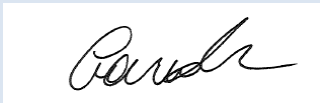


JOINT VALIDATION & VERIFICATION REPORT “50 MW TSETSII WIND FARM IN MONGOLIA”



Document Prepared By RINA Services S.p.A (RINA)

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Summary:

RINA Services S.p.A. (RINA), commissioned by Value Network Venture Advisory Services LLP, is validating & verifying the greenhouse gas emission reductions reported for the project activity “50 MW Tsetsii Wind Farm in Mongolia” in Mongolia, with regard to the relevant requirements for VCS activities.

The objective of the validation is to have an independent evaluation of a project activity by a designated operational entity against the requirements of the VCS version 3.7 Requirements, VCS validation and verification manual version 3.2 and GHG program applied, on the basis of the project design document. The validation scope is to review the VCS PD against VCS Requirements and applied methodology and other relevant UNFCCC rules and requirements.

Validation was conducted using RINA procedures in line with the requirements specified in the CDM M&P, the VCS validation and verification manual version 3.2, and relevant decisions of the COP/MOP and the CDM EB and applying standard auditing techniques. The validation consisted of desk review, on-site assessment and the resolution of outstanding issues and the issuance of the final validation report.

The objective of the verification is to have an independent review ex-post determination of the monitored reductions in GHG emission reductions. Verification was conducted using RINA procedures in line with the requirements specified in the VCS Version 3.7 Requirements, VCS validation and verification manual version 3.2, CDM M&P, the latest version of the CDM Validation and Verification Standard, and relevant decisions of the COP/MOP and the CDM EB and applying standard auditing techniques. The verification consisted of desk review, on-site assessment and the resolution of outstanding issues and the issuance of the final verification report and certification

The verification shall ensure that reported emission reductions are complete and accurate in accordance with applicable VCS / CDM requirements in order to be certified. The GHG emission reductions were calculated on the basis of the approved methodology ACM0002 ‘Grid-connected electricity generation from renewable sources’ version 19 and the monitoring plan included in the Project Description, version 01.1 of 28/08/2019. During this validation & verification, 1 Corrective Action Request (CAR) and 2 Clarification Requests (CRs) were identified related to operation, GHG emission reduction estimation, monitoring and baseline scenario of the VCS project activity in relation to all relevant VCS requirements for the project activity and the applied baseline and monitoring methodology, and these CARs and CRs are successfully closed after necessary corrections/clarifications by the client. The same has been discussed in Appendix B of this verification report.

In conclusion, it is RINA’s opinion that the project activity “50 MW Tsetsii Wind Farm in Mongolia” in Mongolia, VCS project ID PL1898, meets all relevant requirements for VCS standard and guidelines and correctly applies the baseline and monitoring methodology ACM0002 ‘Grid-connected electricity generation from renewable sources’ version 19. The monitoring system is in place and the emission reductions are calculated without material misstatement. Hence, RINA is able to certify that the emission reductions from the project during the monitoring period 27/11/2017 to 31/03/2019 amount to 170,352 tCO₂e.

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1 INTRODUCTION

1.1 Objective

Value Network Venture Advisory Services LLP (VNV) has commissioned RINA to carry out the validation of the project “50 MW Tsetsii Wind Farm in Mongolia” project in Mongolia.

This report summarizes the findings of the validation of the project, performed on the basis of VCS Requirements and UNFCCC criteria for CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The objective of the validation is to have an independent evaluation of a project activity by a designated operational entity against the requirements of the VCS Version 3.7 and GHG program applied, on the basis of the project design document. In particular, the project's baseline, monitoring plan, and the project's compliance with relevant VCS Version 3.7 requirements, GHG program requirements and host Party criteria are validated in order to confirm that the project design, as documented, is sound and reasonable and meets the identified criteria. Validation is a requirement for all VCS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of Voluntary Carbon Units (VCUs).

The verification is for the period from 27/11/2017 to 31/03/2019. The objectives of this verification exercise are, by review of objective evidence, to establish that:

- The project activity has been implemented and operated as per the project description (PD) and that all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place;
- Monitoring report and other supporting documents are complete;
- The data is recorded and stored as per the monitoring methodology and approved monitoring plan.
- To confirm that the monitoring system is implemented and fully functional to generate Voluntary Emission Reductions (VERs/VCUs) without any double counting, and to establish that the data reported are accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reduction calculation.

1.2 Scope and Criteria

The validation scope is to review the VCS PD against the UNFCCC criteria for CDM and VCS Version 3.7 Requirements.

UNFCCC criteria for CDM refer to Article 12 of the Kyoto Protocol, the CDM modalities and procedures, the procedures for registration of program of activity as a single CDM and the subsequent decisions by the CDM Executive Board.

Validation is not meant to provide any consultancy towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the project design.

The verification scope is:

- to verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan;
- to evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement;
- to verify that reported GHG emission data is sufficiently supported by evidence.

The project is assessed against the requirements of VCS standard version 3.7, VCS program guide version 3.7, validation and verification manual version 3.2 and related rules and guidance. RINA has, based on the recommendations in the latest version of CDM Validation and Verification Standard, VCS validation and verification manual and employed a rule-based approach (as criteria) in the verification, focusing on the identification of significant reporting rules and the reliability of project monitoring.

Verification is not meant to provide any consultancy towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the monitoring.

1.3 Level of Assurance

All the revisions of the validation and verification report before being submitted to the client were subjected to an independent internal technical review to confirm that all validation & verification activities had been completed according to the pertinent RINA instructions, with reasonable level of assurance.

The technical review was performed by a technical reviewer(s) qualified in accordance with RINA's qualification scheme VCS VER validation and verification. The validation & verification team and the technical reviewers consist of the following personnel:

Role/Qualification	Last Name	First Name	Country
VCS Team Leader, VCS Validator & Technical Expert	Buragohain	Champok	India
Financial Expert	Menon	Rekha	India
Technical Reviewer	Ekinci Ozen	Fulya	Turkey

1.4 Summary Description of the Project

The project activity involves 50 MW wind power plant for electricity generation and export to grid. The project owner is Clean Energy Asia LLC (CEA). The project started construction on 14/09/2016 and starts commercial operation on 27/11/2017/**11**/. The generated electricity is exported to National Power Transmission Grid (NTPG) Limited. The project qualifies as a "Project" as per the VCS Standard /**04**/.

The project involves the installation of 25 sets of 2 MW wind turbines. Estimated annual power generation is 201,800 MWh/**19**/. The estimated annual operation hours are 8760 hrs and the estimated plant load factor is 46.073%.

The proposed project is located Tsogtsetsii Soum, South Gobi, Mongolia. The coordinates of the proposed project location are 43°33'6.904" to 43°33'58.186" North latitude and 105°34'50.16" to 105°38'28.0176" East longitude /**19**/. The site is 1,587-1,597m above sea level.

2 VALIDATION AND VERIFICATION PROCESS

2.1 Method and Criteria

Validation was conducted using RINA procedures in line with the VCS Version 3.7 requirements and the requirements specified in the CDM M&P, the latest version of the CDM Validation and Verification Standard, VCS validation and verification manual version 3.2 and relevant decisions of the COP/MOP and the CDM EB and applying standard auditing techniques.

The validation consisted of the following three phases:

- Document review;
- On-site assessment;

The resolution of outstanding issues and the issuance of the final validation report and certification.

Verification was conducted using RINA procedures in line with the requirements specified in the VCS Requirements, i.e. VCS Program Guide, VCS Version 3 (v3.7) and VCS Standard, VCS Version 3 (v3.7). The GHG emission reductions are on the basis of the approved Baseline and monitoring methodology ACM0002 'Grid-connected electricity generation from renewable sources' version 19.

The verification consisted of the following three phases

- Document review;
- On-site assessment including Interviews and Site Inspections;
- Resolution of Any Material Discrepancy and the issuance of the final verification report and certification.

The following sections outline each step in more detail.

2.2 Document Review

The joint VCS PD and monitoring report version 01 of 25/05/2019 and version 1.1 of 28/08/2019 /01/, in particular the applicability of the methodology, the baseline determination, the additionality of the project activity, the starting date of the project, the monitoring plan, the emission reduction calculations provided in the form of a spreadsheet "ER estimated and monitored data.xlsx" of 25/05/2019 /02/, the investment analysis worksheet 'FM_CEA_IRR.xlsx' /18/ were assessed as part of the validation & verification.

The following table lists the documentation that was reviewed during the validation:

/1/	VNV: VCS PD & monitoring report for "50 MW Tsetsii Wind Farm in Mongolia" in Mongolia, version 01 of 25/05/2019 and version 1.1 of 28/08/2019
/2/	VNV: Emission Reduction Calculation Spreadsheet "ER estimated and monitored data.xlsx", version 01 of 25/05/2019
/3/	VCS: VCS Program Guide, VCS Version 3 (v3.7), Requirements Document of 21/06/2017
/4/	VCS: VCS Standard, VCS Version 3 (v3.7), Requirements Document of 21/06/2017
/5/	VCS: Joint VCS Project Description & monitoring report Template VCS Version 3.1 of 19/10/2016
/6/	CDM Executive Board: Baseline and Monitoring Methodology "ACM0002", "Grid-connected electricity generation from renewable sources", version 19.0
/7/	CDM Executive Board: Methodological Tool "Tool to calculate the emission factor for an electricity system", version 07.0
/8/	CDM Executive Board: Methodological Tool "Tool for the demonstration and assessment of additionality", version 07.0
/9/	CDM Executive Board: Methodological Tool "Investment analysis", version 09.0
/10/	Vestas: Commissioning certificates of all WTGs

/11/	National Dispatching Center: Commercial operation certificate for 50 MW Tsetsii Wind Farm by Clean Energy Asia LLC, granted permission to start sell electricity starting from at 00:00 (midnight) of November 27, 2017
/12/	National Dispatching Center State Owned LLC and Clean Energy Asia LLC: Power Purchase agreement 29/04/2015
/13/	UNFCCC: Project search: https://cdm.unfccc.int/Projects/projsearch.html
/14/	Gold Standard Foundation: https://registry.goldstandard.org/projects?q=Mongolia&page=1
/15/	Clean Energy Asia LLC: Declaration for '50 MW Tsetsii Wind Farm' participated only for VCS credit
/16/	I.M. Pandey: Financial Management" 9th edition
/17/	Mongolia: Inflation rate from 1994 to 2024 (compared to the previous year) https://www.statista.com/statistics/727562/inflation-rate-in-mongolia/
/18/	Clean Energy Asia LLC: Investment analysis worksheet 'FM_CEA_IRR.xlsx'
/19/	Mott MacDonald: Final Due Diligence report for 'Tsetsii Wind Farm' dated 09 September 2016
/20/	National Renewable Energy Laboratory: Wind Energy Resource Atlas of Mongolia (https://www.nrel.gov/docs/fy01osti/28972.pdf), August 2001
/21/	Clean Energy Asia LLC: Cost certificate for 'Tsetsii Wind Farm' dated 21/02/2018
/22/	JICA: Loan agreement between Clean Energy Asia LLC and Japan International Cooperation Agency dated 28/09/2016
/23/	ERBD: Loan agreement between Clean Energy Asia LLC and European bank for reconstruction and development dated 28/09/2016
/24/	Service and availability agreement between Clean Energy Asia LLC and Vestas Mongolia LLC dated 26/09/2016
/25/	UNFCCC: Tool: common practice, Version 03.1 of 03/06/2015
/26/	UNFCCC: Grid emission factor for Mongolia's national electricity grid (https://cdm.unfccc.int/methodologies/standard_base/2015/sb99.html)
/27/	NTPG: Monthly joint meter reading from 50 MW Tsetsii Wind Farm from 27 November 2017 to 31/03/2019
/28/	General Expert of Ministry of Environment and Green Development: Detailed Environmental Impact Assessment Report for construction and operation of "Wind Farm" Project in Tsogtsetsii Soum, Umnugobi province' 2014
/29/	Clean Energy Asia LLC: Newspaper advertisement inviting stakeholders for consulting process dated 08/06/2016 and 10/06/2016 and on 08/07/2019
/30/	Clean Energy Asia LLC: List of attendees and minutes of the stakeholder consultation process
/31/	Clean Energy Asia LLC: Invoices raised for export of electricity from November 2017 to March 2019
/32/	VNV advisory and Clean Energy Asia LLC: Agreement between VNV advisory and Clean Energy Asia LLC dated 31/05/2019
/33/	Project pipeline search results: PL1898 https://www.vcsprojectdatabase.org/#/pipeline

2.3 Interviews

On 24/07/2019 and 25/07/2019, RINA visited project site located at Tsogtsetsii Soum, South Gobi, Mongolia to resolve questions and issues identified during the document review and to perform interviews with relevant stakeholders in the host country.

The key personnel interviewed and the main topics of the interviews are summarized in the table below:

	Date	Name and Role	Organization	Topic
/a/	24/07/2019-25/07/2019	Nayan Jyoti Deka (Consultant)	VNV Advisory Services	Description of the project activity
/b/	24/07/2019-25/07/2019	Turbold Enkhtuvshin (Finance Manager)	Clean Energy Asia LLC	Baseline and Additionality Eligibility Criteria Emission reductions calculations
/c/	24/07/2019-25/07/2019	Temuulen Enkhtuya (Document controller)	Clean Energy Asia LLC	Monitoring plan and monitoring arrangements Investment Analysis. Monitoring, recording, calibration and operation and maintenance procedures. Emission reductions calculations.

2.4 Site Inspections

On 24/07/2019 and 25/07/2019, RINA team visited project site located at Tsogttsetsii Soum, South Gobi, Mongolia. The coordinates of the project location are 43°33'6.904" to 43°33'58.186" North latitude and 105°34'50.16" to 105°38'28.0176" East longitude. During the on-site assessment of the project, there were no hindrance and all the equipment's and the systems were accessible. RINA assessed the implementation and operation of the proposed project activity, reviewed the information flows for generating, aggregating and reporting the monitoring parameters, interviewed key personnel of the plant to confirm the operational and data collection procedures, cross-checked between information provided in the monitoring report and data plant, checked the monitoring equipment, reviewed calculations and assumptions made in determining the GHG data and emission reductions, checked the quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

2.5 Resolution of Findings

The objective of this phase of the validation & verification is to resolve any outstanding issues which need to be clarified for RINA's positive conclusion on the project description. To guarantee transparency a verification protocol has been customized for the project. The protocol shows in a transparent manner the requirements, means of verification and the results from verifying the identified criteria. The verification protocol consists of three tables; the different columns in these tables are described below.

A corrective action request (CAR) is raised if one of the following occurs:

- Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;
- Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impair the estimate of emission reductions;
- Issues identified in a FAR during validation to be verified during verification have not been resolved by the project participants.

A clarification request (CR) is raised if information is insufficient or not clear enough to determine whether the applicable VCS requirements have been met.

In summary, 2 CRs and 1 CAR were raised during this verification which were closed successful and details are given under Appendix B of this report.

2.5.1 Forward Action Requests

No FAR is raised during the Validation & verification.

3 VALIDATION FINDINGS

3.1 Project Details

The purpose of the project activity is to generate the electricity using wind energy. The total installed capacity of the project is 50 MW, and the electricity generated is supplied to National Power Transmission Grid (NTPG) Limited. The validation team has confirmed the same by cross checking the commissioning certificates /10/, certificate of commercial operation date /11/ and power purchase agreements /12/. Further, the physical site visit confirms the project capacity and project proponent.

Project proponent

The project proponents and their responsibility are clearly defined under Section 1.3 of the VCS PD version 01.1 /01/. Clean Energy Asia LLC is the project owner. This is evident from the commissioning certificate /10/ and power purchase agreements /11/.

Project start date

The starting date of project activity is 27/11/2017 which is as per the commercial operation certificate to sell electricity to grid by National Dispatch center /11/. The start date is in line with the VCS Standard /04/.

Project crediting period

A crediting period of 10 years has been chosen for the project activity. The start date of crediting period is from 27/11/2017.

Project scale and estimated GHG emission reductions or removals

The estimated average annual emission reductions from the project are estimated to be on the average 175,767 tCO₂e per year over the selected 10 year crediting period.

Projects are categorized by size according to their estimated average annual emission reductions or removals according to VCS Standard /04/. Since the estimated annual emission reductions resulting from the project is less than 300,000 tCO₂e, the category of the project is defined as "Project" as per the VCS Standard /04/.

Project location

The project is located at Tsogttsetsii Soum, South Gobi, Mongolia. The coordinates of the project location are 43°33'6.904" to 43°33'58.186" North latitude and 105°34'50.16" to 105°38'28.0176" East longitude. The project involves 25 WECs and location of each WEC is presented in the VCS-PD. The validation team cross checked the GPS co-ordinates of WECs during site visit and found to be correct.

Project compliance with applicable laws, statutes and other regulatory frameworks

The project is in compliance with applicable laws and other regulatory frameworks. This is evident from commissioning certificates /10/, approval from national dispatch center /11/ and power purchase agreement /12/.

Ownership and other programs

Right of use: The ownership of the emission reductions will belong to L Clean Energy Asia LLC as confirmed through the commissioning certificates /10/ and approval from national dispatch center /11/.

Emissions trading programs and other binding limits: Net GHG emission reductions or removals generated by the project will not be used for compliance with an emissions trading program or for meeting binding limits on GHG emissions.

Additional information relevant to the project

Eligibility criteria for grouped projects:

The project is not a grouped project.

Commercially sensitive information:

Not applicable.

Any further information:

Not applicable.

3.2 Participation under Other GHG Programs

The project has not been registered or seeking registration under other GHG programs as confirmed through the GS or CDM project activity /13/, /14/. PP has also provided a declaration for the same /15/.

Other forms of environmental credit sought or received: The project has not created another form of Environmental Credit.

Rejection by other GHG programs: The project has not been rejected by other GHG programs as confirmed through the GS, VCS and CDM project data base /13/, /14/.

3.3 Application of Methodology

3.3.1 Title and Reference

The CDM approved baseline and monitoring methodology ACM0002 version 19.0: "Grid Connected Renewable Electricity Generation from renewable sources" /06/ is correctly applied for the project activity.

3.3.2 Applicability

The project correctly applies the approved baseline and monitoring methodology "ACM0002", "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", version 19 /06/.

The proposed project activity meets the criteria defined in the baseline methodology as described below:

- The proposed activity is a, Greenfield project, which involves the installation of a new grid-connected renewable power generation facility (i.e. 50 MW wind farm). RINA confirmed the same from the commissioning certificates of the project activity /10/. Hence the methodology is applicable to the proposed project activity.

- The proposed project activity is the installation of a new 50 MW wind farm with brand new 25 Nos. of Vestas 2 MW WTGs. There is no capacity addition, retrofitting or replacements in the proposed project activity. RINA confirmed the same through the commissioning certificates /10/.
- The proposed project activity is not hydro power project. RINA confirmed the same through the commissioning certificates and the physical inspection of WTGs during the site visit /10/.
- The proposed project activity is not fuel switch project from fossil fuels to renewable energy sources, biomass fired power plants and the hydro power plant that result in new reservoir or in the increase in existing reservoirs where the density of the power plant is less than 4 W/m². RINA confirmed the same through the commissioning certificate and the physical inspection of WTGs during the site visit /10/.
- The proposed project activity does not involve any retrofication, replacements or capacity addition. RINA confirmed the same through the commissioning certificate and physical inspection of WTGs during the site visit /10/.

The project activity applies the following methodological tools:

- Methodological “tool to calculate the emission factor for an electricity system” version 07.0 /07/.
- Methodological “tool for the demonstration and assessment of additionality” version 07.0 /08/

RINA hereby confirms that the selected baseline and monitoring methodology has been previously approved by the CDM Executive Board, and is applicable to the Project, which complies with all the applicability conditions therein and the selected version is valid at the time of submission of the proposed project activity for registration. It is also confirmed that the methodology is correctly applied by comparing it with the actual text of the applicable version of the methodology.

3.3.3 Project Boundary

According to the approved baseline and monitoring methodology “ACM0002”, “Consolidated baseline methodology for grid-connected electricity generation from renewable sources”, version 19 /06/ “the spatial extent of the project boundary includes the project power plant and all power plants connected physically to the electricity system that the project power plant is connected to”. The generated electricity will be delivered to the National Power Transmission Grid (NTPG) Limited through the connected sub-station. The baseline for this project activity is a function of generation mix of the NTPG. The selection of NTPG as the grid system boundary for the project activity is in line with the methodology.

	GHGs involved	Description
Baseline emissions	CO ₂	Net electricity delivered to the NTPG grid by the project activity that would otherwise have been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid.
Project emissions	N/A	The project activity does not have any project emission.

Leakage	N/A	The project activity does not have any leakage emission since there is no transfer of equipment to or from the project activity. The project activity is a new project activity which is confirmed from commissioning certificates /10/ and from the site visit observations.
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Emission sources which are not addressed by the applied methodology and which are expected to contribute more than 1% of the overall expected average annual emissions reduction have not been identified.

By checking the information and evidences available and by the physical site, RINA can confirm that all the emission sources and gases have been included in the project boundary and the description in the VCS-PD is accurate and complete, and also that the selected sources and gases are justified for the proposed project activity.

3.3.4 Baseline Scenario

According to the approved baseline methodology ACM0002 /06/, the baseline scenario is “Electricity delivered to the grid by the project would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid”. Since the baseline is defined by the approved methodology, no further analysis is required.

The approved baseline methodology “Grid connected renewable electricity generation” has been correctly applied to identify the most reasonable baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed VCS project activity.

3.3.5 Additionality

Choice of approach:

The PP has chosen to apply investment analysis to demonstrate the additionality of the project activity using the benchmark analysis method. PP has identified post tax equity IRR as the most suitable financial indicator. The project cannot apply simple cost analysis since the project brings revenue from the sale of electricity; also investment comparison analysis cannot be applied as the alternative to the project activity is the electricity generated by new and existing grid connected power plants. The project developer has chosen to apply the benchmark analysis method. Since the project proponent is demonstrating the financial unattractiveness of the project and the project cost involves both equity and debt, equity IRR is considered appropriate indicator and accepted by the validation team.

Benchmark selection:

As per paragraph 15 of the ‘investment analysis tool’, required/expected returns on equity are appropriate benchmarks for an equity IRR.

Following is stated in para 19 of the Investment Analysis tool, version 09 /09/,

‘If the benchmark is based on parameters that are standard in the market, the cost of equity should be determined either by: (a) selecting the values provided in Appendix; or by (b) calculating the cost of equity using CAPM. The default values in the Appendix A are based on long term historical returns and therefore may also be applied by projects with a start date prior to the adoption of default values by the Board.’

The commercial operation date of the project activity is 27/11/2017 and default values were adopted by board on 29/11/2018 therefore, PP can apply the default values. Accordingly, project participant considered default values for the expected return on equity of 16.25% as given table of Investment Analysis tool, version 09 for country Mongolia applicable to group 1 projects /09/, which is expressed in real terms. The project equity IRR calculated is nominal terms as escalation is considered in O&M cost. Accordingly PP converted the default benchmark which is in real terms into nominal terms by using the following equation:

$$\text{Nominal Benchmark} = (1 + \text{Benchmark real}) \times (1 + \text{Inflation rate}) - 1$$

The validation team referred the book ‘Financial Management’ 9th edition, by I.M. Pandey/16/. In page 211 of the book, the same equation is mentioned for converting real into nominal values. Hence the validation team considers the above equation as appropriate for converting real benchmark into nominal benchmark.

$$\text{Nominal Benchmark estimated} = (1 + 16.25\%) \times (1 + 0.49\%) - 1 = 16.82\%$$

Inflation rate of Mongolia in the year 2016 is considered from publicly available sources /17/.

Input parameters:

The validation team of RINA validated the input values and assumptions in the investment analysis by checking the original and other supportive documents as detailed below. It is noted that the values of the input values stated in the VCS-PD are consistent with that of the financial calculation sheet and benchmark analysis sheet /18/. The project is having a power purchase agreement for 25 years and therefore, investment analysis is done for the period of 25 years.

RINA has validated the input parameters used in the investment analysis and the following steps have been followed to assess the investment analysis.

- Assessment of the sources used for input parameters. Input parameters used in the financial analysis are taken from feasibility study report of the project /19/ and power purchase agreement /12/.
- Confirmation of the values in the VCS-PD and investment analysis is fully consistent with the values provided in the feasibility report /19/, PPA /12/. RINA compared the input parameters for the financial analysis included in the VCS-PD /01/ and in the investment analysis spreadsheet /18/ with the parameters stated in the documents used and was able to confirm that the values applied are consistent with the values provided in feasibility report.

Parameter	Unit	Value	Validation Assessment and cross checking
Capacity of each WTG	MW	2	The capacity of each WTG is 2 MW as per feasibility study report and commissioning reports /10/,/19/.
No. of WTGs		25	Total project capacity is as per feasibility study report, commissioning reports and PPA /10/,/12/, /19/.
Plant Load Factor	%	46.073%	The plant load factor is as per feasibility study report /19/. As per Wind Energy Resource Atlas of Mongolia wind speed of Tsogtsetsii site is 5 m/s /20/ and as per feasibility study report it is 8.20 m/s. Therefore, PP has considered a higher PLF which is conservative.
Project cost	US\$'000s	120,680	The cost of the project is as per feasibility report /19/ which is further cross checked from cost certificate for the project /21/ and confirm to be correct.
Debt from EBRD	US\$'000s	23,653	The cost of the project is as per feasibility report /19/ which is further cross checked from cost certificate for the project /21/ and confirm to be correct.
Debt from JICA	US\$'000s	60,823	
Equity	US\$'000s	36,204	The cost of the project is as per feasibility report /19/ which is further cross checked from cost certificate for the project /21/ and confirm to be correct.
Interest Rate-JICA	%	2.3	The interest rate on term loan is as per loan agreement /22/.

Interest Rate-EBRD	%	5.5	The interest rate on term loan is as per loan agreement /23/.
Tenure of term loan	Years	15	The tenure is as per term loan agreement /22/, /23/.
Tariff (fixed for 25 years)	USD/kWh	0.094	The tariff rate is as per PPA /12/.
O & M cost	US\$'000s	1359	The O & M costs is as per feasibility report /19/ which is further cross checked from O & M agreement /24/. Interest rate on O & M and tenure is also consistent with the O & M agreement.
Insurance Cost	USD'000s	199	The insurance costs is as per feasibility report /19/.
Income tax rate & VAT	%	10	As per law of Mongolia.

Calculation and conclusion:

The validation team further assessed the correctness of computations and documentation carried out by the project participants. The assessment involves checking the data input taken from feasibility study report /19/ and actual incurred cost post commissioning /21/. The accounting principles adopted with respect to computation of depreciation and tax computation are found to be in order. The arithmetical accuracy is also found to be correct. The equity IRR calculations were provided in a spread sheet /18/.

The calculation were verified in detail and found to be correct by RINA as well as the assumptions used in the calculation were deemed to be correct. The Equity IRR for the project activity without carbon revenues is 13.1% as per input values from feasibility study and actual incurred cost confirms that the proposed project activity in absence of carbon revenue compared to the benchmark IRR of 16.82% is not economically and financially attractive.

Sensitivity analysis:

Parameter	Equity IRR		
Variation in %	-10%	Base Case	+10%
Tariff	8.4%	13.1%	17.5%
PLF	8.9%	13.1%	16.8%
Project cost	15.8%	13.1%	10.8%
O & M cost	14.2%	13.1%	12.0%

Based on the sensitivity analysis the equity IRR does not cross the benchmark under any circumstances. Further review of the sensitivity analysis reveals that for the benchmark to be crossed, one of the following must happen.

Parameter	Probability of the situation
-----------	------------------------------

Change in Plant Load Factor	PP has already considered a higher PLF which is prepared by third party and hence it is not a realistic scenario.
Project cost	Project is already commissioned and there is no scope to reduce the project cost. Hence a low cost is not realistic.
O & M cost	O & M agreement is already executed and on expiry of the agreement a higher cost is expected than the cost of the current agreement and hence a lower O & M cost is not realistic.
Tariff rate	Tariff rate is already fixed for 25 years and PPA is executed. Hence, a lower tariff rate is not possible.

The result of IRR and sensitivity analysis shows that without the income from CERs sale, the proposed project activity is unlikely to be financially attractive.

Common practice analysis:

The PP has conducted the common practice analysis as per the requirements of "Tool for the demonstration and assessment of additionality Version 07.0.0 /08/. In line with the tool, 'common practice' PP has selected Mongolia (host country) as the default applicable geographical area for the assessment of common practice.

As per the Step 1 of the guideline /25/, the applicable output range as $\pm 50\%$ of the design output range (50 MW) is 25 MW to 75 MW.

In the step 2, PP has identified the plants that deliver the output in the range of 25 MW to 75 MW in the host country. While identifying these projects, the plants that were considered are based on the technologies such as thermal, hydro and wind power projects that have started their commercial operation before the start date of the project activity and which have not applied or registered under CDM or VCS. 1 project found within the range with commercial operation before start of the project activity (Salkhit Wind Farm), however this is already registered under CDM. Hence, no project found within the range.

In the step 3, PP has identified from the projects identified in step 2 those that are neither registered CDM/VCS project activities, project activities submitted for registration, nor project activities undergoing validation which is noted as Nall. This is also 0.

In step 4, from the list under step 3, PP has to identify projects with different technologies than the wind power technology based on the parameter energy sources as per the tool /25/. Thus, the projects identified in the step which are using technologies other than wind have been identified as Ndiff and their count is 0.

While performing the step 5, PP has been able to demonstrate the factor F is '0' which is less than 0.2 and Nall-Ndiff is less than 3. Thus, in view of the guidance given in the tool /25/, the validation team confirms that the analysis has been performed as per the sub-step 4 a of the "Tool for the demonstration and assessment of additionality" Version 07.0.0. The team based on the assessment has been able to confirm that the project activity can be regarded as not a common practice in the host country Mongolia.

3.3.6 Quantification of GHG Emission Reductions and Removals

The emission reduction E_{Ry} by the proposed project activity during the crediting period is the difference between baseline emissions (BE_y), project emission (PE_y).

Baseline Emissions:

The baseline emissions (BE_y in tCO₂e) are the product of the baseline emission factor (EF_{grid,CM,y} in tCO₂e) times the net electricity supplied by the project activity to the grid (EG_{facility,y} in MWh). The baseline emission factor for the project activity is determined ex-ante as a combined margin (CM) consisting of the combination of operating margin (OM) and build margin (BM) according the methodological “Tool to calculate the emission factor for an electricity system” /07/. The relevant electric power system is identified in accordance with the tool.

The combined grid emission factor of the grid for Mongolia is determined ex-ante for the ten years crediting period as per default emission factor of the country to be 0.781 tCO₂e/MWh which is as per UNFCCC approved Grid emission factor for Mongolia’s national electricity grid /26/, and the net electricity supplied by the project activity to the grid for the period 27/11/2017 to 31/03/2019 is 195,590 MWh which is calculated as difference electricity export and import from grid monitored using dedicated energy meters. Monthly electricity export and import is recorded as part of joint inspection of Clean Energy Asia and NTPG. Monthly export and import of electricity from the project activity is cross checked from monthly joint meter reading records /27/ and hence reported value in emission reduction worksheet and VCS-PD is correct.

The annual baseline emissions estimated ex-ante from the project activity is 175,767 tCO₂e/year and actual baseline emissions for the monitoring period 27/11/2017 to 31/03/2019 is 170,352 tCO₂.

Project Emissions:

As per ACM0002, for a wind energy based power generation, the project emissions are not applicable. Hence, PE_y = 0

Leakage:

As per ACM0002, no leakage emissions are considered. The main emissions potentially giving rise to leakage in the context of electric sector projects are emissions arising due to activities such as power plant construction and upstream emissions from fossil fuel use (e.g. extraction, processing, transport). These emissions sources are neglected. Therefore, LE_y = 0.

Emission Reductions

As per ACM0002 Version 19 /06/, the emission reductions are calculated as follows:

$$E_{Ry} = BE_y - PE_y$$

PP has calculated the emission reductions using the above equation and are estimated to be 175,767 tCO₂e per annum. The calculation of the emission reductions has been ensured by the validation team based on the CER calculation sheet /02/.

The emission reductions estimation can be replicated using the data and parameter values provided in the VCS-PD and supporting file submitted for registration. The data sources mentioned have been verified by RINA. RINA confirms that the estimates provided in the VCS-PD version 1.1 /01/ are reasonable and the project participant has correctly applied the methodology; the calculations are complete and transparent and the data accuracy has been verified.

3.3.7 Methodology Deviations

No deviation from the applied methodology is applied.

3.3.8 Monitoring Plan

The approved consolidated baseline and monitoring methodology ACM0002 “Consolidated baseline methodology for grid-connected electricity generation from renewable sources” Version 19 /06/ has been correctly applied by PP. The monitoring plan is in accordance with the monitoring methodology; the monitoring plan will give opportunity for real measurement of achieved emission reductions.

RINA has checked all the parameters presented in the monitoring plan against the requirements of the methodology; no deviations relevant to the project activity have been found in the plan.

RINA confirms that the monitoring arrangements described in the monitoring plan are feasible within the project design, and the means of implementation of the monitoring plan are sufficient to ensure the emission reductions achieved by/resulting from the proposed VCS project activity can be reported ex post and verified.

Parameters determined ex-ante

The ex-ante parameters that are mentioned in the methodology are included in the PDD and are provided in compliance with the methodology:

	Data/parameter	Unit	Value applied	Assessment
1	Combined margin emission factor for grid	tCO ₂ e/MWh	0.871	Default value from Standardized baseline: Grid emission factor for Mongolia's national electricity grid” /26/.

Parameters monitored ex-post

The ex-post parameters that are mentioned in the methodology are included in the PDD and are provided in compliance with the methodology, and they will be monitored during the crediting period:

	Data/parameter	Assessment
--	----------------	------------

1	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y $EG_{facility,y}$ (MWh/year)	The net electricity export is calculated ($EG_{facility,y} = EG_{export,y} - EG_{import,y}$) based on gross export ($EG_{export,y}$) and gross import ($EG_{import,y}$) which is continuously monitored using calibrated energy meter (main and check) at sub-station. Based on the monthly statement invoice is raised. The monitoring frequency is continuous and readings are recorded on monthly basis, as required by the methodology I06I . Energy meters are to be calibrated once in 8 years as per national standard.
---	---	---

Two main and two check meters are installed with details given below:

Meters name	Meter Type	Meter serial number	Date of calibration	Date of next calibration
Main export/ import meter at Tavantolgoi substation No 1	A1802RAL-P4GB-DW-4	1311267	27/11/2017	26/11/2025
Main export/ import meter at Tavantolgoi substation No 2	A1802RAL-P4GB-DW-4	1311265	27/11/2017	26/11/2025
Backup export/import meter at Tavantolgoi substation no 1	A1805RAL-P4GB-DW-4	1311263	27/11/2017	26/11/2025
Backup export/import meter at Tavantolgoi substation no 2	A1805RAL-P4GB-DW-4	1311262	27/11/2017	26/11/2025

The calibration of energy meters cover the monitoring period.

3.4 Non-Permanence Risk Analysis

There is not any risk for the project activity.

4 SAFEGUARDS

4.1 No Net Harm

The project activity involves electricity generation from wind energy. There is no negative environmental and socio-economic impact.

4.2 Environmental Impact

The Environmental Impact Assessment (EIA) Report for the proposed project was compiled by General Directory of Sunny Trade LLC Consulting company in Mongolia. The EIA Report for the proposed project has been approved by the General expert of Ministry of Environment and Green Development /28/. According to the approval comments of the EIA Report by the General expert of Ministry of Environment and Green Development, the environmental impacts likely to be caused by the proposed project are analysed and appropriate measures are applied.

4.3 Local Stakeholder Consultation

The project proponent invited local stakeholders through personnel invitation and local newspaper advertisement initially on 08/06/2016, 10/06/2016 and on 08/07/2019 /29/ and organized the local stakeholder consultation process in September 2016 for the project activity and on 24/07/2019. Gram Panchayat Members, local villagers, employees of the technology supplier were present at the meeting. RINA cross checked the attendance list of stakeholders' /30/ and also interviewed some of the local stakeholders during site visit to confirm the consistency of the information provided in the VCS-PD.

A summary of comments has been provided by PP and it is found that no adverse comment was received for the project activity /30/. This has also been verified by RINA validation team during site visit by conducting a random stakeholder's meeting at the WTGs site. Further, the interviewees confirmed that there was no adverse comment about the project and this project will lead to employment generation and better environmental conditions. RINA considers the local stakeholder consultation carried out adequately and can confirm that the process is credible.

4.4 Public Comments

No public comment received during public listing of the project at VCS as seen under VERRA project database.

5 VERIFICATION FINDINGS

5.1 Accuracy of GHG Emission Reduction and Removal Calculations

The accuracy of GHG emission reductions are 3.3.6 of this report. Net electricity export is directly taken from monthly generation reports duly approved by NTPG /27/. The reported values are consistent with generation records and calculation is correctly done in consistent with applied methodology /06/.

5.2 Quality of Evidence to Determine GHG Emission Reductions and Removals

Quantity of net electricity generation supplied by the project plant/unit to the grid is measured with the help of energy meters (main and check) installed at the substation. Every month, NTPG representatives take the reading of the main meter installed at the substation. The monthly readings present the net electricity export to grid /27/. Base on the monthly readings invoice is raised by PP. The verification team has cross checked monthly invoices /31/ against the net export and found to be in order.

CO₂ emission factor has been taken as 0.871 tCO₂ /MWh. The verification team has verified the value from the approved report by UNFCCC /26/ and found to be correct and consistent. The baseline emission is calculated as 170,352 tCO₂. As per the methodology and the registered CPA-DD, the project does not need to consider project emissions and leakage. Thus the emission reductions are 170,352 tCO₂e for this monitoring period.

6 VALIDATION AND VERIFICATION CONCLUSION

RINA Services S.p.A. (RINA), commissioned by Value Network Venture Advisory Services LLP, is validating & verifying the greenhouse gas emission reductions reported for the project activity "50 MW Tsetsii Wind Farm in Mongolia" in Mongolia with regard to the relevant requirements for VCS Version 3 activities.

The review of the project design document and the subsequent follow-up interviews have provided RINA with sufficient evidence to determine the fulfillment of the stated criteria.

The project correctly applies the approved baseline and monitoring methodology "ACM0002", "Grid-connected electricity generation from renewable sources", version 19 /6/.

By generating renewable energy from wind power plant, the project results in reduction of CO₂ emissions that are real measurable and giving long-term benefits to the mitigation of climate change. It is demonstrated that the project is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity.

The total emission reductions from the “50 MW Tsetsii Wind Farm in Mongolia” are estimated to be on average 175,776 tCO₂e per year over the selected 10 years renewable crediting period. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achieved given that the underlying assumptions do not change.

The monitoring plan provides for the monitoring of the project’s emission reductions and of the sustainable development indicators. The monitoring arrangements described in the monitoring plan are feasible within the project design and it is RINA’s opinion that the project participants are able to implement the monitoring plan.

In conclusion, it is RINA’s opinion that the project activity “50 MW Tsetsii Wind Farm in Mongolia” in Mongolia, as described in the VCS PD version 1.1 of 28/08/2019, meets all relevant UNFCCC and VCS Version 03 requirements for the VCS VER and all relevant host Party criteria and correctly applies the baseline and monitoring methodology “ACM0002”, “Grid-connected electricity generation from renewable sources”, version 19. RINA thus requests registration of the project as a VCS project activity.

Also the **verification** of the emission reductions reported for the period 27/11/2017 to 31/03/2019 with regard to the relevant requirements for VCS activities.

The project participants of “50 MW Tsetsii Wind Farm in Mongolia” project are responsible for:

- The preparation of greenhouses gas emissions data and the reported greenhouse gas emission reductions from the project on the basis set out in the monitoring plan contained in the joint project description and monitoring report.
- The development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of greenhouse gas emission reductions of the project

It is the responsibility of RINA to express an independent verification opinion about the project’s conformity with the requirements of VCSA and on the reported greenhouse gas emission reductions from the project.

Based on documented evidence and corroborated by an on-site assessment RINA can confirm that:

- the project has been implemented and operated as per the design document;
- the monitoring report and other supporting documents provided are complete and verifiable and in accordance with the applicable VCS requirements;
- the monitoring is in place as per the applied baseline and monitoring methodology;

It is RINA’s opinion that the GHG emission reduction stated in the joint project description and monitoring report version 01.1 of 28/08/2019 for the “50 MW Tsetsii Wind Farm in Mongolia” project in Mongolia for the period 27/11/2017 to 31/03/2019 are fairly stated. The GHG emission reductions were calculated correctly on the basis of the approved monitoring methodology ACM0002, “Consolidated methodology for grid-connected electricity generation from renewable sources” version 19 and the monitoring plan contained in the registered CPA-DD.

Hence RINA is able to certify that the emission reductions from the project during the monitoring period 27/11/2017 to 31/03/2019 amount to 170,352 tCO₂e.

Verification period: From 27/11/2017 to 31/03/2019.

Verified GHG emission reductions and removals in the above verification period:

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
27/11/2017 to 31/12/2017	8,976	0	0	8,976
01/01/2018 to 31/12/2018	127,369	0	0	127,369
01/01/2019 to 31/03/2019	34,007	0	0	34,007
Total	170,352	0	0	170,352

APPENDIX A: ABBREVIATIONS

Abbreviations	Full texts
BE	Baseline Emissions
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM M&P	Modalities and Procedures CDM
CER(s)	Certified Emission Reduction(s)
CH ₄	Methane
CR	Clarification Request
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
CRT	Coordination and Technical Control Staff
DCI	Certification Division of RINA Services Spa
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EF	Emission Factor
ER	Emission Reductions
FAR	Forward Action Request
GHG(s)	Greenhouse gas(es)
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
MoV	Means of Verification
MR	Monitoring Report
NGO	Non-governmental Organization
ODA	Official Development Assistance
PDD	Project Design Document
PE	Project Emission
PPA	Power Purchase Agreement

PP(s)	Project Participant(s)
Ref.	Document Reference
RINA	RINA Services Spa
SS(s)	Sectoral Scope(s)
TA(s)	Technical Area(s)
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard
VCU	Verified Carbon Unit
VER	Voluntary Emission Reductions
VVS	Validation and Verification Standard

APPENDIX B: CLARIFICATION REQUESTS, CORRECTIVE ACTION REQUESTS AND FORWARD ACTION REQUEST

Table 1. CR from this validation/verification

CR ID	01	Section no.		Date: 22/08/2019
Description of CR				
<i>PP is requested to provide copies of the following documents:</i>				
<i>1. Power Purchase Agreement</i>				
<i>2. Agreement between VNV advisory and Clean Asia</i>				
Project participant response				Date: 28/08/2019
1. Power purchase agreement has been provided				
2. Agreement copy between VND Advisory & Clean Energy Asia has been provided.				
Documentation provided by project participant				
1. CEA_VNV_Agreement.pdf				
2. PPA.pdf				
DOE assessment				Date: 03/10/2019

The PPA clearly defines the project ownership, grid connectivity and tariff for sale of electricity. The agreement copy between VNV and CEA defines the role of VNV in the VCS project activity. Details are consistent in the VCS-PD and hence **CR is closed**.

CR ID	02	Section no.		Date: 22/08/2019
Description of CR				
1. PP is requested to clarify the annual estimated energy generation considered? The VCS-PD states 201,918 MWh whereas IRR sheet seems considered as 201,800 MWh. 2. Kindly clarify the basis of project cost. The exact source needs to be provided. 3. Kindly provided the copy of PPA based on which the tariff rate is considered. 4. Clarify the basis on which the proportion of annual generation (each month of the year) is considered? 5. O& M cost provided in FSR is not consistent in the IRR sheet. Kindly clarify the source and appropriateness of considering 4.3% annual inflation on O&M cost. 6. Clarify the source of land lease value. 7. Kindly provide source for applicable tax rates 8. If the interest rate is considered as per actual loan agreement, kindly highlight the exact source in the document (page number, section etc.) 9. Kindly clarify the calibration frequency of energy meters as the VCS-PD does not specify the same. 10. Kindly clarify if any public comment received during publication of the PDD. 11. Kindly clarify if 'feasibility study report' is to be used as source for the monitoring parameter 'EGfacility,y'				
Project participant response				Date: 28/08/2019

1. The annual estimated energy generation is considered from the annual yield provided by Mott who has prepared the DPR (a third party agency). Now the value of annual energy generation is made consistent in the PDD, ER sheet w.r.t IRR sheet.
2. The basis of project cost is the cost certificate The exact source of project cost has been provided.
3. Copy of PPA with the tariff value is provided.
4. Please refer column C of attached energy yield XL which illustrated the monthly breakdown of annual energy yield that confirmed by Mott as attached extract from its due diligence (refer top of second page of pdf 2. 201.8mln kWh)
5. Please refer 4.1.1 of attached O&M agreement
6. *The source of land lease value.* Renewed legislation effective from Jan 1, 2018.
<https://www.legalinfo.mn/law/details/13596> . Previous legislation which model figure was based on. But kindly note that local authority has a right to set a index from 0.1-1 depending on the utilization of the land. Our exact land fee cannot be referred in the below legislation.
<https://www.legalinfo.mn/law/details/2084>
<https://www.legalinfo.mn/law/details/11214>
7. As per current effective tax law, CIT is 10% for taxable income below MNT3billion and 25% for above MNT3billion. <https://www.legalinfo.mn/law/details/33> Please refer Clause 17.1
8. Please refer Margin on page #4 of both loan agreements with EBRD and JICA as attached.
9. The frequency of meter calibration as per Mongolian standard is of 8 years and same has been included in the PDD.
10. No public has been received during the publication of PDD.
11. The source of monitoring parameter 'EGfacility,y' is the monthly joint report between CEA & NTPG Grid which will be the basis.

Documentation provided by project participant

2.cost certificates.pdf

3. 20150402_Tsetsii Tariff Approval_signed.pdf

4.EY.xls & 09092016 - Tsetsii Final Technical Due Diligence Report.pdf

5. 2_1_e O_M Agreement dated 26 September 2016.pdf

8. TY-4548230-v1-EXECUTED_JICA_Loan_Agreement.pdf & TY-4548234-v1-EXECUTED_EBRD_Loan_Agreement.pdf

DOE assessment

Date: 03/10/2019

The supporting documents and explanation provided are consistent with the details provided in the joint PD and monitoring report and investment analysis. The validation team cross checked the input details with credible sources and reference documents and hence confirm the details to be correct. Hence, CR is closed.

Table 2. CAR from this validation/verification

CAR ID	01	Section no.		Date:	22/08/2019
Description of CAR					
1. Project scale identified in section 1.7 of the VCS-PD is not correct as per VCS standard. 2. Latest investment analysis tool is not referred. 3. The IRR value provided in VCS-PD is not consistent with IRR worksheet. 4. In the computation of actual net electricity generation sheet import electricity from grid is not deducted from gross electricity generation.					
Project participant response					Date: 28/08/2019
1. Now the project scale has been corrected 2. Latest investment analysis tool version 09.0 has been used. 3. The IRR values are updated in the PDD w.r.t IRR sheet 4. ER calculation sheet has been revised and the import has been deducted from the gross electricity generation.					
Documentation provided by project participant					
1. Revised PDD 2. IRR sheet					
DOE assessment					Date: 03/10/2019
Necessary corrections are found done in the VCS-PD and details are consistent with VCS standard, applied tools and investment analysis worksheet. Hence, CAR is closed.					

Table 3. FAR from this validation/verification

FAR ID	xx	Section No.		Date:	DD/MM/YYYY
--------	----	-------------	--	-------	------------

Description of FAR	
<i>No FAR raised</i>	
Project participant response	Date: DD/MM/YYYY
Documentation provided by project participant	
DOE assessment	Date: DD/MM/YYYY



CERTIFICATO DI QUALIFICA PER GLI SCHEMI VOLONTARI*
QUALIFICATION CERTIFICATE FOR VOLUNTARY SCHEMES*

Si attesta che il sig./sig.ra:
 We declare that Mr/Ms/Ms:

Champok Buragohain

è qualificato come:
 is qualified as:

TEC, VAL, VER, TL, ITR, Local Expert

per le seguenti aree tecniche:
 for the following technical areas:

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
1	Thermal Energy Generation	1
1.2	Renewables	1
2.1	Electricity distribution	2
13.1	Solid waste and wastewater	13
13.2	Manure	13

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	19/07/2016	First issue with new template (this certificate is linked to CDM qualification)
2	10/10/2019	Qualification update as TEC in TA 1.1

Responsabile di schema
 Scheme Manager
 Giovanni D'Angelo

*SCHEMI VOLONTARI/VOLUNTARY SCHEMES: ACR American Carbon Registry, CCB The Climate, Community & Biodiversity Alliance, GG Gold Standard, JI Joint Implementation, SGS Social Carbon Standard, VCS Verified Carbon Standard.

TGC: Technical expert; VAL: Validator; VER: Verifier; TL: Team leader; FIN EXP: Financial Expert; ITRP: Independent technical reviewer

RINA Services S.p.A. è accreditato/recognised da
 RINA Services S.p.A. is accredited/recognized by

UNFCCC	quali Entità Operativa Designata (DOE), per condurre la Validazione e la Verifica di Progetti CDM as Designated Operational Entity (DOE), to carry out Validation and Verification of CDM Projects
VCSA	per condurre la Validazione e la Verifica di Progetti VCS to carry out Validation and Verification of VCS Projects
GG Foundation	per condurre la Validazione e la Verifica di Progetti GG to carry out Validation and Verification of GG Projects
Ecologia Institute	per condurre la Validazione e la Verifica di rapporti SGS to carry out Validation and Verification of SGS Reports
American Carbon Registry ACR	per condurre la Validazione e la Verifica di Progetti ACR to carry out Validation and Verification of ACR projects
The Climate, Community & Biodiversity Alliance CCB	per condurre la Validazione e la Verifica di Progetti co-benefit CCB to carry out Validation and Verification of co-benefit CCB projects

GHQ_QUAL_CERT_EN_07_16 Voluntary(Certificate)

Page 1 of 1



CERTIFICATO DI QUALIFICA PER GLI SCHEMI VOLONTARI*
QUALIFICATION CERTIFICATE FOR VOLUNTARY SCHEMES*

Si attesta che il sig./sig.ra:
 We declare that Mr/Mrs/Ms:

Rekha Menon

è qualificato come:
 is qualified as:

TEC, VAL, VER, TL, ITRP

per le seguenti aree tecniche:
 for the following technical areas:

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
1.2	Renewables	1
2.1	Electricity distribution	2
13.1	Solid waste and wastewater	13
13.2	Manure	13
14.1	Afforestation and reforestation	14

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	19/07/2016	First issue with new template (this certificate is linked to CDM qualification)

Responsabile di schema
 Scheme Leader
 Rita Valoroso

*SCHEMI VOLONTARI/ VOLUNTARY SCHEMES: ACR American Carbon Registry, CCB The Climate, Community & Biodiversity Alliance, GS Gold Standard, JI Joint Implementation, SCS Social Carbon Standard, VCS Verified Carbon Standard.

TEC: Technical expert; VAL: Validator; VER: Verifier; TL: Team leader; FIN EXP: Financial Expert; ITRP: Independent technical reviewer

RINA Services S.p.A. è accreditato/riconosciuto da
 RINA Services S.p.A. is accredited /recognized by

UNFCCC	quali Entità Operativa Designata (DOE), per condurre la Validazione e la Verifica di Progetti CDM as Designated Operational Entity (DOE), to carry out Validation and Verification of CDM Projects
VCSA	per condurre la Validazione e la Verifica di Progetti VCS to carry out Validation and Verification of VCS Projects
GS Foundation	per condurre la Validazione e la Verifica di Progetti GS to carry out Validation and Verification of GS Projects
Ecologica Institute	per condurre la Validazione e la Verifica di rapporti SCS to carry out Validation and Verification of SCS Reports
American Carbon Registry ACR	per condurre la Validazione e la Verifica di Progetti ACR to carry out Validation and Verification of ACR projects
The Climate, Community & Biodiversity Alliance CCB	per condurre la Validazione e la Verifica di Progetti co-benefit CCB to carry out Validation and Verification of co-benefit CCB projects



CERTIFICATO DI QUALIFICA PER GLI SCHEMI VOLONTARI*
QUALIFICATION CERTIFICATE FOR VOLUNTARY SCHEMES*

Si attesta che il sig./sig.ra:
 We declare that Mr/Mrs/Ms:

Fulya Ekinci Ozen

è qualificato come:
 is qualified as:

TEC, VAL, VER, LOCAL EXPERT, TL, ITRP

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
1.2	Renewables	1
13.1	Solid waste and wastewater	13

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	27/01/2017	First issue
5	06/12/2017	Update qualification as VAL

Head of QPT
 Laura Severino

*SCHEMI VOLONTARI/ VOLUNTARY SCHEMES: ACR American Carbon Registry, CCB The Climate, Community & Biodiversity Alliance, GS Gold Standard, JI Joint Implementation, SCS Social Carbon Standard, VCS Verified Carbon Standard.

TEC: Technical expert; VAL: Validator; VER: Verifier; TL: Team leader; FIN EXP: Financial Expert; ITRP: Independent technical reviewer

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GS Foundation	per condurre la Validazione e la Verifica di Progetti GS to carry out Validation and Verification of GS Projects
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American Carbon Registry ACR	per condurre la Validazione e la Verifica di Progetti ACR to carry out Validation and Verification of ACR projects
The Climate, Community & Biodiversity Alliance CCB	per condurre la Validazione e la Verifica di Progetti co-benefit CCB to carry out Validation and Verification of co-benefit CCB projects