



VCS VERIFICATION / CERTIFICATION REPORT

VOLUNTARY CARBON STANDARD
2007.1



“14.1 MW GRID CONNECTED WIND ENERGY PROJECT IN TAMILNADU BY ITC LIMITED IN INDIA

VERIFICATION PERIOD:
20 SEPTEMBER 2008 TO 13 MARCH 2010

REPORT No.2010-0491
REVISION No. 01

DET NORSKE VERITAS



VCS VERIFICATION / CERTIFICATION REPORT

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Approved by: Michael Lehmann	Organisational unit: Climate Change and Environmental Services
Client: ITC Limited	Client ref.: B. K. Pramanick

Summary:

Det Norske Veritas Certification AS (DNV) has performed the verification of the emission reductions reported for the CDM project activity (UNFCCC Ref No. 3035) “14.1 MW grid connected wind energy project in Tamilnadu by ITC Limited” in the state of Tamil Nadu in India, for the pre-registration period of 20 September 2008 to 13 March 2010.

As emission reductions occur prior to the registration of the project as CDM project activity, these emission reductions can not be claimed as Certified Emission Reductions (CERs). The emission reductions are thus claimed as Voluntary Carbon Units (VCU) under the Voluntary Carbon Standard (VCS) 2007.1. This is in accordance to the VCS guidance for projects that are registered in two GHG programs.

In DNV’s opinion, the emission reductions reported for the “14.1 MW grid connected wind energy project in Tamilnadu by ITC Limited” in the VCU monitoring report version 4 of 27 August 2010 are fairly stated. DNV is able to certify that the emission reductions from the “14.1 MW grid connected wind energy project in Tamilnadu by ITC Limited” during the period from 20 September 2008 to 13 March 2010 amount to 45 037 tCO₂.

DNV does not assume any responsibility towards the issuance and utilization of VCUs hereby verified and certified. Request for issuance of VCUs shall be made by the project proponent to an approved VCS Program Registry based on the requirements set out under the most recent version of the VCS Program Guidelines clause on VCS Registration. The verification of reported emission reductions is based on the information made available to DNV and the engagement conditions detailed in this report. Hence, DNV cannot be held liable by any party for decisions made or not made based on this report.

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**Abbreviations**

BM	Build Margin.
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CEF	Carbon Emission Factor
CER	Certified Emission Reduction(s)
CM	Combined Margin
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DNA	Designated National Authority
DNV	Det Norske Veritas Certification As
DOE	Designated Operating Entity.
EB	Executive Board.
FAR	Forward Action Request
GHG	Greenhouse gas(es)
GWP	Global Warming Potential
IETA	International Emissions Trading Association
IPCC	Intergovernmental Panel on Climate Change
JMR	Joint meter reading
MoEF	Ministry of Environment and Forest
MP	Monitoring Plan
MW	Mega Watt
MNES	Ministry of Non-Conventional Energy Sources
OM	Operating Margin
PD	Project Description
PDD	Project Design Document
TNEB	Tamil Nadu Electricity Board
UNFCCC	United Nations Framework Convention for Climate Change
VCS	Voluntary Carbon Standard
VCU	Voluntary Carbon Unit
VER	Verified Emission Reductions
WEG	Wind Energy Generator



1 INTRODUCTION

ITC Limited has commissioned Det Norske Veritas Certification AS (DNV) to carry out the verification of voluntary emissions reductions reported for the CDM project activity “14.1 MW grid connected wind energy project in Tamilnadu by ITC Limited” (UNFCCC Reference Number: 3035) for the pre-registration period from 20 September 2008 to 13 March 2010 under the VCS program as per VCS 2007.1 standard. This verification aims to assess and verify the emission reduction occurred before the registration of the “14.1 MW grid connected wind energy project in Tamilnadu by ITC Limited” as a CDM project activity. Thus, this verification report contains the findings from the verification according to Voluntary Carbon Standard 2007.1/21/.

1.1 Objective

Verification of “pre-registration” emission reductions from a project activity is an independent review and *ex-post* determination by a Verification Entity or Designated Operational Entity (DOE) (which is the approved verifier under CDM GHG program) of the monitored reductions in GHG emissions that have occurred as a result of the implementation of a CDM project activity during the period from the date when the project started to operate until the date when the project was actually registered as a CDM project activity by the CDM Executive Board (EB).

Certification is the written assurance by a Certification Entity that, during a specific period in time, a project activity achieved the emission reductions as verified. According to the eligibility criterion for VCS validation and verifications, the Certification Entity is defined as an entity which has been accredited as a DOE by the CDM Executive Board for the particular scope into which the project falls or has been accredited as an approved Certification Entity by the VCS Steering Committee. DNV is an accredited DOE for the particular scope into which the project falls.

The objective of this verification was to verify and certify the voluntary emissions reductions reported for the “14.1 MW grid connected wind energy project in Tamilnadu by ITC Limited” for the period 20 September 2008 to 13 March 2010.

1.2 Scope and Criteria

1.2.1 Scope of the verification

The scope of the verification is:

- Verify whether the reductions generated by the project are in line with the Voluntary Carbon Standard and the information provided by the project participants contains all the necessary information to evidence the project’s compliance with all criteria in the Voluntary Carbon Standard 2007.1.
- Verify that the project was implemented as described in the Project Design Document (PDD) during the verification period.



- Confirm that the monitoring system was implemented and fully functional to generate voluntary emission reductions (VCU¹) without any double counting during the whole verification period.
- By checking the monitoring records and the emissions reduction calculation, express a conclusion whether reported data are accurate, complete, consistent, and transparent, with a reasonable level of assurance and free of material error or misstatement.
- Validation of VCS 2007.1 requirements not covered by the CDM validation.

1.2.2 Validation Criteria for VCS requirements not covered by the CDM validation

As the project has been validated under the CDM by DNV (validation Report No: 2008-1060, Dated 30 September 2009) /10/ and it was registered on 14 March 2010 under the UNFCCC reference number 3035

/26/, a further validation shall be completed of clauses 1.12, 1.13, 1.14, 8.1 and 8.2 of the VCS Project Description template /25/ as required by the current VCS 2007.1 “Policy Announcement from the VCS Association - Further Guidance for Projects that are registered in Two GHG Programs” /24/ This validation was completed as part of the current VCU verification (see appendix A).

1.2.3 Verification Criteria

According to the requirements and guidance of VCS 2007.1, the criteria of this verification include the relevant applicable rules and steps for CER verification under the CDM excluding:

- The public availability of the VER/VCS Monitoring Report;
- The public availability the Verification Report and VCU Certification Statement.

According to the VCS, the verification also includes an independent third party assessment of the project design. In particular, the project baseline, monitoring plan and the project compliance with relevant applicable protocols and criteria (i.e. UNFCCC, VCS, host Party and others) are to be validated in order to confirm that the project design, as documented, is sound and reasonable and meets the applicable criteria.

The project design, its eligibility as CDM project activity and the correct application of the CDM approved baseline and monitoring methodology AMS I.D (version 13) /20/ have already been validated by DNV and the project was registered as CDM project activity with the reference number 3035 on 14 March 2010

/26/. Based on the validation of the project activity conducted and also based on the registration of the project as a CDM project activity by CDM EB, DNV is of the opinion that that the project design as documented is sound, reasonable and meets the relevant UNFCCC and host Party criteria. As part of the validation opinion provided by DNV it was concluded that “14.1 MW grid connected wind energy project in Tamilnadu by ITC Limited” as described in

¹ As per VCS, Verified Emission Reductions (VERs) are considered to be VCUs only after successful registration in an approved VCU Registry.



the PDD of 6 July 2009 (version 3) /3/ meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria and correctly applies the approved baseline and monitoring methodologies AMS-I.D. (Version 13) /20/.

As the VCS recognizes the CDM as a GHG Program that meets its VCU verification criteria, this verification report thus only addresses VCS specific and unique criteria in terms of project design, applicability to the adopted methodology and additionality that have not been so far addressed in the validation report /10/ as per CDM requirements.

The verification team has conducted the verification based on the recommendations in the Validation and Verification Manual /19/.

1.3 VCS Project Description:

1.3.1 Project Category

According to the VCS 2007.1 Guidelines and the list of Sectoral Scopes of the UNFCCC, the project is applicable under the following activity categories:

- Category 1 – Renewable energy (wind, PV, solar, thermal, biomass, liquid biofuels, geothermal, run-of-river hydro).

According to Annex A of the Kyoto Protocol, the project is applicable under the sectoral scope 1

- Energy Industries (renewable/ non renewable sources).

1.3.2 Geographic Location

The project is located in Theni and Tirunelveli district of Tamil Nadu state in India with four WEGs of 1.65 MW each capacity of Vestas make located in Theni and five WEGs of 1.5 MW each capacity of Suzlon make located in Tirunelveli. The location of the project is defined using GPS coordinates and the details have been furnished under section A.4.1.4 of the registered PDD /1/ and the same have been checked against the commissioning certificates /12/.

1.3.3 Project Background

The project involves installation of 14.1 MW (gross) capacity grid-connected wind based power project. The first WEG started commercial operation on 20 September 2008 /12/ and the last WEG was commissioned on 30 September 2008 /12/. The project generates electricity by harnessing the wind resources available in the region and the electricity generated is wheeled through the Tamil Nadu state electricity grid and meets the electricity requirement of ITC's packing and printing facility located at Tiruvottiyur, Chennai which would have otherwise been purchased from the grid and the excess power available is sold to the grid. The project activity is the installation of nine new grid-connected WEGs, the project reduces GHG emissions by displacing electricity would have otherwise been generated in the existing fossil fuel powered plants in the southern grid or by the addition of new generation.

The project has applied the approved CDM simplified baseline methodology AMS-I.D, version 13, "*Grid connected renewable electricity generation*" /20/



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This verification report accounts for emission reductions generated by the project from 20 September 2008 to 13 March 2010. The projects emission reductions are determined as the product of the net amount of electricity exported to the southern grid and the *ex-ante* fixed grid emission coefficient of 0.92718 tCO_{2e}/MWh for the southern regional grid of India.

Title of the project activity: 14.1 MW grid connected wind energy project in Tamilnadu by ITC Limited

Location of the project activity: Udayatoor village, Tirunelveli district, Tamil Nadu state, India

VCU Verification period: 20 September 2008 to 13 March 2010

Project Operation start date: 20 September 2008

1.4 Level of assurance

During the verification, DNV has focused on providing a reasonable level of assurance that;

- the emission reduction calculation methodology used is appropriate and correctly applied,
- and
- that the emission reductions have been accurately monitored.



2 VERIFICATION METHODOLOGY

The verification of the emission reductions has assessed all factors and issues that constitute the basis for the emission reductions from the project according to applicable approved CDM simplified baseline methodology AMS-I.D, version 13, “*Grid connected renewable electricity generation*” /20/

Verification team

The verification team consists of the following personnel:

<i>Role/Qualification</i>	<i>Last Name</i>	<i>First Name</i>	<i>Country</i>	<i>Type of involvement</i>					
				Desk review	Site Interviews	Reporting	Supervision of work	Technical review	Expert input
CDM validator / technical team leader	Govindarajulu	Murali	India	√	√	√	√		
GHG Auditor	Seshan	Ranganathan	India	√	√	√			
Sector Expert	Parthasarathy	Kannan	India	√		√			√
Technical Reviewer	Flagstad	Ole A.	Norway					√	

Duration of verification

Assessment:

31 May 2010 to 2 June 2010

Reporting and QA/QC:

4 June 2010 to 22 September 2010

2.1 Review of Documentation

The monitoring reports (version 01, 02 ,03 & 04) /1/, emission reduction spreadsheet /5/, and the monthly electricity generation statement and monthly electricity bill issued by the TNEB were assessed as a part of the verification /6//7//8/. In addition the VCS Project Description, in particular the baseline estimations and the monitoring plan contained in the registered CDM PDD, CDM validation report No: 2008-1060 of DNV /10/, the commissioning certificate of the WEGs /12/ and calibration reports /9/ were also assessed.

2.2 Site Visit

During the site visit from 31 May 2010 to 2 June 2010, DNV has done an assessment on the emission reduction from the project activity and the implementation of the project activity. During the assessment, DNV has verified the actual operation of the project as described in the PDD /3/ and the instruments used for monitoring electricity export to grid including the calibration records /9/ for the instruments. There are nine WEG and the energy supplied to the



grid is monitored by individual meters. The meters are to be calibrated annually as per the monitoring plan in the registered PDD /3/. However in the case of the meters attached to the 4 Vestas make machine the meters were due for calibration by 22 August 2009 but were calibrated only on 19 December 2009. The emission reductions have been adjusted for the period of delay in calibration /5/. The calibration certificates were found to be in order /9/.

2.3 Assessment

The data presented in the monitoring report were assessed in detail by a thorough review of the detailed project documentation and log sheets, interviews with personnel at ITC Limited, collection of measurements, observation of established monitoring and reporting practices and assessment of the reliability of monitoring equipment. This has enabled the verification team to assess the accuracy and completeness of reported monitoring results and verify the correct application of the approved monitoring methodology. Data from other sources include the grid emission factor which is fixed through out the crediting period.

2.4 Report of Findings

Findings established during the verification may be that:

- i) the verification is not able to obtain sufficient evidence for the reported emission reductions or part of the reported emission reductions. In this case these emission reductions shall not be verified and certified;
- ii) the verification has identified material misstatements in the reported emission reductions.

While aiming to resolve any outstanding issues which needed be clarified about the project design, findings established during the verification can either be seen as a non-fulfilment of the VCU Verification Criteria or where a risk to the fulfilment of project objectives is identified. Emission reductions with material misstatements shall be discounted based on the verifiers' *ex-post* determination of the achieved emission reductions.

Corrective action requests (CAR) are issued, where:

- i) mistakes have been made with a direct influence on project results requiring adjustments of the VERs/VCUs monitoring report;
- ii) applicable methodology specific requirements have not been met.

A request for clarification (CL) may be used where additional information is needed to fully clarify an issue.

A forward action request (FAR) should be issued, where:

- i) the actual project monitoring and reporting practices requires attention and /or adjustment for the next consecutive verification period, or
- ii) an adjustment of the MP is recommended.

In the context of FARs, risks have been identified, which may endanger the delivery of high quality emissions reductions in the future, i.e. by deviations from standard procedures as



defined by the MP. As a consequence, such aspects should receive a special focus during the next consecutive verification. A FAR may originate from lack of data sustaining claimed emission reductions.

DNV was able to verify that the GHG emission reductions reported for the “14.1 MW grid connected wind energy project in Tamilnadu by ITC Limited” in the VCU monitoring report version 4 of 27 August 2010 /1/ are fairly stated.

No forward action request (FAR) was identified.

3 VERIFICATION FINDINGS

This section summarises the findings from the verification of the voluntary emission reductions reported for the “14.1 MW grid connected wind energy project in Tamilnadu by ITC Limited” for the period from 20 September 2008 to 13 March 2010. The findings of the verification are documented in more detail in the relevant section of this report.

3.1 Remaining Issues from Previous Validation or Verification

As this is the first verification of the Voluntary Carbon Units (VCU), under the Voluntary Carbon Standard (VCS 2007.1), for 14.1 MW grid connected wind energy project in Tamilnadu by ITC Limited, no previous CAR or FAR were identified with regards to remaining issues from the validation stage.

3.2 Project Implementation

The last WEG of the project activity was commissioned on 30 September 2008 /12/. The project boundaries and all key equipments are in line with the registered CDM PDD. The project boundary covers source of electricity generation and the grid to which the generated electricity is exported. The following equipment is operational as addressed in the PDD:

- 5 WEGs of 1.5 MW capacity, Suzlon make.
- 4 WEGs of 1.65 MW capacity, Vestas make.

The project has all statutory clearances and relevant documents and these have been verified by DNV during the site visit.

3.2.1 Eligible GHGs

The project activity contributes to reductions in the emissions of carbon dioxide (CO₂) by generating electricity using a renewable source, thus, displacing electricity generation based on fossil fuels in the southern regional grid of India.

3.2.2 Project Start Date and Emission Reduction Start Date

The starting date of the project activity has been taken as the date of commissioning of the first WEG of the bundle and consequently emission reduction start date is 20 September 2008 /12/ as verified from the commissioning certificates of the WEGs issued by Tamil Nadu Electricity Board.



3.2.3 Public Funding and Grants

The validation of the CDM project did not reveal any information that indicated that the project received any public funding.

3.2.4 Project Boundary/GHG Assessment Boundary

The project boundary is clearly defined as the site of the project activity as well as the power plants connected to the southern regional grid of India to which the project plant is connected by transmission lines.

3.2.5 Baseline Determination

As the project activity has been registered as a CDM project by the UNFCCC Executive Board on 14 March 2010

/26/, it is thus confirmed that:

- i) The project correctly applies the CDM approved simplified baseline methodology AMS-I.D, version 13, “*Grid connected renewable electricity generation*” /20/.
- ii) The baseline and monitoring methodologies have been correctly applied and the assumptions made for the selected baseline scenario are sound.

3.2.6 Project Additionality

As the project activity has been registered as a CDM project by the UNFCCC Executive Board on 14 March 2010

/26/, it is thus confirmed that the project activity is not a likely baseline scenario, and that emission reductions resulting from the project are additional.

According to the CDM validation report, the investment analysis demonstrates that the most plausible scenario is the continuation of current prevailing practice and that the emission reductions by the project are additional to any emission reductions occurring in absence of the project.

Detailed information regarding project additionality is available at:

- i) PDD version 03 of 6 July 2009 /3/.
- ii) DNV, CDM validation report dated 30 September 2009 /10/.

3.2.7 GHG Emission

As the project activity has been registered as a CDM project by the UNFCCC Executive Board on 14 March 2010

/26/, it is thus confirmed that the approach for determining project and baseline emissions are appropriate and in accordance with the selected baseline and monitoring methodologies.

The calculation of the baseline emission factor was performed as required by the methodology. The parameters were calculated *ex-ante*. The Operating Margin (OM) emission factor calculation was based on the simple OM method, option (a) as described in tool to calculate the emission factor for an electricity system. This method was selected because low



cost/ must run resources constitute less than 50% of total grid generation in average of the three most recent years.

The Build Margin (BM) emission factor was also calculated *ex-ante* based on the most recent information available at the time of PDD submission (data from 2004-05). Details about the data used for calculation of OM and BM emission factors were presented in the CDM PDD and the sources of data were verified by the local assessor during the site visit.

The validated grid emission factor calculated *ex-ante* from OM and BM emission factors above mentioned and applied for baseline emission reductions is 0.92718 tCO₂/MWh.

The baseline emission from the project is calculated as a product of net electricity exported by the project activity & combined margin emission factor of the Southern grid fixed ex ante. Based on the combined margin CO₂ emission coefficient of the southern regional grid of India of 0.92718 tCO₂/MWh and total electricity exported, the baseline emissions have been verified to be 45 037 tCO₂ equivalent for the period 20 September 2008 to 13 March 2010 /1/ against the estimate of 52 934 tCO₂ equivalent for the corresponding period in the registered PDD .The emission reduction achieved is 14.31% lower than the estimate.

There are no project emissions associated with the project activity.

3.2.8 Secondary Effects

No leakage has been associated with the project activity.

3.2.9 Impacts on Sustainable Development

As the project activity has been registered as a CDM project by the UNFCCC Executive Board on 14 March 2010

/26/, it is DNV's contention that the project's social and environmental impacts have been sufficiently addressed. In addition, the DNA of India has provided confirmation that the project assists in achieving sustainable development, through the Letter of Approval issued on 29 June 2009 /2/

3.3 Completeness of Monitoring

The CDM approved baseline methodology AMS-I.D (version 13) has been applied for the project activity /20/. As required by the monitoring methodology AMS-I.D, version 13, monitoring of parameters essentially comprises:

- Electricity of generation - net export to grid using electronic trivector meters installed at the grid interconnection points.

Thus the net power export to grid is considered for emission reduction calculations. The details of the monitoring parameters have been provided under Appendix C of this report.

3.4 Accuracy of Emission Reduction Calculations

No significant reporting risks have been identified for the data reported. All the data required for emission reduction has been sourced from the monthly statements on net electricity generation issued by the Tamil Nadu Electricity Board (TNEB) /6/ and cross checked against the monthly electricity consumption bills of the printing and packaging unit of ITC at Chennai



and the debit note issued by ITC to TNEB after reconciliation of the energy purchased from the grid by the packaging and printing unit with that exported by the WEG's. /7//8/. The monthly bill statement for the Suzlon make WEG's is upto the 15th of the month and in the case of Vesta make WEG's the monthly billing is upto the 10th of the month. The monitoring period is up to and including 13th March 2010. So the reading from the statement covering the month of February 2010 to March 2010 has been considered and generation up to 13th of March 2010 has been arrived at by making *pro rata* adjustments in a conservative manner. In the case of Suzlon WEG's *pro rata* reduction of the generation for two days has been made and *pro rata* addition of three days in the case of Vestas WEG's machines from the respective monthly statement to arrive at the generation for the period up to and including 13 March 2010. In the case of Suzlon machines, the *prorata* adjustment has been made by taking the total generated quantity as per the monthly statement for the period 15 February 2010 to 15 March 2010 and computing the proportionate quantity for the period 15 February 2010 to 13 March 2010 by multiplying the quantity with the days for the period under consideration with the total number days considered in the monthly statement. In the case of Vestas machine the the monthly statement is for the period 10 February 2010 to 10 March 2010. So in this case *prorata* adjustment has been made by taking the total quantity of the respective figures as per the monthly statement for the subsequent period that is from 11 March 2010 to 10 April 2010 and computing the proportionate quantity for the period 11 March 2010 to 13 March 2010 by multiplying the quantity with the days for the period under consideration with the total number days considered in the monthly statement and adding this quantity to that of the billing period is from 10 February 2010 to 10 March 2010 to arrive at the quantity for the period 10 February 2010 to 13 March 2010. This approach adopted is conservative in estimation of generation for the period as the generation arrived at for the period is 805 795 kWh against the generation of 829 150 kWh for the same period when computed taking the generated quantity for the days from the WEG controller. The generation data at the WEG controller end was crosschecked with the monthly statement issued by TNEB and it could be confirm that the approach adopted is conservative.

The calibration of the meters is to be done annually and it is seen that the calibration of the Vestas WEG's were due on 22 August 2009 but was carried out only on 19 December 2009. A CL was raised regarding this gap in the period of calibration and the same has been closed based on the revised emission reduction calculation from the PP after applying the maximum inaccuracy level of the meters on the measured values as per the guidelines issued by the EB of CDM /27/.

During the verification period the project activity exported 48.575 GWh of electricity. Based on the combined margin CO₂ emission coefficient for the of the southern regional grid of India of 0.92718 tCO₂/MWh and total electricity exported, the baseline emissions have been verified to be 45 037 tCO₂ equivalent for the period 20 September 2008 to 13 March 2010 /1//5/.

The calibration of monitoring equipment is being maintained and same has been verified by DNV. The meters installed at the grid interconnection points which are under control of TNEB are tested periodically and should be calibrated annually as per Energy Wheeling Agreement with TNEB /11/. The calibration certificates of the meters /9/ were also verified. However in the case of the meters attached to the 4 Vestas make machine the meters were due for calibration by 22 August 2009 but were calibrated only on 19 December 2009. The



emission reduction have been adjusted for the period of delay in calibration /5/ as per the guidelines for assessing compliance with the calibration frequency requirements /27/

3.5 Quality of Evidence to Determine Emission Reductions

The emission reductions reported during 20 September 2008 to 13 March 2010 was verified to be 45 037 tCO₂. Sufficient evidence was presented for the reported net emission reductions.

3.6 Management and Operation System

ITC Limited has established management procedures and implemented effectively to ensure that the process is consistent. The procedures cover management responsibilities, data monitoring procedures, training procedures, periodical internal audits, management reviews and corrective actions in case of any deviations effectively. The WEGs are operated by the equipment supplier and these sites are covered under ISO 9001 for the quality management systems.



4 VALIDATION OPINION

Det Norske Veritas Certification AS (DNV) has performed a validation of additional clauses of the VCS Project Description template for “14.1 MW grid connected wind energy project in Tamilnadu by ITC Limited”. It is DNV’s opinion that the “14.1 MW grid connected wind energy project in Tamilnadu by ITC Limited”, as described in the monitoring report of version 04 dated 27 August 2010 meets requirements of additional clauses 1.12, 1.13, 1.14, 8.1 and 8.2 of the VCS Project Description template.

5 VERIFICATION STATEMENT

Det Norske Veritas Certification AS (DNV) has performed the verification of the emission reductions reported for the CDM project activity “14.1 MW grid connected wind energy project in Tamilnadu by ITC Limited” (UNFCCC Registration Ref. No 3035) for the pre-registration period from 20 September 2008 to 13 March 2010. As these emission reductions occur prior to the registration of the project as CDM project activity, these emission reductions cannot be claimed as Certified Emission Reductions (CERs). The emission reductions are thus claimed as Voluntary Carbon Units (VCU) under the Voluntary Carbon Standard (VCS) 2007.1.

ITC Limited is responsible for the collection of data in accordance with the validated monitoring plan and the reporting of GHG emissions reductions from the project.

It is DNV’s responsibility to express an independent verification statement on the reported GHG emission reductions from the project.

DNV conducted the verification on the basis of the CDM approved simplified baseline methodology AMS-I.D, version 13, “Grid connected renewable electricity generation”, the monitoring plan included in the PDD of the project and the VCU monitoring report version 04 of 27 August 2010. The verification included i) checking whether the provisions of the monitoring methodology AMS-I.D, version 13 and the monitoring plan in the CDM PDD were consistently and appropriately applied and ii) the collection of evidence supporting the reported data.

DNV’s verification approach draws on an understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. DNV planned and performed the verification by obtaining evidence and other information and explanations that DNV considers necessary to give reasonable assurance that reported GHG emission reductions are fairly stated.

In DNV’s opinion, the GHG emissions reduction for the registered CDM project activity “14.1 MW grid connected wind energy project in Tamilnadu by ITC Limited” as reported in the VCU Monitoring Report version 4 dated 27 August 2010 are fairly stated and the project design meets all VCU verification criteria.

The GHG emission reductions were correctly calculated on the basis of the CDM approved simplified baseline methodology AMS-I.D, version 13 and the monitoring plan contained in the validated CDM PDD for the project.

VCS VERIFICATION / CERTIFICATION REPORT

Det Norske Veritas Certification AS is able to certify that the emission reductions from the "14.1 MW grid connected wind energy project in Tamilnadu by ITC Limited" during the period 20 September 2008 to 13 March 2010, amount to 45 037 tCO₂ equivalent.

DNV does not assume any responsibility towards the issuance and utilization of the VCUs hereby verified and certified. Request for issuance of VCUs shall be made by the project proponent to an approved VCS Program Registry based on the requirements set out under the most recent version of the VCS Program Guidelines clause on VCS Registration².

The verification of reported emission reductions is based on the information made available to DNV and the engagement conditions detailed in this report. DNV cannot be held liable by any party for decisions made or not made based on this report.

Chennai and Oslo, 22 September 2010



Murali Govindarajulu
Project manager/Verifier



Michael Lehmann
Director for Services and Technologies
Det Norske Veritas Certification AS

² All Voluntary Carbon Units (VCU) are issued, held and cancelled in VCS registries. The VCS Association expects that multiple VCS registries will be available under the VCS and hopes to have registries approved under the VCS in the first half of 2008. Further information is available online (<http://www.v-c-s.org>)



6 REFERENCES

Documents provided by the Project Participants that relate directly to the project.

- /1/ ITC Limited, *VER/VCU Monitoring Report* – “14.1 MW grid connected wind energy project in Tamilnadu by ITC Limited” Monitoring period: from 20 September 2008 to 13 March 2010, version 01 of 20 April 2010, version 02 dated 13 July 2010, version 03 dated 30 July 2010 and version 04 dated 27 August 2010.
- /2/ DNA of India: LoA for the 14.1 MW grid connected wind energy project in Tamilnadu by ITC Limited dated 29 June 2009.
<http://cdm.unfccc.int/Projects/DB/DNV-CUK1255509409.35/view>
- /3/ “14.1 MW grid connected wind energy project in Tamilnadu by ITC Limited” *CDM Project Design Document* version 3 dated 6 July 2009.
<http://cdm.unfccc.int/Projects/DB/DNV-CUK1255509409.35/view>
- /4/ TNEB: Monthly statements on net electricity exported to grid (for both the Suzlon and Vestas make machines) that covers the period 20 September 2008 to 13 March 2010. For Suzlon machine the monthly statement period is from 16th of the month to 15th of the succeeding month and in the case of Vestas machine it is from 11th of the month to 10th of the succeeding month.
- /5/ Spreadsheet for Calculation of Voluntary Emission Reductions dated 30 July 2010. (VER Working_30.07.2010 calculation.xls).
- /6/ TNEB: Statement of energy generated through wind mill issued every month showing the net energy exported to grid every month for the period September 2008 to March 2010.
- /7/ TNEB: Monthly electricity bill issued to ITC Ltd period September 2008 to March 2010.
- /8/ ITC Limited: Debit note issued to TNEB Chennai covering the monitoring period.
- /9/ TNEB: Calibration certificates of the meters installed at the grid interconnection points dated 25 August 2009 and 19 December 2009. See appendix C for detailed information.
- /10/ DNV: Validation Report – “14.1 MW grid connected wind energy project in Tamilnadu by ITC Limited” Report No. 2008-1060 dated 30 September 2009.
<http://cdm.unfccc.int/Projects/DB/DNV-CUK1255509409.35/view>
- /11/ TNEB: Energy wheeling agreement with TNEB dated 20 September 2008.
- /12/ TNEB: Certificates of Commissioning of the WEGs 20 Sept 2008, 23 Sept 2008, 24 Sept 2008, 26 Sept 2008, 27 Sept 2008 and 30 Sept 2008.
- /13/ ITC Limited: Self Declaration letter from project proponent that the project does not yield any green benefits / renewable energy certificates & has not claim emission reductions under any other GHG programme for the verification period (20 September 2008 to 13 March 2010) dated 19 June 2010.
- /14/ ITC Limited: Land sale deed for purchase of land for WEG by ITC dated 31 July 2008,

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1 August 2008, 15 August 2008 and 25 August 2008.

- /15/ ITC Limited: Purchase order on Suzlon Energy for supply of 5 numbers of WEG dated 10 July 2008.
- /16/ ITC Limited: Purchase order on Vestas for supply of 4 numbers of WEG dated 23 July 2008.
- /17/ TNEB: No objection certificate issued by TNEB for installation of WEG dated 8 September 2008.
- /18/ Government of Tamil Nadu Electrical Inspectorate: Approval to commission the WEG dated 19 September 2008.

Background documents related to the design and/or methodologies employed in the design or other reference documents. Where applicable, Category 2 documents have been used to cross-check project assumptions and confirm the validity of information given in the Category 1 documents and in verification interviews.

- /19/ CDM Executive Board: *Validation and Verification Manual version 1.2.*
- /20/ CDM Executive Board: AMS I.D, version 13 “*Grid connected renewable electricity generation*”.
- /21/ Voluntary Carbon Standard Association: VCS 2007.1 “*Voluntary Carbon Standard - Specification for the project-level quantification, monitoring and reporting as well as validation and verification of greenhouse gas emission reductions or removals*”
- /22/ Voluntary Carbon Standard Association: “*Program Guidelines, 18 November 2008*”
- /23/ VCS Project Registration and VCU Issuance Process version 1.1
- /24/ Voluntary Carbon Standard Association: Policy Announcement from the VCS Association dated 19 March 2008 on further guidance for projects that are Registered in Two GHG Programs.
- /25/ Voluntary Carbon Standard Association: *Project Description Template*, 19 November 2007. Available at: <http://v-c-s.org/docs/VCS%20PD.doc>.
CDM Project registration status :
- /26/ <http://cdm.unfccc.int/Projects/DB/DNV-CUK1255509409.35/view>
- /27/ CDM Executive Board: *Guidelines for assessing compliance with the calibration frequency requirements EB 52 Annex 60.*

Persons interviewed during the initial verification, or persons contributed with other information that are not included in the documents listed above.

- /28/ Ms.Radha Vijayaraghavan and Mr.Sankara Narayanan of ITC
Ms.Aditi Paul and Ms.Rajasri Khan of PwC

APPENDIX A

CLARIFICATION OF CLAUSES 1.12, 1.13, 1.14, 8.1 AND 8.2 OF THE VCS 2007.1

Clarification of clauses 1.12, 1.13, 1.14, 8.1 and 8.2 of the VCS PD

The proposed project has been registered as a CDM project on 14 March 2010 and the reference number is 3035

/26/. As the VCS 2007.1 came into force on 18 November 2008, this monitoring period shall be verified against the VCS 2007.1 in terms of the VCS 2007.1. This clarification is annexed to cover all the requirements set out in the VCS 2007.1 for project validation together with the validated PDD (version 3.0, dated 6 July 2009), according to the Policy Announcement from the VCS Association. (<http://www.v-c-s.org/documents.html>).

Clarification of clauses 1.12, 1.13, 1.14, 8.1 and 8.2 of the VCS PD are as follows:

1.12 Demonstration to confirm that the project was not implemented to create GHG emissions primarily for the purpose of its subsequent removal or destruction.

Clarification: As a wind based power project, the proposed project will produce clean electricity using biomass resources available in the region and will generate GHG emission reductions by avoiding CO₂ emissions from electricity generation of fossil fuel fired power. Operation of this project does not lead to GHG emissions. It is confirmed that the project was not implemented to create GHG emissions primarily for the purpose of its subsequent removal or destruction.

1.13 Demonstration that the project has not created another form of environmental credit (for example renewable energy certificates).

Clarification: The project is located in India and is developed by ITC Limited, which is an Indian Enterprise. There is no other environmental credit (for example renewable energy certificate) which has or will be produced by or obtained for the project */13/*.

1.14 Project rejected under other GHG programs (if applicable):

Clarification: The proposed project is a registered CDM project, which does not fall into rejected projects under other GHG programs */26/*.

8.1 Proof of Title:

Clarification: Evidence of proof of title has been demonstrated by Letter of Approval issued by the Ministry of Environment & Forest (MoEF) dated 29 June 2009 */2/* and ownership of the plant and equipment at the site (attached annexure to the monitoring report) have been evidenced from the land sale deed */14/*, purchase order */15//16/* and commissioning certificates */12/*. The owner has also obtained all relevant permits for to the proposed project */17//18/*. The project's design and implementation has been carried out in compliance with all relevant and national legislation in India.

8.2 Projects that reduce GHG emissions from activities that participate in an emissions trading program (if applicable):

The proposed project has been registered as a CDM project on 14 March 2010 and the reference number is 3035 */26/*, for which a renewable crediting period of 21 years will be used

under the CDM GHG Program and the first renewable crediting period is from 14 March 2010 to 30 November 2016. Therefore, GHG emission reductions generated by the proposed project during the CDM crediting period will be verified as unique CERs during the CDM crediting period. Only GHG emission reductions achieved from 20 September 2008 to 13 March 2010 /1/ will be considered as VCUs under the VCS 2007.1 and will not be claimed under any other voluntary programme for the period from 20 September 2008 to 13 March 2010. The emission reductions achieved from 20 September 2008 to 13 March 2010 will be sold once and same has been verified by DNV from self declaration letter issued by project proponent dated 19 June 2010 /13/.

APPENDIX B

CORRECTIVE ACTION REQUESTS AND FORWARD ACTION REQUESTS

Corrective action requests

CL ID	Corrective action request	Response by Project Participants	DNV's assessment of response by Project Participants
CAR 1	VCS PD and revised monitoring report addressing the clauses 1.12, 1.13, 1.14, 8.1 and 8.2 of VCS 2007.1 to demonstrate compliance along with supporting documents need to be presented. Also the UNFCCC project registration ref. number to be included in the monitoring report.	VCS PD dated 18.06.2010 addressing the clauses 1.12, 1.13, 1.14, 8.1 and 8.2 of VCS 2007.1 to demonstrate compliance along with supporting documents and revised monitoring report, version 02 dated 13 July,2010 have been presented. The UNFCCC project registration ref. number has also been included in the monitoring report version 02.	DNV confirm that in the revised monitoring report the UNFCCC project registration number has been included and the same was verified from the CDM project web site /26/.The revised monitoring report address the VCS clauses as per the VCS Project Description template that are required to be addressed for projects that are registered in two GHG Programs. CAR is closed.
CAR 2	The emission reduction calculations for the period 1 March 2010 to 13 March 2010 need to be revised to ensure conservativeness.	The daily generation figures for Suzlon WEGs were available. From that the net export figures for two days (14 th march and 15 th March, 2010) have been derived by multiplying the daily generation figures by import to generation ratio for the month of March,2010 for Suzlon WEGs (thereby getting the import figures for the days) and then subtracting those from the daily generation data. For Vestas WEGs the daily generation and import figures were available. From that the daily actual net export figures were derived for 11 th , 12 th and 13 th March, 2010. From these above mentioned exercises the total emission reduction figure for the	The monitoring period is up to and including 13 th March 2010.So the reading from the statement covering the month of February 2010 to March 2010 has been considered and generation upto 13 th of March 2010 has been arrived at making <i>pro rata</i> adjustments in a conservative manner. In the case of Suzlon WEG's <i>pro rata</i> addition of the generation for 26 of 28 days has been made and <i>pro rata</i> addition of three days in the case of Vestas WEG's machines from the respective monthly statement to arrive at the generation for the period up to and including 13 March 2010. In the

CL ID	Corrective action request	Response by Project Participants	DNV's assessment of response by Project Participants
		<p>period 1 March 2010 to 13 March 2010 was achieved. It is found that the emission reduction figure achieved by this approach is conservative. The revised calculation for the month of March 2010 is given in the excel sheet 'Calculation_Conservative' in the VER Workings workbook.</p>	<p>case of Suzlon machines, the <i>prorata</i> adjustment has been made by taking the total generated quantity as per the monthly statement for the period 15 February 2010 to 15 March 2010 and computing the proportionate quantity for the period 15 February 2010 to 13 March 2010 by multiplying the quantity with the days for the period under consideration with the total number days considered in the monthly statement. In the case of Vestas machine the the monthly statement is for the period 10 February 2010 to 10 March 2010. So in this case <i>prorata</i> adjustment has been made by taking the total quantity of the respective figures as per the monthly statement for the subsequent period that is from 11 March 2010 to 10 April 2010 and computing the proportionate quantity for the period 11 March 2010 to 13 March 2010 by multiplying the quantity with the days for the period under consideration with the total number days considered in the monthly statement and adding this quantity to that of the billing period is from 10 February 2010 to 10 March 2010 to arrive at the quantity for the period 10</p>

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CL ID	Corrective action request	Response by Project Participants	DNV's assessment of response by Project Participants
			<p>February 2010 to 13 March 2010. This approach adopted is conservative in estimation of generation for the period as the generation arrived at for the period is 805 795 kWh against the generation of 829 150 kWh for the same period when computed taking the generated quantity for the days from the WEG controller. CL is closed.</p>

Clarification requests from this verification

CL ID	Clarification request	Response by Project Participants	DNV's assessment of response by Project Participants
CL 1	The QA/QC procedures indicated in the monitoring report has to be in line with that in the registered PDD. Month wise details of electricity generation, import and emission reduction details to be provided in the monitoring report.	In the monitoring report Version 02 dated 13 July, 2010, month wise details of electricity generation, import and emission reduction have been incorporated. Also the QA/QC procedures have been described in line with that in the registered PDD.	DNV confirms that the revised monitoring report incorporates the month wise details and the QA/QC procedures have also been included reflecting that in the registered PDD. CL is closed.
CL 2	The monitoring report to be revised to include the estimated emission reduction during the period, the actual, achieved and reasons for variation.	The monitoring report has been revised with the figure of estimated emission reduction during the period and the actual emission reduction achieved and also the variation has been mentioned.	The estimated emission reduction computed for the period as per the registered PDD /3/ is 52934.76 tCO ₂ .The actual emission reduction is 45 037 tCO ₂ /5/ and this is 15% lower than the estimate. CL is closed.
CL 3	The calibration of the meters of Vestas WEG's were due on 22 August 2009 but were done only on 19 December 2009. Correction as CDM EB guidelines need to be applied for the period of delay in calibration.	The monitoring report revised after incorporating the necessary correction for delay.	In the revised monitoring report, correction has been applied as per EB guideline for both import and export of power for the period 10 September 2009 to 10 January 2010 in a conservative manner which covers the period of delay in calibration of Vestas WEG's from 22 August 2009 to 19 December 2009. CL is closed.

Forward action requests from previous verification

FAR ID	Forward action request	Summary of how FAR has been addressed in this reporting period	Assessment of how FAR has been addressed
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FAR ID	Forward action request	Summary of how FAR has been addressed in this reporting period	Assessment of how FAR has been addressed
FAR #	Being the first verification this is not applicable.	Not applicable.	Not applicable.

Forward action requests from this verification

FAR ID	Forward action request	Response by Project Participants	DNV's assessment of response by Project Participants
FAR #	No forward action request was identified for the next verification process.	Not applicable.	Not applicable.

APPENDIX C

DETAILS OF MONITORING PARAMETERS

	Assessment/ Observation	Assessment/ Observation	Assessment/ Observation
Data / Parameter: (as in monitoring plan of PDD): Instrument Tag number	EGy kWh Net electricity supplied to the regional electricity grid. The WEG is connected to grid through meter with connection number 2666	EGy kWh Net electricity supplied to the regional electricity grid. The WEG is connected to grid through meter with connection number 2665.	EGy kWh Net electricity supplied to the regional electricity grid. The WEG is connected to grid through meter with connection number 2672.
Measuring frequency:	Continuous (online)	Continuous (online)	Continuous (online)
Reporting frequency:	Once in a month	Once in a month	Once in a month
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes	Yes	Yes
Type of monitoring equipment:	Electronic trivector meter of class 0.5	Electronic trivector meter of class 0.5	Electronic trivector meter of class 0.5
Is accuracy of the monitoring equipment as stated in the PDD? If the PDD does not specify the accuracy of the monitoring equipment, does the monitoring equipment represent good monitoring practise?	Accuracy of the monitoring equipment is as stated in the PDD.	Accuracy of the monitoring equipment is as stated in the PDD.	Accuracy of the monitoring equipment is as stated in the PDD.
Calibration frequency /interval:	Selected frequency is Annual. For this period calibration has been done in 11 Months.	Selected frequency is Annual. For this period calibration has been done in 11 Months.	Selected frequency is Annual. For this period calibration has been done in 11 Months.
Is the calibration interval in line with the monitoring plan of the PDD? If the PDD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	Yes. The calibration interval is in line with the monitoring plan of the PDD. The PDD specifies frequency of calibration of the meters as once in an year.	Yes. The calibration interval is in line with the monitoring plan of the PDD. The PDD specifies frequency of calibration of the meters as once in an year.	Yes. The calibration interval is in line with the monitoring plan of the PDD. The PDD specifies frequency of calibration of the meters as once in an year.
Company performing	Tamilnadu Electricity Board	Tamilnadu Electricity Board	Tamilnadu Electricity Board

the calibration:			
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	Yes and is confirmed from TNEB calibration certificate issued for the meter dated 25 August 2009.The meter was fixed on 22 September 2008.	Yes and is confirmed from TNEB calibration certificate issued for the meter dated 25 August 2009.The meter was fixed on 20 September 2008.	Yes and is confirmed from TNEB calibration certificate issued for the meter dated 25 August 2009.The meter was fixed on 24 September 2008.
Is (are) calibration(s) valid for the whole reporting period?	Yes. The calibration certificate of the meter has been checked and covers the entire reporting period.	Yes. The calibration certificate of the meter has been checked and covers the entire reporting period.	Yes. The calibration certificate of the meter has been checked and covers the entire reporting period.
If applicable, has the reported data been cross-checked with other available data?	Cross-checked with monthly electricity consumption bills issued by TNEB for the consuming facility.	Cross-checked with monthly electricity consumption bills issued by TNEB for the consuming facility.	Cross-checked with monthly electricity consumption bills issued by TNEB for the consuming facility.
How were the values in the monitoring report verified?	Against monthly statements issued by TNEB.	Against monthly statements issued by TNEB.	Against monthly statements issued by TNEB.
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes.	Yes.	Yes.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	Not applicable.	Not applicable.	Not applicable.

	Assessment/ Observation	Assessment/ Observation	Assessment/ Observation
Data / Parameter: (as in monitoring plan of PDD): Instrument Tag number	EGy kWh Net electricity supplied to the regional electricity grid. The WEG is connected to grid through meter with connection number 2682	EGy kWh Electricity supplied to regional electricity grid. The WEG is connected to grid through meter with connection number 2687	EGy kWh Electricity supplied to regional electricity grid. The WEG is connected to grid through meter with connection number T04.
Measuring frequency:	Continuous (online)	Continuous (online)	Continuous (online)
Reporting frequency:	Once in a month	Once in a month	Once in a month
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes	Yes	Yes
Type of monitoring equipment:	Electronic trivector meter of class 0.5.	Electronic trivector meter of class 0.5.	Electronic trivector meter of class 0.5.
Is accuracy of the monitoring equipment as stated in the PDD? If the PDD does not specify the accuracy of the monitoring equipment, does the monitoring equipment represent good monitoring practise?	Accuracy of the monitoring equipment is as stated in the PDD.	Accuracy of the monitoring equipment is as stated in the PDD.	Accuracy of the monitoring equipment is as stated in the PDD.
Calibration frequency /interval:	Selected frequency is Annual. For this period calibration has been done in 11 Months.	Selected frequency is Annual. For this period calibration has been done in 11 Months. .	Selected frequency is Annual. For this period calibration has been done in 11 Months. .
Is the calibration interval in line with the monitoring plan of the PDD? If the PDD	Yes. The calibration interval is in line with the	Yes. The calibration interval is in line with the	No. The calibration interval as per PDD is yearly. The

does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	monitoring plan of the PDD.	monitoring plan of the PDD.	meter was fixed on 22 August 2008 and the next calibration was done on 19 December 2009 that is after a delay of four months.
Company performing the calibration:	Tamilnadu Electricity Board	Tamilnadu Electricity Board	Tamilnadu Electricity Board
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	Yes and is confirmed from TNEB calibration certificate issued for the meter dated 25 August 2009.The meter was fixed on 26 September 2008.	Yes and is confirmed from TNEB calibration certificate issued for the meter dated 25 August 2009.The meter was fixed on 27 September 2008.	Yes and is confirmed from TNEB calibration certificate issued for the meter dated 19 December 2009.The meter was fixed on 22 August 2008.
Is (are) calibration(s) valid for the whole reporting period?	Yes. The calibration certificate of the meter has been checked and covers the entire reporting period.	Yes. The calibration certificate of the meter has been checked and covers the entire reporting period.	The meter was installed on 22 August 2008 and the next calibration was done on 19 December 2009. Since the calibration certificate did not cover the whole monitoring period of 20 September 2008 to 13 March 2010 correction factor has been applied for the period 10 September 2009 to 10 January 2010 as a conservative approach.
If applicable, has the reported data been cross-checked with other available data?	Cross-checked with monthly electricity consumption bills issued by TNEB for the consuming facility	Cross-checked with monthly electricity consumption bills issued by TNEB for the consuming facility.	Cross-checked with monthly electricity consumption bills issued by TNEB for the consuming facility.
How were the values in the monitoring report verified?	Against monthly statements issued by TNEB.	Against monthly statements issued by TNEB.	Against monthly statements issued by TNEB.

Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes.	Yes.	Yes.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	Not applicable.	Not applicable.	Not applicable.

	Assessment/ Observation	Assessment/ Observation	Assessment/ Observation
Data / Parameter: (as in monitoring plan of PDD): Instrument Tag number	EGy kWh Net electricity supplied to the regional electricity grid. The WEG is connected to grid through meter with connection number T05	EGy kWh Electricity supplied to regional electricity grid. The WEG is connected to grid through meter with connection number T06	EGy kWh Electricity supplied to regional electricity grid. The WEG is connected to grid through meter with connection number T07.
Measuring frequency:	Continuous (online)	Continuous (online)	Continuous (online)
Reporting frequency:	Once in a month	Once in a month	Once in a month
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes	Yes	Yes
Type of monitoring equipment:	Electronic trivector meter of class 0.5.	Electronic trivector meter of class 0.5.	Electronic trivector meter of class 0.5.
Is accuracy of the monitoring equipment as stated in the PDD? If the PDD does not specify the accuracy of the monitoring	Accuracy of the monitoring equipment is as stated in the PDD.	Accuracy of the monitoring equipment is as stated in the PDD.	Accuracy of the monitoring equipment is as stated in the PDD.

equipment, does the monitoring equipment represent good monitoring practise?			
Calibration frequency /interval:	Selected frequency is Annual. For this period calibration has been done in 14 Months.	Selected frequency is Annual. For this period calibration has been done in 14 Months.	Selected frequency is Annual. For this period calibration has been done in 14 Months.
Is the calibration interval in line with the monitoring plan of the PDD? If the PDD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	No. The calibration interval as per PDD is yearly. The meter was fixed on 22 August 2008 and the next calibration was done on 19 December 2009 that is after a delay of four months.	No. The calibration interval as per PDD is yearly. The meter was fixed on 22 August 2008 and the next calibration was done on 19 December 2009 that is after a delay of four months.	No. The calibration interval as per PDD is yearly. The meter was fixed on 22 August 2008 and the next calibration was done on 19 December 2009 that is after a delay of four months.
Company performing the calibration:	Tamilnadu Electricity Board	Tamilnadu Electricity Board	Tamilnadu Electricity Board
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	Yes and is confirmed from TNEB calibration certificate issued for the meter dated 19 December 2009.The meter was fixed on 22 August 2008.	Yes and is confirmed from TNEB calibration certificate issued for the meter dated 19 December 2009.The meter was fixed on 22 August 2008.	Yes and is confirmed from TNEB calibration certificate issued for the meter dated 19 December 2009.The meter was fixed on 22 August 2008.
Is (are) calibration(s) valid for the whole reporting period?	The meter was installed on 22 August 2008 and the next calibration was done on 19 December 2009. Since the calibration certificate did not cover the whole monitoring period of 20 September 2008 to 13 March 2010 correction factor has been applied for the period 10 September	The meter was installed on 22 August 2008 and the next calibration was done on 19 December 2009. Since the calibration certificate did not cover the whole monitoring period of 20 September 2008 to 13 March 2010 correction factor has been applied for the period 10 September	The meter was installed on 22 August 2008 and the next calibration was done on 19 December 2009. Since the calibration certificate did not cover the whole monitoring period of 20 September 2008 to 13 March 2010 correction factor has been applied for the period 10 September

	2009 to 10 January 2010 as a conservative approach.	2009 to 10 January 2010 as a conservative approach.	2009 to 10 January 2010 as a conservative approach.
If applicable, has the reported data been cross-checked with other available data?	Cross-checked with monthly electricity bills issued by TNEB.	Cross-checked with monthly electricity bills issued by TNEB.	Cross-checked with monthly electricity bills issued by TNEB.
How were the values in the monitoring report verified?	Against monthly statements issued by TNEB.	Against monthly statements issued by TNEB.	Against monthly statements issued by TNEB.
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes.	Yes.	Yes.
In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?	Not applicable.	Not applicable.	Not applicable.