Verification Report

UCR ID: 215

Title	**2.6 MW Small Scale Wind Power Project by M/s Synnova Gears & Transmissions Private Limited.**
Project Proponent	**M/s Synnova Gears & Transmissions Private Limited**
Project Location	**Location no. NMT 176. Village - Pasaya, Dist. Jamnagar, Gujarat, India** **22°23'40.3"N 70°13'44.1"E**
Verified By	**Mr. Shardul Amin,** **Lead Verifier,** **Email: audit@thenaturelink.in,** **Contact: +91- 7574804497,** **Naturelink Solutions Pvt. Ltd.**
Date	**28/02/2023**

COVER PAGE Project Verification Report Form (VR)	
BASIC INFORMATION	
Name of approved UCR Project Verifier / Reference No.	Naturelink Solutions Pvt. Ltd
Type of Accreditation	☐ CDM Accreditation ☐ ISO 14065 Accreditation ☒ UCR Approved Verifier
Approved UCR Scopes and GHG Sectoral scopes for Project Verification	Sectoral Scope: 01 Energy Industries
Validity of UCR approval of Verifier	May - 2022 onwards
Completion date of this VR	28/02/2023
Title of the project activity	2.6 MW Small Scale Wind Power Project by M/s Synnova Gears & Transmissions Private Limited.
Project reference no. (as provided by UCR Program)	215
Name of Entity requesting verification service	Creduce Technologies Private Limited (Aggregator)
Contact details of the representative of the Entity, requesting verification service (Focal Point assigned for all communications)	Shailendra Singh Rao Mobile: +91-9016850742 Address: 2-O-13,14 Housing Board Colony, Banswara, Rajasthan - 327001, India.
Country where project is located	India
Applied methodologies	AMS-I.D.: “Grid connected renewable electricity generation”, version 18
Project Verification Criteria:	☒ UCR Verification Standard

Mandatory requirements to be assessed	☒ Applicable Approved Methodology ☐ Applicable Legal requirements /rules of the host country ☒ Eligibility of the Project Type ☒ Start date of the Project activity ☒ Meet applicability conditions in the applied methodology ☒ Credible Baseline ☒ Do No Harm Test ☒ Emission Reduction calculations ☒ Monitoring Report ☒ No GHG Double Counting ☐ Others (please mention below)
Project Verification Criteria: Optional requirements to be assessed	☒ Environmental Safeguards Standard and do-no-harm criteria ☐ Social Safeguards Standard do-no-harm criteria
Project Verifier's Confirmation: The *UCR Project Verifier* has verified the UCR project activity and therefore confirms the following:	The UCR-approved verifier Naturelink Solution Pvt. Ltd., verifies the following with respect to the UCR Project Activity "2.6 MW Small Scale Wind Power Project by M/s Synnova Gears & Transmissions Private Limited." ☒ The project aggregator has correctly described the project activity in the Project Concept Note (dated 17/08/2022) including the applicability of the approved methodology A.M.S I. D and meets the methodology applicability conditions and has achieved the estimated GHG emission reductions, complies with the monitoring methodology and has calculated emission reductions estimates correctly and conservatively. ☒ The project activity is likely to generate GHG emission reductions amounting to the

	estimated **7994** tCO_2e, as indicated in the monitoring report, which are additional to the reductions that are likely to occur in absence of the project activity and complies with all applicable UCR rules, including ISO 14064-2 and ISO 14064-3. ☒ The project activity is not likely to cause any net harm to the environment and/or society ☒The project activity complies with all the applicable UCR rules and therefore recommends UCR Program to register the Project activity with above mentioned labels.
Project Verification Report, reference number and date of approval	Verification Report UCR Project ID: 215 Date: 28/02/2023
Name of the authorised personnel of UCR Project Verifier and his/her signature with date	 Mr. Shardul Amin Lead Verifier Naturelink Solution Pvt. Ltd. Date: 28/02/2023

Project Verification Report

A. Executive Summary

The verification work has been contracted by project aggregator Creduce Technologies Pvt Ltd to perform an independent verification of its UCR project titled **"2.6 MW Small Scale Wind Power Project by M/s Synnova Gears & Transmissions Private Limited, UCR approved project ID:215**, to establish a number of CoUs generated by the project over the crediting period from 28/12/2021 to 31/12/2022 (both days included).

Verification for the period: 28/12/2021 to 31/12/2022

In my opinion, the total GHG emission reductions over the crediting / verification period stated in the Monitoring Report (MR), submitted to me are found to be correct and in line with the UCR guidelines. The GHG emission reductions were calculated on the basis of UCR guideline which draws reference from, the standard baseline, AMS. I. D – Grid connected renewable electricity generation (Version 18.0). As per the UCR guidelines, the verification was done remotely by way of video calls, phone calls, and submission of documents for verification through emails.

I am able to certify the emission reductions from the 2.6 MW Small Scale Wind Power Project by M/s Synnova Gears & Transmissions Private Limited. (UCR ID – 215) for the period 28/12/2021 to 31/12/2022 amounts to **7994** CoUs (**7994** tCO_2e).

Scope

The scope of the verification is the independent, objective review and ex-post determination of the monitored reductions in GHG emission by the project activity.

1. The quality of data management and records of underlying data;
2. Completeness and accuracy of calculations and baseline emission reports;
3. Proper inclusion and documentation of all project locations,
4. Correct application of offset rules for filling Baseline Period data gaps;
5. Other data, methods, and procedures deemed necessary to establish the accuracy of emission reductions.
6. Agreement stating assurance to avoid double accounting for the project to be verified, along with required proof.

The project is assessed against the requirements of the UCR program verification guidance document, UCR Standard, UCR Program Manual, and related rules and guidelines. Due professional care has been exercised and ethical conduct has been followed by the assessment team during the verification process. The verification report is a fair presentation of the verification activity. The validation of the project is not part of the present assignment and project is deemed validated post-registration by UCR.

Description of the Project

The project activity is a renewable power generation activity which incorporates installation and operation of a wind turbine generator (WTG) having capacity of 2.6 MW each manufactured and supplied by Suzlon Energy Limited in district Jamnagar of the state of Gujarat, India. The details of the project activity are verified with the project report copy submitted for verification.

WTG	Latitude and Longitude	Village	Taluka	District
2.6 MW	22°23'40.3"N 70°13'44.1"E	Pasaya	Jamnagar	Jamnagar

The technical specification is listed below;

Description	Information
Turbine model	Suzlon A-133-140
Rated power	2.6 MW
Rotor diameter	133 m
Hub height	140 m
Generator	
Type	Slip ring asynchronous generator
Rated frequency	50 Hz (–6% to +5% continuously)
Rated power	2.875 MW (under DFIG operation with rotor circuit inverter system)
Rotor orientation	Upwind
Blades	
Type	SB65
Quantity	3
Length	65.0 m
Material	Glass-carbon hybrid
Cut in wind speed	3 m/s
Rated wind speed	9.5 m/s
Cut-out Wind speed	20 m/s
Extreme Wind Speed	36.5 m/s
Operating range rot. Speed	7.23 to 12.11 rpm

As mentioned in the monitoring report and emission reduction calculation sheet submitted for verification, the project replaces anthropogenic emissions of greenhouse gases (GHGs) estimated to be approximately **7994 tCO_2e** for the said period under verification, there on displacing **8883 MWh** amount of electricity from the generation mix of power plants connected to the Indian electricity grid, which is mainly dominated by the fossil-fuel based power plant.

The project activity is a grid-connected renewable energy generation project having a capacity of less than 15 MW. The project is a small-scale activity. The methodology applied in the monitoring report is verified against the A.M.S I. D “Grid connected renewable electricity generation” version 18.0.

Verified total emission reductions (ERs) achieved through the project activity during the monitoring period is summarised below:

Summary of the Project Activity and ERs Generated for the Monitoring Period	
Start date of this Monitoring Period	28/12/2021
Carbon credits claimed up to	31/12/2022
Total ERs generated (tCO_2e)	**7994** tCO_2e
Leakage Emission	0
Project Emission	0

B. Project Verification team, technical reviewer and approver:

Sr. No.	Role	Last name	First name	Affiliation	Involvement in		
					Doc review	Off-Site inspection	Interviews
1.	Lead Verifier & Technical Expert	Amin	Shardul	Lead Verifier, Naturelink Solutions Pvt Ltd.	Yes	No	Yes

C. Means of Project Verification

C.1 Desk/document review

The project documents submitted to UCR-approved verifier Naturelink Solution Pvt. Ltd. was reviewed and verified by the lead verifier. The documents reviewed involves verification of the legal status of individual project owner for consistency, project-related documents like installation and commissioning of equipment used in project activity, environmental clearances from state or central pollution control board, monitoring related equipment/measuring instruments and their calibration records, to establish the running of equipment for the crediting period, etc.

The PCN is made available to the verifier post approval by UCR which is considered as validated documents and the content of validated PCN is considered a record wherever required. Further, the communication agreement made between the project owner and project aggregator is a document of the UCR registry hence the project aggregator is treated as an authorized representative of the project owner. All the documents submitted by the project aggregator to the verifier are treated as documents submitted on behalf of the project owner.

The list of submitted documents is available in a subsequent section of this verification report under the section “Document reviewed or referenced”-section I.

C.2 On-Site inspection- Not applicable.

Date of off-site inspection: DD/MM/YYYY to DD/MM/YYYY	Not applicable as per UCR guideline site visit not conducted for this verification activity.		
No.	**Activity performed Off-Site**	**Site location**	**Date**

C.3 Interviews: Telephonic and mail.

As per UCR guideline, the site visit was not conducted during the course of verification and only interviews are conducted.

No.	Interview			Date	Subject
	Last name	First name	Affiliation		
1.	Patel	Hetal	Project In-charge, Synnova Gears & Transmissions Private Limited	24/02/2023	Meter calibration, project activities, and overview

Clarification request (CLs), corrective action request (CARs) and forward action request (FARs) raised

Areas of Project Verification findings	No. of CL	No. of CAR	No. of FAR
Green House Gas (GHG)			
Identification and Eligibility of project type	NIL	NIL	NIL
General description of project activity	NIL	NIL	NIL
Application and selection of methodologies and standardized baselines	--	--	--
• Application of methodologies and standardized baselines	NIL	NIL	NIL
• Deviation from methodology and/or methodological tool	NIL	NIL	NIL
• Clarification on applicability of methodology, tool and/or standardized baseline	NIL	NIL	NIL
• Project boundary, sources and GHGs	NIL	NIL	NIL
• Baseline scenario	NIL	NIL	NIL
• Estimation of emission reductions or net anthropogenic removals	NIL	NIL	NIL
• Monitoring Report	NIL	NIL	NIL
Start date, crediting period and duration	NIL	NIL	NIL
Environmental impacts	NIL	NIL	NIL
Project Owner- Identification and communication	NIL	NIL	NIL
Others (please specify)	NIL	NIL	NIL
Total	NIL	NIL	NIL

D. Project Verification findings

D.1 Identification and eligibility of project type

Means of Project Verification	The project has taken the reference of CDM methodology AMS-I D, version 18 Grid Connected Renewable Electricity Generation.
Findings	1. Project activity is described through UCR-approved PCN. 2. UCR project communication agreement clearly defines the Project Proponent and Project Aggregator.
Conclusion	The UCR-approved format is used for description and the project meets the requirement of the UCR verification standard and UCR project standard. UCR project communication agreement was submitted to the verifier and the same has been verified. Methodology referenced and applied appropriately describing the project type. The eligibility of the project aggregator is verified using the UCR communication agreement, Project correctly applies the verification standard, UCR project standard, and UCR regulations. The project activity is overall meeting the requirements of the UCR Verification standard and UCR project standard.

D.2 General description of project activity

Means of Project Verification	The project activity involves the operation of a 2.6 MW of small-scale wind power project and its commissioning date was verified through the commissioning certificate of the project. The power evacuation at the substation is confirmed by the Certificate for Share of Electricity.
Findings	1. Project Commissioning date is mentioned in the commissioning certificate. 2. Turbine Capacity is the same as mentioned in the commissioning certificate provided by GEDA. 3. Project implementation and sale of energy abide by the wheeling and/or power purchase agreement.
Conclusion	The description of the project activity is verified to be true based on the review of PCN, MR, Commissioning Certificate, and Purchase Order Copies.

D.3 Application and selection of methodologies and standardized baselines

D.3.1 Application of methodology and standardized baselines

Means of Project Verification	The project has taken the reference of CDM methodology A.M.S I.D. CDM website is referred to check the latest version of the methodology. For the applicability mentioned in the PCN and MR, turbine Specification, and commissioning certificate.
Findings	The methodology applied is applicable to the project activity.
Conclusion	The methodology applied is appropriately meeting the requirements of UCR and its standardized baseline. The methodology version is correct and valid. The referenced methodology is applicable to project activity.

D.3.2 Clarification on applicability of methodology, tool, and/or standardized baseline

Means of Project Verification	The documents reviewed are A.M.S I. D "Grid connected renewable electricity generation" version 18, UCR Program standard, and UCR Verification Standard.
Findings	The emission factor (=0.9 tCO_2/MWh) is taken as per the UCR standard.
Conclusion	The emission factor considered for the calculation of the emission reductions is verified with the UCR Program Standard. The total installed electrical energy generation capacity of the project equipment does not exceed 15 MW thus meeting the requirement of small-scale projects.

D.3.3 Project boundary, sources and GHGs

Means of Project Verification	Letter from CPCB dated 07/03/2016 No. B-29012/ESS(CPA)/2015-16. PCN section B.4.
Findings	Project boundary is appropriately defined in PCN which is the physical and geographical site of energy generation.
Conclusion	The project boundary is correctly defined in the PCN. GHG source correctly identified and reported. The project meets the requirements of UCR project standard, Verification standard, and methodology requirements for a boundary, GHG source.

D.3.4 Baseline scenario

Means of Project Verification	MR Section C.5 and General Project Eligibility Criteria and Guidance, UCR Standard.
Findings	None
Conclusion	The baseline scenario is appropriately described. The calculated baseline emission for each vintage year of crediting period is rounded down as per UCR standard.

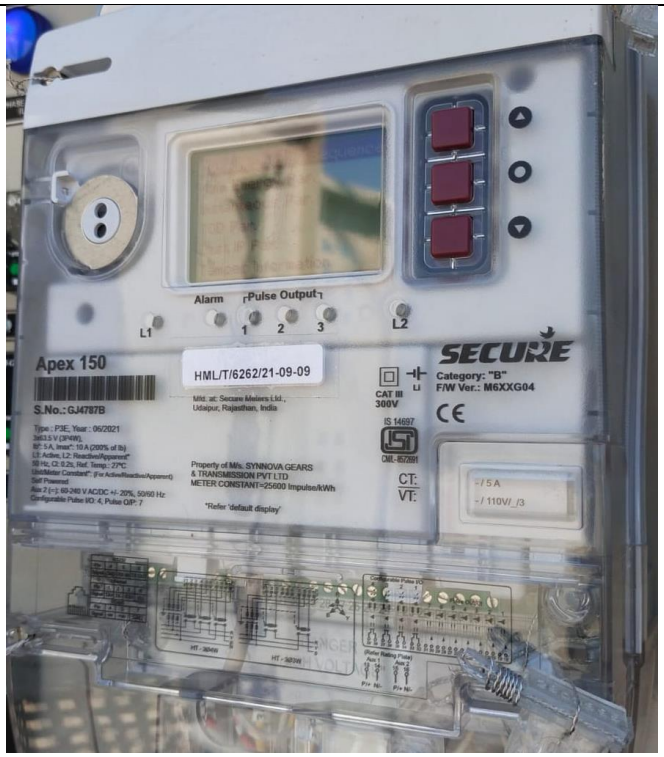
D.3.5 Estimation of emission reductions or net anthropogenic removal

Means of Project Verification	Certificate For Share of Electricity, General Project Eligibility Criteria and Guidance, calibration report, and UCR Standard, page 4.
Findings	None
Conclusion	A certificate for Share of Electricity is considered an acceptable document to check actual energy generation for each month. A copy of the sample has been cropped and attached for reference purposes. The energy generation was also cross-checked with the wind farm certificate, wind farm scheduling adjustment calculation sheet, and PGVCL electricity bills.

Year	EGpy (MWh)	EFgrid,y	ERs
2021	1.141	0.9	1
2022	8882.18	0.9	7993
ER (tCO_2e) for the period of 2021 to 2022			7994

D.3.6 Monitoring Report

Means of Project Verification	Certificate for share of electricity, power purchase agreement, and general project eligibility criteria and guidance, UCR standard, page 4, meter calibration report Energy meter photos installed at the wind turbine.

	
Findings	Meter Sr. No GJ4787B. Make: Secure, Class: 0.2 S. It was calibrated on 23/09/2021.
Conclusion	Meter is calibrated as per the GERC Electricity Supply Code and Related Matters Regulations Notification No. 4 of 2015 and CEA Central Electricity Authority (Installation and Operation of Meters) (Amendment) Regulations, 2019 guideline. Calibration reports of the meters provided by PP certify that errors are within permissible limits and details are mentioned below. The monitoring parameter reported in MR adequately represents the parameters relevant to emission reduction calculation. The calibration report ensures the accuracy of the data reported. The number of CoUs generation is calculated based on this accurately reported data. The calculation was done using an excel sheet where all the parameters were reported. The emission factor for electricity is as per UCR standard. In the monitoring report, emission reduction calculations are correctly calculated and reported. The monitoring report meets the requirements of UCR project verification requirements.

D.4 Start date, crediting period and duration

Means of Project Verification	PCN and MR, purchase order of turbine and technical Specification sheet, commissioning certificate, and detailed project report documents were referred.
Findings	The declared information is correct and verified.
Conclusion	The start date, crediting period, and project duration are reported correctly and this meets the requirements of the UCR verification standard and UCR project standard. The start date : 28/12/2021 Crediting period : 28/12/2021 to 31/12/2022

D.5 Positive Environmental impacts

Means of Project Verification	PCN
Findings	None.
Conclusion	The project is a renewable energy project and reduces the environmental burden by reducing the dependence on fossil fuel-based power plants.

D.6 Project Owner- Identification and communication

Means of Project Verification	PCN, communication agreement, MR, purchase order of turbine, commissioning certificate, power purchase agreement/wheeling agreement.
Findings	The declared information is correct and verified.
Conclusion	The project owner was identified through a communication agreement signed between PP and PA. Equipment purchase order and commission verified. Also, a legal document like Power Purchase Agreement/ Wheeling Agreement clearly establishes the project owner. The identification and communication correctly meet the requirement of project verification and UCR project standard. Project owner details; M/s Synnova Gears & Transmissions Private Limited.

	Address: Survey No 83/1, Rajkot Gondal National Highway 27, Near Toll Plaza, Opp Ravi Techno Forge, Village-Pipaliya, Taluka-Gondal, District- Rajkot, 360311, Gujarat, India.

D.7 Positive Social Impact

Means of Project Verification	Project has provided temporary employment to local people during its installation and commissioning. Also post commissioning some of people have employed permanently and local people were engaged leading to social financial benefit to surrounding. Overall social impact of project implementation is positive on the surrounding area.
Findings	--
Conclusion	Project has overall positive social impact.

D.8 Sustainable development aspects (if any)

Means of Project Verification	Not Applicable
Findings	--
Conclusion	The Project has the capability to address SDG 7 Affordable and Clean Energy and SDG 13 Climate Action

E. Internal quality control:

- Due professional care has been taken while reviewing the submitted document.
- There is no conflict of interest as the verifier has no other engagement with either the aggregator or project owner directly or indirectly.
- Verification team consists of experienced personnel.
- Technical review is performed by an independent person.

F. Project Verification opinion:

Considering the above-mentioned verification conducted on the basis of UCR Protocol, which draws reference from UCR Protocol Standard Baseline, AMS.I.D – Grid connected renewable electricity generation (Version 18.0), the documents submitted during the verification including the data, PPA, Purchase order, Calibration Report, Commissioning Certificate, Project Concept Note (PCN), Monitoring Report (MR), I am able to certify that the emission reductions from the project - 2.6 MW Small Scale Wind Power Project by M/s Synnova Gears & Transmissions Private Limited. (UCR ID – 215) for the period 28/12/2021 to 31/12/2022 amounts to **7994** CoUs (**7994** tCO_2e).

G. Abbreviations

Abbreviations	Full texts
UCR	Universal Carbon Registry
CPCB	Central Pollution Control Board
PGVCL	Paschim Gujarat Vij Company Ltd.
GETCO	Gujarat Energy Transmission Corporation
GERC	Gujarat Electricity Regulatory Commission (GERC)
GEDA	Gujarat Energy Development Authority
CEA	Central Electricity Authority
MR	Monitoring report
PCN	Project Concept Note
VR	Verification Report
VS	Verification Statement
DAA	Avoidance of Double Accounting Agreement
COD	Commercial Operation Date
PP/PO	Project Proponent / Project Owner
PA	Project Aggregator
PPA	Power Purchase Agreement
ER	Emission Reduction
CoUs	Carbon offset Units.
tCO_2e	Tons of Carbon Dioxide Equivalent
kWh	Kilo-Watt Hour
MWh	Mega-Watt Hour
kW	Kilo-Watt
MW	Mega-Watt
CDM	Clean Development Mechanism
SDG	Sustainable Development Goal
CAR	Corrective Action Request
CL	Clarification Request
FAR	Forward Action Request
GHG	Green House Gas
WTG	Wind Turbine Generator

H. Competence of team members and technical reviewers

No.	Last name	First name	Affiliation	Technical Competence
1.	Amin	Shardul	Lead Verifier	Mr. Shardul Amin is a post-graduate having M.Tech in Thermal System Design. He has more than 5 years of experience in the field of waste-to-energy, thermochemical conversion technologies, and emission study.

I. Document reviewed or referenced

No.	Author	Title	Provider
1	UCR	Communication agreement	PA
2	Creduce	Project Concept Note	PA
3	Creduce	Monitoring report	PA
4	Creduce	Avoidance of double accounting	PA
5	Creduce	Emission reduction excel	PA
6	GETCO	Certificate for a share of electricity (2021-2022)	PA
7	GEDA	Commissioning certificate	PA
8	PGVCL & PP	Power purchase agreement/wheeling agreement	PA
9	PP	Purchase order of turbine	PA
10	PP	Purchase order of generator	PA
11	CEA	Central Electricity Authority (Installation and Operation of Meters) (Amendment) Regulations, 2019	-
12	PGVCL	Wind farm scheduling adjustment calculation sheet	PA
13	Hi-Tech Meter Laboratory	Calibration reports	PA
14	PP	Wind turbine purchase order/invoices	PA

J. Clarification request, corrective action request and forward action request

Table 1. CLs from this Project Verification

CL ID		Section no.:		Date:
Description of CL				
Project Owner's response				Date:
Documentation provided by Project Owner				
UCR Project Verifier assessment				Date:

Table 2. CARs from this Project Verification

CAR ID		Section no.		Date:
Description of CAR				
Project Owner's response				Date:
Documentation provided by Project Owner				
UCR Project Verifier assessment				Date:

Table 3. FARs from this Project Verification

FAR ID		Section no.		Date:
Description of FAR				
Project Owner's response				Date:
Documentation provided by Project Owner				

ANNEXURE I: Photographs of the Power Plant

Figure-1: Project Activity

GEDA
ગુજરાત ઊર્જા વિકાસ એજન્સી
GUJARAT ENERGY DEVELOPMENT AGENCY
A Government of Gujarat Organisation

Azadi Ka Amrit Mahotsav

Ref: - GEDA/PWF/SGATPL/01/2021-22/4720 **Date: -** 19/01/2022

CERTIFICATE OF COMMISSIONING

This is to certify that **M/s Synnova Gears & Transmissions Private Limited, Survey No. 83/P/1, Rajkot Gondal National Highway 27B, Pipaliya, Rajkot - 360311** has commissioned **2.600 MW** capacity wind farm consisting of **1 (One)** number of new wind turbine generator as per the WTG ID no., location and date of commissioning given below:

Make of each Wind Turbine Generator (WTG)	M/s. Suzlon Energy Limited
Capacity of each Wind Turbine Generator	2600 kW
No. of Wind Turbine Generator/s	1 No. (One)
Total capacity of the Wind farm	2.600 MW

Sr. No.	Details of Site Installation					Location No.	WTG ID No.
	Village	Taluka	District	Survey No.	Type of Land		
01	Pasaya	Jamnagar	Jamnagar	121 (Old 73/1/p1)	Govt.	NMT176	SEL/2600/21-22/6414

The wind farm is connected to 33/66kV Wind Farm site sub-station at Village: Modpar by 33kV grid line. The Modpar Wind Farm site sub-station is connected by 66 kV grid line to 66kV GETCO Suvarda Sub Station.

Electricity generation report for the purpose of commissioning of wind farm

Sr. No.	WTG ID No.	Date	Time (Hrs.)		Meter (kWh)		
			From	To	Initial	Final	Diff.
01	SEL/2600/21-22/6414	28.12.2021	17:20	17:42	257	407	150

For Gujarat Energy Development Agency

(P.S.Darji)
Junior Program Officer

ચોથો માળ, બ્લોક નં. ૧૧ અને ૧૨ ઉદ્યોગભવન
સેક્ટર-૧૧, ગાંધીનગર - ૩૮૨ ૦૧૭.
4th Floor, Block No. 11-12, Udhyogbhavan,
Sector-11, Gandhinagar-382017. India.

Ph. : 079-232 57251-53
Fax : +91 79 232-47097, 57255
e-mail : director@geda.org.in
www.geda.gujarat.gov.in

Figure-2: Commissioning certificate

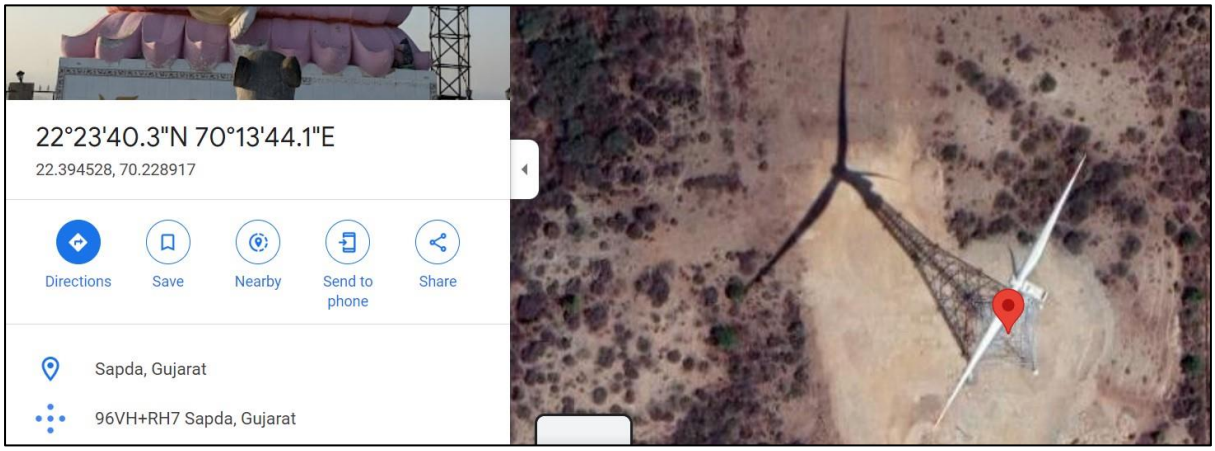


Figure-3: Google map photo of WTG 6414.