



BUNDLED WIND POWER PROJECT BY GIRIRAJ ENTERPRISES



Project title	Bundled Wind Power Project by Giriraj Enterprises
Project ID	1669 ¹
Monitoring period	01-April-2022 to 30-March-2025 (first and last date included)
Original date of issue	10-October-2025
Most recent date of issue	10-June-2026
Version	07
VCS Standard Version	4.7
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¹ <https://registry.terra.org/app/projectDetail/VCS/1669>

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PROJECT DETAILS

1.1 Summary Description of the Implementation Status of the Project

The project activity generates power using renewable energy source (wind energy) and sell the power generated to the state grid. The generated electricity is exported to the regional grid system which is under the purview of the INDIAN electricity grid of India.

The wind power generated from the Project displaces the electricity generated from grid connected power stations feeding into Indian grid (Indian Electricity Grid). Since, the wind power is Green House Gas (GHG) emissions free, the power generated prevents the anthropogenic GHG emissions generated by the fossil fuel based thermal power stations comprising coal, diesel, furnace oil and gas. The estimation of GHG reductions by this project is limited to carbon dioxide (CO₂) only.

The project activity involves the installation of Wind Power Projects. During the time of registration, the total installed capacity of the project was 112.5 MW. After that it was downsized to 96 MW which was approved in the second monitoring period. Further to this, the 3 MW WTG from the total capacity of 12 MW at Vejalpar site, Morbi, Gujarat has been sold upon permission from Gujarat Energy Development Agency (GEDA). The reason for that was internal restructuring within the organization of Giriraj Enterprises. So, the project capacity stood at 93.0 MW in the second last monitoring period (01-March-2020 to 31-December-2020). Further to this, the project activity has downsized to 90 MW in January 2021 and 88.5 MW in 01-February-2021. In previous verification period 4.5 MW WTG of Vejalpar site has been removed due to unavailability of PPA. So, the project capacity presently stands at 84 MW. The details of the project are given below:

Sr. No.	Project Type	Project Capacity (in MW)	Owner of Project	Project Location	State
1	Wind	30 MW	Giriraj Enterprises	Hatuniya Site, Mandsaur	Madhya Pradesh
2	Wind	22.5 MW	Giriraj Enterprises	Dewas Site, Dewas	Madhya Pradesh
3	Wind	21 MW	Giriraj Enterprises	Dhar Site, Dhar	Madhya Pradesh
4	Wind	10.5 MW	Giriraj Enterprises	Vejalpar Site, Morbi	Gujarat

The entire capacity of 84 MW of the project activity has already been commissioned and the commissioning details are provided in the section 3.1 of the Monitoring Report.

The details of sold WTG are mentioned in the table below.

Sr. No.	Firm	Project	WTG Nos	Date of Transfer
1	GE	Vejalpar (Guj)	PVKH 13	01-December-2020
3	GE	Vejalpar (Guj)	PVKH 20	01-January-2020
4	GE	Vejalpar (Guj)	PVKH 21	01-February-2021
5	GE	Vejalpar (Guj)	PVKH 25	01-January-2020
6	GE	Vejalpar (Guj)	PVKH 17	01-January-2021

The total emission reductions achieved in this monitoring period i.e., from 01-April-2022 to 30-March-2025 (first and last days included) is 426,872 tCO₂e

1.2 Audit History

Audit type	Period	Program	Validation/verification body name	Number of years
Validation/verification	31-march-2015 to 28-February-2017	VCS	Carbon Check India Private limited	Two years
verification	01-March-2017 to 31-March-2018	VCS	LGAI Technological Center S.A. (Applus+ Certification)	One year one month
verification	01-April-2018 to 31-March-2019	VCS	LGAI Technological Center S.A. (Applus+ Certification)	One year one month
verification	01-April-2019 to 29-Feb-2020	VCS	4K Earth Science Private Limited	Eleven months
verification	01-March-2020 to 31-December-2020	VCS	LGAI Technological Center S.A. (Applus+ Certification)	Ten months
verification	01-January-2021 to 30-June-2021	VCS	LGAI Technological Center S.A. (Applus+ Certification)	Six months
verification	01 July 2021 to 31 March 2022	VCS	VKU Certification Pvt. Ltd.	Nine months
verification	01-April-2022 to 30-March-2025	VCS	LGAI Technological Center S.A. (Applus+ Certification)	Three years
Total	31-march-2015 to 30-March-2025	VCS		Ten years

1.3 Sectoral Scope and Project Type

Sectoral scope ²	1-Energy Industries (renewable- / non-renewable sources)
Project activity type	Wind Energy Project

1.4 Project Proponent

Organization name	Giriraj Enterprises
Contact person	Mr. Prafulla Khinvasara
Title	Head – Wind Power Project
Address	Malpani Estate, Kasara Dumala, Sangamner, Maharashtra -422 605, India
Telephone	9822322145
Email	prafulla@malpani.com

1.5 Other Entities Involved in the Project

Organization name	Climera Carbon Private Limited
Role in the project	Project Consultant
Contact person	Ankit Suman
Title	Manager- Operations
Address	Corp. Office - Awfis, 2nd Floor, Winway World Offices, Plot No. B-7, Scheme No. PU-4 Commercial, Vijay Nagar, Indore, M.P. - 452010, India
Telephone	+91-9752607814
Email	ankit.suman@climera.co

² 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>

1.6 Project Start Date

Project start date	31-March-2015
Justification	The project start date is the date of earliest commissioning date of WTG.

1.7 Project Crediting Period

Crediting period	☐ Seven years, twice renewable ☐ Ten years, fixed ☒ Other (state the selected crediting period and justify how it conforms with the VCS Program requirements) The project activity adopts renewable crediting period of 10 years ³ period which can be renewed for maximum 2 times.
Start and end date of first or fixed crediting period	31-March-2015 to 30-March-2025

1.8 Project Location

The Geo Coordinates of locations of WTG have been mentioned in the table below:

Sr. No.	Project Proponent	Machine ID	Village	Taluka	District	State	Latitude	Longitude
1	Giriraj Enterprises	RISPL/1500/16-17/4049	Kumbhariya	Morbi	Morbi	Gujarat	23°07'39.4"N	70°56'48.1"E
2	Giriraj Enterprises	RISPL/1500/16-17/4050	Kumbhariya	Morbi	Morbi	Gujarat	23°07'18.0"N	70°57'10.0"E
3	Giriraj Enterprises	RISPL/1500/1617/4051	Kumbhariya	Morbi	Morbi	Gujarat	23°08'05.7"N	70°56'53.2"E
4	Giriraj Enterprises	RISPL/1500/1617/4052	Kumbhariya	Morbi	Morbi	Gujarat	23°08'05.0"N	70°56'53.0"E

³ <https://verra.org/wp-content/uploads/2022/12/PREVIOUS-VERSION-VCS-Standard-v3.7.pdf>

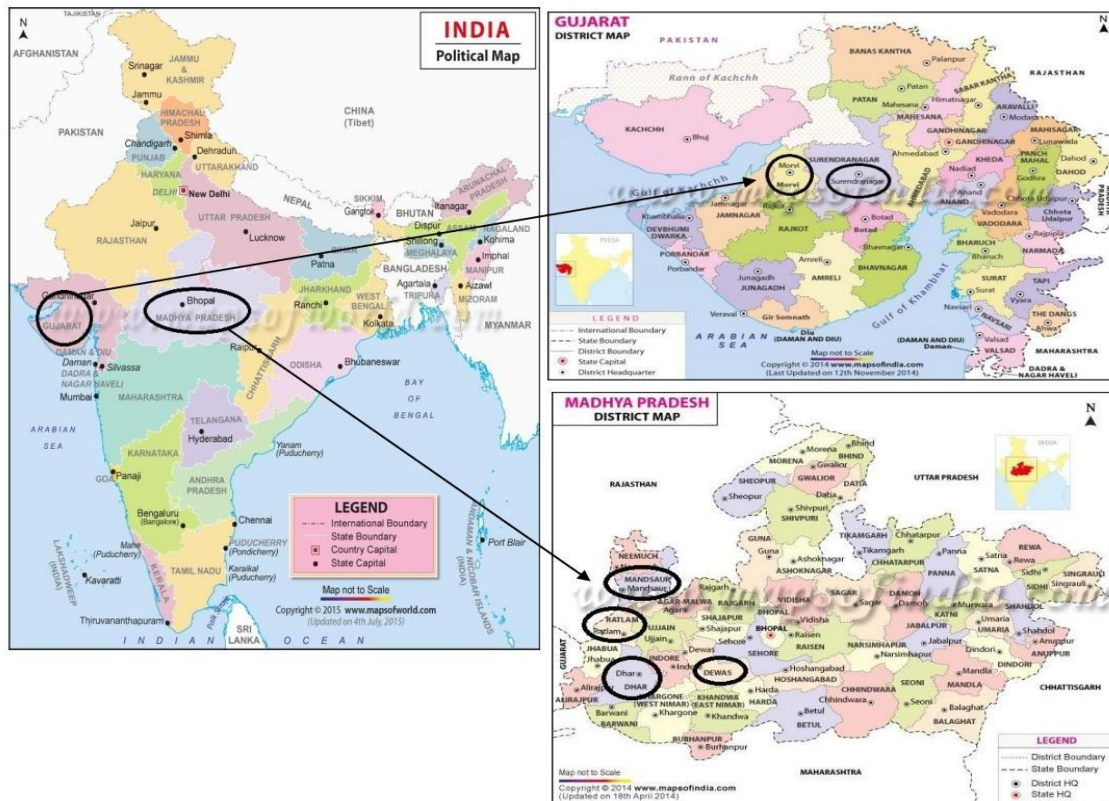
5	Giriraj Enterprises	RISPL/1500/1617/4053	Kumbhariya	Morbi	Morbi	Gujarat	23°07'52.8"N	70°56'48.5"E
6	Giriraj Enterprises	RISPL/1500/1617/4054	Kumbhariya	Morbi	Morbi	Gujarat	23°07'28.0"N	70°57'54.0"E
7	Giriraj Enterprises	RISPL/1500/1617/4055	Kumbhariya	Morbi	Morbi	Gujarat	23°08'04.0"N	70°57'59.0"E
8	Giriraj Enterprises	RH3- 01	Ratikhedi	Mandsaur	Mandsaur	Madhya Pradesh	23°53'55.5"N	75°14'00.2"E
9	Giriraj Enterprises	RH3- 02	Bholiya	Mandsaur	Mandsaur	Madhya Pradesh	23°52'51.2"N	75°13'50.4"E
10	Giriraj Enterprises	RH3- 03	Ratikhedi	Mandsaur	Mandsaur	Madhya Pradesh	23°53'15.3"N	75°13'52.0"E
11	Giriraj Enterprises	RH3- 04	Ratikhedi	Mandsaur	Mandsaur	Madhya Pradesh	23°53'44.6"N	75°14'18.3"E
12	Giriraj Enterprises	RH3- 05	Ratikhedi	Mandsaur	Mandsaur	Madhya Pradesh	23°53'50.2"N	75°14'09.1"E
13	Giriraj Enterprises	RH3- 06	Kankarwa	Jaora	Mandsaur	Madhya Pradesh	23°51'35.7"N	75°13'46.3"E
14	Giriraj Enterprises	RH3- 07	Bholiya	Mandsaur	Mandsaur	Madhya Pradesh	23°52'33.8"N	75°14'02.4"E
15	Giriraj Enterprises	RH3- 08	Kankarwa	Jaora	Mandsaur	Madhya Pradesh	23°51'30.7"N	75°13'54.6"E
16	Giriraj Enterprises	RH3- 09	Bholiya	Mandsaur	Mandsaur	Madhya Pradesh	23°52'04.7"N	75°13'22.4"E
17	Giriraj Enterprises	RH3- 10	Bholiya	Mandsaur	Mandsaur	Madhya Pradesh	23°51'56.2"N	75°13'20.5"E

18	Giriraj Enterprises	RH4- 01	Jogikheda	Mands aur	Mands aur	Madhya Pradesh	23° 55'44.0"N	75° 13'01.0"E
19	Giriraj Enterprises	RH4- 02	Ratikhedi	Mands aur	Mands aur	Madhya Pradesh	23° 54'41.0"N	75° 13'35.5"E
20	Giriraj Enterprises	RH4- 03	Kuchdod	Mands aur	Mands aur	Madhya Pradesh	23° 54'28.9"N	75° 14'57.5"E
21	Giriraj Enterprises	RH4- 04	KhajuriAn jana	Mands aur	Mands aur	Madhya Pradesh	23° 55'26.4"N	75° 13'22.7"E
22	Giriraj Enterprises	RH4- 05	Ratikhedi	Mands aur	Mands aur	Madhya Pradesh	23° 55'18.0"N	75° 13'29.5"E
23	Giriraj Enterprises	RH4- 06	KhajuriAn jana	Mands aur	Mands aur	Madhya Pradesh	23° 55'35.6"N	75° 13'24.3"E
24	Giriraj Enterprises	RH4- 07	KhajuriAn jana	Mands aur	Mands aur	Madhya Pradesh	23° 55'35.5"N	75° 13'24.1"E
25	Giriraj Enterprises	RH4- 08	KhajuriAn jana	Mands aur	Mands aur	Madhya Pradesh	23° 55'44.0"N	75° 13'01.2"E
26	Giriraj Enterprises	RH4- 09	KhajuriAn jana	Mands aur	Mands aur	Madhya Pradesh	23° 54'42.3"N	75° 14'46.6"E
27	Giriraj Enterprises	RH4- 10	Kuchdod	Mands aur	Mandsa ur	Madhya Pradesh	23° 54'33.4"N	75° 14'46.6"E
28	Giriraj Enterprises	TK- 01	BhojPura	TonkKh urd	Dewas	Madhya Pradesh	23° 05'00.2"N	76° 15'42.4"E
29	Giriraj Enterprises	TK- 04	BhojPura	TonkK hurd	Dewas	Madhya Pradesh	23° 05'32.4"N	76° 15'40.4"E
30	Giriraj Enterprises	TK- 05	BhojPura	TonkK hurd	Dewas	Madhya Pradesh	23° 05'43.5"N	76° 15'13.4"E

31	Giriraj Enterprises	TK- 06	BhojPura	TonkK hurd	Dewas	Madhya Pradesh	23° 05'11.8"N	76° 15'05.9"E
32	Giriraj Enterprises	TK- 07	BhojPura	TonkK hurd	Dewas	Madhya Pradesh	23° 05'54.9"N	76° 15'10.8"E
33	Giriraj Enterprises	TK- 08	BhojPura	TonkK hurd	Dewas	Madhya Pradesh	23° 05'21.9"N	76° 15'05.7"E
34	Giriraj Enterprises	TK- 09	Devli	TonkK hurd	Dewas	Madhya Pradesh	23° 06'18.3"N	76° 15'39.6"E
35	Giriraj Enterprises	TK- 10	Devli	TonkK hurd	Dewas	Madhya Pradesh	23° 06'29.7"N	76° 15'43.1"E
36	Giriraj Enterprises	TK- 12	Ranayal Kala	TonkK hurd	Dewas	Madhya Pradesh	23° 06'52.3"N	76° 15'40.4"E
37	Giriraj Enterprises	TK- 14	Ranayal Kala	TonkK hurd	Dewas	Madhya Pradesh	23° 07'11.6"N	76° 15'35.3"E
38	Giriraj Enterprises	TK- 02	BhojPura	TonkK hurd	Dewas	Madhya Pradesh	23° 05'03.9"N	76° 15'27.7"E
39	Giriraj Enterprises	TK- 13	Ranayal Kala	TonkK hurd	Dewas	Madhya Pradesh	23° 07'04.1"N	76° 16'06.0"E
40	Giriraj Enterprises	TK- 15	Sankely	TonkK hurd	Dewas	Madhya Pradesh	23° 08'12.7"N	76° 16'45.3"E
41	Giriraj Enterprises	TK- 16	Sankely	TonkK hurd	Dewas	Madhya Pradesh	23° 07'26.6"N	76° 16'37.8"E
42	Giriraj Enterprises	TK- 17	Sankely	TonkK hurd	Dewas	Madhya Pradesh	23° 08'27.3"N	76° 16'27.1"E
43	Giriraj Enterprises	TIR- 04	Labrawada	Dhar	Dhar	Madhya Pradesh	22° 38'06.9"N	75° 15'52.5"E

44	Giriraj Enterprises	TIR- 05	Navgaon	Dhar	Dhar	Madhya Pradesh	22° 38'25.7"N	75° 16'20.1"E
45	Giriraj Enterprises	TIR- 07	Kalukhedi	Dhar	Dhar	Madhya Pradesh	22° 38'29.8"N	75° 16'11.0"E
46	Giriraj Enterprises	TIR- 09	Kalukhedi	Dhar	Dhar	Madhya Pradesh	22° 38'36.3"N	75° 16'03.0"E
47	Giriraj Enterprises	TIR- 10	Chikliya	Dhar	Dhar	Madhya Pradesh	22° 37'51.7"N	75° 15'46.3"E
48	Giriraj Enterprises	TIR- 03	Navgaon	Dhar	Dhar	Madhya Pradesh	22° 37'58.8"N	75° 16'16.9"E
49	Giriraj Enterprises	TIR- 06	Navgaon	Dhar	Dhar	Madhya Pradesh	22° 38'09.2"N	75° 16'20.0"E
50	Giriraj Enterprises	TIR- 12	Navgaon	Dhar	Dhar	Madhya Pradesh	22° 37'51.7"N	75° 15'46.3"E
51	Giriraj Enterprises	TIR- 13	Navgaon	Dhar	Dhar	Madhya Pradesh	22° 39'00.3"N	75° 17'27.3"E
52	Giriraj Enterprises	TIR- 14	Navgaon	Dhar	Dhar	Madhya Pradesh	22° 37'52.3"N	75° 16'28.0"E
53	Giriraj Enterprises	ADD- 02	Navgaon	Dhar	Dhar	Madhya Pradesh	22° 37'51.8"N	75° 16'54.4"E
54	Giriraj Enterprises	ADD- 03	Navgaon	Dhar	Dhar	Madhya Pradesh	22° 38'27.8"N	75° 17'05.9"E
55	Giriraj Enterprises	ADD- 04	Navgaon	Dhar	Dhar	Madhya Pradesh	22° 38'39.1"N	75° 17'01.1"E
56	Giriraj Enterprises	ADD- 05	Khilchipura	Dhar	Dhar	Madhya Pradesh	22° 38'53.9"N	75° 17'41.5"E

The project location has been highlighted in the geographical map shown below:



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	17.0
Tool	Tool 07	Tool to calculate the emission factor for an electricity system	05.0
Tool	Tool 01	Tool for the demonstration and assessment of additionality	07.0.0

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

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

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

Designated National Authority (DNA) of the host country (India) has stipulated four indicators for sustainable development in the interim approval guidelines for Clean Development Mechanism projects in India. The project proponent believes that the project activity has contributed to sustainable development in terms of the four indicators as follows:

Social well-being:

Social well-being focuses on the reflections of the project activity on the neighboring community. The project promoter envisages following social benefits:

- Improved standard of living
- Availability of infrastructure like electricity, roads, medical facilities etc.
- Reduce migration from rural to urban area for the sake of employment
- Awareness about the global issues, their solutions & role of India in the same
- Awareness among local people regarding wind power & its effect on rain and ground water level

It will thus be responsible in bringing social well-being in the region.

Environmental well-being:

The project activity is a clean source of power generation. The environmental aspects in consideration are as follows:

- In comparison to other sources of power generation prevailing in the country, wind power is the cleanest technology.
- As compared to other power plants, less amount of land is required for a single wind turbo generator. Wind power is renewable. It can be used continuously, whenever available. There is no danger of depletion of the raw material used for power generation.
- Wind power is a naturally available source of energy. There is no processing required to make it available for power generation.

Thus, wind power technology goes hand-in-hand with the environmental well-being of the region.

Technological well-being:

The power generation technology used in this project activity is provided by M/s. Suzlon Energy Limited. The technological well-being envisaged by the project promoter is as follows:

- It boosts the use of such technology by other project developers.
- Successful implementation and operation of this project gives necessary impetus in implementation of similar technology in the region.
- The project activity leads to transfer of environmentally safe and sound technologies that are comparable to best practices in order to assist in upgradation of the technological base in the local region.

Economic well-being:

Economic well-being refers to additional investment consistent with the needs of the local community. The project in due course of time drew additional investment to the region. In general, the project activity envisages following economic benefits:

- Employment opportunities
- Market facilities for local products
- Industrial development
- Increase in real income
- Increase in regional gross domestic product
- Capital formation
- Improvement of a rural economy
- Flow of goods and services

All the above are the contributions of the project activity for the sustainable development, the economic development of the region has been attributed to the project operation. The project contributes to the sustainable development of the region during its entire operational life.

The project supplies clean electricity from the wind power project to the Indian Grid, hence displacing the electricity generated from grid connected fossil fuel power plants and thereby avoiding the equivalent Carbon dioxide which is a Green House Gas.

For SDG-7, this project activity generates electricity from wind energy sources that ensures supply of electricity sources from clean energy sources at affordable rate. In this monitoring period, this project activity, has supplied 436,665.25 MWh clean electricity.

For SDG- 13, this project activity has led GHG emissions reductions by generating electricity using wind energy thus avoiding fossil-fuel electricity generation. In this monitoring period, this project activity has achieved GHG emission reductions of 426,872 tCO₂e.

Table 1: Sustainable Development Contributions

Row number	SDG target	SDG indicator	Net impact on SDG indicator	Current project contributions	Contributions over project lifetime
1)	SDG 7	7.2.1: Renewable energy share in the total final energy consumption	Implemented activities to increase	436,665.25 MWh of renewable electricity has been supplied to Indian grid during the reported period that helps to increase the renewable energy share in the energy mix.	About 1,465,107.44 (150,967.36 + 170,482.07 + 201,071.42 + 173,469.88 + 138,768.86 + 85,153 + 108,529.60+436,665.25) MWh renewable electricity has already supplied over till date to Indian grid that helps to increase the renewable energy share in the energy mix.
2)	SDG 13	Tonnes of greenhouse gas emissions avoided or removed	Implemented activities to increase	By supplying 436,665.25 MWh clean electricity to Indian grid, the project avoided release of 426,872 tCO ₂ e into the atmosphere during the reporting period.	Prevented the release of 1,432,353 (147,600 + 166,680 + 196,587 + 169,561 + 135,671 + 83,279 + 106,103+426,872) tCO ₂ e has already achieved over till date into the atmosphere.
3)	SDG 8	8.6.1 Proportion of youth (aged 15-24 years) not in education, employment or training.	Implemented activities to decrease.	Total 10 numbers of trainings conducted and 5 people employed during the current monitoring period.	Total 25 numbers of trainings conducted and 15 people employed since the project is implemented

1.13 Commercially Sensitive Information

No commercially sensitive information has been excluded from the public version of the project description

2 SAFEGUARDS AND STAKEHOLDER ENGAGEMENT

2.1 Stakeholder Engagement and Consultation

2.1.1 Stakeholder Identification

Stakeholder Identification

The local stakeholder meeting was carried out for the project activity and the details of the stakeholder meetings are as follows:

capacity	Village	District	Date of invitation	Date of meeting
30 MW	Ratikhedi, Bholiya & Khajuri Anjana	Mandsaur (MP)	11-August-2014	18-August-2014
22.5 MW	Bhoj Pura, Devli, Sankeli & Ranayal Kala	Dewas (MP)	08-February-2016	15-February-2016
21 MW	Navgaon & Kalukhedi	Dhar (MP)	10-September-2015	17-September-2015
10.5 MW	Kumbhariya	Morbi (Gujarat)	07-September-2016	14-September-2016

In the introductory speech, the representative of Project Investor, welcomed the gathering and given a brief about the

	climate mitigation project activity. Subsequent to the introductory speech, stakeholders were explained about the electricity generation from wind project is an environmentally friendly power generation technology contributing to reduction in GHG emissions. They were also explained about the benefits of the wind power projects like, increasing energy availability and improving quality of power and its assistance to the local population by providing employment opportunities to both skilled & unskilled labors. Meeting started with opening speech by representative of project participant. He introduced all guests on dais. The representative of project participant explained technical aspects of project to stakeholders. He also explained about social, environmental & economic benefits of the project. He also elaborated about carbon mechanism & its requirement for the current project. After the detailed discussions, the session was open for questions from stakeholders. Following stakeholders have been identified for this project activity 1. Local community members 2. Employees 3. Local government officials (e.g. village council members) 4. Local media personnel 5. Regional and national government officials (e.g. district magistrate) 6. Local NGOs
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 wellbeing – the project activity is likely to provide employments to the locality thus economic well beings are expected 2. Environmental wellbeing – 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	<table border="1"> <thead> <tr> <th>Village</th><th>District</th></tr> </thead> <tbody> <tr> <td>Ratikhedi, Bholiya & Khajuri Anjana</td><td>Mandsaur (MP)</td></tr> <tr> <td>Bhoj Pura, Devli, Sankeli & Ranayal Kala</td><td>Dewas (MP)</td></tr> <tr> <td>Navgaon & Kalukhedi</td><td>Dhar (MP)</td></tr> <tr> <td>Kumbhariya</td><td>Morbi (Gujarat)</td></tr> </tbody> </table>	Village	District	Ratikhedi, Bholiya & Khajuri Anjana	Mandsaur (MP)	Bhoj Pura, Devli, Sankeli & Ranayal Kala	Dewas (MP)	Navgaon & Kalukhedi	Dhar (MP)	Kumbhariya	Morbi (Gujarat)
Village	District										
Ratikhedi, Bholiya & Khajuri Anjana	Mandsaur (MP)										
Bhoj Pura, Devli, Sankeli & Ranayal Kala	Dewas (MP)										
Navgaon & Kalukhedi	Dhar (MP)										
Kumbhariya	Morbi (Gujarat)										
Location of resources	Not Applicable There are no territories or resources owned by stakeholders, nor any 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. Project Proponent had conducted local stakeholder consultation in details during the registration of the project through identification of
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	stakeholders, invitation to them for meeting, explanation of the project to the stakeholders during the meeting and resolving comments/suggestions/grievances of the stakeholders.				
Date(s) of stakeholder consultation	capacity	Village	District	Date of invitation	Date of meeting
	30 MW	Ratikhedi, Bholiya & Khajuri Anjana	Mandsaur (MP)	11-August-2014	18-August-2014
	22.5 MW	Bhoj Pura, Devli, Sankeli & Ranayal Kala	Dewas (MP)	08-February-2016	15-February-2016
	21 MW	Navgaon & Kalukhedi	Dhar (MP)	10-September-2015	17-September-2015
	10.5 MW	Kumbhariya	Morbi (Gujarat)	07-September-2016	14-September-2016
Communication of monitored results	The process of local stakeholder consultation is continuous. During the current monitoring period, the project proponent has kept grievance register in plant site office and sought comments/grievances/suggestions from local stakeholders including local community, government agencies and NGOs. However, no comments/grievances/suggestions have been received from the aforementioned stakeholders during the current monitoring period and all such minor suggestions have been take care by the PP..				
Consultation records	Minutes of meeting from LSH and Invitation letter. For ongoing communication with local stakeholders, PP has kept the grievance register on security gate of project premises to record any grievance or feedback by any stakeholders.				
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.
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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.
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.

2.1.4 Grievance Redress Procedure

Grievances received	Resolution and outcome
No grievance raised during the monitoring period.	Feedback register is kept at project site office where any stakeholder can come and register his/her feedback. The project proponent 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 all the stakeholders. This procedure of ongoing communication log & addressal is used for the project. Stakeholders' feedback is monitored daily and any grievance if found, resolved immediately.

No action required as no grievance received for the current monitoring period

2.1.5 Public Comments

Summary of comments received	Actions taken
No comments received	No action required as no comments were received. During the current monitoring period not a single comment or grievance has been lodged in the grievance register Hence no action has been taken for any complaint or feedback,

2.2 Risks to Stakeholders and the Environment

2.2.1 Management Experience

A new other entity has been involved in the current monitoring period “Climera Carbon Private Limited”, serving as the project consultant. The management team of the project proponent has significant expertise and experience in implementing similar project activities, including community engagement. The involvement of this new entity 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	No risk identified	The project does not pose any risks to stakeholder wellbeing. The PP is ensuring open and

stakeholders' wellbeing		transparent dialogue with the stakeholders.
Risks to stakeholder participation	No risk identified	Stakeholder participation in wind projects poses minimal risk due to the clean nature of wind energy production, which does not emit pollutants. This fosters positive community relationships and reduces potential health and environmental concerns, ensuring smoother project implementation and garnering support from the community.
Working conditions	No risk identified	Stakeholder participation in wind projects poses negligible risks when the systems are operational. Wind technology typically operates reliably with minimal maintenance requirements, ensuring consistent energy generation and stakeholder satisfaction.
Safety of women and girls	No risk identified	Ensuring the safety of women and girls in the project involves comprehensive risk assessment and mitigation strategies. Measures such as well-lit areas, security patrols, gender-sensitive policies, and training on harassment prevention help mitigate risks, fostering a safe environment for all stakeholders and workers.
Safety of minority and marginalized groups, including children	No risk identified	While wind projects generally entail minimal or no risks to minority and marginalized groups, comprehensive safety measures have been implemented. This includes ensuring safe access to project sites, implementing child protection policies, and

		addressing any potential social or economic impacts on marginalized communities, thereby safeguarding their well-being throughout project development and operation.
Pollutants (air, noise, discharges to water, generation of waste, and release of hazardous materials and chemical pesticides and fertilizers)	No risk identified	As it is a wind power project, hence 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. The projects' lack of pollutants substantially reduces risks to stakeholders, including potential health hazards or environmental contamination. This inherent cleanliness fosters a safer environment for communities, minimizing concerns related to air and water quality, noise pollution, waste generation, and exposure

to hazardous materials, ensuring overall safety and well-being.

2.3 Respect for Human Rights and Equity

2.3.1 Labor and Work

Risks identified ⁴		Mitigation or preventative measure(s) taken
Discrimination	No risk identified	No risk identified. Equal opportunity practices are actively implemented across the project. Discrimination based on personal, social, or demographic factors is explicitly prohibited. The project's internal policies foster diversity, promote inclusive conduct, and prohibit all forms of harassment. A confidential grievance mechanism is established to promptly address any reported concerns. No instances of discrimination have been observed or reported during the current monitoring period. Preventative systems are in place to ensure ongoing compliance and early resolution of potential issues.
Sexual harassment	No risk identified	PP has provided declaration that no sexual harassment has occurred or will occur. No risk identified. The project enforces a zero-tolerance policy towards any form of harassment. Internal mechanisms are established to confidentially manage complaints. Regular training and awareness programs are

⁴ 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.

		conducted to uphold a respectful workplace culture.
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. No risk identified. Equal participation and pay practices are followed irrespective of gender. Recruitment, compensation, and advancement are based on merit. Monitoring systems help ensure continued fairness and non-discrimination. Ongoing training programs also foster gender inclusivity and address unconscious biases in the workforce. The Project Proponent ensures equal wage pay to its employees keeping them in line with the minimum wage criteria as per state labor laws.
Forced labor	No risk identified	The project has implemented stringent ethical policies in line with national labor act 1986. Regular audits and inspections are carried out to verify that the project's supply chain and workforce are free from forced labor. The company policy restricts hiring of any such employee involved in such practices. The project remains under strict surveillance of the project proponent & the state DISCOM, any malpractice at the project implemented site will be immediately reported and strict actions will be taken. Since the date of project start date, PP has not encountered any such activity at the project site.

Child labor	No risk identified	No risk identified. Systems are in place to verify worker age during hiring. There is no force labor, which is as per labor act 1986. Labor policies prohibit the engagement of underage workers, and routine checks are conducted to ensure adherence to these policies across all project activities.
Human trafficking	No risk identified	No risk identified. Employment and subcontracting practices are structured to prevent coercion or exploitation. All hiring is based on free and informed consent. Screening procedures for labor providers help ensure ethical sourcing and fair treatment

2.3.2 Human Rights

Risks identified	Mitigation or preventative measure(s) taken
No risk identified	PP has provided declaration that there will be no human rights violation of any kind to any of the stakeholders during construction and operation of the project activity.

2.3.3 Indigenous Peoples and Cultural Heritage

Risks identified	Mitigation(s) or preventative measure taken
No risk identified	The project is implemented entirely within the boundaries of privately owned land. No physical or cultural heritage sites of Indigenous Peoples have been identified within or near the project area. Regular site assessments and stakeholder consultations confirm that there has been no adverse impact on tangible or intangible cultural heritage. Measures are in place to ensure continued protection of local and national heritage assets throughout the project's lifecycle.

2.3.4 Property Rights

Risks identified	Mitigation or preventative measure(s) taken
No risk identified	The project activity is implemented on Project proponent 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
Benefit sharing during the monitoring period	Not Applicable

2.4 Ecosystem Health

	Risk identified	Mitigation or preventative measure(s) taken during the monitoring period
Impacts on biodiversity and ecosystems	No risk identified	No risk identified. The project activity has not resulted in any adverse impact on biodiversity or ecosystems. On the contrary, it contributes positively by reducing air pollution and mitigating climate change. During the monitoring period, no negative interactions with local flora or fauna were observed. Wind energy projects are typically considered environmentally benign, with limited disruption to surrounding ecosystems.
Soil degradation and soil erosion	No risk identified	No soil erosion and degradation are likely to be caused. 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	No risk identified. Water usage associated with the project remains minimal and within sustainable limits. No signs of water stress or resource depletion were observed during the monitoring period. Wind turbine operations typically require very low volumes of water, helping to preserve local water resources and minimize ecological pressure.

2.4.1 Rare, Threatened, and Endangered species

Species or habitat	No impact as the project is Wind power
Areas needed for habitat connectivity	Not Applicable

	Risks identified	Mitigation or preventative measure(s) taken
Habitats for rare, threatened, and endangered species	No risk identified	Not applicable
Areas for habitat connectivity	No risk identified	Not applicable

2.4.2 Introduction of species

Species introduced	Classification	Justification for use	Adverse effects and mitigation
Not applicable	Not applicable	Not applicable	Not applicable

Existing invasive species	Mitigation measures to prevent the spread or continued existence of invasive species
Not applicable	Not applicable

	Risks identified	Mitigation or preventative measure(s) taken
Invasive species	No risk identified	Not applicable

2.4.3 Ecosystem conversion

	Risks identified	Mitigation or preventative measure(s) taken
Ecosystem conversion	No risk identified	No impact on Ecosystem is likely to be caused

3 IMPLEMENTATION STATUS

3.1 Implementation Status of the Project Activity

The project activity involves the installation of Wind Power Projects. The total installed capacity of the project is 84 MW; which involves operation of Wind Turbine Generators (WTGs) in Madhya Pradesh and Gujarat states of India. The details about the location of the project activity have been mentioned in the section 1.8 of this report.

A new other entity has been involved in the current monitoring period “Climera Carbon Private Limited”, serving as the project consultant. The management team of the project consultant possesses substantial expertise and experience in implementing similar project activities, including community engagement.

Wind Power Project Technology Details⁸–

The technology employed, converts wind energy to electrical energy. In wind power generation, energy of wind is converted into mechanical energy and subsequently into electrical energy. Wind power generation technology is environment friendly technology since there are no GHG emissions associated with the electricity generation. There is no transfer of technology involved in the project activity.

The project activity comprises a total of 56 WTG's of ReGen Power Tech make.

Particulars	Details
Make	ReGen Powertech
Rated power	1500 kW
Cut-in wind speed	3 m/s
Cut-out wind speed	22 m/s
Survival wind speed	52.5 m/s
Generator	Variable Speed Multi Pole Synchronous

Rotor Diameter	87 m
Swept area	5942 m ²
Speed Range	9 to 17.3 rpm
Hub Height	85 m
Design	Tubular, Four Sections
Foundation Type	Floating
Control of Output	Pitch Regulation
Speed Control	Variable, micro controller based
Low Voltage Ride Through (LVRT)	3 seconds
Primary Brake system	Aerodynamic
Pitch System	Electromechanical
Remote Monitoring	VPN
Wind Turbine type class	GL III B
Design Lifetime	25 years

Feeder-wise location of the WTGs of the project activity has been mentioned in the table below-

Site	State	Capacity	Commissioning Date	WTG-ID	Feeder Location Details
Dhar Site	Madhya Pradesh	13.5 MW	31-March-2016	TIR-03, TIR-06, TIR-12, TIR-13, TIR-14, ADD-02, ADD-03, ADD-04, ADD-05	Jaitpura Feeder
		7.5 MW	31-March-2016	TIR-04, TIR-05, TIR-07, TIR-09, TIR-10	Dashera Maidan Feeder
Dewas Site		15 MW	30-May-2016	TK-01, 02, 04, 05, 06, 07, 08, 09, 10, 12	Prisma Feeder
		7.5 MW	31-May-2016	TK-13, 14, 15, 16, 17	
Hatuniya Site		15 MW	31-March-2015	RH3-01 to RH3-10	Kuchrod Site, Mandsour
		15 MW	31-March-2015	RH4-01 to RH4-10	AF Jalpur, Mandsour

Vejalpar Site	Gujarat	10.5 MW	02-March-2017	RISPL/1500/16-17/4049 to 4055	Morbi, Gujarat
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During the Current Monitoring Period, all the WTGs were operational and the project activity has supplied 436,665.25 MWh of electricity, and thus contributing to 426,872 tCO₂e GHG reductions.

Moreover, the operation of the project activity(s) during this monitoring period, including any information events that may impact the GHG emission reduction or removals and monitoring is applicable. Some events have been occurred due to shutdown of machine or internal grid and that may impact the GHG emission reduction of current monitoring period. And also, PP has taken some major shutdowns due to Mechanical & Electrical Yearly Maintenance, Force Majeure, Substation incoming breakdown, High/Low Voltage from Substation and Load Shedding. The breakdown details of the project activity have been mentioned in Appendix III of the Monitoring Report.

3.2 Deviations

3.2.1 Methodology Deviations

There is no request for methodology deviation applied during current monitoring period.

3.2.2 Project Description Deviations

Deviation 1 (This deviation has been taken during the 2nd monitoring period i.e. 01–March-2017 to 31-March-2018)

At the time of registration, the total capacity of the project activity was 112.5 MW. But now the capacity of the project has been downsized to 96 MW. This is because,

- The earlier, 13.5 MW capacity wind project by Giriraj Enterprises at Vejalpar site, Gujarat has been downsized to capacity of 12.0 MW; and
- The earlier, 15 MW capacity wind project by Giriraj Enterprises at Khareda site, Gujarat has been cancelled by the PP and has not been commissioned.

As the total capacity of the project activity has been downsized, there is deviation of project description only. Due to the downsizing of the project capacity, there is no change in the applied methodology or the tools.

Impact on Additionality due to downsizing of project capacity

IRR for 13.5 MW capacity wind project at Vejalpar site, Gujarat at the time of investment decision making was 6.92% and the benchmark was 15.43%. Whereas, IRR for the downsized capacity of 12.0 MW comes to be 6.80% and the benchmark is 15.43%. From the above analysis, it can be seen that after downsizing of the 13.5 MW project to 12.0 MW, the equity IRR is below the benchmark value. Hence, there is no impact on the project additionality. The IRR calculation sheet with 12.0 MW capacity has been submitted to the DOE.

Also, at the time of registration, 15.0 MW project was considered. But the project was cancelled and the entire capacity did not get commissioned. Hence, this will also not have any impact on the project additionality.

Deviation 2 (This has been taken during the 6th verification i.e (01-January-2021 to 30-June-2021).

Further to this, the 3 MW (1.5 MW x 2) WTG from the total capacity of 12 MW at Vejalpar site, Morbi, Gujarat has been sold. The reason for this is due to the internal restructuring within the organization of Giriraj Enterprises. After that, the project capacity came down to 9.0 MW till 01- December-2020. Then the capacity in the same Vejalpar site has been further downsized to 6.0 MW from 9.0 MW because 3 MW (1.5 MW x 2) WTG from the total capacity of 9.0 MW at Vejalpar site, Morbi, Gujarat has been sold upon permission from Gujarat Energy, capacity of same Vejalpar site was downsized to 4.5 MW from 6.0 MW.

So, now the total capacity of the project stands at 90 MW in January-2021 and 88.5 MW from 01- February-2021.

Impact of additionality: At Vejalpar site, Gujarat at the time of investment decision making was 6.92% and the benchmark was 15.43%. Whereas, IRR for the downsized capacity of 12.0 MW comes to be 6.80% and the benchmark is 15.43%. With further downsizing capacity to 9.0 MW, the IRR stands at 6.46%. After downsizing the capacity in January 2021 to 6.0 MW, IRR comes out to be -3.51%. Again, after further the downsizing the capacity to 4.5 MW from February 2021 onwards, the IRR comes out to be -9.53%. Equity IRR comes out to be based on the Supply & Service Agreement, Purchase orders/Contracts for the project activity including Supply, Erection and Commissioning and Land facilitation agreements signed between PP and EPC contractor.

From the above analysis, it can be seen that after downsizing of the 13.5 MW project to 12 MW and further to 9 MW and then to 6 MW and 4.5 MW, the equity IRR is below the benchmark value. Hence, there is no impact on the project additionality.

Also, at the time of registration, 15.0 MW project was considered. But the project was cancelled and the entire capacity did not get commissioned. Hence, this will also not have any impact on the project additionality.

The above deviation has been approved in 6th verification (01-January-2021 to 30-June-2021).

Deviation 3 (This has been taken during the 6th verification i.e. (01-January-2021 to 30-June-2021).

This deviation is related to the corrected Geo Coordinates of the project locations. At the time of registration, Latitude and Longitude has been mentioned in registered VCS Joint PD&MR. But at the time of project verification, we have observed some error in Latitude and

Longitude. And corrected table of Geo coordinates have been mentioned in section 1.1 for all WTGs of the project activity. So, we have corrected this Latitude and Longitude in this monitoring period.

This deviation is of permanent nature and does not have any impact on the project applicability, baseline scenario and additionality.

Deviation 4 (This has been taken during the 7th verification i.e (01-July-2021 to 31-March-2022)).

This deviation is related to total capacity of the project. At the time of registration, the total capacity of the project was 112.5 MW. Till 6th verification (01-January-2021 to 30-June-2021) the capacity of the project was downsized to 88.5 MW. In present monitoring period (01-July-2021 to 31-March-2022) 4.5 MW WTG of Vejalpar site has been removed due to unavailability of PPA. So, the present capacity of the project is 84 MW.

Note- All the above deviations were approved in the previous verification process.

3.3 Grouped Projects

Not applicable to this project activity as this is not a grouped project.

3.4 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 11, April 2016
Value applied	0.9941
Justification of choice of data or description of measurement methods and procedures applied	Calculated as per “Tool to calculate the emission factor for an electricity system, version 05.0.0” as 3-year generation weighted average using data for the years 2012-2013, 2013-2014 & 2014-2015. The data are obtained from “CO ₂ Baseline Database for Indian Power Sector” version 11.0, published by the Central Electricity Authority, Ministry of Power, and Government of India.
Purpose of data	For the calculation of the baseline emission
Comments	This parameter is fixed ex-ante for the entire crediting period.

Data / Parameter	$EF_{grid,BM,y}$
Data unit	tCO ₂ /MWh
Description	Build Margin CO ₂ emission factor in year y
Source of data	Calculated from CEA database, Version 11, April 2016
Value applied	0.9285
Justification of choice of data or description of measurement methods and procedures applied	Calculated as per “Tool to calculate the emission factor for an electricity system, version 05.0.0” BM is calculated ex-ante based on the most recent information available at the time of submission of VCS Joint PD&MR and is fixed for the entire crediting period. The data is obtained from “CO ₂ Baseline Database for Indian Power Sector” version 11.0, published by the Central Electricity Authority, Ministry of Power, and Government of India.
Purpose of data	For the calculation of the Baseline Emission
Comments	This parameter is fixed ex-ante for the entire crediting period.

Data / Parameter	$EF_{grid,CM,y}$
Data unit	tCO ₂ /MWh
Description	Combined Margin CO ₂ emission factor in year y

Source of data	Calculated from CEA database, Version 11, April 2016
Value applied	0.9777
Justification of choice of data or description of measurement methods and procedures applied	The combined margin emissions factor is calculated as follows: $EF_{grid,CM,y} = EF_{grid,OM,y} * W_{OM} + EF_{grid,BM,y} * W_{BM}$ Where: $EF_{grid,BM,y}$ = Build margin CO₂ emission factor in year y (tCO₂/MWh) $EF_{grid,OM,y}$ = Operating margin CO₂ emission factor in year y (tCO₂/MWh) W_{OM} = Weighting of operating margin emissions factor (%) = 75% W_{BM} = Weighting of build margin emissions factor (%) = 25%
Purpose of data	For the calculation of the Baseline Emission
Comments	The calculation is done ex ante.

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	Joint meter readings		
Description of measurement methods and procedures to be applied	The value of net electricity generation supplied to the grid as per Joint Meter Reading Report forms the basis for calculation of the emission reductions; which can be cross checked from the invoices raised to DISCOM. Net electricity supplied to grid is calculated as the difference of the measured values of “export” and “import” of electricity through the dedicated SEB energy meter installed at the delivery point (i.e., the connected substation). Net electricity generated and supplied by the project (Wind) plant/unit to the grid = Electricity Export to the grid – Electricity Import from the grid Monthly meter readings are taken from the main and check meter installed at the substation and certified by the representatives of SEB Officials and the representatives of the project proponent.		
Frequency of monitoring/recording	Continuous monitoring, hourly measurement and at least monthly recording		
Value monitored	436,665.25 <table border="1"> <tr> <td>01-04-2022 to 31-12-2022</td><td>121,518.61</td></tr> </table>	01-04-2022 to 31-12-2022	121,518.61
01-04-2022 to 31-12-2022	121,518.61		

	01-01-2023 to 31-12-2023	147,861.29
	01-01-2024 to 31-12-2024	134,732.48
	01-01-2025 to 31-03-2025	32,552.87
Monitoring equipment	Monitoring: Tri vector meter are used Data type: Measured Type of meter: Static type meter (Main & Check). Both are Bidirectional meters. Class of meter: 0.2s The Calibration details of the Energy Meter has been mentioned in Appendix-II of the Monitoring Report. There are some meters changed during the current monitoring period. Please see appendix 2 for meter change details.	
QA/QC procedures to be applied	- The energy meter reading is taken on monthly basis - Energy meters will be calibrated once in a five year and faulty meters will be duly replaced immediately. - All the energy meters are under the control of state utility and calibration of energy meters is also under the jurisdiction of state utility. The Net electricity exported to the grid can be cross checked against the invoice raised by the PP towards the DISCOM	
Purpose of the data	To calculate the baseline emissions	
Calculation method	-	
Comments	The data would be archived electronically and maintained for the entire crediting period plus two years.	

4.3 Monitoring Plan

Aim of monitoring

The monitoring methodology specified in the methodology requires that the project-monitoring plan to consist of monitoring of quantity of net electricity supplied to the grid in the year y. In order to monitor the mitigation of GHG due to the project activity, the total energy exported needs to be measured. The net energy supplied to grid by the project activity multiplied by emission factor for regional grid (Indian Electricity Grid), would form the baseline for the project activity.

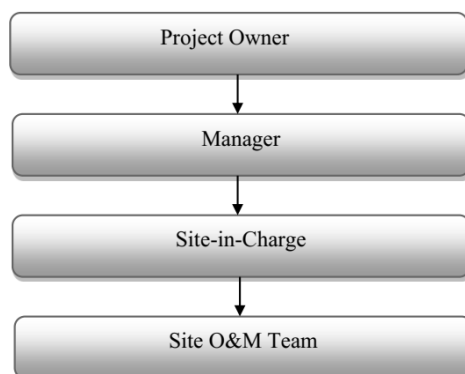
Since the baseline emission factor is based on an ex-ante determination, monitoring of this parameter is not required. The sole parameter for monitoring is the net electricity exported to the grid.

Monitoring roles and responsibilities

The operational and management structure implemented for data monitoring is as follows:

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

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



PP has assigned the responsibility of operation and maintenance of WTGs to respective EPC contractor of wind turbines for each site.

Responsibilities of Head: Overall functioning and maintenance of the project activity.

Responsibilities of Plant In-charge: Responsibility to maintain the data records, ensures completeness of data, and reliability of data (calibration of equipment's).

Responsibilities of Shift In-charge: Responsibility for day-to-day data collection and maintains day to day log book for monitored data.

QA/QC procedures

The energy meters at the feeders are maintained and owned by DISCOM. Neither the project proponent nor the site personnel have any control over it. The records are cross-checked with

the records of sold electricity to Discom/third party. The meters are calibrated by DISCOM at-least once in five years.

Data Archiving

Monthly data shall be archived electronically and in paper form and stored for the entire crediting period and two years thereafter.

Training and maintenance requirements

Training on the machine is an essential pre-requisite, to ensure necessary safety of man and machine. Further, in order to maximize the output from the WTGs, it is extremely essential, that the engineers and technicians understand the machines and keep them in good health. In order to ensure, that O&M team is deft at handling technical snags on top of the turbine, the necessity of ensuring that they are capable of climbing the tower with absolute ease and comfort has been established. Each and all site personnel are provided with proper training to meet the requirements of the operations and maintenance. This ultimately leads to creativity in problem solving.

1.	Apportioning Ratio	=	$\frac{\text{Generation at WTG Controller}}{\text{Total Generation of All WTG Controller for the feeder}}$
2.	Electricity Import from WTG by the grid (EGimport)	=	Import from Main/Check Meter * Apportioning Ratio
3.	Electricity Export to the WTGs by the grid (EGexport)	=	Export from Main/Check Meter * Apportioning Ratio
4.	Net electricity generated by WTG	=	Electricity Import from WTG by the grid – Electricity Export to the WTGs by the grid

Above steps for calculation of EG_{import} and EG_{export} are carried out by Discom Officials & energy break-up sheet is issued by the respective electricity board Officials. Based on the break-up sheets Project investor raises invoice to DISCOM/ third party which forms the basis of cross-check for the net electricity generated. The Project investor has no role in the entire procedure of apportioning.

Emergency Preparedness and Uncertainty Procedure:

In case Main meter or check meter is found to be outside the acceptable limits of accuracy or faulty or not functioning properly, it will be repaired, recalibrated or replaced as soon as possible.

In the event that the Main meter is not in service as a result of maintenance, repairs or calibration, the check meter will be used. In case both the main and check meter are found to be outside the acceptable limits of accuracy or faulty or not functioning properly, both the

meters shall be calibrated immediately and the error percentage found in the main meter during its calibration shall be applied to its metered energy data for the entire period since its last calibration to obtain the corrected value of net electricity exported to the grid.

In case the dates of a particular monitoring period do not match with the dates of the billing cycle, the net electricity exported to the grid would be calculated from:

- Apportioning the net electricity exported to grid, as recorded in the consolidated Share Certificate/JMR Report/Credit Notes certified by the respective state discom, based on the number of days in the monitoring period and the number of days for which Share Certificate/JMR Report/Credit Notes was prepared.

The calculated value after apportioning would be used for calculation of emission reductions during that period. During the current monitoring period, apportioning has not been done.

As, this is wind project activity, internal audits are conducted as part of the regular project management and quality assurance procedures. The internal auditing process includes periodic site inspections, document reviews, assessment of operational practices, verification of maintenance records, and evaluation of health, safety, and environmental compliance.

Any non-conformities identified during these internal audits are documented and categorized based on their severity. Corrective actions are then assigned to the responsible site or operational team, along with defined timelines for closure. Follow-up reviews are carried out to ensure that all corrective actions have been effectively implemented. For the current monitoring period, no any non-conformities affecting GHG monitoring or reporting were observed.

5 QUANTIFICATION OF GHG EMISSION REDUCTIONS AND REMOVALS

5.1 Baseline Emissions

Emission reductions due to project activity 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)

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; t CO₂e

$EG_{PJ,y}$ = Quantity of net electricity supplied to the grid as a result of the implementation of the project activity in year y; MWh

$EF_{grid,CM,y}$ = CO₂ emission factor of the grid in year y; t CO₂/MWh

The baseline emissions for the project activity for the current monitoring period are as follows.

Baseline Emission factor = 0.9777 tCO₂/MWh

Calculation of $EG_{PJ,y}$

As the project activity is the installation of a new grid-connected renewable power plant at a site where no renewable power plant was operated prior to the implementation of the project activity, then:

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

Where;

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

$EG_{\text{facility},y}$ = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh/yr)

Electricity Supplied to the Grid,

$$EG_{PJ,y} = 436,665.25 \text{ MWh}$$

$$\text{Baseline Emission, } BE_y = 436,665.25 \times 0.9777 = 426,872 \text{ tCO}_2\text{e (ROUND DOWN)}$$

5.2 Project Emissions

As per para 36 of ACM0002 version 17, “For all renewable energy power generation project activities, emissions due to the use of fossil fuels for the backup generator can be neglected”. Hence, $PE_y = 0$

5.3 Leakage Emissions

As per section 5.6 of ACM0002 version 17, “No other leakage emissions are considered. The emissions potentially arising due to activities such as power plant construction and upstream emissions from fossil fuel use (e.g. extraction, processing, transport etc.) are neglected”.

Since, the wind project activity. Hence, No leakage emissions need to considered for the project activity.

5.4 GHG Emission Reductions and Carbon Dioxide Removals

Vintage period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Reduction VCU (tCO ₂ e)	Removal VCU (tCO ₂ e)	Total VCU (tCO ₂ e)
01-April-2022 to 31-December-2022	118,805	0	0	118,805	0	118,805
01-January-2023 to 31-December-2023	144,555	0	0	144,555	0	144,555
01-January-2024 to 31-December-2024	131,688	0	0	131,688	0	131,688
01-January-2025 to 30-March-2025	31,824	0	0	31,824	0	31,824

Total	426,872	0	0	426,872	0	426,872
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Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
01-April-2022 to 31-December-2022	119,876	118,805	-1%	The estimated emission reduction to be achieved from the project activity for the current monitoring period is 119,876 (the basis of calculation is unitary method using annual emission reduction in the registered VCS Joint PD&MR), whereas actual emission reductions achieved are 118,805 tCO ₂ e, which is 1% less in the ERs from the estimated in the VCS Joint PD&MR which is due to the low PLF achieved by the project activity during the monitoring period. It is to be noted that PLF is completely governed by the availability of wind, which is natural phenomenon and same is beyond the control of the project proponent.
01-January-2023 to 31-December-2023	159,108	144,555	-9%	The estimated emission reduction to be achieved from the project activity for the current monitoring period is 159,108 (the basis of calculation is unitary method using annual emission reduction in the registered VCS Joint PD&MR), whereas actual emission reductions achieved are 144,555

				tCO ₂ e, which is 9% less in the ERs from the estimated in the VCS Joint PD&MR which is due to the low PLF achieved by the project activity during the monitoring period. It is to be noted that PLF is completely governed by the availability of wind, which is natural phenomenon and same is beyond the control of the project proponent.
01-January-2024 to 31-December-2024	159,544	131,688	-17%	The estimated emission reduction to be achieved from the project activity for the current monitoring period is 159,544 (the basis of calculation is unitary method using annual emission reduction in the registered VCS Joint PD&MR), whereas actual emission reductions achieved are 131,688 tCO ₂ e, which is 17% less in the ERs from the estimated in the VCS Joint PD&MR which is due to the low PLF achieved by the project activity during the monitoring period. It is to be noted that PLF is completely governed by the availability of wind, which is natural phenomenon and same is beyond the control of the project proponent.
01-January-2025 to 30-Mrch-2025	38,796	31,824	-18%	The estimated emission reduction to be achieved from the project activity for the current monitoring period is 38,796 (the basis of calculation is unitary method using annual emission reduction in the registered VCS Joint

				PD&MR), whereas actual emission reductions achieved are 31,824 tCO ₂ e, which is 18% less in the ERs from the estimated in the VCS Joint PD&MR which is due to the low PLF achieved by the project activity during the monitoring period. It is to be noted that PLF is completely governed by the availability of wind, which is natural phenomenon and same is beyond the control of the project proponent.
Total	477,324	426,872	-11%	The estimated emission reduction to be achieved from the project activity for the current monitoring period is 477,324 (the basis of calculation is unitary method using annual emission reduction in the registered VCS Joint PD&MR), whereas actual emission reductions achieved are 426,872 tCO ₂ e, which is 11% less in the ERs from the estimated in the VCS Joint PD&MR which is due to the low PLF achieved by the project activity during the monitoring period. It is to be noted that PLF is completely governed by the availability of wind, which is natural phenomenon and same is beyond the control of the project proponent.

APPENDIX 1: COMMERCIALY SENSITIVE INFORMATION

Not applicable

APPENDIX II: <METER CALIBRATION DETAILS>

The billing Energy Meters details for the project activity are as below:

30 MW Hatuniya Site, Madhya Pradesh

One Feeder having 10 WTGs (RH3-01 to RH3-10) of 1.5 MW each and another Feeder having 10 WTGs (RH4-01 to RH4-10) of 1.5 MW each.

Location	Capacity	Type of Meter	Meter No.	Make	Accuracy	Date of Calibration	Validity of Calibration	Meter Change date	New Meter ⁵	Make	Accuracy	Date of calibration	Validity of calibration
Kuchrod, Site, Mandsoor	15 MW	Main Meter	XB589231	Secure	0.2s	12-July-2021	11-July-2026	01-Oct-2022	Q0645639	SEMS (P-300)	0.2s	01-Oct-2022	30-Sep-2027
Kuchrod Site, Mandsoor		Check Meter	XC502293	Secure	0.2s	12-July-2021	11-July-2026	01-Oct-2022	Q0645640	SEMS (P-300)	0.2s	01-Oct-2022	30-Sep-2027
AFJalpur, Mandsoor	15 MW	Main Meter	XC502289	Secure	0.2s	12-July-2021	11-July-2026	01-Oct-2022	Q0645636	SEMS (P-300)	0.2s	01-Oct-2022	30-Sep-2027
AFJalpur, Mandsoor		Check Meter	XC502290	Secure	0.2s	12-July-2021	11-July-2026	01-Oct-2022	Q0645638	SEMS (P-300)	0.2s	01-Oct-2022	30-Sep-2027

22.5 MW Dewas Site, Madhya Pradesh

Feeder 1 having 7 WTGs of 1.5 MW each and Feeder 2 having 8 WTGs of 1.5 MW each.

Location	Capacity	Type of Meter	Meter No.	Make	Accuracy	Date of Calibration	Validity of Calibration
Prisma Feeder 1 (Dewas)	10.5 MW	Main Meter	XD500621	SEMS	0.2s	15-Feb-2022	14-Feb-2027
Prisma Feeder 1 (Dewas)		Check Meter	XD500622	SEMS	0.2s	15-Feb-2022	14-Feb-2027

⁵ The meter has been changed from serial number XB589231 (main meter) / XC502293 (check meter) to Q0645639 (main meter), Q0645640 (check meter) and serial number XC502289 (main meter) / XC502290 (check meter) to Q0645636 (main meter) / Q0645638 (check meter) due to technical issue. The replacement was carried out to ensure accurate and reliable energy measurement, following the detection of the issue during routine checks. All the meters had been changed on 01-october-2022.

Prisma Feeder 2 (Dewas)	12 MW	Main Meter	XD500619	SEM S	0.2s	15-Feb-2022	14-Feb-2027
Prisma Feeder 2 (Dewas)		Check Meter	XD500620	SEM S	0.2s	15-Feb-2022	14-Feb-2027

22.5 MW Dewas Site, Madhya Pradesh meter change details

The meter has been changed from serial number (main/check meter) XD500621/ XD500622 and (main/check meter) XD500619/ XD500620 to (main/check meter) Q0603867/Q0594068 and (main/check meter) Q0603884/Q0603885 due to technical issue. The replacement was carried out to ensure accurate and reliable energy measurement, following the detection of the issue during routine checks. All the meter changed on 19-July-2022.

Location	Capacity	Type of Meter	Meter No.	Make	Accuracy	Date of Calibration	Validity of Calibration
Prisma Feeder 1 (Dewas)	10.5 MW	Main Meter	Q0603867	SEM S	0.2s	19-July-2022	18-July-2027
Prisma Feeder 1 (Dewas)		Check Meter	Q0594068	SEM S	0.2s	19-July-2022	18-July-2027
Prisma Feeder 2 (Dewas)	12 MW	Main Meter	Q0603884	SEM S	0.2s	19-July-2022	18-July-2027
Prisma Feeder 2 (Dewas)		Check Meter	Q0603885	SEM S	0.2s	19-July-2022	18-July-2027

21 MW Dhar Site, Madhya Pradesh

One Feeder having 5 WTGs of 1.5 MW each and another Feeder having 9 WTGs of 1.5 MW each.

Location	Capacity	Type of Meter	Meter No.	Make	Accuracy	Date of Calibration	Validity of Calibration	Meter change date	New meters	Accuracy	Make	Calibration date	Validity
Tirupati Dhar Renewable Power Pvt. Ltd (Jaitpura)	13.5 MW	Main Meter	XD500605	Secure	0.2s	13-July-2021	12-July-2026	01-12-2022	Q0715872	0.2 s	Secure	01-12-2022	30-11-2027
Tirupati Dhar Renewable Power Pvt. Ltd (Jaitpura)		Check Meter	XD500606	Secure	0.2s	13-July-2021	12-July-2026	01-12-2022	Q0715873	0.2 s	Secure	01-12-2022	30-11-2027

Dhar Wind Power Projects Pvt. Ltd. (Dashera Maidan)	7.5 MW	Main Meter	XD500602	Secure	0.2s	15-July-2021	14-July-2026	25-11-2022	Q0669150	0.2 s	Secure	25-11-2022	24-11-2027
Dhar Wind Power Projects Pvt. Ltd. (Dashera Maidan)		Check Meter	XD500603	Secure	0.2s	15-July-2021	14-July-2026	25-11-2022	Q0669152	0.2 s	Secure	25-11-2022	24-11-2027

Note- The meter has been changed from serial number for XD500602 (main meter) / XD500603 (check meter) to Q0669150 (main meter), Q0669152 (check meter) and for meter serial number from XD500605 (main meter) / XD500606 (check meter) to Q0715872 (main meter), Q0715873 (check meter) due to technical issue. The replacement was carried out to ensure accurate and reliable energy measurement, following the detection of the issue during routine checks. The main meter and check meter changed from XD500602 (main meter) / XD500603 (check meter) to Q0669150 (main meter), Q0669152 (check meter) on 25-11-2022 and from XD500605 (main meter) / XD500606 (check meter) to Q0715872 (main meter), Q0715873 (check meter) on 01-12-2022

10.5 MW Vejalpar Site, Gujarat

Location	Capacity	Type of Meter	Meter No.	Make	Accuracy	Date of Calibration	Validity of Calibration	Date of Calibration	Validity of Calibration
Line-2 Meters	10.5 MW	Main Meter	GJ 1320 A	Secure	0.2s	08-October-2018	07-October-2023	20-Dec-2024	19-Dec-2029
Line-2 Meters		Check Meter	GJU 66432	Secure	0.2s	08-October-2018	07-October-2023	20-Dec-2024	19-Dec-2029

As per the previous verification report for the monitoring period from 01 July 2021 to 31 March 2022, the calibration validity for the Vejalpr site (Gujarat), was until 07 October 2023. And next calibration has been done on 20-Dec-2024. The meter calibration has been delayed from 8-Oct-2023 to 19-Dec-2024 in the current monitoring period. Therefore, PP has been applied the error factor 0.2s to calculate the emission reduction in the current monitoring period. The error factor has been applied for month October 2023 to December 2024.

APPENDIX III: <MAJOR BREAKDOWN DETAILS>

1. Dewas site – 22.5 MW

Location	Date	Breakdown Hours
GREDW-10	25 – April-2022	20.46
GREDW-12	30-May-22	6.76
FEEDER-01&02	31-May-22	5.75
GREDW-13	21-Jun-22	14.35
FEEDER-01	6-Aug-22	14.49
GREDW-09	16-Aug-22	20.26
GREDW-09	16-Mar-23	12.37
GREDW-10	9-Jun-23	5.67
GREDW-11	9-Jun-23	4.17
GREDW-12	9-Jun-23	4.17
GREDW-13	9-Jun-23	4.64
GREDW-14	9-Jun-23	4.59
GREDW-15	9-Jun-23	5.67
FEEDER-02	10-Oct-24	24
FEEDER-01	11-Oct-24	24
FEEDER-02	11-Oct-24	24
FEEDER-01	12-Oct-24	24
FEEDER-02	12-Oct-24	24
FEEDER-01	13-Oct-24	24
FEEDER-02	13-Oct-24	24

FEEDER-01	14-Oct-24	24
GREDW-02	14-Jan-25	4.99
Total		319.94

2. Dhar - 21 MW

GREDR-11	17-Aug-22	13.14
GREDR-06	27-Aug-22	15.56
Feeder-01	11-Sep-22	7.99
GREDR-14	02-Oct-22	14.08
DJMDR-03	11-Jan-23	8.5
GREDR-10	05-Apr-23	6.68
GREDR-11	06-Apr-23	5.28
GREDR-07	19-Sep-23	21.99
GREDR-14	08-Apr-24	6.15
DJMDR-01	11-Apr-24	6.77
DJMDR-02	12-Apr-24	7.31
DJMDR-03	14-Apr-24	8.38
GREDR-03	15-Apr-24	4.16
Total		126.09

3. 30 MW -Hathuniya Site

Feeder-4	2-Jul-22	11.07
Feeder-4	26-Dec-22	4.34
Feeder-4	27-Dec-22	2.46
Feeder-4	03-Jan-23	1.34
Feeder-4	03-Jan-23	3.14
Feeder-4	12-Jul-23	15.86

Feeder-4	15-Nov-23	10.58
Feeder-4	01-Aug-24	11.65
Feeder-4	16-Jan-25	1.91
Feeder-4	19-Jan-25	1.38
Total		63.73

4. 10.5 MW -Gujarat Site

GIRVJ-05	02-Mar-23	6.44
GIRVJ-05	03-Mar-23	6.78
GIRVJ-06	04-Mar-23	6.69
GIRVJ-01	31-Jan-23	3.99
GIRVJ-03	02-Feb-23	3.61
GIRVJ-03	28-Feb-24	10.98
GIRVJ-03	28-Feb-24	4.17
GIRVJ-03	29-Feb-24	8.5
GIRVJ-06	09-Mar-24	11.9
GIRVJ-07	11-Mar-24	8.01
GIRVJ-01	30-Mar-24	13.73
GIRVJ-03	06-Mar-25	7.03
GIRVJ-05	07-Mar-25	7.31
Total		99.14