

# VALIDATION REPORT

## FOUM EL OUED WIND FARM PROJECT



**SGS Climate Change Programme**  
 SGS United Kingdom Ltd  
 SGS House  
 217-221 London Road  
 Camberley Surrey  
 GU15 3EY  
 United Kingdom

<b>Project Title</b>	Foum El Oued Wind Farm Project
<b>Version</b>	01.0
<b>Report ID</b>	CCP.VOL0919 VCS.VAL

<b>Report Title</b>	Validation Report Foum El Oued Wind Farm Project
<b>Client</b>	Energie Eolienne du Maroc
<b>Pages</b>	60
<b>Date of Issue</b>	03/04/2013
<b>Prepared By</b>	SGS United Kingdom Limited
<b>Contact</b>	SGS House, 217-221 London Road, Camberley Surrey, GU15 3EY, United Kingdom Tel: +44 (0) 1276 697810
<b>Approved By</b>	Ajoy Gupta
<b>Work Carried Out By</b>	Siddharth Yadav – Lead Assessor Natacha Andre, Moutjahid Mohamed- Local Assessor Richard Huang – Financial Expert

**Summary:**

The validation team assigned by the DOE (SGS United Kingdom Limited) has performed the validation of the project “Foum El Oued Wind Farm Project” ( hereafter referred to as ‘The Project’) based on the requirements of the VCS Project Standard Version 3.3

The project is a grid-connected wind farm project with an installed capacity of 50.6 MW, which annually feeds an estimated total amount of 202,700 MWh of electricity into the Moroccan national grid. This project uses the UNFCCC approved methodology ACM0002 Ver.13.0.

The report and the annexed validation describes a total of 14 findings, which include:

- 07 Corrective Action Requests (CARs)
- 06 Clarification Requests (CLs)
- 01 Forward Action Request (FAR)

In our opinion, the project meets all relevant VCS standard 3.3 criteria and all relevant host country criteria.

The project correctly applies methodology ACM0002 Ver.13.0 It is demonstrated that the project activities are not the 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 project are estimated to be 1,419,913 t of CO<sub>2</sub>e over a 10 years crediting period, averaging 141,991t of CO<sub>2</sub>e annually. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achieved given the underlying assumptions do not change.

All findings raised have been closed satisfactorily and the project: “Energy Foum El Oued Wind Farm Project” is recommended by SGS to the VCS Board for registration.

**Table of Contents**

**CONTENTS**

<b>1</b>	<b>Introduction</b>	<b>4</b>
1.1	Objective	4
1.2	Scope and Criteria	4
1.3	Level of assurance	4
1.4	Summary Description of the Project	4
<b>2</b>	<b>Validation Process</b>	<b>5</b>
2.1	Method and Criteria	5
2.2	Document Review	5
2.3	Interviews	5
2.4	Site Inspections	5
2.5	Resolution of Any Material Discrepancy	5
<b>3</b>	<b>Validation Findings</b>	<b>5</b>
3.1	Project Design	5
3.2	Application of Methodology	9
3.3	Environmental Impact	15
3.4	Comments by stakeholders	15
<b>4</b>	<b>Validation conclusion</b>	<b>16</b>
	<b>A.General Description of Project Activity</b>	<b>18</b>
	<b>B.Baseline and Monitoring Methodology</b>	<b>25</b>
	<b>C.Environmental Impacts</b>	<b>35</b>
	<b>D.Stakeholder Comments</b>	<b>36</b>

## 1 INTRODUCTION

### 1.1 Objective

Energie Eolienne du Maroc (EEM) has commissioned SGS to perform the validation of the project: Energy Foun El Oued Wind Farm Project with regard to the relevant requirements for VCS Standard (VCS standard version 3.3). The purpose of a validation is to have an independent third party assessment of the project design. In particular, the project's baseline, additionality, monitoring plan (MP), and compliance with VCS standard version 3.3 are validated in order to confirm that the project design as documented is sound and reasonable and meets the stated requirements and identified criteria. Validation 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 VCS criterion refers to the VCS standard version 3.3 rules and modalities and related decisions by the VCSA.

### 1.2 Scope and Criteria

The scope of the validation is defined as an independent and objective review of the project description documents, project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against VCS standard version 3.3 requirements and rules and also associated interpretations. SGS has employed a risk-based approach in the validation, focusing on the identification of significant risks for project implementation and the generation of VCU's.

The validation is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

### 1.3 Level of assurance

SGS has employed a risk-based approach in the validation, focusing on the identification of significant risks for project implementation and the generation of VCU's.

The level of assurance of the validation report is reasonable.

### 1.4 Summary Description of the Project

#### Project Summary

The project activity is a 50.6MW grid connected wind farm project in the municipality of Laâyoune in Morocco (Western Sahara).The objective of the project is to use wind resources to generate renewable electricity to EEM's clients in the context of the new regulatory framework in Morocco (The Law 13.09). A grid connectivity agreement, enabling wheeling of the wind farm production through the national electricity grid, has been signed by the Project Participants with ONEE, the Moroccan grid authority.

The project involves the installation of 22 turbines each with a capacity of 2.3 MW providing an estimated total installed capacity of 50.6MW. The area where the wind farm is located has been recorded as having an average wind speed of 8 m/s - 8.5 m/s with the project expected to generate 202.7 GWh per annum.

This grid connected renewable energy project generates carbon reductions through directly displacing the electricity that would have otherwise been provided by the Moroccan grid.

## 2 VALIDATION PROCESS

### 2.1 Method and Criteria

The validation is performed primarily as a document review of the project document version 01.0 dated 13/11/2012 and the subsequent version 02.0 dated 01/04/2013. The assessment is performed by trained assessors using a validation protocol (Annex 1).

The site visit was performed from the 12/02/2013- 16/02/2013 by members of the assessment team.

The report is based on the findings of document reviews, the stakeholder consultation process and responses from the project participants to the findings raised in this report.

The report and the annexed validation describe a total of 14 findings which include:

- 07 Corrective Action Requests
- 06 Clarification Requests
- 01 Observation (converted to FAR)

All the findings raised during the validation assessment of the project activity are closed satisfactorily and the project is recommended to the VCS board for registration.

### 2.2 Document Review

The validation is performed primarily as a document review of the publicly available project documents and other supporting documents. The assessment is performed by trained assessors using validation protocols.

### 2.3 Interviews

During the site visit to the project activity interviews were carried out at the project site with Reda Znaidi and M. Labraimi regarding the technical aspects of the project and also with other relevant stakeholders' i.e. members of the local Sahrawi community and the President of the local council.

### 2.4 Site Inspections

The onsite inspections were conducted to verify the physical situation and complement the desk based assessment of the project boundary, baseline, additionality and the monitoring aspects. The results are summarised as annex 3 (Local Assessment Checklist), annex 1 (Validation Protocol) and annex 2 (Findings Overview) in the validation report. The validation team has checked the statements mentioned in the VCS PD through review of documents and contact with stakeholders.

### 2.5 Resolution of Any Material Discrepancy

No material discrepancies are observed throughout the validation assessment of the project activity. One Observation has been converted into a Forward Action Request (FAR) because the exact start date of crediting period was not known during validation because the project had not started producing electricity until the date of issuing the validation report.

## 3 VALIDATION FINDINGS

### 3.1 Project Design

**Project scope, type, technologies and measures implemented, and eligibility of the project**

The project is a grid connected wind farm that uses 22 Siemens SWT-2.3-101 wind turbines with an installed capacity of 50.6 MW. This has been confirmed through document review or WT purchase orders and onsite checks by the assessment team (ref. Document 'Mott MacDonald-Lenders Technical Advisor - Project EEM' (pages 49-63).

The technical specifications of the turbines scheduled to be installed are below:

Main technical specifications of the wind turbines

<b>Wind turbine capacity</b>	2.3 MW
<b>Number of blades</b>	3
<b>Nominal wind speed</b>	12-13 m/s
<b>Diameter of the turbine</b>	101 m
<b>Hub height</b>	80 m
<b>Rated voltage</b>	690 V
<b>Rated frequency</b>	50 Hz

The installation of the turbines with the above specifications was also checked on site.

**Project proponent**

The project proponent is Energie Eolienne du Maroc; this has been confirmed through local assessment checks and document review - authorisation letter dated 24<sup>th</sup> November 2011 issued by the Department of Energy and Mines, Morocco.

**Project start date**

The start date of the project activity is estimated for March 2013, this is in line with the requirements of the VCS that state “The project start date is the date on which the project began generating GHG emission reductions or removals”. This has been reviewed by the assessment team on the site visit and confirmed that the estimated start date is considered appropriate.

**Obs 4** was raised requesting the project participants to clarify ‘if the start date is the 01/06/2013 or the 01/07/2013’, in response the PP provided the updated PD that shows the revised start date for this project is now the 01/03/2013 (or later when the electricity generated is exported to the grid (tbc during verification). Hence Obs 4 was converted to a Forward Action Request (FAR). The implementation schedules for the installation of turbines were checked through document review (FEO- Schedule simulation, February 2013) and also on site visit.

### Project crediting period

The crediting period for this project starts from 01/03/2013 and ends on 30/03/2023 or the date when electricity is exported to the grid (whichever is later). The expected economic lifetime for *Foum El Oued Wind Farm Project* is 20 years with the project participant stating in the PD that they intend to renew the project for another 10 years once the first crediting period has expired. This is in line with the project standard version 3.3 section 3.8.1 which states “For non-AFOLU projects and ALM projects focusing exclusively on reducing N<sub>2</sub>O, CH<sub>4</sub> and/or fossil-derived CO<sub>2</sub> emissions, the project crediting period shall be a maximum of ten years which may be renewed at most twice”.

### Project scale and estimated GHG emission reductions or removals

The projects annual estimated GHG emission reductions or removals tonnes of CO<sub>2</sub>e per year is 141,991 which as defined by the VCS is below 300,000 tonnes of CO<sub>2</sub>e per year which means the it is described as a “project” under section 3.9.1 of the project standard version 3.3.

### Project location

The exact location of the project is defined using geographic coordinates obtained with a Global Positioning System (GPS) receiver: the project site is located on an extended area defined by the geographical coordinates:

P1 (27° 01' 47.5348" N ; 13° 25' 6.0962" W), P2 (27° 01' 54.3148" N ; 13° 21' 51.7595" W), P3 (27° 00' 21.7649" N ; 13° 22' 6.5281" W) & P4 (27° 00' 25.3679" N ; 13° 24' 18.6016" W).

This has been checked by the assessment team on site and was found to be accurate.

**CL3** was raised – “What is the reason for this choice of coordinates? Please mark this on the map in section 1.9 of the PD (Table 2)” CL3 was closed upon receiving a confirmation that the coordinates represent the polygon representing the geographical boundary of the project. CL3 was **closed**.

### Project compliance with applicable laws, statutes and other regulatory frameworks

The project is in compliance with all applicable Laws under the Moroccan legal system. Through document review and the onsite visit it can be confirmed that the project activity meets the legal requirements of the host country. These documents reviewed as a part of the checks included- Letter of Authorisation from the government to set up the wind farm ‘*Authorisation proviso ire pou la realisation d'une installation de production d'electricite a partir de source d'energie eolienne no.3/DEER/MEMEE dated 24<sup>th</sup> November 2011*’ and the grid connection agreement between EEM, a limited company registered with the trade register under number 232351 Casablanca, and ONE, a public industrial and commercial company, the letter titled ‘*2010 09 28\_Lettre\_Acceptabilite\_EIE\_Foum El Oued*’ issued by ministry of environment was also checked to confirm that relevant environmental approvals have been obtained.

## Ownership and other programs

### Right of use

Through document review it has been checked that the Project Participant holds the land lease agreement, contracts signed for the purchase of the wind farm and that relevant Environmental Impact assessments have been carried out with the project being implemented in line with the EIA requirements in the host country.

**CL 1** was raised – “The right of use and ownership of the project require documents to be checked first, these include land lease agreement and commercial agreements. Document from Mott MacDonald provided but does not give permission itself.” In response the land lease agreement document “*Foum El Oued - Land Lease Agreement (translated)*” was provided by the PP along with the wind turbine purchase order document “*Foum El Oued - Turbine Supply Agreement*”. These documents have been checked by the assessment team and confirmed that the information proves right of use and ownership of the project. Thus CL1 was **closed**.

### Emissions trading programs and other binding limits

This project does not claim emission reductions from any of the emission trading programmes, or within the jurisdiction of a country with other binding limits on green house gas reductions.

### Participation under other GHG programs

It has been confirmed through document review and on site interviews that this project is not participating under any other GHG programmes.

### Other forms of environmental credit sought or received

It has been confirmed through document review and on site interviews that no other forms of Environmental Credits are being sought or received.

### Rejection by other GHG programs

The Project Design states that this project does not participate in any GHG programs aside from the VCS programme. Through research it was found that the project originally applied for registration under the UNFCCC CDM programme, it was found that the project was withdrawn from validation process by the PP and was therefore not registered or rejected under the CDM.

### Commercially sensitive information

Certain documents have been requested by the PP to be considered are commercially sensitive. These are listed in the section 1.13 of the PD and are as follows; commercial agreements, Grid connection agreements, Financing agreements, WTG contracts and Land lease agreements.



## 3.2 Application of Methodology

### 3.2.1 Title and Reference

The Project Participants have applied the UNFCCC approved methodology ACM0002 Ver. 13.0 "[Consolidated baseline methodology for grid-connected electricity generation from renewable sources](#)".

### 3.2.2 Applicability

The use of ACM0002 Version 13.0 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources" is justified in section 2.2 of the VCS PD. The project activity has been developed in line with the UNFCCC registered methodology and is confirmed to be the most appropriate choice of methodology for this project.

The following eligibility conditions have been checked and confirmed:

*The project activity is the installation, capacity addition, retrofit or replacement of a power plant/unit of one of the following types: hydro power plant/unit (either with a run-of-river reservoir or an accumulation reservoir), wind power plant/unit, geothermal power plant/unit, solar power plant/unit, wave power plant/unit or tidal power plant/unit;*

The project activity is a new (Greenfield) wind power plant that is connected to the grid. This has been confirmed through document review of the wind turbine purchase orders, implementation schedules and the land lease agreement. The project site has also been confirmed through site visit and the local assessor confirmed that there wasn't a power station on the site prior to this project activity.

*In the case of capacity additions, retrofits or replacements (except for wind, solar, wave or tidal power capacity addition projects which use Option 2: on page 10 to calculate the parameter EGPJ,y): the existing plant started commercial operation prior to the start of a minimum historical reference period of five years, used for the calculation of baseline emissions and defined in the baseline emission section, and no capacity expansion or retrofit of the plant has been undertaken between the start of this minimum historical reference period and the implementation of the project activity.*

This is not applicable to the project activity; this is a Greenfield project where no electricity generation has occurred on site prior to the construction of this project. This has been confirmed by the assessment team on site.

*In case of hydro power plants:*

*One of the following conditions must apply:*

- *The project activity is implemented in an existing single or multiple reservoirs, with no change in the volume of any of reservoirs; or,*

- The project activity is implemented in an existing single or multiple reservoirs, where the volume of any of reservoirs is increased and the power density of each reservoir, as per the definitions given in the project emissions section, is greater than 4 W/m<sup>2</sup>; **or**,
- The project activity results in new single or multiple reservoirs and the power density of each reservoir, as per the definitions given in the project emissions section, is greater than 4 W/m<sup>2</sup>.

Not applicable, this project is not a hydroelectric project.

*In case of hydro power plants using multiple reservoirs where the power density of any of the reservoirs is lower than 4 W/m<sup>2</sup> all the following conditions must apply:*

- The power density calculated for the entire project activity using equation 5 is greater than 4 W/m<sup>2</sup>;
- Multiple reservoirs and hydro power plants located at the same river and where are designed together to function as an integrated project<sup>1</sup> that collectively constitute the generation capacity of the combined power plant;
- Water flow between multiple reservoirs is not used by any other hydropower unit which is not a part of the project activity;
- Total installed capacity of the power units, which are driven using water from the reservoirs with power density lower than 4 W/m<sup>2</sup>, is lower than 15 MW;
- Total installed capacity of the power units, which are driven using water from reservoirs with power density lower than 4 W/m<sup>2</sup>, is less than 10% of the total installed capacity of the project activity from multiple reservoirs.

Not applicable, this project is not a hydroelectric project.

*The methodology is not applicable to the following:*

- Project activities that involve switching from fossil fuels to renewable energy sources at the site of the project activity, since in this case the baseline may be the continued use of fossil fuels at the site;
- Biomass fired power plants;
- A hydro power plant<sup>2</sup> that results in the creation of a new single reservoir or in the increase in an existing single reservoir where the power density of the power plant is less than 4 W/m<sup>2</sup>.

This is not applicable to the project activity; this is a Greenfield project where no electricity generation has occurred on site prior to the construction of this project (fossil fuel or other). This has been confirmed by the assessment team on site. The project also does not include and biomass elements or hydropower.

*In the case of retrofits, replacements, or capacity additions, this methodology is only applicable if the most plausible baseline scenario, as a result of the identification of baseline scenario, is “the continuation of the current situation, i.e. to use the power generation equipment that was already in use prior to the implementation of the project activity and undertaking business as usual maintenance.*

Not applicable, this project is a Greenfield wind turbine project; there is no retrofit, replacement, or capacity addition elements to this project.

**CAR 5** was raised – “*The version of the methodology currently listed in the PD (version 12.1) is due to expire on the 11/01/2013. Please update to version 13*”, in response the revised PD was provided by the client has been updated to show the corrected version of the methodology “ACM0002 version 13.0” this has been confirmed from the information on the UNFCCC website: <http://cdm.unfccc.int/methodologies/DB/UB3431UT9I5KN2MUL2FGZXZ6CV71LT>. Thus **CAR 5** was closed.

**CAR 6** was raised – “*The tool for demonstration and assessment of additionality used in the PD is version 5.2.1. The most recent version is available on UNFCCC website – please update*” in response the revised PD was provided by the client and has been checked that the latest version of the “*tool for demonstration and assessment of additionality*” is now version 07.0.0 as available from: <http://cdm.unfccc.int/Reference/tools/index.html>. Thus **CAR 6** was closed.

**CAR 7** was raised – “*The tool to calculate the emission factor for an electricity system used in the PD is version 2. The most recent version is available on UNFCCC website. Please update to version 3*”, in response the client provided the revised PD which has been checked and confirmed that the latest version of “*The tool to calculate the emission factor for an electricity system is now version 03.0.0*” as available from <http://cdm.unfccc.int/Reference/tools/index.html>. Thus **CAR 7** was closed.

### 3.2.3 Project Boundary

As per the guidelines in ACM0002 Ver.13.0 as this is a grid connected wind power project the only Co2 sources that need to be considered are “CO2 emissions from electricity generation in fossil fuel fired power plants that are displaced due to the project activity”. This has been checked by the assessment team and found to be in compliance with the methodology.

#### Spatial Boundary

As per the guidelines in ACM0002 Ver.13.0 the spatial boundary for this project must include all wind turbines and all power plants connected to the electricity system. This has been identified through the grid coordinates and a map of the project site has been included in the PD. The assessment team confirmed the same through site visit.

### 3.2.4 Baseline Scenario

As per the guidelines in ACM0002 Ver.13.0 as this project is a new grid-connected renewable power plant the baseline it falls under the baseline scenario:

*Electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources, as reflected in the combined margin (CM) calculations described in the “Tool to calculate the emission factor for an electricity system”*

Baseline Emissions – The baseline emission factor for the project is determined ex-ante as a combined margin (weighted average operating margin and build margin). The calculated combined margin of the project is 0.7005 giving a baseline of 141,991 tCO<sub>2</sub>e.

Project Emissions – This is renewable energy wind farm project which does not use fossil fuels, geothermal or hydro energy sources thus PEy is considered as 0.

Leakage – Under the methodology ACM0002 Ver.13.0 leakage is not considered as the main source of emissions is the construction of the power plant (building, transportation, processing). Thus leakage is not considered.

**CL13** was raised to inform the client about the baseline related checks to be conducted on site in consultation with the local assessor. The issues raised in Annexure 3 of this report were closed upon discussions with the local assessor on site.

### 3.2.5 Additionality

The project correctly applies the “Tool for demonstration and assessment of additionality”, the following steps are applied:

- Step 0: Demonstration whether the proposed project activity is the first-of-its-kind  
The project is not first of its kind
- Step 1: Identification of alternatives to the project activity consistent with current laws and regulations
  - Sub-step 1a: Define alternatives to the project activity
  - Sub-step 1b: Consistency with mandatory laws and regulations
- Step 2: Investment analysis
  - Sub-step 2a: Determine appropriate analysis method
  - Sub-step 2b: Option I. Apply simple cost analysis
  - Sub-step 2b: Option II. Apply investment comparison analysis
  - Sub-step 2b: Option III. Apply benchmark analysis
  - Sub-step 2c: Calculation and comparison of financial indicators (only applicable to Options II and III):
  - Sub-step 2d: Sensitivity analysis (only applicable to Options II and III)
- Step 3: Barrier analysis

- Sub-step 3a: Identify barriers that would prevent the implementation of the proposed CDM project activity
- Sub-step 3b: Show that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity)
- Step 4: Common practice analysis
  - Sub-step 4a: The proposed CDM project activity (ies) applies measure(s) that are listed in the definitions section above
  - Sub-step 4b: The proposed CDM project activity (ies) does not apply any of the measures that are listed in the definitions section above

It was checked through local assessments that the project is not common practice. All the projects except one (Koudia El Beida), are claiming climate change funding. This is the first wind farm built in Morocco and was considered as a pilot project. The financing and operation of Koudia al Baïda are insured by a Special Purpose Company, namely Compagnie Eolienne de Detroit (CED).

The different project types for use in the benchmark analysis “The Study” of the six major investment projects were analysed through confirmation by the local assessor, 6 projects have been listed on page 4 of the document ‘Electricity plants Benchmark in Morocco’. The average of the range 12-14% has been considered as a rationale approach: neither the minimal nor the maximal value was considered, but the average value taken into consideration the risk profile of the project (first of its kind been developed under the new regulatory scheme law 13.09, potential commercial risk due to overcapacity, limitation of the targeted Moroccan market. It was concluded that the benchmark used for the projects is correct.

Due to non availability of studies (public) to calculate the benchmark of an investment, an investment consultant was engaged to determine the reference benchmark. The credentials of the consultant which calculated the benchmark were checked and found credible.

Investment analysis uses weighted average to determine the electricity price for table under the heading “calculation of financial indicators. The report by Mott MacDonald provides an analysis of the tariffs on page 18 of the report (Haouma, Akhfennir et Foug El Oued Conseiller Technique des Prêteurs - Rapport Final Revision D, dated December 2011). The appropriateness of the input values/assumptions used was checked with the local assessor and found reasonable.

Financial parameters have been used for the sensitivity analysis, the client was requested to provide information/calculations to support where this information originated, **CL14** was raised. Official sources have been used to define the 4 parameters used for the sensitivity analysis. It was confirmed that the Mott MacDonald report pages 100/101/103 contains reliable information. Documents to support the “project capex” which include wind turbines, civil works and electrical works were checked - ‘Mott MacDonald-Lenders Technical Advisor - Project EEM’ (pages 92-108)

Investment analysis uses weighted average to determine the electricity price for table under the heading “calculation of financial indicators. All the information and the calculations were checked

and found to be reasonable. CL14 was closed based upon the information provided by the client as discussed above.

### 3.2.6 Quantification of GHG Emission Reductions and Removals

The GHG Emission reduction calculations are as per the requirements of ACM0002 Ver.13.0

**CAR 12** was raised – *“Under the Low Cost Must Run Contribution tab of the grid emission factor spreadsheet the figures for the “net electricity generation in 2005” do not match those available from the source provided: [http://www.mem.gov.ma/Chiffres\\_cle/ChiffreEnergie08-32.htm](http://www.mem.gov.ma/Chiffres_cle/ChiffreEnergie08-32.htm). According to this the figure should be 19 518,4. Under the Fuel Data Base tab of the grid emission factor spreadsheet the GJ/T values are not the same as those listed in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories table. Please clarify where these values have been derived from. The spreadsheet Données ONE Maroc-Jan-2010 does not have any references provided, please clarify where the information was taken from”*. The spreadsheet Données pour calcul du facteur d’émission - Parc ONE does not have any references provided, please clarify where the information was taken from”. The information requested above was provided by the client and the same was checked and CAR12 was closed.

The following data sources, used for the calculation of the baseline were also checked: Données pour calcul du facteur d’émission - Parc ONE - Année 2008, Données pour calcul du facteur d’émission - Parc ONE, Données ONE Maroc-Jan-2010, ONEE - Lettre à Nareva – MDP, ConsoTahhadart. **CL 8** was raised – *“The equation for the net generated electricity uses different data units to those in the (data and parameters to be monitored section” please clarify”*, in response the client updated the PD and the equation now uses the parameters that are listed under section 4.2 of the PD “Data and Parameters Monitored”. Thus **CL 8** was closed.

**CL2** was raised - Estimated annual emission reductions and the calculations are to be confirmed (Desk based Document review and onsite). The client provided the file titled *“EEM\_Foum El Oued wind project\_Morocco Emission Factor\_20121108”*. The input values and the calculations were checked through desk based reviews, and corroborated during with the local assessor, and hence CL2 was closed.

#### Quantification of leakage

As per the requirements of ACM0002 Ver. 13, *“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, and transport). These emissions sources are neglected.”* Therefore is not considered for this project activity.

Also, there are no project emissions considered as per ACM0002 due to installation of make shift generators during the construction phase.

### 3.2.7 Monitoring Plan

Data and parameters to be monitored as a part of the project activity, applicability and eligibility of monitoring equipment, procedures are in accordance with the methodology.

**CAR 11** was raised – *“The methodology states that the parameter, “EGfacility,y” is to be cross checked with electricity receipts to confirm accuracy. Please make this change. The parameter NCVI is not represented as it is in the “Tool to calculate project or leakage CO2 emissions from fossil fuel combustion” should be written as (NCVi,y) please correct, also update the description of the parameter to include (in year y).*

The parameter EFco2,l should be EFco2,l,y and the description should be updated to include (in year y)”, the PDD was revised to correct this, and hence CAR11 was **closed**.

### 3.3 Environmental Impact

The project has had its EIA and a review of the affects on ornithology carried out and the documents have been checked that they comply with the regulations of the host country (Morocco).

The letter from the Agency of the Environment “*Foum El Oued - Acceptability Decision (translated)*” states that the environmental requirements of the EIA must be adhered to by the project developer and that the agreement is null and void if the project is not build within 5 years of the date of the letter of environmental acceptability dated (28/09/2010).

Through document review and interviews during the site visit it is confirmed that the project has met the requirements of the EIA in line with Moroccan law.

### 3.4 Comments by stakeholders

The stakeholder consultation for this project was held on the 04/02/2010, the list of stakeholders invited to the meeting included local parliamentary officials for the region, public authorities, local elected officials, regional business representatives, the press, as well as the regional and national television stations. Comments were made regarding the potential for wind farm developments in the region, technology transfer, other potential renewable energy projects and the creation of jobs and the priority of who would be offered these jobs. The document provided by the PP “*Projet éolien Foum El Oued - Consultation publique (04 février 2010).pdf*” has been checked and found to be accurate with no negative remarks being made in the document. The potential for job creation and sustainable development benefits were also discussed in the meetings held with local stakeholders during the site visits.

**CAR 9** was raised – *“A comment received by the UNFCCC dated 14/05/2012 ([http://cdm.unfccc.int/stakeholder/submissions/2012/0516\\_wsrw\\_req.pdf](http://cdm.unfccc.int/stakeholder/submissions/2012/0516_wsrw_req.pdf)) from the Western Sahara Resource Watch outlining their concerns for the Saharawi people. Please can you confirm whether any representatives from the Sahrawi people were present at the stakeholder consultation?”*



The validation team raised the following query:

The project was listed on the CDM website:

<https://cdm.unfccc.int/Projects/Validation/DB/4LUOV4RBZAPBZXJD0EIF7BEVVCZ3NX/view.html> during 04 May 2010 and 02 June 2010; however it was subsequently withdrawn from the UNFCCC CDM website. It is not clear why the project was withdrawn from the CDM website of UNFCCC? Please clarify the following issues:

1. Were there any significant changes made in the project technology, ownership or project design since the project was first webhosted for CDM in May 2012?
2. Were there any boundary/territorial issues regarding the project site? The validation team has checked the ownership, licences to operate etc. but are there any outstanding issues regarding the international borders?
3. Were there any further consultations with the stakeholders following CDM stakeholder consultation process?

The client confirmed the following:

1. No changes were made in the project technology, ownership or project design since the project was first webhosted for CDM in May 2010 There are no boundary/territorial issues regarding the project site;
2. The CDM registration of this project was cancelled because it was very challenging to register this project by the end of 2012 : there was no commercial interest for our company to have a CDM project registered after 2012. This is why our preference was to switch to voluntary standards like VCS. Currently, all the other projects we are developing are seeking voluntary standards ;
3. There was no further official consultations with the stakeholders following CDM stakeholder consultation process

Also, **CAR 10** was raised regarding means of notification for local stakeholder consultations. The PP responded that the participants became aware of the organization of the consultation and participated to the workshop through invitation letters. The model letters sent by the Project Participant to the different participants (document 'Foum El Oued Stakeholder consultation - Letter of invitation model') "Foum El Oued Stakeholder consultation - Letter of invitation model" was checked. The PP has also provided the document "Projet éolien Foum El Oued - Consultation publique (04 février 2010).pdf" which contains the minutes and the signatures of the invited stakeholders. Thus **CAR 10** was closed.

The SGS assessment team also interviewed some local residents and their representatives, and it was established that the implementation of this project has contributed to employment generation and thus contributing to sustainable development in the region.

#### 4 VALIDATION CONCLUSION

SGS United Kingdom Limited has been contracted by Energie Eolienne du Maroc to perform a validation of the project: "Foum El Oued Wind Farm Project"

The Validation was performed in accordance with the VCS standard version 3.3 requirements and host country criteria, as well as, criteria given to provide for consistent project operations, monitoring and reporting.



SGS reviewed of the project description documentation, using a risk based approach and conducted follow-up interviews.

07 CARs, 06 CLs and 01 Obs (later changed to a FAR) were raised. The response to these findings was satisfactorily closed and SGS confirms that project meets the requirements of the VCS.

The project will be recommended by SGS for registration with the VCSA.

**Signed on behalf of the Validation Body by Authorized Signatory  
SGS United Kingdom Limited**

Date: 03/04/2013

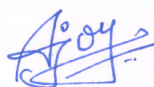
Signature:



**Lead Assessor:** Siddharth Yadav

Date: 03/04/2013

Signature:



**Technical Reviewer:** Ajoy Gupta

## Annexure 1

**Table 1 VCS PD**

Checklist Question	Ref.	MoV*	Comments	Draft Concl	Final Concl
<b>A. General Description of Project Activity</b>					
<b>A.1. Project Title</b>					
A.1.1. Does the project title clearly enable to identify the unique VCS activity?			The project title is clear and the project title is not listed on the VCS website leading to the title being unique.	OK	OK
A.1.2. Is there an indication of a revision number and the date of the revision?			The PD is version 1 dated 13/11/2012, further revised to version 1.1 dated 15/02/2013	OK	OK
<b>A.2. Project Proponent</b>					
A.2.1. The VCS templates have been completed in such a way that the names and details of all project proponents are contained on a single document.	VCS version 3 issued on 08 <sup>th</sup> March 2011 for single and multiple PP's.		The listing representation document has been signed by the PP and sent to the VCSA (E-mail confirmation has been received) and section 1.3 of the PD has been checked and the PP has been confirmed.	CL 1 The right of use and ownership of the project require documents to be checked first, these include land lease agreement and commercial agreements. Document from Mott Mcdonald provided but does not give permission itself.	OK
<b>A.3. Type/Category of the project</b>					
A.3.1. Define the sectoral scope which is part of a GHG programme that has been approved by the VCSA?	Section 1.2 of the VCS PD		<a href="http://cdm.unfccc.int/Reference/Standards/accr_stan_01.pdf">The</a> PD defines the scope of this project as sectoral scope 1 (Renewable energy) as available from the UNFCCC's accreditation standard <a href="http://cdm.unfccc.int/Reference/Standards/accr_stan_01.pdf">http://cdm.unfccc.int/Reference/Standards/accr_stan_01.pdf</a> (Section 1.3 of the PD has been checked and this matched the information for the project)	OK	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl	Final Concl
A.3.2. Is the project a Grouped project?	Section 3.4 of the VC Standard version 3.1		This is not a grouped project as per the definition stated in the project standard version 3 section 3.4.1.	OK	OK
<b>A.4. Estimation of Emission Reduction and Project Size</b>					
A.4.1. How many emission reductions per year have been estimated from the project activity?	Section 1.7 of the VCS PD		The estimated annual emission reductions for this project are 141,991 per annum, this is to be checked on site and the calculations are to be confirmed	CL 2 Estimated annual emission reductions and the calculations are to be confirmed.	OK
A.4.2. What type of project is this? (Based on ER numbers).	VCS Program definitions VCS version 3 And section 3.10 of the VCS standard version 3.1		Project: less than or equal to 300,000 tCO <sub>2</sub> e per year.	OK	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl	Final Concl
<b>A.5. Brief description of the project technology</b>					
A.5.1. Does the description of the technology to be applied provide sufficient and transparent input to evaluate its impact on the greenhouse gas balance and is the explanation on how the project will reduce greenhouse gas emission transparent and suitable?	Section 1.8 of the VCS PD		This project generates electricity through the use of wind turbines. The electricity generated from the turbines displaces the electricity that would have been provided from the grid (electricity from the grid would be provided from power plants burning fossil fuels). The baseline scenario is the equivalent annual power output from the national grid. ACM0002 allows the use of the tool to calculate the emission factor for an electricity system.	OK	OK
<b>A.6. Project locations and specific extent</b>					
A.6.1. Does the information provided on the location of the project activity allow for a clear identification of the site(s)?	Section 1.9 of the VCS PD		Section 1.9 of the PD provides the geographical coordinates for the location of the project instance. This will also be checked on site.	CL4 What is the reason for this choice of coordinates? Please mark this on the map in section 1.9 of the PD (Table 2)	OK
A.6.2. Are the latitude and longitude of the site indicated (decimal points)?	Section 1.9 of the VCS PD		The coordinates are provided by 4 sets of 6-figure grid references which locate the exact area of the project activity.	CL5 Coordinates to be confirmed by LoA on site visit.	OK
<b>A.7. Duration of the Project / Crediting Period</b>					
A.7.1. Is the project start date defined and reasonable?	Section 1.6 of the VCS PD		The project start date is expected to be for June 2013, Although in section 6 it states that the crediting period will start on the 01/07/2013	OBS 4 Please clarify if the start date is the 01/06/2013 or the 01/07/2013 (later changed to a FAR)	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl	Final Concl
A.7.2. Is the crediting period start date defined?	Section 1.6 of the VCS PD		The first crediting period is from the 01/03/2013-28/02/2023	OK	OK
A.7.3. Are the VCS project crediting period and life time of the project reasonable?	Section 3.9 of the VCS Standard version 3.1		The project has a 10 year crediting period which is in line with the VCS Standard. The expected economic lifetime of the project is 20 years. (The PP expects to renew the crediting period after the first 10 years).	OK	OK
A.7.4. Where appropriate has the correct VCS guidance been followed with regards to the start of the crediting period?	Section 3.9 of the VCS Standard version 3.1		NA		
<b>A.8. Conditions prior to project initiation</b>					
A.8.1. Are the conditions prior to the project initiation described in the VCS PD?	Section 1.10 of the VCS PD		The conditions prior to the project activity would have been business as usual where the grid would supply electricity using the grid connected power plants.	OK	OK
A.8.2. Do the dates of VCS consideration comply with the version of the VCS standard being used?	Section 3.8.1 of the VCS standard version 3.1		Start date of the project is in the future (01/03/2013) the validation is estimated to be completed by April 2013.	CL 7 Estimated date will be confirmed after the site visit.	OK
<b>A.9. Compliance with relevant local laws and regulations related to the project</b>					
A.9.1. Are relevant local laws and regulations related to the project identified in the VCS PD?	Section 1.11 of the VCS PD		PD refers to the law 13.09 which is the local regulatory framework under which the project is being developed.	CL 8 Local laws are to be confirmed by the local assessor on site visit.	OK
A.9.2. Is the demonstration of compliance with them described in the VCS PD?			Letter of authorization is required for projects over 2Mw capacity.	The letter of authorisation from CNEI requires translation. Please translate the applicable section of this. Also the original is to be confirmed by the local assessor.	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl	Final Concl
<p>A.9.3. The project shall not be authorised by any systematically enforced law, statute or other regulatory framework. Specifically;</p> <ul style="list-style-type: none"> <li>— Laws, statutes, regulatory frameworks or policies implemented since 11 November 2001 that give comparative advantage to less emissions-intensive technologies or activities relative to more emissions-intensive technologies or activities need not be taken into account.</li> <li>— Laws, statutes, regulatory frameworks or policies implemented since 11 December 1997 that give comparative advantage to more emissions-intensive technologies or activities relative to less emissions-intensive technologies or activities shall not be taken into account.</li> </ul>	<p>Section 4.6.1 of the VCS standard version 3.1</p>		<p>The law 13.09 allows private firms to build grid connected renewable energy projects in Morocco. There is no financial benefit from the government.</p>	<p>Local assessor to confirm whether this law in mandatory and systematically enforced?</p>	<p>OK</p>

Checklist Question	Ref.	MoV*	Comments	Draft Concl	Final Concl
<b>A.10. Identification of Risks that may substantially affect the project's GHG emission reductions or removal enhancements</b>					
A.10.1. Are there risks which may substantially affect the project's GHG emission reductions or removal enhancements identified in the VCS PD?	Section 3.19.1 (1) f of the VCS Standard version 3.1		Currently there are no risks associated to this project.	Local assessor to confirm whether this region (project site) is prone to conflict, extreme weather or other risks as applicable.	OK
<b>A.11. Demonstration to confirmation that the project was not implemented to create GHG emissions primarily for the purpose of its subsequent removal or destruction</b>					
A.11.1. Is it demonstrated in the VCS PD that the project was not implemented to create GHG emissions primarily for the purpose of its subsequent removal or destruction?	Section 1.10 of the VCS PD		The project was started due to the LAW 13.09 being developed which allowed private firms to develop grid connected renewable energy projects and sell the produced electricity to a pool of clients. The project was not implemented for the purpose of creating emission reductions.	OK	OK
<b>A.12. Demonstration that the project has not created another form of environmental credit</b>					
A.12.1. Is it demonstrated in the VCS PD that the project has not created another form of environmental credit?	section 3.19.1 (1) e VCS standard version 3		The PD confirms that there is no emission trading scheme/emission cap implemented in Morocco. (Morocco is not classed as a annex one country and so is eligible for GHG reduction programmes and also has no country specific GHG programme).	Local assessor to check that there is no other form of environmental credits being claimed for this project activity.	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl	Final Concl
<b>A.13. Project rejected under other GHG programmes (if applicable)</b>					
A.13.1. Has the project rejected under another GHG programme?	VCS standard version 3.1 section 3.12.5		The PD confirms that the project is not part of any other emission trading scheme.	CAR 9 The PD has been registered on the CDM website and the DOE DNV has carried out a review of the project (now terminated) please provide details of the project in relation to CDM.	OK
A.13.2. Has the Project been rejected by other GHG programmes, due to procedural or eligibility requirements where the GHG programme applied?	VCS standard version 3.1 section 3.12.5		The PD confirms that the project has not been rejected by any other GHG reduction schemes. Project has had a contract terminated in the past under the CDM.	OK	OK
A.13.3. Is the GHG programme which rejected this project approved under VCS Programme	Section 3.15.5 of the VCS Standard version 3.1		Contract was terminated, not rejected. So this is not applicable.	OK	OK
A.13.4. Is it clearly stated in the VCS PD all GHG programmes for which the project has applied for credits and why the project was rejected?	Section 1.12.5 of the VCS PD		NA		
A.13.5. Have the actual rejection document(s) including explanation provided?			NA		



Checklist Question	Ref.	MoV*	Comments	Draft Concl	Final Concl
<b>A.14. List of commercially sensitive information (if applicable)</b>					
A.14.1. Has a list of commercially sensitive information been provided by the project proponent?	Section. 3.19.2 of the VCS Standard version 3.1		Yes the list provided contains the following confidential documents: Commercial agreements, grid connection agreements, financing agreements, WTG contacts, and land lease agreement. These have been requested by SGS and will be blacked out/submitted confidentially.	OK	OK
<b>B. Baseline and Monitoring Methodology</b>					
<b>B.1. Choice and Applicability</b>					
B.1.1. Is the baseline methodology approved under the VCS?	Section 4.5 of the VCS Standard version 3.1		The baseline methodology is listed as ACM0002 Version 12.1 in the PD. This methodology is approved under the UNFCCC.	<p>CAR 10 The version of the methodology currently listed in the PD (version 12.1) is due to expire on the 11/01/2013. Please update to version 13</p> <p>CAR 11 The tool for demonstration and assessment of additionality used in the PD is version 5.2.1. The most recent version is 6.1.0 – please update</p> <p>CAR 12 The tool to calculate the emission factor for an electrical system used in the PD is version 2. The most recent version is version 2.2.1. Please update</p>	OK
B.1.2. Is the methodology approved by any other GHG programme approved by VCS Programme?	Section 2 of the VCS PD		This methodology is approved under the UNFCCC Link : <a href="http://cdm.unfccc.int/filestorage/D/Y/P/DYPPFI935XBG274NWH6O8CM1KEZR0VU/EB67_repan13_ACM0002_ver13.0.0.pdf?t=dEV8bWUzcGUzfDCRqo9iq-ML413NYxdaru4T">http://cdm.unfccc.int/filestorage/D/Y/P/DYPPFI935XBG274NWH6O8CM1KEZR0VU/EB67_repan13_ACM0002_ver13.0.0.pdf?t=dEV8bWUzcGUzfDCRqo9iq-ML413NYxdaru4T</a>	OK	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl	Final Concl
B.1.3. Is the baseline methodology the one deemed most applicable for this project?	Section 4.5 of the VCS Standard version 3.1		This methodology is the best fit for this project scenario "This methodology is applicable to grid-connected renewable power generation project activities that:  (a) install a new power plant at a site where no renewable power plant was operated prior to the implementation of the project activity (Greenfield plant);"	CL 13  Local assessor to confirm that the baseline applicable to this project is the most suitable considering local knowledge of the energy market.	OK
B.1.4. Is the choice of the methodology correctly justified by the VCS PD and is the project in conformance with all applicability criteria of the applied methodology?	Section 2.2 of the VCS PD		The project meets all applicability criteria in the methodology. "installation of a new power plant where no new was operated prior to the implementation of the project activity.	Local assessor to confirm that no renewable power plant operated on the same site prior to project implementation.	OK
B.1.5. Are the project specific deviations against the applied methodology discussed clearly?	Section.3.5 of the VCS Standard version 3.1		NA		N/A
B.1.6. Are the deviations project-specific?	Section 2.6 of the VCS PD		NA		N/A
B.1.7. Do the deviations include changes in; — Baseline scenario — Additionality determination — Included projects GHG sources, sinks and reservoirs	Sections 3.5 and 3.6 of the VCS Standard version 3.1		NA		

Checklist Question	Ref.	MoV*	Comments	Draft Concl	Final Concl
B.1.8. Is it sufficiently explained and accepted that the deviation does not result in conservativeness? Provide sufficient evidence to support your arguments.	Sections 3.5 and 3.6 of the VCS Standard version 3.1		NA		N/A
B.1.9. Is there any revision to the methodology that has been applied?	Sec. 4.2 & 5.3.1 VCS Standard version 3.1		No revisions are being made to the methodology.	OK	OK
<b>B.2. GHGs sources, sink and reservoir for the baseline scenario and for the project</b>					
B.2.1. Are all emission sources and gases related to the baseline scenario, project scenario and leakage clearly identified and described in a complete manner?	Section.4.5 of the VCS Standard version 3.1		ACM0002 requires the CO2 emissions from electricity generation in fossil fuel powered plants that are displaced due to the project activity. The source has been identified in the PD and in the baseline discussion it states that the baseline scenario is the equivalent annual power output by the national grid.	OK	OK
B.2.2. Are the GHG sinks and reservoirs identified clearly for baseline scenario and project activity?	Section 4.5 of the VCS Standard version 3.1		Yes as per ACM0002 all sinks and sources have been documented in the PD.	OK	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl	Final Concl
<b>B.3. Project Boundary</b>					
<p>B.3.1</p> <p>The project boundary defines clearly the geographical and the physical location of the project.</p> <p>Are there any overlaps in the geographical boundaries in relation to processes involved in the projects?</p>	Section 4.4 of the VCS Standard version 3.1		<p>There is no overlapping in this project.</p> <p>Project boundary: The coordinates are provided by 4 sets of 6-figure grid references which locate the exact area of the project activity.</p> <p>With reference to the table 1 of emission sources to be included or excluded in the project boundary the project boundary consists of Co2 emissions from electricity generation in a fossil fuel fired power station that are displaced to the project activity. No other emission sources are applicable for this type of project.</p>	Local assessor to confirm that there are no other emission sources.	OK
<b>B.4. Identification of the Baseline Scenario</b>					
<p>B.4.1. Does the VCS PD discuss the identification of the most likely baseline scenario? Does the VCS PD follow the steps to determine the baseline scenario required by the methodology and is the application of the methodology and the discussion and determination of the chosen baseline transparent?</p>	Section 5.4 of the VCS Standard version 3.1		<p>As stated in the methodology, this is a grid connected wind farm project; the baseline is defined as the equivalent annual power generation that the wind farm displaces.</p> <p>The tool for calculating the emission factor for an electricity system has been used to provide the baseline.</p>	Reference for the 2008 data is to be provided by the client.	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl	Final Concl
B.4.2. Does the application consider all potential realistic and credible baseline scenarios in the discussion taking into account relevant national and/or sectoral policies, macro-economic trends and political aspirations??	Section 5.4 of the VCS Standard version 3.1		VCS PD should address all the potential scenarios which would have a comparable output as the project including a description of the technology that would be employed or activities that would take place.  The project proponent shall also demonstrate that it has met all relevant regulations, legislation and project approvals (e.g. environmental permits).	OK	OK
B.4.3. Is the choice of the baseline compatible with the available data?	Section 5.4 of the VCS Standard Version 3.1		The baseline has been calculated in accordance with the tool to calculate the emission factor for a electrical system. Data used in the calculations have been provided in the PD.	Reference for the 2008 data is to be provided by the client.	OK
B.4.4. Is conservativeness addressed in the way of identifying the baseline?	Section 3.4.1 of the VCS Standard Version 3.1		The method used to identify the baseline follows the tool to calculate the emission factor for an electrical system, all data that has been referenced will be check with the original documents to confirm that the baseline scenario is correct/realistic.	Reference for the 2008 data is to be provided by the client.	OK
B.4.5. Does the selected baseline represent the most likely scenario among other possible and/or discussed scenarios?	Section 2.4 of the VCS PD		Official data to be sent to confirm that the data in annex 1 is accurate and the source of the data is to be provided.	Reference for the 2008 data is to be provided by the client.	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl	Final Concl
<b>B.5. Additionality</b>					
B.5.1. Does the VCS PD clearly demonstrate the additionality using additionality tests as defined by VCS version 3 standard?	Section 4.6 of the VCS Standard version 3.1		As per the methodology ACM0002 the Tool for the demonstration and assessment of additionality has been used to show additionality.	CL14  Basic parameters for the calculation of financial indicators as referred in table on page 16 need to be confirmed.  Sources of data input into the file 'IRR calculation - Foun El Oued Wind Project_13112012' should be provided.	OK
B.5.2. Is the discussion on additionality and the evidence provided consistent with the starting date of the project  If the project has started before the validation is it discussed how the fund from VCU was taken into account in the decision to go ahead with the project activity.	Section 4.6 of the VCS Standard version 3.1 and Section 2.5 of the VCS PD		The start date of the project is considered to be the date that the project starts generating VCU's (In this case 01/03/2013).  The validation of this project is due to be completed by April 2013.As per the contract signed between SGS and Energie Eolienne du Maroc.	OK	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl	Final Concl
B.5.3. Is the discussion on additionality consistent with the identification all potential realistic and credible baseline scenarios Do the identified alternative include technologies and practices that include outputs (e.g.) cement or services comparable with the proposed project activity	Section 4.6 of the VCS Stand version 3.1 and Section 2.5 of the VCS PD		<p>Yes the baseline scenarios that apply to this methodology have been used in the steps for demonstrating additionality. These include:</p> <p>A: Provision of equivalent annual power generation by the grid which the proposed project is connected to</p> <p>B: the proposed project not undertaken as a VCS activity.</p> <p>C: Construction of a power plant using other renewable energy with equivalent installed capacity or annual electricity generation</p> <p>D: Construction of fossil fuel fired power plant with equivalent installed capacity or annual electricity generation.</p>	OK	OK
B.5.4. If the Test 1 'The Project Test' has been used, then has it followed all steps including 'Regulatory Surplus'?	Section 4.6.1 of the VCS Standard version 3.1 and Section 2.5 of the VCS PD		NA	OK	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl	Final Concl
B.5.5. If an implementation barrier analysis has been used, has it been shown that the proposed project activity faces barriers that prevent the implementation of this type of proposed project activity but would not have prevented the implementation of at least one of the alternatives?	Section 4.6.1 of the VCS Standard version 3.1		Barrier analysis has not been selected to show additionality.	OK	OK
B.5.6. Has it been shown in step three that the project is not common practice?	Section 4.6.1 of the VCS Standard version 3.1		<p>The common practice analysis shows that in Morocco wind farms are not built without the aid of Carbon Credits. The one example where this was not the case is “Koudia El Beida” as this was a pilot project where a fixed tariff for set for electricity produced.</p> <p>Documents showing that this project was financed by the Moroccan nation included grid ONEE and that ONEE will not provide a similarly valued tariff to other similar projects. Available on page 9  <a href="http://cdm.unfccc.int/filestorage/F/S/_/FS_191239735/ONE%20PDD%2C%20using%20Consolidated%20Final%209%20March%202005.pdf?t=VUI8bWVvNnl1fDAM2ant-OEa6wRWjzID0YhM">http://cdm.unfccc.int/filestorage/F/S/_/FS_191239735/ONE%20PDD%2C%20using%20Consolidated%20Final%209%20March%202005.pdf?t=VUI8bWVvNnl1fDAM2ant-OEa6wRWjzID0YhM</a></p>	OK	OK
<b>B.6. Application of the Baseline Methodology</b>					
B.6.1. Has the approved methodology been applied correctly for determining <b>baseline emissions</b> ?	Section 4.7 of the VCS Standard version 3.1		The PDD follows the calculations from methodology ACM0002 Ver. 13.0 for the calculation of the baseline.	OK	OK



Checklist Question	Ref.	MoV*	Comments	Draft Concl	Final Concl
B.6.2. Has the approved methodology been applied correctly for determining <b>project emissions</b> ?	Section 4.7 of the VCS Standard version 3.1		Yes the project follows the steps in the methodology to assess the project emissions, this is detailed in the PD.	OK	OK
B.6.3. Has the approved methodology been applied correctly for determining <b>leakage</b> ?	Section 4.7 of the VCS Standard version 3.1		Under ACM0002 Ver. 13.0 no leakage emissions are considered.	OK	OK
B.6.4. Where applicable, has the approved methodology been applied correctly for the <b>direct calculation of emission reductions</b>	Section 4.7 of the VCS Standard version 3.1		The estimation of reductions have been applied as per the methodology	See findings below	OK
<b>B.7. Ex-ante Data and Parameters Used</b>					
B.7.1. Is the data provided in compliance with the methodology?	Section 3.17.1 and section 4.8 of the VCS Standard version 3.1		Parameters not followed as per the meth/tool.	See findings below (after protocol)	OK
B.7.2. Is all the data derived from official data sources or replicable records and have these been correctly quoted?	Section 4.8 of the VCS standard version 3.1		Data sources are the same as those listed in the Meth/tool. Confirmation of the data for available for 2008 is pending response from the client.	OK	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl	Final Concl
<b>B.8. Data and Parameters Monitored</b>					
B.8.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for estimation or measuring the emission reductions within the project boundary during the crediting period?	Section 3.18 of the VCS Standard version 3.1		The archive of data outlined in the PD is in compliance with requirements in the methodology "data shall be kept for a period of 2 years after the end of the crediting period". The equation used to calculate the net generated electricity uses two parameters which are measured on site.	The equation for the net generated electricity uses different data units to those in the (data and parameters to be monitored section" please alter this so the parameters match. REF - Section 4.3 of the PD	OK
B.8.2. Are the data and parameters used for the quantification of GHG emission reductions and/or removals provided exactly in accordance with the methodology	Section 3.17.1 of the VCS Standard Version 3.1		The calculation for the emission reductions meets the requirements of the meth. Section 4.3 includes a calculation for the net generated electricity.	OK	OK
<b>B.9. Quality Control (QC) and Quality Assurance (QA) Procedures</b>					
B.9.1. Is the selection of data undergoing quality control and quality assurance procedures complete?	Section 3.17.1 of the VCS Standard Version 3.1		The parameter EGfacility,y does not state that the data will be cross with receipts of electricity sold, as per the methodology.	The methodology states that the parameter EGfacility,y is to be cross checked with electricity receipts to confirm accuracy. Please make this change.	OK
B.9.2. Is the belonging determination of uncertainty levels done correctly for each ID in a correct and reliable manner?	Sect 3.17.1 of the VCS Standard version 3.1		Does this apply to this project?	OK	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl	Final Concl
B.9.3. Are quality management procedures and quality assurance procedures sufficiently described to ensure the delivery of high quality data?	Section 3.17.1 of the VCS Standard version 3.1		Parameters listed in the methodology are not in compliance with the meth. PP requested to first correct parameters before QC.QA procedures are checked.	OK	OK
B.9.4. Is it ensured that data will be bound to national or internal reference standards?			Yes all data from national institutions have been listed under the source of data under the applicable parameters. If data is unreliable the IPCC values are to be used.	OK	OK
<b>C. Environmental Impacts</b>					
C.1.1. Has an analysis of the environmental impacts of the project activity been sufficiently described?	Section 3.19.1 (5) of the VCS Standard version 3.1		<p>The environmental impacts that are posed by the site have been outlined in the PD including principle conclusions to the EIA.</p> <p>Certificate/report of EIA has been provided. All conclusions have been incorporated into the PD.</p> <p>The ornithology assessment has given the potential to disrupting bird populations as medium to weak. Page 7 (last paragraph) of the report checked and details confirmed as follows: <i>Etude d'Impact sur l'Environnement integrant l'Etude d'Impact sur l'Avifaune written by Pöyry Energy Ltd.</i></p>	OK	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl	Final Concl
C.1.2. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?			<p>Yes, the law 19.09 on renewable energies requires an EIA be carried out for projects of this type.</p> <p>In the PD, it states that an EIA was carried out but due to a issue with the site the project was moved to another more suitable location. It is not clear whether an EIA was carried out for this new site.</p> <p>EIA report received on the 28<sup>th</sup> November 2012 states in para 4 of page 4 of the EIA report.</p> <p>Report checked and details confirmed as follows: <i>Projet de Parc Eolien de Foum El Wad which was written by Pöyry Energy Ltd.</i></p>	OK	OK
C.1.3. Have the summary of environmental impacts assessment been provided in the project design?	Section 5 of the VCS PD		Yes, the environmental impacts that are posed by the site have been outlined in the PD including principle conclusions to the EIA.	OK	OK
<b>D. Stakeholder Comments</b>					
D.1.1. Have relevant stakeholders been consulted?	Section 3.19.1 (6) of the VCS Standard version 3.1		Local stakeholder included national and local public authorities, members of parliament, local elected officials, private partners, local people around the project area, media, and regional/national television. Approximately 60 people arrived for the stakeholder meeting.	A comment received by the UNFCCC dated 14/05/2012 ( <a href="http://cdm.unfccc.int/stakeholder/submissions/2012/0516_wsrw_req.pdf">http://cdm.unfccc.int/stakeholder/submissions/2012/0516_wsrw_req.pdf</a> ) from the Western Sahara Resource Watch outlining their concerns for the Saharawi people. Please can you confirm whether any representatives from the Sahrawi people were present at the stakeholder consultation?	OK

Checklist Question	Ref.	MoV*	Comments	Draft Concl	Final Concl
D.1.2. Has the appropriate media been used to invite comments by local stakeholders?	Section 3.19.1 (6) of the VCS Standard version 3.1		Method of stakeholder invitation has not been provided.	Means of inviting stakeholder to the meeting needs to be provided.	OK
D.1.3. Is the undertaken stakeholder process described in a complete and transparent manner?	Section 6 of the VCS PD		<p>Yes stakeholder process provides information on location, date, participants and the summary of discussions and the report on the comments received.</p> <p>Document checked: <i>Montage MDP du projet éolien de Foum El Oued</i></p> <p><i>PV de la réunion de consultation des parties prenantes, locals provides the summary of the stakeholder meeting and the list of participants.</i></p>	OK	OK
D.1.4. Is a summary of the stakeholder comments received provided?	Section 6 of the VCS PD		<p>The stakeholders' questions can be categorised into:</p> <p>Wind power and general renewable energy, Potential of the region, jobs and training that the project would deliver, Technology transfer, profitability and whether the electricity would cover the needs of the region.</p>	OK	OK

### History of the Document

Version	VCS Requirement	Nature of revision	Validity
Issue 1	VCS Standard Version 3	The VCS 2007.1 has been revised after the release of VCS version 3. Previous version of the same document shall not be used after the 8 <sup>th</sup> September 2011.	Active from the 8 <sup>th</sup> September 2011

## Annexure 2

### Validation Findings

Findings from validation of Fom El Oued Wind Farm Project. Each Table below represents a finding from the validation assessment. The findings are numbered consecutively, approximately in the order that they have been identified and irrespective of the nature of the findings, for eg.: CAR #1, CAR #2, CL #3, FAR #4 etc.

Description of Table:

Type	<p>Findings are either Corrective Action Requests (CARs), Clarification Requests (CLs), and Forward Action Request (FARs).</p> <p>A corrective action request (CAR) is raised if one of the following occurs:</p> <ol style="list-style-type: none"> <li>I. The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;</li> <li>II. The CDM requirements have not been met;</li> <li>III. There is a risk that emission reductions cannot be monitored or calculated.</li> </ol> <p>A clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met</p> <p>A forward action request (FAR) is raised during validation to highlight issues related to project implementation that require review during the first verification of the project activity. FARs shall not relate to the CDM requirements for registration.</p>
------	--

#### Findings Overview Summary

		CARs		CLs		FARs	
<b>Total Number raised</b>		7		6		1	
Type:	CL	Number:	1	Reference:		PD	
<b>Lead Assessor Comment:</b>							
<b>The right of use and ownership of the project require documents to be checked first, these include land lease agreement and commercial agreements. Document from Mott McDonald was provided but it does not give permission itself.</b>							
<b>Project Participant Response:</b>					<b>Date:</b> 25/12/2012		
<p>Please find enclosed the land lease agreement concluded between the Project Participant and the Moroccan Administration regarding Fom El Oued project site. Please note that the key points of this agreement have been translated in this document.</p>							

<b>Documentation Provided by Project Participant:</b>	
<i>Foum El Oued - Land Lease Agreement (translated) and Foum El Oued - Turbine Supply Agreement</i>	
<b>Information Verified by Lead Assessor:</b>	
The land lease agreement document " <i>Foum El Oued - Land Lease Agreement (translated)</i> " has now been provided along with the wind turbine purchase order document " <i>Foum El Oued - Turbine Supply Agreement</i> ". These documents have been checked by the assessment team and confirmed that the information proves right of use and ownership of the project..	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 03/01/2013
The documents provided now show that the PP has the right of use and ownership of the project activity. CL closed	
<b>Acceptance and Close out by Lead Assessor:</b>	<b>Date:</b> 03/01/2013

Date:		Raised by:	Siddharth Yadav		
Type:	CL	Number:	2	Reference:	Section 1.7 of the VCS PD
<b>Lead Assessor Comment:</b>					
Estimated annual emission reductions and the calculations are to be confirmed (Desk based Document review and onsite)					
<b>Project Participant Response:</b>				<b>Date:</b> 25/12/2012	
Could you please further clarify this request.					
<b>Information Verified by Lead Assessor:</b>					
"EEM_Foum El Oued wind project_Morocco Emission Factor_20121108" and "IRR calculation - Foum El Oued Wind Project_25122012" spreadsheets reviewed by SGS Financial expert and issues were closed.					
<b>Acceptance and Close out by Lead Assessor: Closed</b>				<b>Date:</b> 16/02/2013	

Date:		Raised by:	Siddharth Yadav		
Type:	CL	Number:	3	Reference:	in section 1.9 of the PD
<b>Lead Assessor Comment:</b>					
<b>What is the reason for this choice of coordinates? Please mark this on the map in section 1.9 of the PD (Table 2)</b>					

<b>Project Participant Response:</b>	<b>Date:</b> 25/12/2012
<p>Could you please further clarify this request.</p> <p>Please note by the way that there is no specific 'project boundary' implemented as this is a wind farm project.</p>	
<b>Documentation Provided by Project Participant:</b>	
<p><i>[Note to PP: Please provide evidence to the Response above, clearly reference the documentation and indicate documentation name/version and date here- for soft copies, exact names of electronic files and if applicable, active links to the web page; reference to the section(s) and text within the documentation including page number(s) should be provided for easy reference and transparency]</i></p>	
<b>Information Verified by Lead Assessor:</b>	
<p>Clarification to the client: Please mark the coordinates for the polygon (corners) indicating the project boundary on the map.</p>	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 03/01/2013
<p>Coordinates of the polygon (site) containing the wind turbines were revised by the PP during the site visit, and the same were checked</p>	
<b>Acceptance and Close out by Lead Assessor: Closed</b>	<b>Date:</b> 15/02/2013

Date:		Raised by:	Siddharth Yadav		
Type:	Obs	Number:	4	Reference:	Section 1.6 of the VCS PD
<b>Lead Assessor Comment:</b>					
Please clarify if the start date is the 01/06/2013 or the 01/07/2013					
<b>Project Participant Response:</b>			<b>Date:</b> 25/12/2012		
<p><i>[Note to PP: Insert your Response to SGS Finding here]</i></p> <p>Please note that the start date has been updated to 01/03/2013. This date is the date on which the project will begin generating GHG emission reductions. The Project Description Document has been updated accordingly.</p>					
<b>Documentation Provided by Project Participant:</b>					
<p><i>[Note to PP: Please provide evidence to the Response above, clearly reference the documentation and indicate documentation name/version and date here- for soft copies, exact names of electronic files and if applicable, active links to the web page; reference to the section(s) and text within the documentation including page number(s) should be provided for easy reference and transparency]</i></p>					



<b>Information Verified by Lead Assessor:</b>	
The updated PD shows that the revised start date for this project is now the 01/03/2012. As per the definition of the start date in the VCS Programme definition document the project start date is defined as “ <i>The date on which the project began generating GHG emission reductions or removals</i> ”.	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 03/01/2013
The revised project start date is in compliance with VCS requirements. The assessment team will assess whether the estimated start date is reasonable during the site visit. Obs open pending feedback from the site visit on the onsite status.  Issue was closed after on site verification of work completion schedule.	
<b>Acceptance and Close out by Lead Assessor:</b>	<b>Date:</b> 15/03/2013

Date:		Raised by:	Siddharth Yadav		
Type:	CAR	Number:	5	Reference:	Section 2.2 of the methodology
<b>Lead Assessor Comment:</b>					
The version of the methodology currently listed in the PD (version 12.1) is due to expire on the 11/01/2013. Please update to version 13					
<b>Project Participant Response:</b>				<b>Date:</b> 25/12/2012	
The version of the used methodology has been updated to version 13 in the Project Description Document.					
<b>Documentation Provided by Project Participant:</b>					
The revised Project Description Document					
<b>Information Verified by Lead Assessor:</b>					
The revised PD provided by the client has been updated to show the corrected version of the methodology “ACM 0002 version 13” this has been confirmed from the information on the UNFCCC website: <a href="http://cdm.unfccc.int/methodologies/DB/UB3431UT9I5KN2MUL2FGZXZ6CV71LT">http://cdm.unfccc.int/methodologies/DB/UB3431UT9I5KN2MUL2FGZXZ6CV71LT</a> .					
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 03/01/2013	
The revised PD now contains the correct version of the methodology. Thus CAR is closed					
<b>Acceptance and Close out by Lead Assessor:</b>				<b>Date:</b> 03/01/2013	

Date:			Raised by:	Siddharth Yadav		
Type:	CAR	Number:	6	Reference:	Section 2.1 of the methodology	
<b>Lead Assessor Comment:</b>						
The tool for demonstration and assessment of additionality used in the PD is version 5.2.1. The most recent version is available on UNFCCC website – please update						
<b>Project Participant Response:</b>				<b>Date:</b> 25/12/2012		
The version of the tool has been updated to version 07.0.0 in the Project Description Document.						
<b>Documentation Provided by Project Participant:</b>						
The revised Project Description Document						
<b>Information Verified by Lead Assessor:</b>						
The revised PD has been checked and confirmed that the latest version of the tool for demonstration and assessment of additionality is now version 07.0.0 as available from: <a href="http://cdm.unfccc.int/Reference/tools/index.html">http://cdm.unfccc.int/Reference/tools/index.html</a>						
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 03/01/2013		
PD is now in conformance with the information available from the UNFCCC website. CAR closed						
<b>Acceptance and Close out by Lead Assessor:</b>				<b>Date:</b> 03/01/2013		

Date:			Raised by:	Siddharth Yadav		
Type:	CAR	Number:	7	Reference:	Section 2.1 of the methodology	
<b>Lead Assessor Comment:</b>						
The tool to calculate the emission factor for an electricity system used in the PD is version 2. The most recent version is available on UNFCCC website. Please update						
<b>Project Participant Response:</b>				<b>Date:</b> 25/12/2012		
The version of the tool has been updated to version 03.0.0 in the Project Description Document.						
<b>Documentation Provided by Project Participant:</b>						

The revised Project Description Document	
<b>Information Verified by Lead Assessor:</b>	
The revised PD has been checked and confirmed that the latest version of The tool to calculate the emission factor for an electricity system is now version 03.0.0 as available from <a href="http://cdm.unfccc.int/Reference/tools/index.html">http://cdm.unfccc.int/Reference/tools/index.html</a>	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 03/01/2013
PD is now in conformance with the information available from the UNFCCC website. CAR closed	
<b>Acceptance and Close out by Lead Assessor:</b>	<b>Date:</b> 03/01/2013

Date:		Raised by:	Siddharth Yadav		
Type:	CL	Number:	8	Reference:	<b>Section 4.3 of the PD</b>
<b>Lead Assessor Comment:</b>					
The equation for the net generated electricity uses different data units to those in the (data and parameters to be monitored section" please clarify.					
<b>Project Participant Response:</b>				<b>Date:</b> 25/12/2012	
The Project Description Document has been updated so that the data units used in the equation for the net generated electricity are the same as used in the data and parameters in the monitoring section..					
<b>Documentation Provided by Project Participant:</b>					
The revised Project Description Document					
<b>Information Verified by Lead Assessor:</b>					
The equation has been updated in the PD and now uses the parameters that are listed under section 4.2 of the PD "Data and Parameters Monitored"					
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 03/01/2013	
The equation for net generated electricity now uses the same parameters as are listed in the PD under section 4.2. Thus the CL is closed.					
<b>Acceptance and Close out by Lead Assessor:</b>				<b>Date:</b> 03/01/2013	

Date:			Raised by:	Siddharth Yadav		
Type:	CAR	Number:	9	Reference:	Section 6 of the VCS PD	
<b>Lead Assessor Comment:</b>						
<p>A comment received by the UNFCCC dated 14/05/2012 (<a href="http://cdm.unfccc.int/stakeholder/submissions/2012/0516_wsrw_req.pdf">http://cdm.unfccc.int/stakeholder/submissions/2012/0516_wsrw_req.pdf</a>) from the Western Sahara Resource Watch outlining their concerns for the Saharawi people. Please can you confirm whether any representatives from the Saharawi people were present at the stakeholder consultation?</p> <p>The stakeholder consultation process will also be checked during the site visit.</p>						
<b>Project Participant Response:</b>				<b>Date:</b> 25/12/2012		
<p>The Project Participants confirms that all the local participants to the stakeholder consultation are Sahrawi people.</p>						
<b>Documentation Provided by Project Participant:</b>						
PD and e-mail confirmation						
<b>Information Verified by Lead Assessor:</b>						
<p>The following individuals from Sahrawi community were consulted during the site visit:</p> <p>Mr Said Boumessaoud, employee Wind Farm Operating team          Mr Mohamed Nadir : Wind Farm Technical Operator          Mr Abdellatif Elbahoussi : Wind Farm Technical Operator</p> <p>President of the Local Council - Mr Mohamed Ayach.          It was confirmed that the project contributes to employment generation and sustainable development in the area.</p>						
<b>Acceptance and Close out by Lead Assessor: Closed</b>				<b>Date:</b> 15/02/2013		

Date:			Raised by:	Siddharth Yadav		
Type:	CAR	Number:	10	Reference:	Section 6 of the VCS PD	
<b>Lead Assessor Comment:</b>						
Means of inviting stakeholder to the meeting needs to be provided.						
<b>Project Participant Response:</b>				<b>Date:</b> 25/12/2012		

<p>Participants were invited to the stakeholder' consultation by official letters. Other participants became aware later of the organization of the consultation and participated to the workshop. Please find enclosed a model of the letters sent by the Project Participant to the different participants (document '<i>Foum El Oued Stakeholder consultation - Letter of invitation model</i>')</p>	
<p><b>Documentation Provided by Project Participant:</b></p>	
<p><i>Foum El Oued Stakeholder consultation - Letter of invitation model</i></p>	
<p><b>Information Verified by Lead Assessor:</b></p>	
<p>The PP has provided the document "<i>Foum El Oued Stakeholder consultation - Letter of invitation model</i>" which shows the means of inviting participants to the stakeholder consultation meeting. The PP has also provided the document "Projet éolien Foum El Oued - Consultation publique (04 février 2010).pdf" which contains the minutes and the signatures of the invited stakeholders</p>	
<p><b>Reasoning for not Acceptance or Acceptance and Close Out:</b></p>	<p><b>Date:</b> 03/01/2013</p>
<p>The form of media used to communicate the stakeholder consultation has been provided and has been checked by the assessment team along with the signed minutes. CAR is closed.</p>	
<p><b>Acceptance and Close out by Lead Assessor:</b></p>	<p><b>Date:</b> 03/01/2013</p>

Date:		Raised by:	Siddharth Yadav		
Type:	CAR	Number:	11	Reference:	Section 4 of the VCS PD
<p><b>Lead Assessor Comment:</b></p>					
<p><b>Monitoring parameter feedback</b></p> <p>The methodology states that the parameter EGfacility,y is to be cross checked with electricity receipts to confirm accuracy. Please make this change.</p> <p>The parameter NCVI is not represented as it is in the "<i>Tool to calculate project or leakage CO2 emissions from fossil fuel combustion</i>" should be written as (NCVi,y) please correct, also update the description of the parameter to include (in year y)</p> <p>The parameter EFco2,l should be EFco2,l,y and the description should be updated to include (in year y)</p>					
<p><b>Project Participant Response:</b></p>				<p><b>Date:</b> 25/12/2012</p>	

<p><i>[Note to PP: Insert your Response to SGS Finding here]</i></p> <p>The cross check of the parameter EGfacility,y has been added in section 4 of the Project Description Document.</p> <p>Also, the parameter EFco2,l,y has been updated as required in section 4 of the Project Description Document.</p> <p>On the other hand, the emission reductions calculation (page 30) has been updated to take into account the requirements of the applied methodology.</p> <p>Please note that parameter Q has been added to reflect the existence of the substation between the meters and the national network.</p>	
<p><b>Documentation Provided by Project Participant:</b></p> <p>The revised Project Description Document</p>	
<p><b>Information Verified by Lead Assessor:</b></p> <p>The PP has provided the updated PD with the information updated. This has been checked and confirmed that the parameters are now in conformance with the methodology ACM 0002 version 13.</p> <p>Following your response can you also indicate where the emission reductions calculation on page 30 of the PD is from?</p> <p>Also the parameter EP.y and Q are not listed in the methodology, please specify where these are from?</p>	
<p><b>Reasoning for not Acceptance or Acceptance and Close Out:</b></p>	<p><b>Date:</b> 03/01/2013</p>
<p>Parameters have now been updated and are in conformance with the methodology ACM 0002 ver. 13.</p>	
<p><b>Acceptance and Close out by Lead Assessor: CAR 11 Closed</b></p>	<p><b>Date:</b> 15/02/2013</p>

<i>Date:</i>		<i>Raised by:</i>	Siddharth Yadav		
<i>Type:</i>	CAR	<i>Number:</i>	12	<i>Reference:</i>	PD
<b>Lead Assessor Comment:</b>					
<b>Emission Factor Spreadsheet feedback</b>					
<ol style="list-style-type: none"> <li>1. Under the Low Cost Must Run Contribution tab of the grid emission factor spreadsheet the figures for the “net electricity generation in 2005” do not match those available from the source provided: <a href="http://www.mem.gov.ma/Chiffres_cle/ChiffreEnergie08-32.htm">http://www.mem.gov.ma/Chiffres_cle/ChiffreEnergie08-32.htm</a>. According to this the figure should be 19 518,4. Please can you correct?</li>   <li>2. Under the Fuel Data Base tab of the grid emission factor spreadsheet the GJ/T values are not the same as those listed in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories table. Please clarify where these values have been derived from?</li>   <li>3. The <i>spreadsheet Données ONE Maroc-Jan-2010</i> does not have any references provided, please clarify where the information was taken from?</li>   <li>4. The <i>spreadsheet Données pour calcul du facteur d'émission - Parc ONE</i> does not have any references provided, please clarify where the information was taken from?</li> </ol>					
<b>Project Participant Response:</b>				<b>Date:</b> 25/12/2012	

1 – Under the Low Cost Must Run Contribution tab of the grid emission factor spreadsheet, the “net electricity generation in 2005” has been updated to the value 19 518 400 KWh.

2 – The fuel data base data listed in the emission factor calculation file have been verified. The values extracted from the 2006 IPCC Guidelines for National Greenhouse Gas Inventories table have also been checked. Could you please clarify which inconsistency is it referred to.

On the other hand please note that, as clearly specified in the fuel data base table, some values are extracted from national references.

3 – Please find enclosed the reference for ‘Données ONE Maroc-Jan-2010 - Reference’ data (Email reference).

4 – The information given in the file ‘Données pour calcul du facteur d’émission - Parc ONE’ is simply the Excel version of the information officially shared by ONEE in the PDF document ‘ONEE - Lettre à Nareva – MDP’

**Information Verified by Lead Assessor:**

1. “EEM\_Foum El Oued wind project\_Morocco Emission Factor\_20121108” and “IRR calculation - Foum El Oued Wind Project\_25122012” spreadsheets requested to be sent by e-mail. The information was checked and found OK

2. “EEM\_Foum El Oued wind project\_Morocco Emission Factor\_20121108” and “IRR calculation - Foum El Oued Wind Project\_25122012” spreadsheets requested to be sent by e-mail. The data sources were checked and found OK

3. The e-mail address that the information has been sent from is for menara.ma which is a news website. 4. Confirmed that the information from ONEE letter a Nareva MDP is the data used in the spreadsheet. Issue closed.

**Acceptance and Close out by Lead Assessor: CAR12**      **Date: 15/02/2013**  
**Closed**

Date:		Raised by:	Siddharth Yadav		
Type:	CL	Number:	13	Reference:	



<b>Lead Assessor Comment:</b>	
Please see comments in the document review table and provide supporting documents requested. (Annex 1 Supporting document checklist attached – tbc during site visit/local assessor).	
<b>Project Participant Response:</b>	<b>Date:</b> 25/12/2012
Could you please further clarify this request.	
<b>Information Verified by Lead Assessor:</b>	
Annex 1 Supporting document checklist (on page 10 of this document) contains the documents checked during the site visit. CL13 closed.	
<b>Acceptance and Close out by Lead Assessor: CL13 Closed</b>	<b>Date:</b> 15/02/2013

Date:		Raised by:	Siddharth Yadav		
Type:	CL	Number:	14	Reference:	PD
<b>Lead Assessor Comment:</b>					
Basic parameters for the calculation of financial indicators as referred in table on page 16 need to be confirmed. Sources of data input into the file 'IRR calculation - Foun El Oued Wind Project_13112012' should be provided.					
<b>Project Participant Response:</b>				<b>Date:</b> 25/12/2012	
<i>[Note to PP: Insert your Response to SGS Finding here]</i>					
The IRR calculation file has been updated ('IRR calculation - Foun El Oued Wind Project_25112012') to include references to source of data used.					
<b>Documentation Provided by Project Participant:</b>					
<i>IRR calculation - Foun El Oued Wind Project_25112012</i>					
<b>Information Verified by Lead Assessor:</b>					
The sources of the data and the calculations were checked and found to be OK					
<b>Acceptance and Close out by Lead Assessor: CL14 Closed</b>				<b>Date:</b> 15/02/2013	

Annexure 3 List of documents required to be checked:

Issue	Reference from PD	To be checked	Information provided Reference document – page no/paragraph no.	Documents confirmed/further comments
<p>Section 1.8 of the PD (General Overview) it states that The Renewable Energy Law 13.09 was adopted by Morocco. As part of this law all projects generation over 2MW or more an authorisation regime is required for the project.</p> <p>Moroccan Energy Strategy with an objective of 42% renewable energy capacity</p>	<p>Section 1.8 of the PD(General Overview)</p>	<p>Authorisation regime of the wind farm project as set out in the Renewable Energy law 13.09.</p> <p>Are there any subsidies/preferential taxes/concessions offered for renewable energy projects</p>	<p>Documentation related to law 13.09 : document ‘Law 13.09 - Bulletin official (18 mars 2010)’ (please refer to page 19 of this document).</p> <p>In addition, please find enclosed a full readable document version of this law, downloadable on the website of the Ministry of Energy and Mines on the following link (<a href="http://www.mem.gov.ma/Documentation/pdf/loi%20Energies%20renouvelables/loi%20Energies%20renouvelables.pdf">http://www.mem.gov.ma/Documentation/pdf/loi%20Energies%20renouvelables/loi%20Energies%20renouvelables.pdf</a>).</p> <p>On the other hand, here attached a translation of the key articles of this law, including a translation of the law which refers to the limitation of hydro projects to 12 MW.</p> <p>Please find also enclosed the preliminary authorization document as required under article 8 of the</p>	<p>The Law 13.09 has been provided. Document is in French and not in a PDF format so translation is not effective. PP requested to highlight sections of the text and translate the applicable areas (NOTE this can be hand written and scanned to us)</p> <p>Translation of the relevant articles of the law 13.09 are accepted. Preliminary authorization document from ONE as required under <b>article 8</b> of the law 13.09 was checked</p>

			law 13.09.  There are no subsidies/preferential taxes/concessions offered for renewable energy projects	
Evidence of wind speed -8-8.5m/s  Expected annual electricity generated	Section 1.8 of the PD(General Overview)	e.g Windrose?, pre-feasibility study?  Also supply the name/web address of the consulting company who carried out the work.	Document 'Mott MacDonald-Lenders Technical Advisor - Projet EEM'(pages 73-83)	The document from Mott MacDonald has been provided and it is confirmed that pages 73-83 contain technical data on the Wind farm including wind speeds (which confirm the wind speed), installed capacity and other technical specifications for the project activity.
Technical Description – technical parameters and technical specifications	Section 1.8 of the PD(General Overview), tables on pg.6	Installation certificates, work orders	Document 'Mott MacDonald-Lenders Technical Advisor - Projet EEM'(pages 49-63).  Please note that the WTG used in Fom El Oued Project is SWT-101.  With this regard, please refer to the following attached documentation :  - Fom El Oued - Turbine Supply Agreement  - SWT-2.3-101	Technical specifications of the wind generators has been provided and confirmed in the Mott MacDonald document page 53. To be confirmed that the l'E74 type wind turbines are being used on site though purchase order/contract from Siemens.  Confirmed that the technical specifications/purchase order relate to the SWT-2.3-101

			<p>Technical Description rev 2</p> <p>- SWT-2.3-101 Technical Specifications rev 9</p>	<p>wind turbines that are recommended by Mott MacDonald.</p>
<p>Data used for the calculation of the baseline needs to be confirmed to be accurate and from a reliable source.</p>	<p>Annex 1 Table A1 (Baseline information)</p>	<p>Exact source (weblinks)/documentation of information used under Annex 1 of the PD (Baseline information)</p>	<p>Documentation received from ONE :</p> <ul style="list-style-type: none"> <li>- Données pour calcul du facteur d'émission - Parc ONE - Année 2008</li> <li>- Données pour calcul du facteur d'émission - Parc ONE</li> <li>- Données ONE Maroc-Jan-2010</li> <li>- ONEE - Lettre à Nareva – MDP</li> <li>- ConsoTahhadart</li> </ul> <p>Please note that the information given in the file '<i>Données pour calcul du facteur d'émission - Parc ONE</i>' is simply the Excel version of the information officially shared by ONEE in the PDF document '<i>ONEE - Lettre à Nareva – MDP</i>'. By the way the two tabs 'EQHYD' and 'EQTHER' are not used in the calculation.</p>	<p>Please give the data source for the document (Données pour calcul du facteur d'émission - Parc ONE - Année 2008)</p> <p>Confirmed</p>
<p>The common practice analysis states The Koudia EI</p>	<p>Section 2.5 of the PD</p>	<p>For the project mentioned in the common practice</p>	<p>Please refer to CDM PDD number 0030 (<a href="http://cdm.unfccc.int/P">http://cdm.unfccc.int/P</a></p>	<p>Confirmed that the last paragraph on page 6 of the</p>

<p>Beida wind farm project was a pilot project and as such received a special tariff/arrangement from ONEE.</p>		<p>analysis please provide documentation that</p> <ol style="list-style-type: none"> <li>1. ONEE will buy all of the electricity produced (19 year period)</li> <li>2. Documents to support the fact that ONEE will not pay a similar tariff to similar project in the future.</li> </ol>	<p><u>rojects/DB/DNV-CUK1114607705.27/vi ew</u>), Section A.4.4 page 6, registered the 29/10/2005</p>	<p>registered PDD states that ONEE will buy the electricity of the Abdelkhalek</p> <p>Torres project and the pilot Tanger project for a higher tariff fee and that the same will not occur in the future.</p>
<p>Commercially Sensitive agreements need to check the integrity of the project. Note: These will not be submitted to any other organisation without the approval of the PP.</p>	<p>Section 1.13 of the PD (Commercially Sensitive Information)</p>	<p>Commercial Agreements, to confirm right of use</p>	<p>Very sensitive information.</p> <p>Document 'Mott MacDonald-Lenders Technical Advisor - Projet EEM'(pages 13-18)</p> <p>Please find also enclosed a commercial agreement model.</p>	<p>Commercial analysis has been carried out by Mott MacDonald on pages 13-18 EEm report.</p>
<p>Commercially Sensitive agreements need to check the integrity of the project. Note: These will not be submitted to any other organisation without the approval of the PP.</p>	<p>Section 1.13 of the PD (Commercially Sensitive Information)</p>	<p>Grid connection agreements</p>	<p>This information is very sensitive as well. Will be checked internally and be back to you.</p> <p>Please find enclosed the Grid Connection Agreement</p>	<p>Checked during the site visit</p>
<p>Commercially Sensitive agreements need to check the integrity of</p>	<p>Section 1.13 of the PD (Commercially Sensitive</p>	<p>Financing agreements</p>	<p>Document shared: 'Foum El Oued - Financing Agreement'.</p>	<p>Document is in French and not in a PDF format so translation services</p>

<p>the project. Note: These will not be submitted to any other organisation without the approval of the PP.</p>	<p>Information)</p>		<p>Please find enclosed the document with translation of the main articles.</p>	<p>on the internet cannot be used effectively. PP requested to highlight sections of the text and translate the applicable areas (NOTE this can be hand written and scanned to us) Translated version of the financing agreement has been received and checked.</p>
<p>Commercially Sensitive agreements need to check the integrity of the project. Note: These will not be submitted to any other organisation without the approval of the PP.</p>	<p>Section 1.13 of the PD (Commercially Sensitive Information)</p>	<p>Wind Turbine purchasing contract (Siemens, dated 29/04/2010)</p>	<p>Document 'Mott MacDonald-Lenders Technical Advisor - Projet EEM'  (pages 25-29) Other precise information could be shared upon request.  In addition, please find enclosed the Turbine Supply Agreement documentation for Fom El Oued Project, including :</p> <ul style="list-style-type: none"> <li>- Fom El Oued - Turbine Supply Agreement</li> <li>- SWT-2.3-101 Technical Description</li> <li>- SWT-2.3-101 Technical Specifications</li> </ul> <p>By the way, the indicative main</p>	<p>Contract for Haouma and Fom El Oued are dated November 16 2011 was provided.  The indicative main technical specifications of wind turbines table on page 6 of the PD has the incorrect information for the nominal wind speed, please update. Also the Electric transmission lines is not referenced in the technical specifications. Please list the source of this information.  <b>Confirmed</b></p>

			technical specifications of wind turbines on page 6 of the PD have been updated to reflect the references of the technical specifications given by the WTG supplier.	
Evidence of installed capacity of 50.6 MW	Section 1.7	Certificate to prove installed capacity, work order.	Please note that the construction of the wind farm is not finished yet. The works have started beginning of 2012 and the commissioning of the whole farm is expected for June 2013.	Table 1.1 of Mott MacDonald's report confirms a predicted installed capacity of 50.6MW. Considering that the project has not been build yet this is acceptable.
Evidence that 22 turbines were installed and that each has a capacity of 2.3 MW	Section 1.8 Description of the project activity	Wind Turbine purchasing contract (Siemens, dated 29/04/2010) Work orders	Document 'Mott MacDonald-Lenders Technical Advisor - Projet EEM'  (pages 25-29)  In addition, please find enclosed the Turbine Supply Agreement documentation for Fom El Oued Project, including :  - Fom El Oued - Turbine Supply Agreement  - SWT-2.3-101 Technical Description  - SWT-2.3-101 Technical Specifications	The actual contract for Haouma and Fom El Oued are dated to  November 16 2011 is to be provided.  <b>Document has been received and checked.</b>

Calculations/documents used for the calculation of the wind farm load factor	Section 1.8 (Expected annual production)	Documents showing the data used to calculate the wind farm load factor.	Document 'Mott MacDonald-Lenders Technical Advisor - Projet EEM'(pages 73-83).  Indeed, the load factor given in the Mott MacDonald report is for the 3 wind farms combined, including the 3 different wind regimes analysed on three different sites located in Morocco.  For the avoidance of doubt, only the annual electricity generated in kept in the PDD.	The wind load factor is calculated at 48,2% in the Mott MacDonald report but this is for all 3 wind farm projects combined (not just Fom El Oued). Is there any difference in the wind pattern/wind roses amongst the three projects?  This figure has now been removed from the PD. Checked.
Evidence showing the study between the different project types for use in the benchmark analysis.	Section 2.5 (benchmark analysis)	"The Study" of the six major investment projects that were analysed.	Document attached 'Electricity plants Benchmark in Morocco'	Document has been received and checked. 6 projects have been listed on page 4 of the document Electricity plants Benchmark in Morocco' and a conclusion on the project itself has been included.
Due to no publically available studies available to calculate the benchmark an investment bank was hired to establish the reference benchmark for the electricity generation sector.	Section 2.5 (benchmark analysis)	Please provide details of the work/report the investment consultant did to determine the reference benchmark.  Name, address and web links of the consultant which calculated the benchmark	Document attached 'Electricity plants Benchmark in Morocco'	Benchmark provided on page 9 of the document 'Electricity plants Benchmark in Morocco'.
Investment analysis	Section 2.5	Agreed tariffs with	Very sensitive	The report by Mott



uses weighted average to determine the electricity price for table under the heading “calculation of financial indicators).	(calculation and comparison of financial indicators)	each of the clients used to calculate the weighted average.	information.  Document ‘Mott MacDonald-Lenders Technical Advisor - Projet EEM’(pages 13-18)	MacDonald provides an analysis of the tariffs on page 18 of the report.
4 financial parameters have been used for the sensitivity analysis. Please provide information/calculations to support where this information originated.	Section 2.5 (sensitivity analysis)	Documents used/official sources to define the 4 parameters used for the sensitivity analysis.	Please clarify	Confirmed in the Mott MacDonald report pages 100/101/103.
Documents to support the “project capex” which include wind turbines, civil works and electrical works.	Section 2.5(sensitivity analysis)	Documents showing the costs and that these are fixed contracts.	Document ‘Mott MacDonald-Lenders Technical Advisor - Projet EEM’  (pages 92-108)	Page 100/101 of the Mott MacDonald report provides a breakdown of all the costs involved in the construction of the wind farm.
Specifications of the two bidirectional electricity meters	Section 4.3	Documents from the manufactures which show the technical specifications of the meters.	Please find enclosed the meter documentation from manufacturers including the following documents :  - Fom El Oued Wind Project - Meter Description (1)  - Fom El Oued Wind Project - Meter Description (2)	Pending further information.  Documentation on the meter specifications has not been provided.

<p>EIA for the new site as confirmed in March 2008.</p>	<p>Section 5</p>	<p>Please provide the EIA report.</p>	<p>Documents : - EIA study : '20100212 EIE Parc Eolien Fom el Wad_Rapport final 1'- Bird study : 'EIE- Rapport ornithologique Finale Ver. 01'</p>	<p>Confirmed for the EIA report (Page 4, para 4)</p>
<p>Letter of approval of the EIA from CNEI dated 28<sup>th</sup> September 2010 (for the new site.</p>	<p>Section 5</p>	<p>Please provide the letter of approval of the EIA from CNEI dated 28<sup>th</sup> September 2010</p>	<p>Document : '2010 09 28_Lettre_Acceptabilite_EIE_Fom El Oued'.  Please find enclosed as well this document with the main parts translated to English.</p>	<p>This letter is in arabic, PP is requested to provide a translation of the relevant sections (NOTE this can be done by hand and scanned/e-mail to us. Letter from the ministry of the environment has been translated.  Checked and found to be OK</p>
<p>Forms of media used to invite attendees for the stake holder consultation workshop/</p>	<p>Section 6</p>	<p>This can be e-mail, TV adverts radio messages or advertisement in local newspapers.</p>	<p>Consultation workshop :  - Attendees (authorities, NGO, Associations, ..) were invited by official invitation letters- Report of the consultation : 'Projet éolien Fom El Oued - Consultation publique (04 février 2010)'  Please note that participants were invited to the stakeholder' consultation by official letters. Other</p>	<p>Please state where in this document the forms of media to invite attendees have been listed. Stakeholder invitation letter has been provided by the PP "Fom El Oued Stakeholder consultation - Letter of invitation model". Checked and found to be OK</p>

			<p>participants became aware later of the organization of the consultation and participated to the workshop. Please find enclosed a model of the letters sent by the Project Participant to the different participants (document '<i>Foum El Oued Stakeholder consultation - Letter of invitation model</i>)</p>	
--	--	--	--	--

**Annexure 4 Local Assessor Checklist for the site visit of: Foum El Oued Wind Farm Project.**

**Checks undertaken:**

1. Geo-coordinates or the project activity.
2. The Law on renewable energy 19.03 - mandatory and systematically enforced?
3. Section A.10.1 of the protocol: Region (project site) is prone to conflict, extreme weather or other risks as applicable.
4. Section A.12.1 of the protocol: CL- there is no other form of environmental credits being claimed for this project activity.
5. Section B.1.3- baseline applicable to this project is the most suitable considering local knowledge of the energy market.
6. Section B.1.4 of the protocol no renewable power plant operated on the same site prior to project implementation.
7. SECTION b.3.1 of the protocol: no other emission sources within the project boundary to be confirmed.
8. Pages 73-83 of the Mott MacDonald report give the pre-feasibility condition for the wind farm - document review on site.
9. The letter of authorisation from CNEI checked on site - Arabic
10. Confirmed that l'E74 type wind turbines are being used on site.
11. Biomass and geothermal resource availability confirmed during the site visit.  
Possibility of installing a fossil fuel based power plant checked/confirmed (option not available)
12. Estimated start date of the project activity.
13. Common practise in Morocco is that wind farms are not build without the aid of Carbon credits.
14. Saharwi people's representatives were consulted.
15. Change in company name from "Nareva" to "Energie Eolienne du Maroc" is documented.