor speed, max	30.8 U/min
Tipspeed	94 m/s
Power density	321.7 W/m ²
Power density	3.1 m ² /kW

3.1.1 Deviations

3.2.1 Methodology Deviations

There has been no methodology deviation for the reported monitoring period or previous monitoring period.

3.2.2 Project Description Deviations

There is no project description deviation for the reported monitoring period.

Deviations approved during previous verifications

Deviation 1

This project Tamil Nadu site WTGs are under group captive since commissioning. To meet group captive consumers annual energy requirement, banking is done during high wind season ((i.e., from June to October) and then those units will get utilize in low wind season (i.e. from Nov to Mar). Due to this process electricity in invoice is different than JMR and cannot be consistent and not appropriate to compare or to take lower values as conservative approach. Also Tamil Nadu Generation and Distribution Corporation deducts Transmission & Distribution loss in generating end while doing the energy allocation. This T&D loss will vary based on consumer drawal voltage (3.06%, 4.24%. Due to above reason, the comparison of JMR and invoices value for Tamil Nadu Site (Vagarai) is not appropriate as there is adjustment of electricity due to banking as explained above. Thus, PP is considering the JMR value for net electricity supplied to grid and for emission reduction calculations. There is no cross check possible due to difference in JMR and invoice values due to banking for Tamil Nadu site, hence only JMR value is considered for ER calculations. State electricity board is doing adjustment in invoice based on JMR value. Hence month wise JMR and invoice is not matching. Since JMRs are issued by state electricity board and authentic, JMR values are considered for ER calculations. There is no material impact on ER calculations as primary source of data are correctly applied for ER calculations.

This was approved in verification for monitoring period of 01-June-2021 to 28-February-2022(including both the dates).

Deviation 2

For Burgula site of Andhra Pradesh, there is no individual meter which shows the generation from this site. The combined generation is shown in meter located at 132/33 KV, Racharla and JMR issued for 39.7 MW. This was approved during monitoring period of 01-June-2021 to 28-February-2022. Further section 4.2 and 4.3 can be referred for calculation.

Deviation 3

For Burgula site of Andhra Pradesh, export value for 37.4 MW is given and can be used for calculation but the import values need to be apportioned to obtain import for 37.4 MW. This was approved during monitoring period of 01-June-2021 to 28-February-2022. Further section 4.2 and 4.3 can be referred for calculation.

Deviation 4

The invoices for Burgula site are generated on export value. The total generation cannot be cross checked with invoice. Hence, as conservative approach the minimum of JMR and Invoice is considered for emission reduction. This was approved during 01-June-2021 to 28-February-2022.

Deviation 5

The geo-coordinates were mentioned incorrect due to typo-error for Vagrai and Savalsung site which are corrected and requested as deviation in previous verification. Same details is provided in appendix 6. The above change does not have any impact on emission reductions, applicability of the methodology, additionality or the appropriateness of baseline scenario. And, therefore deviation is sought for the same from the registered PD. This deviation is a permanent.

Deviation 6

The machine IDs for the WTGs at the Savalsung site was previously mentioned incorrectly. During the previous verification, a deviation was requested and approved to rectify the machine IDs. The corrected information has now been included in Appendix-3. The above change does not have any impact on emission reductions, applicability of the methodology, additionality or the appropriateness of baseline scenario. And, therefore deviation is sought for the same from the registered PD. This deviation is a permanent.

Deviation number 05 and Deviation number 06 is requested and approved during previous verification (Monitoring period: 01-April-2022 to 30-June-2023 (Inclusive of both days)).

The project description deviation doesn't impact the applicability of the methodology, additionality and baseline scenario, emission reduction calculation of project.

3.2 Grouped Projects

The project is not a grouped project; thus, this is not applicable.

3.3 Baseline Reassessment

Did the project undergo baseline reassessment during the monitoring period?

☐ Yes ☒ No

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 10, December 2014 ⁶
Value applied	0.9887
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” as 3-year generation weighted average using data for the years 2011-2012, 2012-2013 & 2013-2014. The data are obtained from “CO ₂ Baseline Database for Indian Power Sector” version 10.0, published by the Central Electricity Authority, Ministry of Power, Government of India.
Purpose of data	Calculation of baseline emissions
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 10, December 2014
Value applied	0.9609
Justification of choice of data or description of measurement methods and procedures applied	Calculated as per TOOL07 “Tool to calculate the emission factor for an electricity system, version 05.0” for the year 2013-2014. The data is obtained from “CO ₂ Baseline Database for Indian Power Sector” version 10.09, published by the Central Electricity Authority, Ministry of Power, Government of India
Purpose of data	Calculation of baseline emissions
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	0.9817

⁶ http://www.cea.nic.in/reports/planning/cdm_co2/user_guide_ver10.pdf

Value applied	0.9817
Justification of choice of data or description of measurement methods and procedures applied	The combined margin emissions factor is calculated as follows: $EF_{grid,CM,y} = EF_{grid,OM,y} * W_{OM} + EF_{grid,BM,y} * W_{BM}$ $EF_{grid,BM,y}$ = Build margin CO₂ emission factor in year y (tCO₂/MWh) $EF_{grid,OM,y}$ = Operating margin CO₂ emission factor in year y (tCO₂/MWh) W_{OM} = Weighting of operating margin emissions factor (%) = 75% W_{BM} = Weighting of build margin emissions factor (%) = 25%
Purpose of data	Calculation of baseline emissions
Comments	This parameter is fixed ex-ante for the entire crediting period

4.2 Data and Parameters Monitored

Data / Parameter	EG _{PJ,y}
Data unit	MWh
Description	Quantity of net electricity generation supplied by the project (wind) plant/unit to the grid in year y
Source of data	Credit note/JMR/Form B reports from respective state electricity board
Description of measurement methods and procedures to be applied	Quantity of net electricity generation supplied by the project (Wind) plant/unit to the grid in year y $EG_{PJ,y} = EG_{BLKNy} + EG_{BLTNy} + EG_{BLAPy}$ Where, $EG_{BLKNy} = EG_{Export,KN} - 115\% * EG_{Import} - \text{Transmission Loss (TE}_{KN})$ $EG_{BLTNy} = EG_{Export} - EG_{Import}$ $EG_{BLAPy} = EG_{Export} - EG_{Import} * 37.4/39.7$ For Karnataka and Tamil Nadu- The value of net electricity generation supplied to the grid as per Monthly electricity form B /Credit Note or Joint Meter Reading Report forms the basis for calculation of the emission reductions; which can be cross checked from the invoice raised to DISCOM & Adjustment reports (in case of captive utility). For Tamil Nadu site- Net electricity supplied to is calculated as the difference of the measured values of “export” and “import” of electricity through the dedicated SEB energy meter installed at the WTG end.

	For Karnataka site- Net electricity supplied to is calculated as the difference of the measured values of “export” and “import” of electricity through the dedicated SEB energy meter installed at the 33 KV delivery point. For Andhra Pradesh- The value of export can be cross checked with the invoice raised to DISCOM, Net electricity supplied to is calculated as the difference of the measured values of “export” and “import” of electricity through the dedicated SEB energy meter installed at the 220 kv delivery point. Monthly meter readings are taken from the main and check meter installed at metering point and certified by the representatives of SEB Officials and the representatives of the project proponent for apportioning procedure refer section 3.3
Frequency of monitoring/recording	Monthly
Value monitored	218,962.65
Monitoring equipment	Monitoring – Tri vector meter is used Data type – Measured Type of meter – static type meter (main & check). Both are Bi-directional meters. Class – 0.2s for Karnataka and Andhra Pradesh whereas 0.5s for Tamil Nadu
QA/QC procedures to be applied	The calibration of all the meters is undertaken at required intervals and faulty meters are duly replaced immediately. The meters are of accuracy class 0.2s for Karnataka and Andhra Pradesh whereas 0.5s for Tamil Nadu. The meter accuracy class and calibration interval is under purview of state electricity board and PP does not have any control on it. It is also noted that apportioning procedure is under control of state electricity board and PP do not have any control on it. The available parameter to PP is the net electricity supplied to grid and same parameter is mentioned as monitoring parameter The Net electricity exported to the grid is cross checked against the invoice raised by the PP towards the DISCOM and Adjustment Reports in case of captive consumption. For Tamil Nadu site, being group captive consumption banking of electricity is done, hence JMR value is considered for VCU calculations.
Purpose of the data	Calculation of baseline emissions
Calculation method	-
Comments	The data would be archived electronically and maintained for the entire crediting period.

4.3 Monitoring Plan

Aim of Monitoring

The monitoring procedure sets guidelines for the project investor to monitor the parameters regularly and to ensure quality and accuracy in monitoring. It elaborates on the functions of the monitoring team and procedures to be followed in monitoring of the VCS parameters.

The monitoring includes all the equipment's that contribute towards reduction in GHG emissions. Since the project activity focuses mainly on the generation of renewable power from the WTGs, it is important to monitor all the equipment's involved in the metering of all the necessary instruments.

The monitoring plan has been prepared in accordance with the applied methodology, ACM0002 Version 16.0. The project investor has a well-defined management structure for monitoring the project activity.

Monitoring plan at Karnataka

The voltage is generated at 690V and stepped up to 33 KV and further connected. The voltage is stepped up to 220 KV by transformer of 33KV/220KV 100 MVA transformer and supplied to grid. The main parameter to be monitored for a wind project is the Quantity of net electricity supplied to the grid as a result of the implementation of the VCS project activity in year y. The parameter is measured as electricity export, import and transmission loss, which was issued by BESCO officials and recorded in the B-Form and issued monthly to the project proponent. These monthly reports for the entire monitoring period form the basis to report the emission reductions achieved due to the project activity. The project proponent in turn raises the invoices to the BESCO for the electricity supplied to the grid. The electricity is measured by energy meters of an accuracy class of 0.2s which are calibrated periodically by officials from the BESCO/KPTCL for billing purpose the value of energy meter installed at 33 kV metering point is used whereas for calculation of transmission loss, energy export Reading at bulk meter installed at high voltage side of transformer of the receiving station 220kV is used.

The procedure for calculation of transmission loss as given in the PPA is set-out below:

$$Z = ((X1+X2+X3...+Xn)-Y) / ((X1+X2+X3...+Xn)) \times 100$$

Z = Percentage transmission loss for export incurred in transmission line between the meter located at 33 kV metering point and the meters located at bulk 220 metering point (bulk meter: main and check) high voltage side of receiving sub-station.

X_i = Energy Export Reading of energy meter installed at 33 kV metering point

Y = Energy Export Reading at bulk meter installed at high voltage side of transformer of the receiving station 220kV

X1, X2, X3, Xn are the meters that are installed at 33kV metering point and are connected to the receiving substation by internally connected lines to the receiving station.

The Export Reading X_i is adjusted for transmission loss that is determined by the state utility and is applied directly to the JMR (Form B) taken at 33 kV metering point. This can be checked from the JMR signed jointly by the representatives of PP and the state utility.

Transmission Loss in Export (TE) = Percentage Transmission Loss (Z) * Energy Export at 33kV metering point ($EG_{Export,KN}$)

Empirical Formula for Energy Export after adjustment of transmission loss (Equation 1)

Net Energy Export after adjustment of transmission loss = $EG_{Export} - TE$

The transmission loss in export is generally less than 5%. However, in case of Energy Import, the state utility conservatively applies adjustment of 15% to the import values noted at 33 kV metering point.

Transmission Loss in Import (TI) = 15% * Energy Import at 33kV metering point ($EG_{Import, KN}$)

Empirical Formula for Energy Import after adjustment of transmission loss (Equation 2)

Net Energy Import after adjustment of transmission loss = $EG_{Import} + 15\% * EG_{Import}$

$$= 115\% * EG_{import}$$

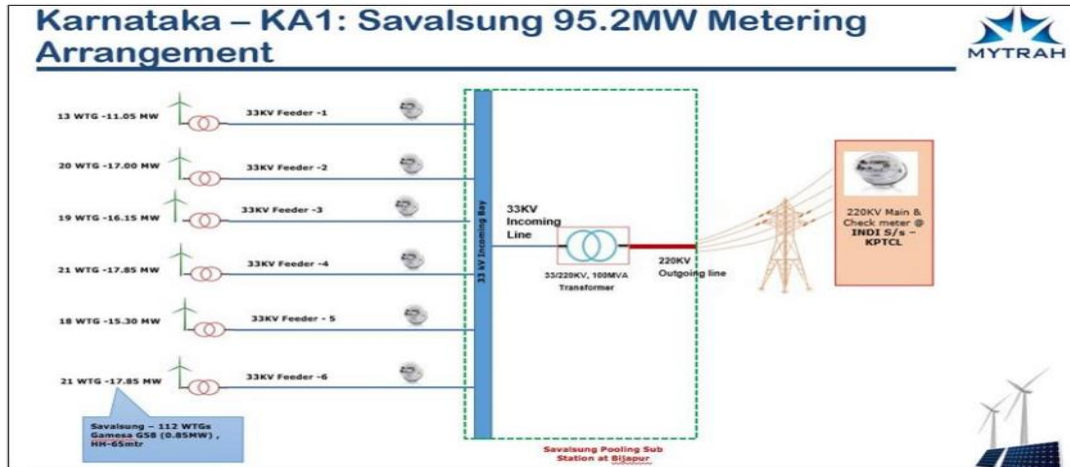
Therefore, Energy Supplied to Grid after adjustment of transmission loss is difference of equation 1 and 2 as given in the Form B signed jointly by representatives of PP and the state utility.

$EG_{BL,KN,y} = EG - 115\% * EG - \text{Transmission Loss } (T_{E,KN})$

The Joint meter reading noted at 33 KV metering location contains the following data:

1. Electricity Export ($EG_{export,KN}$)
2. Electricity Import ($EG_{import,KN}$)
3. Transmission Loss ($T_{E,KN}$) between 33 kV metering point and 220 kV metering point
4. Net electricity supplied to the grid [$EG_{BL,KN,y} = EG_{Export,KN} - 115\% * EG_{import,KN} - T_{E,KN}$]

Form B is signed by the representative of PP and the state utility. The net electricity supplied to the grid can be cross checked from the invoices raised on the state utility for supply of net electricity supplied to the grid.



Monitoring Plan at Tamil Nadu

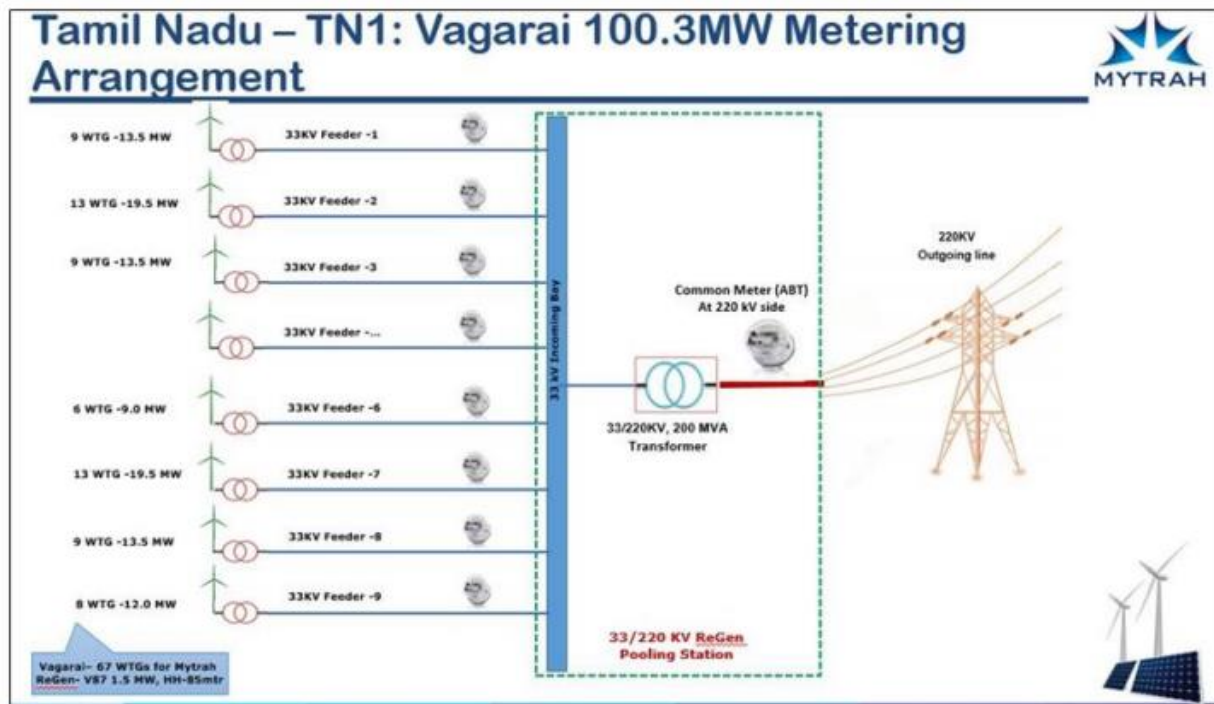
The voltage is generated at 690V and stepped up to 33 KV and further connected. The voltage is stepped up to 220 KV by transformer of 33KV/220KV 200 MVA transformer and supplied to grid.

Reading of net electricity imports & export is taken at the metering point of TNEB, located at yard approximately 5 to 7 meters from the WTG. Each WTG has its individual EB meter, installed by the SEB. The AMR is used to record the readings and same is issued on TNEB Portal every month. The power generated at WTG is sent to TNEB through substation and TNEB sells the power generated to Captive users.

The import & export figure at WTG controller is recorded in the excel logbook of Investors representative on a daily basis. This data is preserved both in paper & electronic form. The summary of the generation is submitted by the O&M contractor / Investors representative to the investor on the monthly basis.

The TNEB meter is the main source for monitoring net export to the grid. On mutually decided/ SEB official availability date of each month, the reading from the TNEB meter is recorded by the engineers of the SEB in presence of the O & M contractor/ Investors representative. Subsequently the Tamil Nadu Electricity Board statements is prepared.

A monthly statement is issued by the State Utility every month to the Project investor against sale of power. Based on the monthly sale of power, invoice is raised to TNEB.



QA/QC procedures:

Energy meters are calibrated once in a five year and faulty meters are duly replaced immediately. The entire responsibility of this task lies with the state utility. The meters have an accuracy class of at least 0.5s. TNEB has an on-site testing & calibration arrangement; hence there is no need to dismantle the meter for calibration. In case the meters are found faulty and hard to calibrate against the prescribed accuracy class the meter is replaced by the state utility. In very rare occasion, when both meter fails simultaneously, one of the meters will be replaced immediately as per CEA guidelines.

If during any of monthly measurement, main meter is found to be beyond permissible limit of error, then meter is calibrated immediately. For the period thereafter the measurement is continued in accordance with the calibrated main meter.

Data Management and Data Archiving:

Copies of the break-up sheet, invoices raised on Discom and sales receipts are retained and archived for the entire crediting period plus two years by the project investor.

Procedures for Data Adjustments/Uncertainties:

Data uncertainties are likely under following conditions:

- In case of error in TNEB meter
- When records are lost

If during any of monthly measurement, main meter is found to be beyond permissible limit of error, then meter shall be calibrated immediately & the correction factor applicable for the main meter shall be used for energy computation at time of such test checks. For the period thereafter the measurement shall be continued in accordance with the calibrated main meter. When records are lost, the Tamil Nadu Electricity Board Statements are used as reference.

Meter calibration: The meters are tested for accuracy and calibration of the meters is taken care of, following the applicable guidance. As per the national guidelines given by CEA⁷, electricity meters have to be calibrated once in every 5 years. Hence the meters are scheduled to be calibrated at least once in five years⁸.

Calculation method

The generated electricity is exported to TNEB grid and the exported electricity is measured by the TNEB energy meter. Representative Officer from Tamil Nadu Electricity Board (TNEB) prepares and provides the TNEB Statement. Once in a month, the designated person takes the TNEB energy meter readings and records the initial and final readings for Export and Import. The difference between the initial and final readings gives net export and net import. The difference between the net export and net import is recorded as Net Generation.

Net exports for Tamil Nadu $EG_{BL,TN,y} = EG_{Export} - EG_{Import}$

Monitoring Plan at Andhra Pradesh

The voltage is generated at 690V and stepped up to 33 KV and further connected to feeder. The voltage is stepped up to 132 KV by transformer of 33KV/132KV 25 MVA transformers and supplied to grid.

Metering system and monitoring plan:

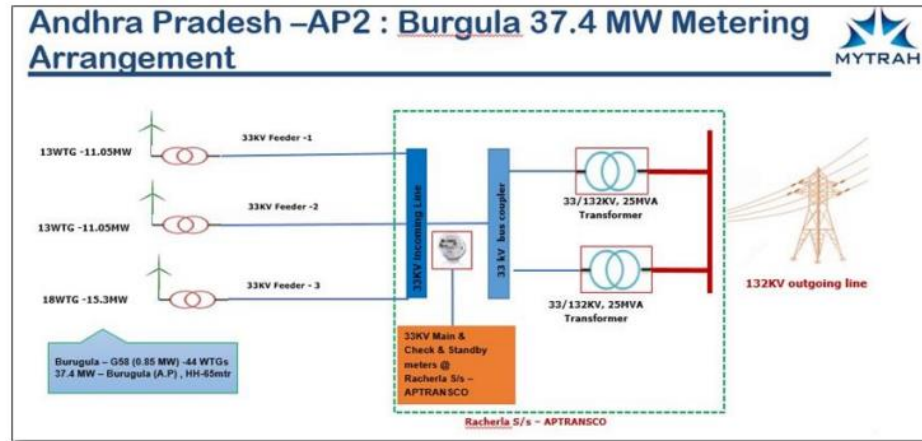
- A Joint Meter Reading combined for 39.7 MW is taken at GSS by the representatives of PP and APTRANSCO at the high voltage side of the step-up transformer installed at the substation at a particular date.
- In case the main metering system is not in service, then the check metering system is be used until the main system is back to service.
- Meter reading is jointly signed by both the representatives
- The main and the check metering systems are sealed in presence of representatives of Power producers, and APTRANSCO.
- When any of these metering systems is found to be outside acceptable limits of accuracy or otherwise not functioning properly, it is repaired, recalibrated or replaced.

⁷ <https://www.cbip.org/MIR/1%20DATA/CEA%201.pdf>

⁸ As per VCS approved PD

- PP raises a monthly energy bill/statement based on the JMR at the end of each calendar month and the payment by State Electricity Board is done on this basis. The billing and payment records are maintained by the PP.
- Calibration and Testing of Meters are done once in 5 years.

The metering arrangement is mentioned below-



Calculation of data:

Net exports for Andhra Pradesh $EG_{BL,AP,y} = EG_{Export} - EG_{Import} * (37.4/39.7)$

In the event when the individual verification period dates and billing cycle dates of the various WTGs in the project activity do not coincide, then the apportioning procedure is followed as mentioned below.

Personnel training

In order to ensure a proper functioning of the project activity and a properly monitoring of emission reductions, the staff is trained. The plant helpers are trained in equipment operation, data recording, reports writing, operation and maintenance and emergency procedures in compliance with the monitoring plan. Total 30 trainings were provided during the current monitoring period.

QA and QC Procedures

The electricity meter with accuracy class 0.2s at substation end (i.e. one main and one check meter) are installed.

Data Storage and Archiving All the data items monitored under the monitoring plan will be kept for 2 years after the end of crediting period or till the last issuance of VCUs for this project activity, whichever occurs later. The data will be archived both electronically and manually, and kept in safe storage by PP.

Apportioning Procedure

In the event when the individual verification period dates and billing cycle dates of the various WTGs in the project activity do not coincide, then the monitoring procedure is –

X : Sum of generation during partial days of the month recorded at controller meter (kwh) source – Electronic / Manual Log Book

Y : Total generation during the month recorded at controller meter (kwh/month)

Z = X/Y : Ratio

B : Net Energy export by the WTG as per Monthly Report on Generation and Consumption

Z*B : Generation of partial days for calculating emission reductions (kWh)

5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

5.1 Baseline Emissions

As per para 46 of ACM0002 version 16.0, Baseline emissions include only CO₂ emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity. The methodology assumes that all project electricity generation above baseline levels would have been generated by existing grid-connected power plants and the addition of new grid-connected power plants. The baseline emissions are to be calculated as follows:

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

Where:

BE_y = Baseline emissions in year y (tCO₂)

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

EF_{grid,CM,y} = Combined margin CO₂ emission factor for grid connected power generation in year y calculated using the latest version of the “Tool to calculate the emission factor for an electricity system” (tCO₂/MWh)

Baseline Emissions

As per the equation 7 of the methodology ACM0002 (Version 16.0),

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

Where:

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

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

$EF_{grid, CM, y}$ = Combined margin CO₂ emission factor for grid connected power generation in year y calculated using the latest version of the TOOL 07 “Tool to calculate the emission factor for an electricity system” (tCO₂e/MWh) Version 05.0.

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

$BE_y = 218,962.65 * 0.9817$

$BE_y = 214,952$ tCO₂e (Round down value)

5.2 Project Emissions

As per para 37 of ACM0002 version 16, “For all renewable energy power generation project activities, emissions due to the use of fossil fuels for the backup generator can be neglected

Therefore $PE_y = 0$.

5.3 Leakage Emissions

As per Para 60 of ACM0002 version 16, No leakage emissions need to be considered for the wind project activity.

Therefore $LE_y = 0$.

5.4 GHG Emission Reductions and Carbon Dioxide Removals

As per equation number (13) of the applied methodology, emission reductions are calculated as follows:

$ER_y = BE_y - PE_y$

Where:

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

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

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

Vintage period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Reduction VCUs (tCO ₂ e)	Removal VCUs (tCO ₂ e)	Total VCUs (tCO ₂ e)
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01-Jul-2023 to 31-Dec-2023	189,924	0	0	189,924	0	189,924
01-Jan-2024 to 20-Feb-2024	25,028	0	0	25,028	0	25,028
Total	214,952	0	0	214,952	0	214,952

Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
01-Jul-2023 to 31-Dec-2023	241,694	189,924	-21.42 %	The variation in GHG emission reductions is attributed to lower electricity generation (i.e. lower Plant Load Factor (PLF) which is affected by the factors like wind flow pattern, grid availability, plant breakdowns.
01-Jan-2024 to 20-Feb-2024	66,991	25,028	-62.64 %	The variation in GHG emission reductions is attributed to lower electricity generation (i.e. lower Plant Load Factor (PLF) which is affected by the factors like wind flow pattern, grid availability, plant breakdowns.
Total	308,685	214,952	-30.37 %	The variation in GHG emission reductions is attributed to lower electricity generation (i.e.

				lower Plant Load Factor (PLF) which is affected by the factors like wind flow pattern, grid availability, plant breakdowns.
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APPENDIX 1: COMMERCIALY SENSITIVE INFORMATION

There is no commercially sensitive information that is hide in the public version of the monitoring report.

Section	Information	Justification
NA	NA	NA

APPENDIX 2: CALIBRATION DETAILS

Vagarai Tamil Nadu state 55.5 MW (37*1.5 MW WTGs)⁹ 33 KV Substation:

Serial. No.	HTSC No.	Meter S. No.	Calibration date ¹⁰	Due date of calibration ¹⁴
1.	DRA 002	4321945	25-May-2017	24-May-2022
2.	DRA 010	4322515	23-May-2017	22-May-2022
3.	DRA 019	4322252	22-May-2017	21-May-2022
4.	DRA 037	4322069	20-May-2017	19-May-2022
5.	DRA 038	4321884	20-May-2017	19-May-2022
6.	DRA 039	4322063	05-May-2017	04-May-2022
7.	DRA 042	4321949	20-May-2017	19-May-2022
8.	DRA 050	4322064	20-May-2017	19-May-2022
9.	DRA 052	4321888	20-May-2017	19-May-2022
10.	DRA 055	4322067	22-May-2017	21-May-2022
11.	DRA 011	4322519	23-May-2017	22-May-2022
12.	DRA 014	4322517	23-May-2017	22-May-2022
13.	DRA 016	4322521	23-May-2017	22-May-2022
14.	DRA 020	4322433	23-May-2017	22-May-2022
15.	DRA 028	4322566	22-May-2017	21-May-2022
16.	DRA 029	4322574	22-May-2017	21-May-2022
17.	DRA 030	4322374	22-May-2017	21-May-2022
18.	DRA 034	4321977	23-May-2017	22-May-2022
19.	DRA 035	4322581	22- May- 2017	21-May-2022
20.	DRA 036	4322582	22- May- 2017	21- May -2022
21.	DRA 040	4322160	25- May- 2017	24- May -2022
22.	DRA 041	4321952	25- May -2017	24- May -2022
23.	DRA 045	4321943	20- May -2017	19- May -2022
24.	DRA 051	4322065	20- May -2017	19- May -2022
25.	DRA 053	4321944	20- May -2017	19- May -2022
26.	DRA 065	4322579	22- May -2017	21- May -2022
27.	DRA 061	4322154	20- May -2017	19- May -2022
28.	DRA 056	4321973	25- May -2017	24- May -2022

⁹ PP is claiming VCS benefits for only 37 WTGs out of 67 WTGs. Rest 30 WTGs are availing Renewable Energy Certificate (REC) benefits. Meter calibration of the 37 WTGs claiming VCS benefits was done at the date of commissioning. Later on, these meters were changed in the year 2017 (respective dates are mentioned in the table above). The calibration records of newly installed meters have been submitted to the DOE and the due date of calibration for the respective meters are mentioned in the above table.

¹⁰ As, meters were not calibrated during current monitoring period, hence error factor is applied for reporting months.

29.	DRA 060	4321948	20- May -2017	19- May -2022
30.	DRA 058	4322514	23- May -2017	22- May -2022
31.	DRA 057	4322513	23- May -2017	22- May -2022
32.	DRA 059	4322068	20- May -2017	19- May -2022
33.	DRA 064	4322066	20- May -2017	19- May -2022
34.	DRA 067	4322573	22- May - 2017	21- May -2022
35.	DRA 062	4321892	25- May-2017	24-May-2022
36.	DRA 063	4322158	20- May- 2017	19-May-2022
37.	DRA 066	4321947	20- May- 2017	19-May-2022

Sr. No.	HTSC No.	Meter Serial number	Meter change date	Meter serial no	Calibration date (New)	Due date of calibration (New)
1	DRA 002	4321945	15-November-2024	TNW06301	18-November-2024	17-November-2029
2	DRA 010	4322515	Meter Not Changed	4322515	18-November-2024	17-November-2029
3	DRA 011	4322519	17-July-2020	1379293	18-November-2024	17-November-2029
4	DRA 014	4322517	Meter Not Changed	4322517	18-November-2024	17-November-2029
5	DRA 016	4322521	Meter Not Changed	4322521	18-November-2024	17-November-2029
6	DRA 019	4322252	15-November-2024	24007833	18-November-2024	17-November-2029
7	DRA 020	4322433	Meter Not Changed	4322433	18-November-2024	17-November-2029
8	DRA 028	4322566	11-July-2019	HT2180394	18-November-2024	17-November-2029
9	DRA 029	4322574	Meter Not Changed	4322574	18-November-2024	17-November-2029
10	DRA 030	4322374	12-June-2023	TNW04955	18-November-2024	17-November-2029
11	DRA 034	4321977	21-January-2020	HT2180114	18-November-2024	17-November-2029
12	DRA 035	4322581	Meter Not Changed	4322581	18-November-2024	17-November-2029
13	DRA 036	4322582	16-August-2024	24007054	18-November-2024	17-November-2029
14	DRA 037	4322069	08-May-2024	24001195	18-November-2024	17-November-2029
15	DRA 038	4321884	05-September-2020	5840137	18-November-2024	17-November-2029
16	DRA 039	4322063	11-August-2023	TNW04980	18-November-2024	17-November-2029
17	DRA 040	4322160	16-August-2024	24007055	18-November-2024	17-November-2029
18	DRA 041	4321952	19-May-2022	TNW03741	18-November-2024	17-November-2029
19	DRA 042	4321949	Meter Not Changed	4321949	18-November-2024	17-November-2029
20	DRA 045	4321943	Meter Not Changed	4321943	18-November-2024	17-November-2029
21	DRA 050	4322064	Meter Not Changed	4322064	18-November-2024	17-November-2029
22	DRA 051	4322065	08-July-2024	23010990	18-November-2024	17-November-2029
23	DRA 052	4321888	11-August-2023	TNW04981	18-November-2024	17-November-2029
24	DRA 053	4321944	Meter Not Changed	4321944	18-November-2024	17-November-2029
25	DRA 055	4322067	20-November-2020	5840091	18-November-2024	17-November-2029
26	DRA 056	4321973	19-April-2021	5840034	18-November-2024	17-November-2029
27	DRA 057	4322513	08-July-2024	23010998	18-November-2024	17-November-2029
28	DRA 058	4322514	08-May-2024	24001200	18-November-2024	17-November-2029
29	DRA 059	4322068	08-July-2024	23010989	18-November-2024	17-November-2029

30	DRA 060	4321948	27-January-2020	HT2180113	18-November-2024	17-November-2029
31	DRA 061	4322154	11-July-2019	HT2180144	18-November-2024	17-November-2029
32	DRA 062	4321892	08-May-2024	24001198	18-November-2024	17-November-2029
33	DRA 063	4322158	27-January-2020	HT2180036	18-November-2024	17-November-2029
34	DRA 064	4322066	08-July-2024	24007005	18-November-2024	17-November-2029
35	DRA 065	4322579	19-May-2022	TNW03743	18-November-2024	17-November-2029
36	DRA 066	4321947	08-May-2024	24001196	18-November-2024	17-November-2029
37	DRA 067	4322573	Meter Not Changed	4322573	18-November-2024	17-November-2029

Calibration details for Karnataka site WTGs 95.2 MW (112*0.85 MW WTGs) 33 KV Substation

S No.	Location	Meter type	Meter serial Number	Make	Accuracy class	Calibration date/Meter change date	Due date of calibration
1	Feeder 1	Main meter (Old)	13191120	L&T	0.2 S	23-September-2020	22-September-2025
		Main meter (New)	23007141	L&T	0.2 S	29-September-2023	28-September-2028
		Check meter (Old)	13191121	L&T	0.2 S	23-September-2020	22-September-2025
		Check meter (New)	23008036	L&T	0.2 S	29-September-2023	28-September-2028
2	Feeder 2	Main meter (Old)	13191094	L&T	0.2 S	23-September-2020	22-September-2025
		Main meter (New)	23007165	L&T	0.2 S	26-September-2023	25-September-2028
		Check meter (Old)	13191095	L&T	0.2 S	23-September-2020	22-September-2025
		Check meter (New)	23007169	L&T	0.2 S	26-September-2023	25-September-2028
3	Feeder 3	Main meter (Old)	13191100	L&T	0.2 S	23-September-2020	22-September-2025
		Main meter (New)	23007160	L&T	0.2 S	26-September-2023	25-September-2028
		Check meter (Old)	13191104	L&T	0.2 S	23-September-2020	22-September-2025
		Check meter (New)	23007168	L&T	0.2 S	26-September-2023	25-September-2028
4	Feeder 4	Main meter (Old)	13191096	L&T	0.2 S	23-September-2020	22-September-2025
		Main meter (New)	23007158	L&T	0.2 S	26-September-2023	25-September-2028
		Check meter (Old)	13191097	L&T	0.2 S	23-September-2020	22-September-2025

		Check meter (New)	23007159	L&T	0.2 S	26-September-2023	25-September-2028
5	Feeder 5	Main meter (Old)	13191114	L&T	0.2 S	23-September-2020	22-September-2025
		Main meter (New)	23007142	L&T	0.2 S	29-September-2023	28-September-2028
		Check meter (Old)	13191122	L&T	0.2 S	23-September-2020	22-September-2025
		Check meter (New)	23007164	L&T	0.2 S	29-September-2023	28-September-2028
6	Feeder 6	Main meter (Old)	13191159	L&T	0.2 S	23-September-2020	22-September-2025
		Main meter (New)	23007142	L&T	0.2 S	27-September-2023	26-September-2028
		Check meter (Old)	13191380	L&T	0.2 S	23-September-2020	22-September-2025
		Check meter (New)	23007164	L&T	0.2 S	27-September-2023	26-September-2028

Calibration details for Andhra Pradesh site WTGs 37.4 MW (44*0.85 MW WTGs) 33K Kv wind metering

S No.	Meter type	Make	Class	Meter serial Number	Date of calibration	Due date of calibration
1	Main meter	L&T	0.2s	APX01701	14-February-2022	13-February-2027
2	Check meter	L&T	0.2s	APX01702	14-February-2022	13-February-2027
3	Standby meter	L&T	0.2s	APX01703	14-February-2022	13-February-2027

S No.	Meter type	Make	Class	Meter serial Number	Date of calibration	Due date of calibration
1	Main meter	L&T	0.2s	APX01701	10-February-2021	09- February-2026
2	Check meter	L&T	0.2s	APX01702	10-February-2021	09- February-2026
3	Standby meter	L&T	0.2s	APX01703	10-February-2021	09-April-2026

APPENDIX 3: DATE OF COMMISSIONING

Commissioning dates of WTG for Tamil Nadu

Vagarai Tamil Nadu - 100.5 MW (1.5 * 67)			
S No.	Machin ID	HTSC No.	Date of commissioning
1	KOO-518	DRA001	01-June-2014
2	KOO-1359	DRA003	01-June-2014
3	APY-241	DRA004	01-June-2014
4	APY-416	DRA005	01-June-2014
5	PAR-09	DRA006	01-June-2014
6	PON-534	DRA008	01-June-2014
7	PON-1043	DRA009	01-June-2014
8	NAL-119	DRA012	01-June-2014
9	NAL-81	DRA013	01-June-2014
10	NAL-57	DRA015	01-June-2014
11	MAN-210	DRA017	01-June-2014
12	MAN-898	DRA018	01-June-2014
13	MAN802	DRA021	01-June-2014
14	KON-556	DRA022	01-June-2014
15	KON-563	DRA023	01-June-2014
16	KON-590	DRA024	01-June-2014
17	KON-640	DRA025	01-June-2014
18	KON-658	DRA026	01-June-2014
19	KON-621	DRA027	01-June-2014
20	KON-501	DRA031	01-June-2014
21	ALA-1639	DRA043	23-June-2014
22	ALA-1946	DRA044	23-June-2014
23	NAL-434	DRA049	23-June-2014
24	KON-234	DRA054	14-July-2014
25	PAR-50	DRA007	01-June-2014
26	MAN-625	DRA032	01-June-2014
27	MAN-604	DRA033	01-June-2014
28	ALA-2301	DRA046	23-June-2014
29	ALA-1569	DRA047	23-June-2014
30	ALA-2352	DRA048	23-June-2014
31	KOO-1157	DRA002	01-June-2014

32	PON-1081	DRA010	01-June-2014
33	MAN-940	DRA019	01-June-2014
34	PON-1565	DRA037	23-June-2014
35	PON-1568	DRA038	23-June-2014
36	VEL-1936	DRA039	23-June-2014
37	ALA-1618	DRA042	23-June-2014
38	PON-908	DRA050	23-June-2014
39	PON-1203	DRA052	23-June-2014
40	MAN-963	DRA055	16-July-2014
41	PON-1021	DRA011	1-June-2014
42	KOL-652	DRA014	1-June-2014
43	PON-4	DRA016	1-June-2014
44	MAN-828	DRA020	1-June-2014
45	KON-618	DRA028	1-June-2014
46	KON-395	DRA029	1-June-2014
47	KON-451	DRA030	1-June-2014
48	APA-84	DRA034	1-June-2014
49	PUN-270	DRA035	1-June-2014
50	PUN-34	DRA036	04-June-2014
51	VEL-1702	DRA040	23-June-2014
52	KAL-093	DRA041	23-June-2014
53	ALA-2290	DRA045	23-June-2014
54	PON-775	DRA051	23-June-2014
55	ALA-2260	DRA053	23-June-2014
56	MET-164	DRA065	09-January-2015
57	NAL-445	DRA061	03-December-2014
58	KOO-1036	DRA056	31-October-2014
59	VEL-1540	DRA060	03-December-2014
60	KOO-1174	DRA058	31-October-2014
61	KOO-1000	DRA057	31-October-2014
62	PON-1304	DRA059	31-October-2014
63	APY-247	DRA064	06-January-2015
64	KON-411	DRA067	26-February-2015
65	KOO-581	DRA062	18-December-2014
66	VEL-2119	DRA063	24-December-2014
67	ALA-1385	DRA066	04-February-2015

Date of commissioning of WTG at Karnataka

Savalsang Karnataka - 95.20 MW (0.85 * 112)

S No.	Machin ID	Date of commissioning
1	SVG15	02-June-2014
2	SVG16	02-June-2014
3	SVG17	03-May-2014
4	SVG18	03-May-2014
5	SVG19	03-May-2014
6	SVG20	03-May-2014
7	SVG22	30-April-2014
8	SVG23	29-April-2014
9	SVG25	29-April-2014
10	SVG26	01-May-2014
11	SVG27	29-April-2014
12	SVG28	30-April-2014
13	SVG29	30-April-2014

14	SVG30	01-May-2014
15	SVG31	01-May-2014
16	SVG32	10-May-2014
17	SVG33	02-May-2014
18	SVG34	01-May-2014
19	SVG35	01-May-2014
20	SVG37	04-May-2014
21	SVG39	01-May-2014
22	SVG40	01-May-2014
23	SVG41	01-May-2014
24	SVG42	01-May-2014
25	SVG43	02-January-2015
26	SVG47	01-May-2014
27	SVG48	30-April-2014
28	SVG49	04-May-2014
29	SVG50	01-May-2014
30	SVG51	29-April-2014
31	SVG52	30-April-2014
32	SVG53	30-April-2014
33	SVG54	06-August-2014
34	SVG57	03-May-2014
35	SVG58	03-May-2014
36	SVG60	01-May-2014
37	SVG62	01-May-2014
38	SVG63	01-May-2014
39	SVG64	01-May-2014
40	SVG65	01-May-2014
41	SVG66	01-May-2014
42	SVG68	02-June-2014
43	SVG74	02-June-2014
44	SVG75	03-May-2014
45	SVG76	03-May-2014
46	SVG83	06-August-2014
47	SVG84	05-June-2014
48	SVG85	01-May-2014
49	SVG88	05-May-2014
50	SVG90	06-May-2014
51	SVG91	06-May-2014
52	SVG94	31-December-2014
53	SVG96	01-May-2014
54	SVG97	02-June-2014
55	SVG101	10-May-2014
56	SVG103	03-May-2014
57	SVG105	10-May-2014
58	SVG106	30-April-2014
59	SVG107	30-April-2014
60	SVG108	29-April-2014
61	SVG109	29-April-2014
62	SVG110	29-April-2014
63	SVG111	03-May-2014
64	SVG112	02-May-2014
65	SVG118	11-May-2014

66	SVG119	03-May-2014
67	SVG120	29-April-2014
68	SVG122	02-May-2014
69	SVG123	03-May-2014
70	SVG125	23-August-2014
71	SVG126	05-May-2014
72	SVG128	02-June-2014
73	SVG129	02-June-2014
74	SVG131	02-June-2014
75	SVG132	02-June-2014
76	SVG134	02-June-2014
77	SVG135	02-June-2014
78	SVG136	02-June-2014
79	SVG137	02-June-2014
80	SVG138	21-May-2014
81	SVG139	11-August-2014
82	SVG140	07-August-2014
83	SVG141	06-August-2014
84	SVG143	06-August-2014
85	SVG144	06-August-2014
86	SVG145	06-August-2014
87	SVG147	06-August-2014
88	SVG148	06-August-2014
89	SVG150	02-June-2014
90	SVG153	06-August-2014
91	SVG154	29-April-2014
92	SVG155	29-April-2014
93	SVG156	29-April-2014
94	SVG157	03-May-2014
95	SVG165	03-May-2014
96	SVG166	02-June-2014
97	SVG168	02-June-2014
98	SVG170	01-May-2014
99	SVG172	31-December-2014
100	SVG173	11-December-2014
101	SVG174	03-January-2015
102	SVG175	31-December-2014
103	SVG176	31-December-2014
104	SVG177	31-December-2014
105	SVG178	06-August-2014
106	SVG179	02-January-2015
107	SVG180	31-December-2014
108	SVG193	10-August-2014
109	SVG194	12-August-2014
110	SVG195	06-August-2014
111	SVG196	06-August-2014
112	SVG197	31-December-2014

Date of commissioning for Andhra Pradesh

Burugula Andhra Pradesh – 37.40 MW (0.85*44)		
S No.	Machin ID	Date of commissioning
1	Location No. 508	21-February-2014
2	Location No. 509	21-February-2014

3	Location No. 510	21-February-2014
4	Location No. 511	21-February-2014
5	Location No. 512	21-February-2014
6	Location No. 513	21-February-2014
7	Location No. 514	21-February-2014
8	Location No. 515	21-February-2014
9	Location No. 516	21-February-2014
10	Location No. 517	21-February-2014
11	Location No. 518	21-February-2014
12	Location No. 519	21-February-2014
13	Location No. 520	21-February-2014
14	Location No. 521	21-February-2014
15	Location No. 522	21-February-2014
16	Location No. 523	21-February-2014
17	Location No. 524	21-February-2014
18	Location No. 525	21-February-2014
19	Location No. 526	21-February-2014
20	Location No. 527	21-February-2014
21	Location No. 528	21-February-2014
22	Location No. 529	21-February-2014
23	Location No. 530	21-February-2014
24	Location No. 531	21-February-2014
25	Location No. 550	21-February-2014
26	Location No. 551	21-February-2014
27	Location No. 532	15-March-2014
28	Location No. 533	15-March-2014
29	Location No. 534	15-March-2014
30	Location No. 535	15-March-2014
31	Location No. 536	15-March-2014
32	Location No. 537	15-March-2014
33	Location No. 538	15-March-2014
34	Location No. 539	15-March-2014
35	Location No. 540	15-March-2014
36	Location No. 541	15-March-2014
37	Location No. 542	15-March-2014
38	Location No. 543	15-March-2014
39	Location No. 544	15-March-2014
40	Location No. 545	15-March-2014
41	Location No. 546	15-March-2014
42	Location No. 547	15-March-2014
43	Location No. 548	15-March-2014
44	Location No. 549	15-March-2014

APPENDIX 4: BRAKE DOWN DETAILS

The plant is in continuous operation and there is some breakdown due to some unwanted circumstances the details of same is as such-

Site: Vagrai			
Date	Reason for shutdown	Total Shut Down	Action Taken
03-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
06-July-2023	error_pitch_converter_ok_3	19:59	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
06-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
07-July-2023	error_pitch_converter_ok_3	18:01	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
07-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
08-July-2023	error_pitch_converter_ok_3	16:52	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
08-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
09-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
10-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
11-July-2023	error_converter_step_up_IGBT	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
11-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
12-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
13-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
14-July-2023	error_converter_generator_contactor	23:16	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
14-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
15-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE

16-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
17-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
18-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
19-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
20-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
21-July-2023	Major Breakdown	15:42	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
23-July-2023	error_pitch_capacitor_voltage_hi_2	15:27	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
24-July-2023	error_converter_generator_contactor	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
25-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
26-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
27-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
28-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
29-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
30-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
31-July-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
01-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
02-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
03-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
04-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
05-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
06-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
07-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
08-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
09-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
10-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
11-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE

12-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
13-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
14-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
15-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
16-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
17-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
18-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
19-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
20-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
21-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
22-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
23-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
24-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
25-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
26-August-2023	Major Breakdown	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
29-August-2023	ROW ISSUE	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
07-September-2023	error_pitch_converter_ok_2	23:07	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
08-September-2023	error_safety_system_safety_system_ok_from_pitch	0.64027778	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
29-September-2023	error_pitch_converter_ok_1	17:07	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
12-October-2023	Major Breakdown	24	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
19-October-2023	error_profi_node_43_d_iag	16:59	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
19-October-2023	error_profi_node_41_d_iag	18:01	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
07-November-2023	error_safety_system_safety_system_ok_from_pitch	19	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
08-November-2023	Preventive Action : Others(Blade PU Tape applying work)	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE

08-November-2023	Preventive Action : Others(Blade PU Tape applying work)	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
09-November-2023	Preventive Action : Others(Blade PU tape fixing work)	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
09-November-2023	Preventive Action : Others(Blade PU tape fixing work)	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
11-November-2023	Preventive Action : Failure Rectification	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
12-November-2023	Preventive Action : Failure Rectification	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
13-November-2023	Preventive Action : Failure Rectification	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
19-November-2023	Preventive Action : Failure Rectification	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
21-November-2023	Preventive Action : Failure Rectification	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
21-November-2023	Preventive Action : Failure Rectification	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
22-November-2023	Preventive Action : Failure Rectification	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
22-November-2023	Preventive Action : Failure Rectification	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
24-November-2023	Preventive Action : Failure Rectification	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
24-November-2023	Preventive Action : Failure Rectification	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
25-November-2023	Preventive Action : Failure Rectification	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
25-November-2023	Preventive Action : Failure Rectification	24	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
27-November-2023	Preventive Action : Failure Rectification	1.02222222	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
27-November-2023	Preventive Action : Failure Rectification	1.02222222	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
28-November-2023	Preventive Action : Failure Rectification	23:54	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
28-November-2023	Preventive Action : Failure Rectification	1.0125	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
30-November-2023	Preventive Action : Failure Rectification	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
01-December-2023	Preventive Action : Failure Rectification	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
01-December-2023	Preventive Action : Failure Rectification	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
03-December-2023	Preventive Action : Failure Rectification	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
03-December-2023	Preventive Action : Failure Rectification	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
04-December-2023	Preventive Action : Failure Rectification	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE

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19-January-2024	Preventive Action : Failure Rectification	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
Total		4915:18:00	
Site: Savalsang_ & Burgula			
Date	Error Name	Total WTG Down Hrs:	Action taken
06-June-2023	M/s for Blade damaged	24:00:00	due to Lightning damage found blade upper shell tip & trailing edge open 300mm, Up to repair work it will be in stop condition
07-June-2023	M/s for Blade damaged	24:00:00	Manual stop for due to Lightning damage found in this blade upper shell tip & trailing edge open 300mm
08-June-2023	M/s for Blade damaged	24:00:00	Manual stop for due to Lightning damage found in this blade upper shell tip & trailing edge open 300mm
09-June-2023	M/s for Blade damaged	24:00:00	Manual stop for due to Lightning damage found in this blade upper shell tip & trailing edge open 300mm
10-June-2023	M/s for Blade damaged	24:00:00	Manual stop for due to Lightning damage found in this blade upper shell tip & trailing edge open 300mm
11-June-2023	M/s for Blade damaged	24:00:00	Manual stop for due to Lightning damage found in this blade upper shell tip & trailing edge open 300mm
12-June-2023	M/s for Blade damaged	24:00:00	Manual stop for due to Lightning damage found in this blade upper shell tip & trailing edge open 300mm
13-June-2023	M/s for Blade damaged	24:00:00	Manual stop for due to Lightning damage found in this blade upper shell tip & trailing edge open 300mm
14-June-2023	M/s for Blade damaged	24:00:00	Manual stop for due to Lightning damage found in this blade upper shell tip & trailing edge open 300mm
15-June-2023	M/s for Blade damaged	24:00:00	Manual stop for due to Lightning damage found in this blade upper shell tip & trailing edge open 300mm
16-June-2023	M/s for Blade damaged	24:00:00	Manual stop for due to Lightning damage found in this blade upper shell tip & trailing edge open 300mm
17-June-2023	M/s for Blade damaged	24:00:00	Manual stop for due to Lightning damage found in this blade upper

			shell tip & trailing edge open 300mm
18-June-2023	M/s for Blade damaged	24:00:00	After completion of work blade repair work, wtg restored
03-July-2023	Synchronization timeout	24:00:00	Attend and check related connection and circuit we found encoder coupler was faulty:same was replaced then the wtg start:(Delayed to due non availability of material)
17- September- 2023	M/s for Blade damaged	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
18- September- 2023	M/s for Blade damaged	24:00:00	Work in progress after resolving shutdown issue
19- September- 2023	M/s for Blade damaged	24:00:00	Work in progress after resolving shutdown issue
20- September- 2023	M/s for Blade damaged	24:00:00	Work in progress after resolving shutdown issue
21- September- 2023	M/s for Blade damaged	24:00:00	Work in progress after resolving shutdown issue
22- September- 2023	M/s for Blade damaged	24:00:00	Work in progress after resolving shutdown issue
23- September- 2023	M/s for Blade damaged	24:00:00	Work in progress after resolving shutdown issue
24- September- 2023	M/s for Blade damaged	24:00:00	Work in progress after resolving shutdown issue
25- September- 2023	M/s for Blade damaged	24:00:00	Work in progress after resolving shutdown issue
26- September- 2023	M/s for Blade damaged	24:00:00	Work in progress after resolving shutdown issue
27- September- 2023	M/s for Blade damaged	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
27- September- 2023	M/s for Blade damaged	24:00:00	After blade repair WTG restored
28- September- 2023	M/s for Blade damaged	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
29- September- 2023	M/s for Blade damaged	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE

30-September-2023	M/s for Blade damaged	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
01-October-2023	M/s for Blade damaged	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
02-October-2023	M/s for Blade damaged	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
03-October-2023	M/s for Blade damaged	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
04-October-2023	M/s for Blade damaged	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
05-October-2023	M/s for Blade damaged	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
06-October-2023	M/s for Blade damaged	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
07-October-2023	M/s for Blade damaged	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
08-October-2023	M/s for Blade damaged	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
09-October-2023	M/s for Blade damaged	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
10-October-2023	M/s for Blade damaged	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
11-October-2023	M/s for Blade damaged	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
09-January-2024	M/s for Blade inspection and found blade damaged	24:00:00	Found C-blade damaged and discussion WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE with SGRE team for blade repair
10-January-2024	M/s due to blade damage	24:00:00	found C blade tip open due to lighing damaged now wtg stop condition:
11-January-2024	M/s due to blade damage	24:00:00	found C blade tip open due to lighing damaged now wtg stop condition:
12-January-2024	M/s due to blade damage	24:00:00	found C blade tip open due to lighing damaged now wtg stop condition:
12-January-2024	M/s due to blade damage	24:00:00	found A blade tip open due to lighing damaged now wtg stop condition:
13-January-2024	M/s due to blade damage	24:00:00	found C blade tip open due to lighing damaged now wtg stop condition:
13-January-2024	M/s due to blade damage	24:00:00	found A blade tip open due to lighing damaged now wtg stop condition:
14-January-2024	M/s due to blade damage	24:00:00	found C blade tip open due to lighing damaged now wtg stop condition:

14-January-2024	M/s due to blade damage	24:00:00	found A blade tip open due to lighing damaged now wtg stop condition:
15-January-2024	M/s due to blade damage	24:00:00	found C blade tip open due to lighing damaged now wtg stop condition:
15-January-2024	M/s due to blade damage	24:00:00	found A blade tip open due to lighing damaged now wtg stop condition:
16-January-2024	M/s due to blade damage	24:00:00	found C blade tip open due to lighing damaged now wtg stop condition:
16-January-2024	M/s due to blade damage	24:00:00	found A blade tip open due to lighing damaged now wtg stop condition:
17-January-2024	M/s due to blade damage	24:00:00	found C blade tip open due to lighing damaged now wtg stop condition:
17-January-2024	M/s due to blade damage	24:00:00	found A blade tip open due to lighing damaged now wtg stop condition:
18-January-2024	M/s due to blade damage	24:00:00	found C blade tip open due to lighing damaged now wtg stop condition:
18-January-2024	M/s due to blade damage	24:00:00	found A blade tip open due to lighing damaged now wtg stop condition:
19-January-2024	M/s due to blade damage	24:00:00	found C blade tip open due to lighing damaged now wtg stop condition:
19-January-2024	M/s due to blade damage	24:00:00	found A blade tip open due to lighing damaged now wtg stop condition:
20-January-2024	M/s due to blade damage	24:00:00	found C blade tip open due to lighing damaged now wtg stop condition:
20-January-2024	M/s due to blade damage	24:00:00	found A blade tip open due to lighing damaged now wtg stop condition:
20-January-2024	M/s due to blade damage	24:00:00	found A blade tip open due to lighing damaged now wtg stop condition:
21-January-2024	M/s due to blade damage	24:00:00	found C blade tip open due to lighing damaged now wtg stop condition:
21-January-2024	M/s due to blade damage	24:00:00	found A blade tip open due to lighing damaged now wtg stop condition:
21-January-2024	M/s due to blade damage	24:00:00	found A blade tip open due to lighing damaged now wtg stop condition:

22-January-2024	M/s due to blade damage	24:00:00	found C blade tip open due to lighing damaged now wtg stop condition:
22-January-2024	M/s due to blade damage	24:00:00	found A blade tip open due to lighing damaged now wtg stop condition:
22-January-2024	M/s due to blade damage	24:00:00	found A blade tip open due to lighing damaged now wtg stop condition:
23-January-2024	M/s due to blade damage	24:00:00	After completion of work normalized
23-January-2024	M/s due to blade damage	24:00:00	found A blade tip open due to lighing damaged now wtg stop condition:
23-January-2024	M/s due to blade damage	24:00:00	found A blade tip open due to lighing damaged now wtg stop condition:
24-January-2024	M/s due to blade damage	24:00:00	found A blade tip open due to lighing damaged now wtg stop condition:
24-January-2024	M/s due to blade damage	24:00:00	found A blade tip open due to lighing damaged now wtg stop condition:
25-January-2024	M/s due to blade damage	24:00:00	After completion of work normalized
25-January-2024	M/s due to blade damage	24:00:00	After completion of work normalized
27-January-2024	M/s for blade repair work	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
28-January-2024	M/s for blade repair work	24:00:00	WORK IN PROGRESS AFTER RESOLVING SHUTDOWN ISSUE
29-January-2024	M/s for blade repair work	24:00:00	After completion of work normalized
Total		1872:00:00	

APPENDIX 5: DEVIATION DETAILS

S No.	Machin ID	Feeder Nos.	As per registered PD Version 2 Dated 10-February-2016		Corrected in previous verification (01-April-2022 – 30-June-2023 (Both Date Inclusive)	
			Latitude (N)	Longitude (E)	Latitude (N)	Longitude (E)
1	K00-518	Feeder 9	10.69948341	77.6882558	10.695026 N	77.570779 E
2	K00-1359		10.66563968	77.65962324	10.688039 N	77.592838 E
3	APY-241	Feeder 5	10.65021639	77.64901256	10.696430 N	77.655525 E
4	APY-416		10.67020783	77.62907088	10.693031 N	77.653586 E
5	PAR-09		10.66760795	77.6115463	10.678811 N	77.553641 E
6	PON-534		10.68803933	77.59283778	10.676050 N	77.571935 E
7	PON-1043	Feeder 2	10.68473981	77.60821209	10.729955 N	77.576547 E
8	NAL-119		10.7208402	77.58716885	10.652837 N	77.545505 E
9	NAL-81	Feeder 5	10.72735208	77.58532376	10.664993 N	77.528386 E
10	NAL-57		10.72995488	77.57654703	10.763263 N	77.625708 E
11	MAN-210	Feeder 9	10.69502488	77.57087056	10.727352 N	77.585324 E
12	MAN-898		10.67605028	77.57193498	10.713748 N	77.629144 E
13	MAN802		10.67881165	77.55364153	10.657353 N	77.553426 E
14	KON-556	Feeder 4	10.6625153	77.55755231	10.650216 N	77.649013 E
15	KON-563		10.65892169	77.56165127	10.699483 N	77.688256 E
16	KON-590		10.65451458	77.55915715	10.684740 N	77.608212 E
17	KON-640		10.65735343	77.55342588	10.738135 N	77.688168 E
18	KON-658		10.65283678	77.54550489	10.670208 N	77.629071 E
19	KON-621		10.64871125	77.55058605	10.667608 N	77.611546 E
20	KON-501	Feeder 3	10.66499329	77.52838599	10.694380 N	77.634057 E
21	ALA-1639	Feeder 8	10.76318948	77.61626788	10.665640 N	77.659623 E
22	ALA-1946		10.76326328	77.62570771	10.663297 N	77.566886 E
23	NAL-434	Feeder 6	10.73760525	77.62759636	10.648711 N	77.550586 E
24	KON-234		10.64497336	77.52904287	10.658922 N	77.561651 E
25	PAR-50	Feeder 5	10.67281499	77.60039121	10.737605 N	77.627596 E
26	MAN-625	Feeder 3	10.67788177	77.53579195	10.662515 N	77.557552 E
27	MAN-604	Feeder 2	10.68348459	77.53683425	10.644345 N	77.515043 E
28	ALA-2301	Feeder 8	10.75886068	77.63132567	10.720840 N	77.587169 E
29	ALA-1569		10.75463624	77.6265833	10.759444 N	77.604996 E
30	ALA-2352		10.74110802	77.63007535	10.763189 N	77.616268 E
31	K00-1157	Feeder 2	10.68178844	77.68985383	10.669956 N	77.554773 E
32	PON-1081		10.68348435	77.61787566	10.660363 N	77.617842 E
33	MAN-940	Feeder 9	10.66893415	77.56925334	10.668934 N	77.569253 E
34	PON-1565		10.69642995	77.65552456	10.673908 N	77.529976 E
35	PON-1568	Feeder 6	10.69303118	77.6535857	10.646536 N	77.555893 E
36	VEL-1936	Feeder 8	10.73813524	77.68816772	10.677837 N	77.535691 E

37	ALA-1618	Feeder 9	10.75944434	77.6049963	10.66492 N	77.547432 E
38	PON-908	Feeder 8	10.71374814	77.62914446	10.718534 N	77.615573 E
39	PON-1203	Feeder 6	10.69438029	77.63405677	10.71890 N	77.581396 E
40	MAN-963	Feeder 7	10.66329726	77.56688572	10.683484 N	77.617876 E
41	PON-1021	Feeder 6	10.68974267	77.61070314	10.773698 N	77.61412 E
42	KOL-652	Feeder 5	10.7374949	77.57384237	10.68742 N	77.616146 E
43	PON-4		10.71893637	77.58140577	10.692721 N	77.615369 E
44	MAN-828	Feeder 9	10.67012558	77.55507631	10.692721 N	77.615369 E
45	KON-618	Feeder 3	10.6446245	77.54867946	10.710023 N	77.646516 E
46	KON-395		10.64247133	77.52219864	10.77361 N	77.639413 E
47	KON-451	Feeder 2	10.65236689	77.52989861	10.754682 N	77.62652 E
48	APA-84	Feeder 3	10.64182591	77.56167279	10.689743 N	77.610703 E
49	PUN-270		10.60746419	77.54929363	10.66565 N	77.517593 E
50	PUN-34		10.63256556	77.56924986	10.673745 N	77.54778 E
51	VEL-1702	Feeder 9	10.75513671	77.69153445	10.681788 N	77.689854 E
52	KAL-093	Feeder 8	10.76334694	77.69804901	10.649539 N	77.51747 E
53	ALA-2290		10.76527764	77.63428714	10.654515 N	77.559157 E
54	PON-775	Feeder 6	10.71842551	77.61554436	10.65057 N	77.580673 E
55	ALA-2260		10.75628612	77.6376538	10.620784 N	77.564648 E
56	MET-164	Feeder 7	10.61592339	77.56684556	10.630660 N	77.569115 E
57	NAL-445		10.73391078	77.63495601	10.684400 N	77.563052 E
58	KOO-1036	Feeder 6	10.68513012	77.6699966	10.667224 N	77.539641 E
59	VEL-1540		10.75739179	77.66053403	10.683467 N	77.536761 E
60	KOO-1174	Feeder 7	10.67220444	77.68962334	10.677765 N	77.616831 E
61	KOO-1000		10.67217045	77.67146366	10.714956 N	77.67510 E
62	PON-1304		10.70991951	77.63314951	10.659904 N	77.651955 E
63	APY-247		10.65429232	77.65102078	10.656300 N	77.62939 E
64	KON-411		10.64434508	77.51504326	10.765864 N	77.633324 E
65	KOO-581		10.69196175	77.68144785	10.709670 N	77.627337 E
66	VEL-2119		10.72574112	77.64794111	10.753168 N	77.683129 E
67	ALA-1385		10.71111522	77.64877317	10.762752 N	77.680226 E

The geotagged photos are now below to this section.

