

CDM VALIDATION REPORT

Dubai Electricity and Water Authority

Dubai Carbon Centre of Excellence

VALIDATION OF THE PROJECT ACTIVITY:

10MW Photovoltaic Plant in Dubai, UAE

AENOR REFERENCE: 2011/064/CDM/57

VERSION: 02

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10MW Photovoltaic Plant in Dubai, UAE

Validation Report:	AENOR Reference n°:	Version of this report:	Date:	
	2011/064/CDM/57	02	10/08/2012	
PDD:	Title:	GSC publication date:	Comments received:	
	10MW Photovoltaic Plant in Dubai, UAE	24/09/2011	<input checked="" type="checkbox"/> Yes ¹ <input type="checkbox"/> No	
Parties involved:	Host Party:	Other involved Parties:		
	United Arab Emirates			
Project Participant(s):	In host Party:	In other involved Parties:		
	Dubai Electricity and Water Authority (DEWA)			
	Dubai Carbon Centre of Excellence			
Size of the project activity:	<input checked="" type="checkbox"/> Small scale <input type="checkbox"/> Large scale			
Applied methodology/ies:	Title:	Code:	N° version	Scope:
	Grid connected renewable electricity generation	AMS-I.D	17	01
Applied tools:	Title:	Version:		
	Tool to calculate the emission factor for an electricity system	02.2.1		
Emission reductions (ER):		GSC PDD:	Final PDD:	
<input checked="" type="checkbox"/> Annual average of the ER (tCO₂e)		8,115	12,765	
<input type="checkbox"/> Total ER (tCO₂e)				
Previous versions of this document:		Version:	Date:	
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¹ The comments are detailed in Section 4 of this Validation Report

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Abbreviations

AMS-I.D	Grid connected renewable electricity generation
CAR	Corrective Action Requested
CDM	Clean Development Mechanism
CEO	Chief Executive Officer
CER	Certified Emission Reductions
CL	Clarification
DECISION 3/CMP.1	Modalities and Procedures for a Clean Development Mechanism as Defined in Article 12 of the Kyoto Protocol
DM	Dubai Municipality
DNA	Designated National Authority
DCCE	Dubai Carbon Centre of Excellence
DEWA	Dubai Electricity and Water Authority
DFO	Distillate Fuel Oil
EB	Executive Board of the CDM of the Kyoto Protocol
EIA	Environmental Impact Assessment
GHG	Greenhouse Gasses
GSC	Global Stakeholder Consultation
IPCC	Intergovernmental Panel on Climate Change
LoA	Letter of Approval
MP	Monitoring Plan
MFO	Medium Fuel Oil
MW	Megawatt
MWh	Megawatt Hour
MWp	Megawatt Peak
NG	Natural Gas

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ODA	Official Development Aid
PDD	Project Design Document
PP	Project Participant
PV	Photovoltaic
TA	Technical Area
tCO _{2e}	Carbon dioxide equivalent tonnes
UNFCCC	United Nations Framework Convention on Climate Change
UAE	United Arab Emirates
UNDP	United Nations Development Programme
VVM	Validation and Verification Manual

Table .1 Abbreviations

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1 INTRODUCTION

1.1 Objective

This validation concerns a project implemented by Project Participants (PP) in Dubai (UAE) to reduce emissions of CO₂ by generating renewable energy from solar radiation. The proposed project is a newly built photovoltaic power plant with a total output capacity of 10MW (Greenfield project). It is expected to generate a net electricity of 24,778 MWh per annum. The project is envisaged to expand the capacity of DEWA grid and reduce GHG emissions by displacing part of the electricity generated by fuel-fired power plants in DEWA grid.

The objectives of the validation exercise are to confirm that the project meets the necessary CDM criteria, follows the approved methodology AMS-I.D version 17 [1], and that the proposals presented by the PPs in the PDD will lead to a realistic determination of the emissions reductions.

Dubai Electricity and Water Authority (DEWA) has commissioned AENOR to validate this project activity. The purpose of such a validation is to have an independent, third party assess the project design. In particular, the project's baseline, the monitoring plan (MP), and the project's compliance with relevant UNFCCC and host country issues and criteria 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 a requirement for all CDM projects and is considered essential in providing quality assurance for the project.

UNFCCC criteria refer to the Kyoto Protocol criteria and the CDM rules and modalities as agreed to in the Bonn Agreement and the Marrakech Accords.

1.2 Scope

The scope of the validation is to assess all aspects of GHG reduction involved in the project, including the project design, the baseline, the determination of the emission factor of the grid to calculate the baseline emissions, and the procedures proposed for monitoring the emission reductions in the future.

The following documents were reviewed as part of the scope of the activity:

- PDD [2/3], including baseline study and monitoring plan
- Approved Methodology: AMS-I.D version 17 [1/]
- Tool to calculate the emission factor for an electricity system, version 02.2.1 [4/]
- Decision 3/CMP.1 and relevant decisions and guidelines from the EB.
- Guidelines on the demonstration of additionality of small-scale project activities, version 09.0 [5/]
- CDM Validation and Verification Manual version 01.2 [6/]
- Letter of Approval from the DNA of UAE [7/]
- Associated documentation (environmental requirements, stakeholders consultation, etc)

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The validation scope is defined as an independent and objective review of the PDD, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. AENOR, based on the Specific Instruction for the Processing and Conducting of Validation, Registration, Verification and Certification of Kyoto Protocol CDM Project Activities (IE-DTC-039) [8], has used a risk-based approach in the validation, focusing on the identification of significant risks for project implementation and the generation of CERs.

The validation is not meant to provide any consultancy services to the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the PDD.

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2 METHODOLOGY

The project assessment aims at being a risk based approach and is based on the methodology developed in the Validation and Verification Manual version 01.2 [6], an initiative of Designated and Applicant Entities, which aims to harmonize the approach and quality of all such assessments.

The validation of the project was started in September 2011 and concluded in August 2012. The validation was performed in several phases, starting with a desk review of the PDD against the approved methodology and CDM and other relevant criteria. The desk review was followed by a site visit to the project site and main stakeholders in Dubai.

In order to ensure transparency, a validation protocol was customized for the project. The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results derived from validating the identified criteria.

The validation protocol serves the following purposes:

- It organizes, provides details and clarifies the requirements a CDM project is expected to meet.
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The sequence of the validation is given in the table below:

Topic	Date
Submission of PDD "10MW Photovoltaic Plant in Dubai, United Arab Emirates" for global stakeholder consultation process ²	24/09/2011
On-site visit	24-25/10/2011
Validation Protocol - Version 01	21/11/2011
Final Validation Report	10/08/2012

Table 2 Sequence of the main validation activities

² During the validation, the project activity changed the project title to "10MW Photovoltaic Plant in Dubai, UAE" which matches exactly with the title mentioned in the LoA. Following the guidance from the CDM team [30], since they are the same project, the change in the title is a minor one, there is no change in the technical characteristics so there is no impact on stakeholders and the scale and the methodology applied remain the same, no need for a new GSC period is required.

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2.1 Appointment of team members and technical reviewers

The list of involved personnel and the qualification status are summarized in the table below:

Name	Qualification	
	Position in the team	Technical areas
Marcelino Pellitero Martinez	Chief Validator	TA 1.2
Fernando Segarra Orero	Validator	TA 1.2
Luis Robles Olmos	Validator	TA 1.2
Alfonso Medrano Gutierrez	Technical Reviewer	TA 1.2

Table 3 List of the personnel involved

Technical areas (TA) mentioned above correspond to the following:

TA code	Technical area
TA 1.1	Thermal energy generation from fossil fuels and biomass including thermal electricity from solar (COMPLEX);
TA 1.2	Energy generation from renewable energy sources.
TA 2.1	Electricity distribution;
TA 2.2	Heat distribution
TA 3.1	Energy demand
TA 4. 1	Cement sector (COMPLEX);
TA 4.2	Aluminium (COMPLEX);
TA 4.3	Iron and steel (COMPLEX);
TA 4.4	Refinery (COMPLEX)
TA 5.1	Chemical process industries (COMPLEX).
TA 6.1	Construction.
TA 7.1	Transport.
TA 8.1	Mining and mineral processes, excluding those included in TA 8.2 below;
TA 8.2	Oil and gas industry, coalmine methane recovery and use (COMPLEX).

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TA code	Technical area
TA 9.1	Metal production.
TA 10.1	Mining and mineral processes, excluding those included in TA 10.2 below;
TA 10.2	Oil and gas industry, coalmine methane recovery and use (COMPLEX).
TA 11.1	Chemical process industries (COMPLEX);
TA 11.2	GHG capture and destruction.
TA 12.1	Chemical process industries (COMPLEX).
TA 13.1	Waste handling and disposal;
TA 13.2	Animal waste management.
TA 14.1	Forestry
TA 15.1	Agriculture
TA 15.2	Animal waste management.

2.2 Document review

The Project Design Document submitted by the PP was reviewed against the approved methodology and against CDM and other relevant criteria. Additional background documents related to the project design, baseline and simple cost analysis were also made available before and during the on-site visit in Dubai, UAE.

To address the corrective actions and clarification requests that arose from the desk review and on-site visit, the consultants revised the initial project design document submitted and developed the final PDD.

2.3 Follow-up actions

The AENOR validation team composed by Marcelino Pellitero Martínez, Fernando Segarra Orero and Luis Robles Olmos conducted interviews with project developers and main stakeholders in Dubai to confirm selected information and to resolve issues identified in the document review.

On 24-25 October 2011 the AENOR validation team visited the project site. During the visit, representatives from Dubai project participants, in addition to relevant local stakeholders such as local authorities and local inhabitants affected by the project were interviewed

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Interviewed organization Person/Position	Interview topics
<p>Ivanno Iannelli. CEO at DCCE</p> <p>Sebastien Aguilar. Technical support officer at DCCE.</p> <p>Alexandra Soezer. Carbon Technical Advisor at UNDP.</p> <p>Robert Kelly. Regional Technical Advisor – Climate Change Mitigation at UNDP.</p> <p>Manar Yazbeck. Programme Associate at UNDP.</p> <p>Clemens Plöchl. Managing Partner at Energy Changes.</p> <p>Wolfgang Wetzler. Project Development at Energy Changes.</p> <p>Mohammed Abdulkareem Al Shamsi. Senior Analyst at DEWA.</p> <p>Albertus Kleinveld. Director of Special Projects at DEWA.</p> <p>Saoud Aziz A. Ghalib. Manager of Technical Coordination at DEWA</p> <p>Majdeyah Azeiz Alawadhi. Electrical Engineer at Road and Transport Authority.</p> <p>Adnan Sharabi. Chairman of Emirates Green Building Council.</p> <p>Jeffrey Willis. Vice Chairman of Emirates Green Building Council.</p>	<p>Project design.</p> <p>System management.</p> <p>Compliance with environmental law.</p> <p>Permits and authorizations applicable to the project</p> <p>Additionality assessment.</p> <p>Ex-ante baseline determination:</p> <p>Consultation with municipal's authorities, land other stakeholders.</p> <p>Opinion about the project.</p> <p>Knowledge of the environmental impacts.</p> <p>Benefits for the community.</p> <p>Project activity compliance with local policies and legislation</p>

Table 4 Interview topics

2.4 Findings

As an outcome of the validation process, the team can raise different types of findings according to the CDM Validation and Verification Manual.

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A Clarification Request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met; or

Where a non-conformance arises the validation team shall raise a Corrective Action Request (CAR). A CAR is issued, where:

- a) The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;
- b) The CDM requirements have not been met;
- c) There is a risk that emission reductions cannot be monitored or calculated.

Failure to address a CL may result in a CAR. Information or clarifications provided as a result of a CL may also lead to a CAR.

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.

The project participants were requested to address all validation findings and ultimately provided the validation team with sufficient evidence to determine that the applicable CDM requirements have been met. The project participant modified the initial PDD to resolve the validation team concerns and resubmitted a final version of the PDD. AENOR has prepared this report based on the final PDD.

All the validation findings are summarized in section 3 below and documented in more detail in section 6 and in the validation protocol included in Annex 1.

2.5 Internal Quality Control

Following the completion of the assessment process by the validation team, all documentation undergoes an internal quality control through a technical review before submission to the CDM-EB. The technical reviewer is a qualified member of AENOR, independent from the team that carried out the validation of the project activity. The technical reviewer or the team appointed for the technical review are qualified in the technical area(s) and sectoral scope(s) of the project activity.

3 VALIDATION FINDINGS

3.1 Approval

The Letter of Approval from the United Arab Emirates (UAE) DNA /7/ has been provided to the validation team directly by the project participants. The LoA was issued on 1 November 2011 by Environment Agency - Abu Dhabi. AENOR confirms that the LoA states the following:

- UAE is a Party of the Kyoto Protocol.
- UAE voluntarily participates in the CDM and confirms that “10MW Photovoltaic Plant in Dubai, UAE” contributes to UAE’s sustainable development
- The LoA refers to the precise proposed CDM project activity title in the PDD being submitted for registration.

AENOR confirms that the LoA from UAE has been issued by the respective party’s designated national authority and does not doubt of its authenticity; hence AENOR confirms that the LoA is in compliance with paragraphs 45-48 of the VVM v.1.2.

The validation did not reveal any information that indicates that the project can be seen as a diversion of ODA funding towards UAE.

3.2 Participation

Only one Party, the host, UAE, is involved in the project activity. UAE ratified the Kyoto Protocol on 26 January 2005 and has appointed a DNA.

All project participants have been listed in section A.3 of the final PDD. This information is consistent with the information provided in its Annex 1.

The project participant has been listed in the latest version of the PDD (section A.3). This information is consistent with the information provided in its Annex 1.

AENOR confirms that no entities other than that approved as project participant are included in other sections of the latest version of the PDD [3].

3.3 Project Design Document

Due to the clarifications and corrective actions requested during the validation process, the project participants made a final version of the PDD dated 3 August 2012, which includes corrections or clarifications to all issues raised.

The PDD is in compliance with relevant forms and guidance stated by the CDM documentation.

3.4 Project description

Title of the project activity: 10MW Photovoltaic Plant in Dubai, UAE

Project participants: Dubai Electricity and Water Authority and Dubai Carbon Centre of Excellence.

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Host Party: UAE.

The location of the project activity is provided in Section A.4.1 of the PDD. The project is located in Seih Al Dahl area of the Emirate of Dubai, UAE. The coordinates of the project have been clearly detailed in decimal format in the final PDD to be consistent with the CDM requirements and with the evidence provided during the validation process, they are as follows: 27.4008 North and 50.4054 East.

This project activity involves the installation and operation of a photovoltaic power plant with a total 10 MW output capacity. It has been defined that the photovoltaic plant will be designed to ensure a specified Alternating Current (AC) output instead of the typically used for the Standard Test Conditions definition. Thereby, according to the Feasibility Study Report provided [9], the 10 MW output PV power plant requires a DC installed capacity of 13 MW to reach the defined 10 MW AC output. In summary, based on our local and sectoral expertise and the evidence provided, it is AENOR's opinion that above design is reasonable, hence accepted by the validation team.

The photovoltaic power plant consists of 13 thin film – PV modules. Each 1 MW PV power block consist of one 1,000 KVA transformer with primary voltage level 33 kV, two inverters of 500 kVA and 11,760 CdTe modules of 85 W. The 10 MW PV power plant will include a total of 152,880 CdTe PV modules, which will be on 1,820 tables (i.e. 84 modules per table). The area of one module is 0.72 m² resulting a total of 110,073.6 m² module area to be installed.

The project activity is expected to generate 24,778 MWh annually and the electricity generated by the project activity will be delivered to DEWA grid via DEWA Substation [10]. The annual utilization hours of the project activity is 1,906 h, which was determined in the Feasibility Study Report [9] completed by the contracted third party ILF Consulting Engineers. The plant load factor is determined as 21.76% based on the above annual utilization hours. Therefore, according to the "Guidelines for the reporting and validation of plant load factors" [11], AENOR considers that the annual grid-connected electricity generation is reasonable and appropriate.

The main objective of the project activity is to generate electricity from solar radiation, thus increasing the percentage of renewable sourced power in DEWA grid and at the same time contributing to the environmental, social and economic sustainability of the country.

The combined emission factor of the DEWA Grid is 0.5152 tCO_{2e}/MWh. Emissions reductions will be achieved by the implementation of the project activity, displacing an equivalent amount of electricity that would have been supplied by the DEWA Grid in the absence of the project activity.

In the PDD section A.2 and A.4.2, technical aspects of the proposed project activity are clearly and transparently described. The description is found to be in accordance with the latest PDD guidelines and found to be complete and accurate. It is confirmed during the site visit and the evidences provided by the PP that the description provided is correct and is in line with the actual conditions on the project site.

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The project starting date it was foreseen as 27 August 2012 which is the expected date on which the signature of the contract with the equipment supplier will take place /12/. This is line with EB66, Annex 63 /13/ as this is the first financial commitment to be made by the project participants for implementation of the project activity.

The operational lifetime of the project has been determined as 25 years as per the Feasibility Study Report. Moreover, the operational lifetime is in line with other similar registered solar projects /14/15/16/ thus AENOR's validation team deems it appropriate.

The start date of the crediting period has been determined as 1 July 2013, which is consistent with the schedule for the implementation of the project activity.

The forecasted annual average of GHG emission reductions from the project in the final PDD is estimated at 12,765 tonnes of CO₂ equivalents (tCO_{2e}) during the first crediting period. The forecasted emission reduction has been verified from the ER calculations spreadsheet /22/ and it is deemed likely that the stated amount is achieved given that the underlying assumptions do not change.

The validation team has mainly checked the project design against the feasibility study /9/, map of the interconnection point /10/ and the Environmental Impact Assessment /17/.

The purpose of the project activity, type of technology used and the contribution of the project to sustainable development are described in the PDD. The information provides the reader with a clear understanding of the proposed CDM project activity, AENOR hereby confirms that the project description in the final PDD is in all respects accurate and complete with regard to CDM requirements and the evidences provided by the PPs.

However CL 1, CL2, CL 3 and CL4 were raised and successfully closed during the validation process.

3.5 Baseline methodology

3.5.1 Applicability of the selected methodology to the project activity

The PDD describes the baseline methodology, which is in conformance with the latest version of the approved small scale baseline methodology "Grid connected renewable electricity generation" (AMS-I.D version 17), available on UNFCCC web site. The applied methodology is valid from 17 Jun 11 onwards.

In addition, section B.2 of the final PDD identifies the applicability conditions of the approved methodology and states how the project activity fulfils each of these conditions.

The applicability of the selected methodology to the proposed CDM project activity has been assessed the following way:

1 & 2. This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass: (a) Supplying electricity to a national or a regional grid; or (b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.

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The proposed project activity involves a renewable energy generation unit – a solar photovoltaic (PV) power plant and the electricity generated by the project activity is supplied into the electricity grid of Dubai Emirate, operated by the Dubai Electricity and Water Authority (DEWA). This has been checked against the feasibility study /9/, the map of the interconnection point /10/ and the Environmental Impact Assessment /17/.

3. This methodology is applicable to project activities that: (a) Install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant); (b) Involve a capacity addition; (c) Involve a retrofit of (an) existing plant(s); or (d) Involve a replacement of (an) existing plant(s).

The project activity will be installed at a site where there was no renewable energy power plant operating; it is a Greenfield plant. This issue was checked during the on-site visit.

4. Hydro power plants with reservoirs that satisfy at least one of the listed conditions are eligible to apply this methodology: The project activity is implemented in an existing reservoir with no change in the volume of reservoir; The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the project emissions section, is greater than 4 W/m²; The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the project emissions section, is greater than 4 W/m².

This condition does not apply to the proposed project activity. The proposed project activity is solar PV plant, not a hydro power plant.

5. If the new unit has both renewable and non-renewable components (e.g. a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the new unit co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.

This condition does not apply to the proposed project activity. The proposed project activity has only a renewable component and the installed capacity is 13 MW (10 MW output capacity), which is within the 15 MW limit for a small-scale CDM project activity.

6. Combined heat and power (co-generation) systems are not eligible under this category.

This condition does not apply to the proposed project activity. The proposed project activity is not a co-generation system.

7. In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.

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This condition does not apply to the proposed project activity. The proposed project activity does not involve addition of renewable generation units since it is a Greenfield project.

8. In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.

This condition does not apply to the proposed project activity. The proposed project activity is neither a retrofit nor a replacement project.

An explanation of the accomplishment of the project activity with latest Guidelines on assessment of debundling for SSC Project activities [18] is shown in the PDD. According to these explanations, the project activity is not deemed to be a debundled component of a large project activity. AENOR has confirmed during the interviews with PP, consultants and the CDM database projects at United Nations' website that there are not registered small scale projects with the same project participants, in the same project category and technology/measure, registered within the two previous years and whose project boundaries are within 1 km of the proposed project boundary at the closest point. Thus, AENOR considers that the proposed project activity is not a debundled component of a large scale project activity.

AENOR has verified by desk review, on-site visit and interviews that the conditions required by the methodology are met. Thus, the PDD clearly identifies that the project activity fulfils the conditions of the applicable methodology.

In conclusion, based on the site visit, interviews with the PP and stakeholders, and relevant documents provided and mentioned above, AENOR confirms the applicability conditions of the selected methodology to the project activity.

3.5.2 Project boundary

CAR 2 was raised and successfully closed during the validation process regarding the description of the project boundary.

The methodology specifies that project boundary includes "the project power plant and all power plants connected physically to the electricity system that the CDM project power plant is connected to".

The project activity will deliver electricity to DEWA grid, thus the PPs defined appropriately the project boundary as the PV power generation plant and all power plants connected physically to DEWA grid.

The selected sources and gases within the project boundaries are justified as follows:

	Source	Gas	Included?	Justification / Explanation
Baseline	CO ₂ emissions from electricity generation in fossil fuel fired	CO ₂	Yes	Main emission source.
		CH ₄	No	Minor emission source.

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	Source	Gas	Included?	Justification / Explanation
	power plants that are displaced due to the project activity	N ₂ O	No	Minor emission source.
Project Activity	For geothermal power plants, fugitive emissions of CH ₄ and CO ₂ from non- condensable gases contained in geothermal steam	CO ₂	No	The project activity is not a geothermal power plant.
		CH ₄	No	The project activity is not a geothermal power plant.
		N ₂ O	No	The project activity is not a geothermal power plant.
	CO ₂ emissions from combustion of fossil fuels for electricity generation in solar thermal power plants and geothermal power plants	CO ₂	No	The project activity is neither a geothermal nor solar thermal power plant.
		CH ₄	No	The project activity is neither a geothermal nor solar thermal power plant.
		N ₂ O	No	The project activity is neither a geothermal nor solar thermal power plant.
	For hydro power plants, emissions of CH ₄ from the reservoir	CO ₂	No	The project activity is not a hydro power plant.
		CH ₄	No	The project activity is not a hydro power plant.
		N ₂ O	No	The project activity is not a hydro power plant.

The identified boundary and selected sources and gases are justified for the project activity. The validation of the project activity did not reveal other greenhouse gas emissions occurring within the proposed CDM project activity boundary as a result of the implementation of the proposed project activity, which are expected to contribute more than 1% of the overall expected average annual emission reduction, which are not addressed by AMS-I.D version 17.

The project boundary was assessed during the visit and subsequent interview with the PPs. Considering these sources, AENOR confirm that the project boundary is correct and meets the requirements of the selected baseline methodology.

3.5.3 Baseline identification

CAR 3 was raised and successfully closed during the validation process in relation to baseline identification. The final PDD describes the baseline methodology, which is in conformance with the approved methodology AMS-I.D version 17, for grid-connected renewable electricity generation.

Since the project activity is the installation of a new grid-connected renewable power plant/unit, the baseline scenario is the electricity delivered to the grid by the project activity that otherwise would have been generated by the operation of grid-connected power plants in the DEWA grid and by the addition of new generation sources to the grid. This definition is in accordance with AMS-I.D methodology and has been correctly applied in the final PDD.

Moreover, the applicable baseline, as per AMS-I.D is product of electrical energy baseline $EG_{BL,y}$ expressed in MWh of electricity produced by the renewable generating unit multiplied by the grid emission factor. According to the methodology AMS-I.D, the latest version of the Tool to calculate the emission factor for an electricity system has been used to calculate the grid emission factor.

It is the opinion of AENOR, that all documentation used is relevant for establishing the baseline scenario and is correctly quoted and interpreted in the final PDD. The assumptions and data used in the identification of the baseline scenario are appropriately justified, supported by evidence and can be deemed reasonable.

The approved baseline methodology has been correctly applied to identify the most reasonable baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed CDM project activity.

3.5.4 Algorithms and/or formulae used to determine emission reductions

The calculations and formulae as addressed in the approved baseline and monitoring methodology AMS-I.D version 17 have been applied. All aspects related to the direct and indirect GHG emissions as relevant to the project activity have been addressed and are presented in a transparent manner, in line with the approved methodology.

Baseline Emissions

According to the baseline methodology AMS-I.D, baseline emissions (BE_y in tCO_2) are equal to baseline emission factor (EF_{grid} in tCO_2/MWh) times the net electricity supplied to the grid (EG_y in MWh).

According to the "Tool to calculate the emission factor for an electricity system" version 02.2.1, the $EF_{CO_2,ELEC,y}$ has been calculated following six steps:

Step 1.-Identify the relevant electricity system.

The project electricity system is defined as the Dubai Emirate regional grid operated by Dubai Water and Electricity Authority Grid (DEWA). This issue has been validated and can be confirmed as correct.

AENOR has confirmed with DEWA [19] that there are not net electricity imports from other connected electricity systems, therefore, for the purpose of determining the OM emission factor, no imports have been considered in the calculation. In addition, electricity exports are not subtracted from electricity generation data in baseline calculation in accordance with the “Tool to calculate the emission factor for an electricity system”.

Step 2.- Choose whether to include off grid power plants in the project electricity system.

The option I has been chosen and grid power plants are only included in the calculation.

Step 3.- Select a method to determine the operating margin (OM)

For the calculation of the OM emission factor, the Average OM emission factor calculation method is selected. The average OM emission factor is calculated as the average emission rate of all power plants serving the grid. The validation team has verified the official and public available sources [20].

Step 4.- Calculate the operating margin emission factor according to the selected method.

It has been validated that the option of Average OM and the ex-ante option with a 3-year generation-weighted average, based on the most recent data available at the time of submission of the PDD to the DOE for validation, without requirement to monitor and recalculate the emission factor during the first crediting period, were correctly selected for the project activity. The data vintage taken is 2008-2010.

It has been validated that Average OM is calculated using option A, based on the electricity generation and a CO₂ emission factor for each power unit while the determination of the emission factor of each power unit is determined using Option A1 as the data on fuel consumption and electricity generation is available. This can be confirmed as correct. $EF_{grid,OM,y}$ is calculated as **0.5340 tCO_{2e}/MWh** in the final PDD. This has been verified to be in compliance with the methodology, the “Tool to calculate the emission factor for an electricity system” version 2.2.1 and relevant EB guidance.

The net calorific values and the emission factors of the fuels adopted were obtained from DEWA, based on the laboratory analysis for NCV values and based on the supplier information for the emission factors [20]. Default values at the lower limit of the uncertainty at a 95% confidence interval from 2006 IPCC [31] has been used in the cases that data is not available i.e. medium fuel oil, which is a conservative approach in the emission factor calculation context, hence accepted by the validation team of AENOR.

The input data have been verified and compared with the official sources and can be confirmed as correct. Mathematic operations have been verified and can be confirmed as correct.

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Step 5.- Calculate the build margin emission factor.

The sample group of power units used to calculate build margin is defined as the set of power capacity additions in the electricity system that comprise 20% of the system capacity, instead of the set of five power units that started to supply energy to the grid most recently. This option comprises the larger annual generation (8,385,027 MWh) and none of the power units that belong to the set started to supply electricity more than 10 years ago.

Moreover, for the proposed project activity, Option 1) of the applicable methodology has been chosen in terms of vintage of data, i.e. for the first crediting period the BM emission factor will be calculated ex-ante, based on the most recent information available on plants already built at the time of the PDD submission to the DOE for validation, i.e. year 2011. In addition, PP has chosen to calculate the CO₂ emission factor for each power unit is determined per tool step 4 (a), Option A1 as the data on fuel consumption and electricity generation is available. This can be confirmed as correct.

$EF_{grid,BM,y}$ is calculated as **0.4588 tCO_{2e}/MWh** in the final PDD.

Calculations have been reproduced and AENOR deems they are in compliance with the methodology, the tool to calculate the emission factor and data sources.

Step 6.-Calculate the combined margin (CM) emissions factor.

According to the "Tool to calculate the emission factor for an electricity system" the default weights: OM = 0.75 for Operating Margin and BM = 0.25 for build margin in the first crediting period for solar projects activities are adopted.

Therefore the combined baseline emission factor is determined ex-ante and will remain fixed during the first crediting period,

$$EF_{grid,CM,y} = 0.5340 \times 0.75 + 0.4588 \times 0.25 = 0.5152 \text{ tCO}_{2e}/\text{MWh}$$

Project Emissions

There are no project related emissions according to the applicable methodology.

Leakage

Since the energy generating equipment is not equipment transferred from another activity, no leakage is considered.

Emission reductions

The emission reductions generated by the Project were calculated in accordance with the baseline methodology AMS-I.D version 17 and the latest version of the "Tool to calculate the emission factor for an electricity system", as follow:

$$ER_y = BE_y - PE_y - LE_y$$

Since PE_y and LE_y are zero as explained above, $ER_y = BE_y = EG_y \times EF_{grid,CM,y}$

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According to data provided by the PP and validated by AENOR, the total claimed emission reductions are:

$$ER_y = 24,778 \text{ MWh} * 0.5152 \text{ tCO}_2/\text{MWh} = 12,765 \text{ tCO}_2$$

Due to the changes in the emissions reductions calculations and the PDD due to the CARs and CLs raised by the validation team, the amount of emissions reductions claimed in the final PDD is higher than those claimed in the PDD published for GSC. The amount is higher because the PDD published for GSC addressed a wrong annual electricity generation for the proposed project activity (15,743 MWh/year instead of 24,778 MWh/year).

The baseline methodology and the tools have been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions. The data sources are referenced. The applied values have been crosschecked by AENOR's validation team and found to be complete, plausible and conservative. Details of the calculations are presented in ER calculations spreadsheet [21] and the emission factor calculation spreadsheet [22]. Calculation input values and formulae have been verified for completeness, correctness and consistency.

AENOR confirms that all assumptions and data used by the PP are listed in the final PDD, including their references and sources. Furthermore, all documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD and all values used in the PDD are considered reasonable in the context of the proposed CDM project activity that result in a conservative estimate of emission reductions.

However, CAR 1, CAR 6 and CL 5 were raised and closed successfully during the validation.

3.6 Additionality

3.6.1 Starting date of the project activity and prior consideration of the CDM

It was foreseen the 27 August 2012 as the start date of the project activity which represents expected date of the signature of contract with the equipment supplier.

The PPs have provided to AENOR the timeline of the project activity and the evidence to support it. The main milestones of the project are shown below:

Date	Milestone
24 July 2011	Project activity announced its Prior CDM consideration of the CDM to UNFCCC secretariat [23]
24/09/2011 to 23/10/2011	Public stakeholder consultation of [24]
1 November 2011	Issuance of UAEs LoA [7]
2 August 2012	EIA Approval [28]

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Date	Milestone
27 August 2012 (Expected)	Signature of contract with the equipment supplier (starting date) /9/
Mid October 2012 (Expected)	Start of construction /9/
1 July 2013	Starting date of the Crediting Period /9/

In the opinion of the AENOR validation team, this selected starting date is in line with EB66, Annex 63 as this will be the first financial commitment made by the project participants for implementation of the project activity.

The project activity falls under the category of new project activity, since the project is a future project activity and, to date there is no real action that has been taken towards the implementation of the project activity. However, it has been validated from the interviews and implementation plan that the proponents have approached to the equipment suppliers but did not place any purchase order till date and this was further cross checked during site visit that no equipment has been installed pertaining to the project activity.

Regarding the prior consideration of the CDM and taking into account the "Guidance on the demonstration and assessment of prior consideration of the CDM" version 4 /25/, as the project starting date is after 2 August 2008 and the PDD has been submitted for global stakeholder consultation on 24 September 2011, i.e., before the estimated project starting date, hence, notification to Host Party DNA and the UNFCCC is not necessary. Therefore, guidelines on the demonstration and assessment of prior consideration of the CDM have been complied since the PDD was published for global stakeholder consultation before the project activity start date.

All evidence provided to the validation team are credible and reliable, hence in opinion of the AENOR validation team the CDM incentive was seriously considered in the decision to implement the project activity.

3.6.2 Analysis of the additionality

According to the "Guidelines on the demonstration of additionality of small-scale project activities", version 09.0 /5/, (paragraph 2 (a)(i)), the positive list of grid-connected renewable electricity generation technologies of installed capacity up to 15MW are automatically defined as additional, without further documentation of barriers. The solar technologies (photovoltaic and solar thermal electricity generation) are included in the positive list.

The proposed project is a newly built grid connected photovoltaic electricity generation project activity of installed capacity 13 MW (10 MW output capacity) and is thereby automatically defined as additional. No further documentation of barriers needs to be assessed in this report.

3.7 Monitoring Plan

3.7.1 Compliance of the monitoring plan with the approved methodology

The latest version of the PDD includes information of the monitoring plan, in section B.7.2. The monitoring plan is based on the approved monitoring methodology applied to the proposed CDM project activity, AMS-I.D version 17.

The final PDD states, the parameters to be monitored in compliance with the applicable methodology are the following:

EG_{facility, y}: Quantity of Net Electricity (MWh) generated supplied by the project plant to the grid in year y: This data shall be measured continuously and at least recording monthly. The data will be archived electronically and as paper print-outs for 2 years following the end of the crediting period. The metering equipment will be calibrated every 2 years. The accuracy class of the metering equipment will be 0.2. Measured electricity will be crosschecked with records for sold electricity to assure data consistency.

Therefore, in opinion of the AENOR team all necessary parameters required by the selected approved methodology are contained in the monitoring plan. They are clearly described and the means of monitoring described in the plan complies with the requirements of the methodology. Thus, AENOR confirms the monitoring plan is in compliance with the requirements of the applied methodology.

Subsequently CAR 7, CAR 8 and CAR 9 were raised and closed successfully during the validation.

3.7.2 Implementation of the Monitoring Plan

After the review of evidence provided by the PPs, the interviews and communication with the PPs, AENOR confirms that monitoring arrangements described in the monitoring plan are feasible within the project design and that the means considered for the implementation, including data management, quality and assurance control procedures, are sufficient to ensure that the emission reductions achieved resulting from the proposed CDM project activity can be reported ex post and verified.

Therefore, in the opinion of AENOR's validation team the PPs will be able to implement the monitoring plan.

3.8 Comments by Local Stakeholders

Stakeholders have been directly asked to comment on the project through an open meeting among local stakeholders, project participant and local authorities on 17 May 2011 [26].

A summary of the comments received and information on how due account was taken of the concerns/comments raised in the above public consultation are included in PDD.

During the on-site visit, the AENOR team held interviews with some of those local stakeholders affected by the project activity in order to learn their opinions about the implementation of the project. By means of the documents reviewed [27] and the interviews performed, AENOR considers that the summary of the

comments received during the consultation process, along with the PPs responses included in section E.2 of the PDD is complete. Also, the information in section E.3 of the PDD gathers a complete summary of how the comments received from local stakeholders were considered.

AENOR determines that the relevant local stakeholders have been invited. A summary of the comments has been received by the project participants, and these comments have been taken into account.

AENOR states that the local stakeholder consultation is adequate and accurate.

However CL 7 and CL 8 were raised and successfully closed during the validation process.

3.9 Environmental Impacts

An EIA [17] has been finalized on May 2012 and got approval by the Environmental Department of Dubai Municipality (DM) on 2 August 2012 [28], which indicates the EIA has been performed in accordance with all relevant local regulations. A comprehensive description of the project activity's environmental impacts has been described properly in Section D.1 of the PDD. According to the EIA, no significant environmental impacts are expected from the project activity.

Nevertheless, CAR 11 and CL 6 was raised and successfully closed during the validation process.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

According to Decision 3/CMP.1, the validator shall make publicly available the PDD and receive, within 30 days, comments on the validation requirements from parties, stakeholders and UNFCCC accredited NGOs and make them publicly available.

AENOR published the project documents on the CDM website (<http://unfccc.cdm.int>) on 24 September 2011 and invited comments by parties, stakeholders and non-governmental organizations.

One comment [29] submitted by Thomas Grammig, was received during this period (<https://cdm.unfccc.int/Projects/Validation/DB/N2XPSCFQ0OAK62JS1A79WLSFTDDC7X/view.html>)

During the validation process AENOR took into account the comment received and raised CAR 1, CAR 6 and CL 5 regarding the emission factor calculation. In AENOR's opinion the emission factor appearing in the final PDD has been calculated according to the CDM rules in a conservative manner, hence it is accepted by the validation team (Section 3.5.4 of this report).

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5 VALIDATION OPINION

AENOR has performed a validation of the 10MW Photovoltaic Plant in Dubai, UAE project activity. The validation process was performed on the basis of all issues and criteria of UNFCCC for CDM projects, the host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

The validation consisted of the following three phases: i) a desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) the resolution of outstanding issues and the issuance of the final validation report and opinion. In the course of the validation process 11 corrective actions and 8 clarifications were raised, all have been successfully closed.

The project participants applied the "Guidelines on the demonstration of additionality of small-scale project activities, version 09.0 and the "Guidelines on the demonstration and assessment of prior consideration of the CDM" version 04 to demonstrate the additionality of the project. In line with these tools, the PDD provides a simple cost investment analysis to determine that the project activity itself is not the baseline scenario. The latest version of the approved methodology AMS-I.D and the "Tool to calculate the emission factor for an electricity system" are also applied.

The "Guidelines on the demonstration of additionality of small-scale project activities", version 09.0 states that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity.

The review of the project design documentation and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and review of comments by parties and stakeholders have provided AENOR with sufficient evidence to validate the fulfilment of the stated criteria.

The conclusions can be summarised in detail as follows:

- The project is in line with all relevant host country criteria, the DNA of UAE and all relevant UNFCCC requirements for the CDM. The LoA from UAE is dated 1 November 2011.
- The project additionality is sufficiently justified in the PDD.
- The monitoring plan is transparent and adequate.
- The calculation of the project emission reductions is carried out in a transparent and conservative manner, so the project activity is likely to achieve the average estimated amount of emission reductions of 12,765 tCO_{2e} per year.

In our opinion, the project correctly applies and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria. The validation is based on the information made available to us and the engagement conditions detailed in this report.

The validation has been performed using a risk-based approach, as described above. The only purpose of this report is its use during the registration process as part of the CDM project cycle. Hence, AENOR cannot be held liable by any party for decisions made or not made based on the validation opinion, which goes beyond the purpose.

10/08/2012



Luis Robles Olmos
Authorized person

10/08/2012



Marcelino Pellitero Martínez
Validation Team Leader

VALIDATION REPORT

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6 CORRECTIVE ACTION REQUESTS, CLARIFICATIONS AND FORWARD ACTION REQUESTS

PROJECT ACTIVITY	10 MW Photovoltaic Plant in Dubai, UAE		
FINDING	Nº 1		
Classification	CAR <input checked="" type="checkbox"/>	CL <input type="checkbox"/>	FAR <input type="checkbox"/>
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Latest approved versions of the tools shall be used.		
PP RESPONSE #1 <i>This section shall be filled by the PP.</i>			
<i>It shall address the corrective action taken in details</i>	The "Tool to calculate the emission factor for an electricity system" has been updated to Version 02.2.1 (EB 63)		
<i>It shall provide and indentified the evidences proposed (if applicable)</i>			
DOE Assessment #1 <i>The assessment shall encompass all open issues. In case of non-closure additional corrective action and DOE assessments (#2, #3, etc.) shall be added</i>	Latest approved versions of the tools are used in the latest version of the PDD, hence CAR 1 is closed.		
PP RESPONSE #2 <i>This section shall be filled by the PP.</i>			
<i>Corrective action</i>			
<i>Evidences proposed</i>			
DOE Assessment #2			
Conclusion <i>Tick the appropriate checkbox</i>	CAR/CL CLOSED <input checked="" type="checkbox"/>	To be checked during the periodic verification <input type="checkbox"/>	

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PROJECT ACTIVITY	10 MW Photovoltaic Plant in Dubai, UAE		
FINDING	Nº 2		
Classification	CAR <input checked="" type="checkbox"/>	CL <input type="checkbox"/>	FAR <input type="checkbox"/>
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Emission source and gases included in the project boundary for the purpose of calculating project emissions and baseline emissions according to the applicable methodology shall be stated in the PDD.		
PP RESPONSE #1 <i>It shall address the corrective action taken in details</i> <i>It shall provide and indentified the evidences proposed (if applicable)</i>	<i>This section shall be filled by the PP.</i> Emission source and gases have been included under section B.3.		
DOE Assessment #1 <i>The assessment shall encompass all open issues. In case of non-closure additional corrective action and DOE assessments (#2, #3, etc.) shall be added</i>	Emission source and gases included in the project boundary have been stated in the latest PDD, hence CAR 2 is closed.		
PP RESPONSE #2 <i>Corrective action</i> <i>Evidences proposed</i>	<i>This section shall be filled by the PP.</i>		
DOE Assessment #2			
Conclusion <i>Tick the appropriate checkbox</i>	CAR/CL CLOSED <input checked="" type="checkbox"/>	To be checked during the periodic verification <input type="checkbox"/>	

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PROJECT ACTIVITY	10 MW Photovoltaic Plant in Dubai, UAE		
FINDING	Nº 3		
Classification	CAR <input checked="" type="checkbox"/>	CL <input type="checkbox"/>	FAR <input type="checkbox"/>
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Baseline development shall follow the steps required by the methodology		
PP RESPONSE #1 <i>It shall address the corrective action taken in details</i> <i>It shall provide and indentified the evidences proposed (if applicable)</i>	<i>This section shall be filled by the PP.</i> Baseline development has been revised in accordance with the steps required by the methodology.		
DOE Assessment #1 <i>The assessment shall encompass all open issues. In case of non-closure additional corrective action and DOE assessments (#2, #3, etc.) shall be added</i>	Baseline development in the final PDD follows the steps required by the methodology, hence CAR 3 is closed.		
PP RESPONSE #2 <i>Corrective action</i> <i>Evidences proposed</i>	<i>This section shall be filled by the PP.</i>		
DOE Assessment #2			
Conclusion <i>Tick the appropriate checkbox</i>	CAR/CL CLOSED <input checked="" type="checkbox"/>	To be checked during the periodic verification <input type="checkbox"/>	

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10MW Photovoltaic Plant in Dubai, UAE

PROJECT ACTIVITY	10 MW Photovoltaic Plant in Dubai, UAE		
FINDING	Nº 4		
Classification	CAR <input checked="" type="checkbox"/>	CL <input type="checkbox"/>	FAR <input type="checkbox"/>
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	<p>The proposed starting date is not stated in the appropriate date format. In addition evidence of the starting date shall be provided. The main milestones of the project shall be addressed in the PDD and their evidence provided in order to assess whether this date represents the earliest date on which the project activity begins</p>		
PP RESPONSE #1 <i>It shall address the corrective action taken in details</i> <i>It shall provide and indentified the evidences proposed (if applicable)</i>	<p><i>This section shall be filled by the PP.</i></p> <p>The expected starting date has been stated in the appropriate date format and the main milestones have been added.</p>		
DOE Assessment #1 <i>The assessment shall encompass all open issues. In case of non-closure additional corrective action and DOE assessments (#2, #3, etc.) shall be added</i>	<p>The expected starting date has been stated in the appropriate date format and the main milestones of the project have been addressed in the final PDD and appropriate evidence provided.</p> <p>CAR 4 is closed.</p>		
PP RESPONSE #2 <i>Corrective action</i> <i>Evidences proposed</i>	<p><i>This section shall be filled by the PP.</i></p>		
DOE Assessment #2			
Conclusion <i>Tick the appropriate checkbox</i>	CAR/CL CLOSED <input checked="" type="checkbox"/>	To be checked during the periodic verification <input type="checkbox"/>	

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10MW Photovoltaic Plant in Dubai, UAE

PROJECT ACTIVITY	10 MW Photovoltaic Plant in Dubai, UAE		
FINDING	Nº 5		
Classification	CAR <input checked="" type="checkbox"/>	CL <input type="checkbox"/>	FAR <input type="checkbox"/>
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	The Attachment A to Appendix B is not applied appropriately.		
PP RESPONSE #1 <i>This section shall be filled by the PP.</i>			
<i>It shall address the corrective action taken in details</i>	The latest version of the "Guidelines on the demonstration of additionality of small-scale project activities" (version 09.0) previously known as "Attachment A of Appendix B to simplified modalities and procedures of small scale CDM project activities" has been applied and section B.5 has been revised accordingly.		
<i>It shall provide and indentified the evidences proposed (if applicable)</i>			
DOE Assessment #1 <i>The assessment shall encompass all open issues. In case of non-closure additional corrective action and DOE assessments (#2, #3, etc.) shall be added</i>	The latest version of the "Guidelines on the demonstration of additionality of small-scale project activities" (version 09.0) previously known as "Attachment A of Appendix B to simplified modalities and procedures of small scale CDM project activities" has been correctly applied in the final PDD. Hence, CAR 5 is closed.		
PP RESPONSE #2 <i>This section shall be filled by the PP.</i>			
<i>Corrective action</i>			
<i>Evidences proposed</i>			
DOE Assessment #2			
Conclusion <i>Tick the appropriate checkbox</i>	CAR/CL CLOSED <input checked="" type="checkbox"/>	To be checked during the periodic verification <input type="checkbox"/>	

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PROJECT ACTIVITY	10 MW Photovoltaic Plant in Dubai, UAE		
FINDING	Nº 6		
Classification	CAR <input checked="" type="checkbox"/>	CL <input type="checkbox"/>	FAR <input type="checkbox"/>
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	The list of parameters in chapter B.6.2 shall be completed in accordance with the applied methodology and tool.		
PP RESPONSE #1 <i>It shall address the corrective action taken in details</i> <i>It shall provide and indentified the evidences proposed (if applicable)</i>	<i>This section shall be filled by the PP.</i> The list of parameters under section B.6.2 has been completed.		
DOE Assessment #1 <i>The assessment shall encompass all open issues. In case of non-closure additional corrective action and DOE assessments (#2, #3, etc.) shall be added</i>	The list of parameters in chapter B.6.2 in the final PDD is complete and in accordance with the applied methodology and tool. CAR 6 is closed.		
PP RESPONSE #2 <i>Corrective action</i> <i>Evidences proposed</i>	<i>This section shall be filled by the PP.</i>		
DOE Assessment #2			
Conclusion <i>Tick the appropriate checkbox</i>	CAR/CL CLOSED <input checked="" type="checkbox"/>	To be checked during the periodic verification <input type="checkbox"/>	

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PROJECT ACTIVITY	10 MW Photovoltaic Plant in Dubai, UAE		
FINDING	Nº 7		
Classification	CAR <input checked="" type="checkbox"/>	CL <input type="checkbox"/>	FAR <input type="checkbox"/>
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Monitoring plan is not documented in a complete and transparent manner in the PDD. Installation, accuracy and calibration of meters as well as QA/QC procedures and Data record and management system shall be further explained.		
PP RESPONSE #1 <i>It shall address the corrective action taken in details</i> <i>It shall provide and indentified the evidences proposed (if applicable)</i>	<i>This section shall be filled by the PP.</i> Monitoring plan has been revised, installation, accuracy and calibration of meters has been included.		
DOE Assessment #1 <i>The assessment shall encompass all open issues. In case of non-closure additional corrective action and DOE assessments (#2, #3, etc.) shall be added</i>	The monitoring plan is documented in a complete and transparent manner in the final PDD. CAR 7 is closed.		
PP RESPONSE #2 <i>Corrective action</i> <i>Evidences proposed</i>	<i>This section shall be filled by the PP.</i>		
DOE Assessment #2			
Conclusion <i>Tick the appropriate checkbox</i>	CAR/CL CLOSED <input checked="" type="checkbox"/>	To be checked during the periodic verification <input type="checkbox"/>	

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10MW Photovoltaic Plant in Dubai, UAE

PROJECT ACTIVITY	10 MW Photovoltaic Plant in Dubai, UAE		
FINDING	Nº 8		
Classification	CAR <input checked="" type="checkbox"/>	CL <input type="checkbox"/>	FAR <input type="checkbox"/>
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	It shall be clarified the use of $EG_{BL,y}$ in monitoring activities, as its identification is not correct according to methodology, but also its QA/QC procedures shall be in compliance with the applicable methodology.		
PP RESPONSE #1 <i>It shall address the corrective action taken in details</i> <i>It shall provide and indentified the evidences proposed (if applicable)</i>	<i>This section shall be filled by the PP.</i> $EG_{BL,y}$ has been revised according to the methodology and QA/QC procedures amended.		
DOE Assessment #1 <i>The assessment shall encompass all open issues. In case of non-closure additional corrective action and DOE assessments (#2, #3, etc.) shall be added</i>	$EG_{BL,y}$ has been substituted by $EG_{facility,y}$, source of data is consistent with the measurement methods and its QA/QC procedures are in compliance with the applicable methodology. CAR 8 is closed.		
PP RESPONSE #2 <i>Corrective action</i> <i>Evidences proposed</i>	<i>This section shall be filled by the PP.</i>		
DOE Assessment #2			
Conclusion <i>Tick the appropriate checkbox</i>	CAR/CL CLOSED <input checked="" type="checkbox"/>	To be checked during the periodic verification <input type="checkbox"/>	

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10MW Photovoltaic Plant in Dubai, UAE

PROJECT ACTIVITY	10 MW Photovoltaic Plant in Dubai, UAE		
FINDING	Nº 9		
Classification	CAR <input checked="" type="checkbox"/>	CL <input type="checkbox"/>	FAR <input type="checkbox"/>
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	EG _{gross,y} and EC _y value of data and QA/QC procedures shall be in compliance with the applicable methodology.		
PP RESPONSE #1 <i>It shall address the corrective action taken in details</i> <i>It shall provide and indentified the evidences proposed (if applicable)</i>	<i>This section shall be filled by the PP.</i> The project will use a bi-directional meter therefore EG _{gross,y} and EC _y have been removed from the final PDD.		
DOE Assessment #1 <i>The assessment shall encompass all open issues. In case of non-closure additional corrective action and DOE assessments (#2, #3, etc.) shall be added</i>	Since the project will use a bi-directional meter, above parameters have been deleted from the latest version of the PDD, hence CAR 9 is closed.		
PP RESPONSE #2 <i>Corrective action</i> <i>Evidences proposed</i>	<i>This section shall be filled by the PP.</i>		
DOE Assessment #2			
Conclusion <i>Tick the appropriate checkbox</i>	CAR/CL CLOSED <input checked="" type="checkbox"/>	To be checked during the periodic verification <input type="checkbox"/>	

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10MW Photovoltaic Plant in Dubai, UAE

PROJECT ACTIVITY	10 MW Photovoltaic Plant in Dubai, UAE		
FINDING	N° 10		
Classification	CAR <input checked="" type="checkbox"/>	CL <input type="checkbox"/>	FAR <input type="checkbox"/>
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Information whether Energy Changes Projektentwicklung is considered a project participant shall provided in the PDD.		
PP RESPONSE #1 <i>It shall address the corrective action taken in details</i> <i>It shall provide and indentified the evidences proposed (if applicable)</i>	<i>This section shall be filled by the PP.</i> Clarification has been provided in section B.8.		
DOE Assessment #1 <i>The assessment shall encompass all open issues. In case of non-closure additional corrective action and DOE assessments (#2, #3, etc.) shall be added</i>	Section B.8 of the latest PDD has been updated appropriately, thus CAR 10 is closed.		
PP RESPONSE #2 <i>Corrective action</i> <i>Evidences proposed</i>	<i>This section shall be filled by the PP.</i>		
DOE Assessment #2			
Conclusion <i>Tick the appropriate checkbox</i>	CAR/CL CLOSED <input checked="" type="checkbox"/>	To be checked during the periodic verification <input type="checkbox"/>	

VALIDATION REPORT

10MW Photovoltaic Plant in Dubai, UAE

PROJECT ACTIVITY	10 MW Photovoltaic Plant in Dubai, UAE		
FINDING	N° 11		
Classification	CAR <input checked="" type="checkbox"/>	CL <input type="checkbox"/>	FAR <input type="checkbox"/>
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Environmental impacts shall be further described in the PDD.		
PP RESPONSE #1 <i>This section shall be filled by the PP.</i>			
<i>It shall address the corrective action taken in details</i>	Section D of the final PDD has been revised to include the description of the environmental impacts and mitigation measures to be adopted in accordance with the EIA.		
<i>It shall provide and indentified the evidences proposed (if applicable)</i>			
DOE Assessment #1 <i>The assessment shall encompass all open issues. In case of non-closure additional corrective action and DOE assessments (#2, #3, etc.) shall be added</i>	Environmental impacts have been sufficiently described in the PDD. CAR 11 is closed		
PP RESPONSE #2 <i>This section shall be filled by the PP.</i>			
<i>Corrective action</i>			
<i>Evidences proposed</i>			
DOE Assessment #2			
Conclusion <i>Tick the appropriate checkbox</i>	CAR/CL CLOSED <input checked="" type="checkbox"/>	To be checked during the periodic verification <input type="checkbox"/>	

VALIDATION REPORT

10MW Photovoltaic Plant in Dubai, UAE

PROJECT ACTIVITY	10 MW Photovoltaic Plant in Dubai, UAE		
FINDING	Nº 1		
Classification	CAR <input type="checkbox"/>	CL <input checked="" type="checkbox"/>	FAR <input type="checkbox"/>
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Evidence of the current situation of the implementation of the project activity shall be provided to the validation team. For example: feasibility study, technical report, EIA, etc.		
PP RESPONSE #1 <i>It shall address the corrective action taken in details</i>	<i>This section shall be filled by the PP.</i> Evidence has been provided to the DOE.		
<i>It shall provide and indentified the evidences proposed (if applicable)</i>	EIA approval Feasibility Study Land assignment for the solar park Maps interconnection point		
DOE Assessment #1 <i>The assessment shall encompass all open issues. In case of non-closure additional corrective action and DOE assessments (#2, #3, etc.) shall be added</i>	Appropriate evidence has been provided. CL 1 is closed.		
PP RESPONSE #2 <i>Corrective action</i>	<i>This section shall be filled by the PP.</i>		
<i>Evidences proposed</i>			
DOE Assessment #2			
Conclusion <i>Tick the appropriate checkbox</i>	CAR/CL CLOSED <input checked="" type="checkbox"/>	To be checked during the periodic verification <input type="checkbox"/>	

VALIDATION REPORT

10MW Photovoltaic Plant in Dubai, UAE

PROJECT ACTIVITY	10 MW Photovoltaic Plant in Dubai, UAE		
FINDING	Nº 2		
Classification	CAR <input type="checkbox"/>	CL <input checked="" type="checkbox"/>	FAR <input type="checkbox"/>
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Evidence to justify the PP can implement the project activity (i.e. ownership, licenses, and contracts) shall be provided to the validation team.		
PP RESPONSE #1 <i>It shall address the corrective action taken in details</i>	<i>This section shall be filled by the PP.</i> Evidence has been provided to the DOE.		
<i>It shall provide and identified the evidences proposed (if applicable)</i>	Land assignment for the solar park.pdf		
DOE Assessment #1 <i>The assessment shall encompass all open issues. In case of non-closure additional corrective action and DOE assessments (#2, #3, etc.) shall be added</i>	Appropriate evidence has been provided. CL 2 is closed.		
PP RESPONSE #2 <i>Corrective action</i>	<i>This section shall be filled by the PP.</i>		
<i>Evidences proposed</i>			
DOE Assessment #2			
Conclusion <i>Tick the appropriate checkbox</i>	CAR/CL CLOSED <input checked="" type="checkbox"/>	To be checked during the periodic verification <input type="checkbox"/>	

VALIDATION REPORT

10MW Photovoltaic Plant in Dubai, UAE

PROJECT ACTIVITY	10 MW Photovoltaic Plant in Dubai, UAE		
FINDING	Nº 3		
Classification	CAR <input type="checkbox"/>	CL <input checked="" type="checkbox"/>	FAR <input type="checkbox"/>
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	The interconnection point of the project activity shall be clarified and evidences shall be provided to the validation team.		
PP RESPONSE #1 <i>It shall address the corrective action taken in details</i>	<i>This section shall be filled by the PP.</i> Maps have been provided to the DOE.		
<i>It shall provide and indentified the evidences proposed (if applicable)</i>	maps interconnection point.pdf		
DOE Assessment #1 <i>The assessment shall encompass all open issues. In case of non-closure additional corrective action and DOE assessments (#2, #3, etc.) shall be added</i>	Appropriate evidence has been provided. CL 3 is closed.		
PP RESPONSE #2 <i>Corrective action</i>	<i>This section shall be filled by the PP.</i>		
<i>Evidences proposed</i>			
DOE Assessment #2			
Conclusion <i>Tick the appropriate checkbox</i>	CAR/CL CLOSED <input checked="" type="checkbox"/>	To be checked during the periodic verification <input type="checkbox"/>	

VALIDATION REPORT

10MW Photovoltaic Plant in Dubai, UAE

PROJECT ACTIVITY	10 MW Photovoltaic Plant in Dubai, UAE		
FINDING	Nº 4		
Classification	CAR <input type="checkbox"/>	CL <input checked="" type="checkbox"/>	FAR <input type="checkbox"/>
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Schedule for the implementation of the project activity shall be provided to the validation team.		
PP RESPONSE #1 <i>It shall address the corrective action taken in details</i> <i>It shall provide and indentified the evidences proposed (if applicable)</i>	<i>This section shall be filled by the PP.</i> Key milestones have been included in the PDD in section C.1.1.		
DOE Assessment #1 <i>The assessment shall encompass all open issues. In case of non-closure additional corrective action and DOE assessments (#2, #3, etc.) shall be added</i>	Appropriate evidence has been provided. CL 4 is closed.		
PP RESPONSE #2 <i>Corrective action</i> <i>Evidences proposed</i>	<i>This section shall be filled by the PP.</i>		
DOE Assessment #2			
Conclusion <i>Tick the appropriate checkbox</i>	CAR/CL CLOSED <input checked="" type="checkbox"/>	To be checked during the periodic verification <input type="checkbox"/>	

VALIDATION REPORT

10MW Photovoltaic Plant in Dubai, UAE

PROJECT ACTIVITY	10 MW Photovoltaic Plant in Dubai, UAE		
FINDING	Nº 5		
Classification	CAR <input type="checkbox"/>	CL <input checked="" type="checkbox"/>	FAR <input type="checkbox"/>
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Evidence and source of data used in the spreadsheets shall be provided to the validation team.		
PP RESPONSE #1 <i>It shall address the corrective action taken in details</i>	<i>This section shall be filled by the PP.</i> Evidence has been provided to the DOE.		
<i>It shall provide and identified the evidences proposed (if applicable)</i>	Records from DEWA		
DOE Assessment #1 <i>The assessment shall encompass all open issues. In case of non-closure additional corrective action and DOE assessments (#2, #3, etc.) shall be added</i>	Appropriate evidence has been provided. CL 5 is closed.		
PP RESPONSE #2 <i>Corrective action</i>	<i>This section shall be filled by the PP.</i>		
<i>Evidences proposed</i>			
DOE Assessment #2			
Conclusion <i>Tick the appropriate checkbox</i>	CAR/CL CLOSED <input checked="" type="checkbox"/>	To be checked during the periodic verification <input type="checkbox"/>	

VALIDATION REPORT

10MW Photovoltaic Plant in Dubai, UAE

PROJECT ACTIVITY	10 MW Photovoltaic Plant in Dubai, UAE		
FINDING	Nº 6		
Classification	CAR <input type="checkbox"/>	CL <input checked="" type="checkbox"/>	FAR <input type="checkbox"/>
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Clarification and evidence about the steps followed in order to get the EIA approval shall be provided.		
PP RESPONSE #1 <i>It shall address the corrective action taken in details</i>	<i>This section shall be filled by the PP.</i> Evidence has been provided to the DOE.		
<i>It shall provide and indentified the evidences proposed (if applicable)</i>	EIA approval		
DOE Assessment #1 <i>The assessment shall encompass all open issues. In case of non-closure additional corrective action and DOE assessments (#2, #3, etc.) shall be added</i>	Reliable evidence has been provided to the validation team, hence CL 6 is closed.		
PP RESPONSE #2 <i>Corrective action</i>	<i>This section shall be filled by the PP.</i>		
<i>Evidences proposed</i>			
DOE Assessment #2			
Conclusion <i>Tick the appropriate checkbox</i>	CAR/CL CLOSED <input checked="" type="checkbox"/>	To be checked during the periodic verification <input type="checkbox"/>	

VALIDATION REPORT

10MW Photovoltaic Plant in Dubai, UAE

PROJECT ACTIVITY	10 MW Photovoltaic Plant in Dubai, UAE		
FINDING	Nº 7		
Classification	CAR <input type="checkbox"/>	CL <input checked="" type="checkbox"/>	FAR <input type="checkbox"/>
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Evidence of the stakeholder's consultation has to be provided to the validation team		
PP RESPONSE #1 <i>It shall address the corrective action taken in details</i>	<i>This section shall be filled by the PP.</i> Evidence has been provided to the DOE.		
<i>It shall provide and identified the evidences proposed (if applicable)</i>	Stakeholder consultation minutes		
DOE Assessment #1 <i>The assessment shall encompass all open issues. In case of non-closure additional corrective action and DOE assessments (#2, #3, etc.) shall be added</i>	Reliable evidence has been provided to the validation team, hence CL 7 is closed.		
PP RESPONSE #2 <i>Corrective action</i>	<i>This section shall be filled by the PP.</i>		
<i>Evidences proposed</i>			
DOE Assessment #2			
Conclusion <i>Tick the appropriate checkbox</i>	CAR/CL CLOSED <input checked="" type="checkbox"/>	To be checked during the periodic verification <input type="checkbox"/>	

VALIDATION REPORT

10MW Photovoltaic Plant in Dubai, UAE

PROJECT ACTIVITY	10 MW Photovoltaic Plant in Dubai, UAE		
FINDING	Nº 8		
Classification	CAR <input type="checkbox"/>	CL <input checked="" type="checkbox"/>	FAR <input type="checkbox"/>
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Evidence of the media used has to be provided to the validation team.		
PP RESPONSE #1 <i>It shall address the corrective action taken in details</i>	<i>This section shall be filled by the PP.</i> Evidence has been provided to the DOE.		
<i>It shall provide and indentified the evidences proposed (if applicable)</i>	Media announcement		
DOE Assessment #1 <i>The assessment shall encompass all open issues. In case of non-closure additional corrective action and DOE assessments (#2, #3, etc.) shall be added</i>	Reliable evidence has been provided to the validation team, hence CL 8 is closed.		
PP RESPONSE #2 <i>Corrective action</i>	<i>This section shall be filled by the PP.</i>		
<i>Evidences proposed</i>			
DOE Assessment #2			
Conclusion <i>Tick the appropriate checkbox</i>	CAR/CL CLOSED <input checked="" type="checkbox"/>	To be checked during the periodic verification <input type="checkbox"/>	

VALIDATION REPORT
10MW Photovoltaic Plant in Dubai, UAE

7 REFERENCES

Ref	Document Name	Date	Author/Competent Authority
1	Approved methodology AMS-I.D version 17	17/06/2011	CDM – Executive Board
2	PDD 10 MW Photovoltaic Plant in Dubai, UAE version 1	22/09/2011	Project Proponents
3	PDD 10 MW Photovoltaic Plant in Dubai, UAE version 2	03/08/2012	Project Proponents
4	Tool to calculate the emission factor of the electricity system version 02.2.1	September 2011	CDM – Executive Board
5	Guidelines on the demonstration of additionality of small-scale project activities, version 09.0	20/07/2012	CDM – Executive Board
6	CDM Validation and Verification Manual version 01.2	July 2010	CDM – Executive Board
7	Letter of Approval of the project activity	01/11/2011	Environment Agency - Abu Dhabi
8	IE-DTC-039		AENOR
9	Feasibility Study	07/05/12	ILF Consulting Engineers
10	Map of the interconnection point		DEWA
11	Guidelines for the reporting and validation of plant load factors version 01		CDM – Executive Board
12	Implementation plan of the project activity		Project Proponents
13	Glossary of the CDM terms version 6	02/03/2012	CDM – Executive Board
14	Project 2444 : ADFEC 10 MW Solar Power Plant.		CDM – Executive Board
15	Project 6149 : Solar PV power project at Bikaner, India		CDM – Executive Board
16	Project 5854 : Ningxia Shizuishan 10MW PV (Photovoltaic) Plant Project		CDM – Executive Board
17	Environmental Impact Assessment	May 2012	Dome HSE Consulting
18	Appendix C of the Simplified Modalities and Procedures for Small-Scale CDM project activities. Determining the occurrence of debundling		CDM – Executive Board
19	Email from DEWA stating that there are not imports in DEWA grid during the period 2008-2010	25/02/2012	DEWA

VALIDATION REPORT

10MW Photovoltaic Plant in Dubai, UAE

Ref	Document Name	Date	Author/Competent Authority
20	Official Data for Grid Emission factor Calculation.	2008,2009,2010	DEWA
21	Spreadsheet for the ERs calculation	2012	Project Proponents
22	EF calculation Spreadsheet	2011	Project Proponent
23	Prior CDM consideration of the CDM to UNFCCC secretariat	24/07/2011	CDM – Executive Board
24	Publication of the PDD for global stakeholder consultation	24/09/2011	CDM – Executive Board
25	Guidelines on the demonstration and assessment of prior consideration of the CDM version 04	15/07/2011	CDM – Executive Board
26	Stakeholders meeting announcement	03/05/2011	Gulf News Newspaper
27	Stakeholders minutes	17/05/2011	Project Proponent
28	Environmental Impact Assessment Approval	02/08/2012	Environmental Department of Dubai Municipality
29	Comments submitted by Thomas Grammig	17/10/2011	Thomas Grammig/AENOR
30	Email from CDM team clarifying the when a new publication of PDD for GSC is required	25/11/2011	AENOR
31	2006 IPCC Guidelines for National Greenhouse Gas Inventories	2006	IPCC

ANNEX 1: CDM VALIDATION PROTOCOL

VALIDATION PROTOCOL

PROJECT: "10MW PHOTOVOLTAIC PLANT IN DUBAI, UAE"

PROJECT PARTICIPANT:

DUBAI ELECTRICITY AND WATER AUTHORITY (DEWA)

DUBAI CARBON CENTRE OF EXCELLENCE

Validation Type	
<input checked="" type="checkbox"/> Validation of a Project Activity	
Validation Team: Marcelino Pellitero Martínez. Chief Validator Luis Robles Olmos. Validator Fernando Segarra Orero. Validator Alfonso Medrano. Technical Reviewer	
Version of this Validation Protocol: 02	Date: 07/08/2012

VALIDATION PROTOCOL
10MW Photovoltaic Plant in Dubai, UAE

CHECKLIST TOPIC / QUESTION	MoV/Ref.*	COMMENTS	Draft Conclusion	Final Conclusion
A. GENERAL DESCRIPTION OF PROJECT ACTIVITY				
A.1. Approval				
A.1.1 Have all the Parties involved in the project activity provided a written Letter of Approval of the project activity?	DR	Yes, LoA has been provided.	OK	OK
A.1.2 Do the Letters of Approval confirm that: <ul style="list-style-type: none"> The Party is a Party to the Kyoto Protocol The participation is voluntary The CDM project activity contribute to the sustainable development (host Party) The title of the project activity is precise and coincides with the title included in the PDD? 	DR	LoA confirmed that parties are a Party to the Kyoto Protocol, the participation is voluntary, the CDM project activity contribute to the sustainable development (host Party) and the title of the project activity is precise and coincides with the title included in the PDD	OK	OK
A.1.3 Has the Letter of Approval be obtained from the project participants or directly from the DNA? In case that it has been obtained from the project participant, how has been assessed its authenticity?	DR	LoA has been provided from PPs	OK	OK
A.1.4. If either LoA contains additional specification or conditions of the project activity, then has the request for registration been based on the documents specified in the LoA?	DR	No additional specifications appears in LoA	OK	OK

VALIDATION PROTOCOL
10MW Photovoltaic Plant in Dubai, UAE

A.1.5. If the LoA references a specific version of the Validation Report or PDD and this version cannot be submitted, then has either of the following been submitted? a) a statement indicating final LoA has not been received, or b) an updated Validation Report/ PDD		No specific version appears in LoA.	OK	OK
A.2. Project participants				
A.2.1. Is the form of required for the indication of project participants correctly applied in the PDD?	DR	The form of required for the indication of project participants is correctly applied in the PDD.	OK	OK
A.2.2. Is the participation of all project participants approved by a Party to the Kyoto Protocol?	DR	The participation of all project participants approved by a Party to the Kyoto Protocol	OK	OK
A.2.3. Is all information on participants / Parties provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?	DR	All information on participants / Parties provided is consistency with details provided by further chapters of the PDD (in particular annex 1).	OK	OK
A.2.4. Are any other project participants approved but not listed in the PDD?	DR	No, they are not.	OK	OK
A.3. Project Design Document				
A.3.1. Does the used project title clearly enable to identify the unique CDM project activity? Is it consistent in all section of the PDD and in all documents?	DR	Yes, the project title is clear and consistent in all sections of the PDD.	OK	OK
A.3.2. Is there any indication concerning the version number and the date of the version? (<i>Note: PDDs older than 6 months are not acceptable</i>)	DR	Yes, there is an indication of the version number and the date of the PDD.	OK	OK

VALIDATION PROTOCOL

10MW Photovoltaic Plant in Dubai, UAE

A.3.3. Is this consistent with the time line of the project's history?	DR	Yes. The PDD is consistent with the time of the project's history.	OK	OK
A.3.4. Is the PDD prepared in accordance with the latest template and requirements from the CDM Executive Board?	DR	The PDD is prepared in accordance with the last CDM-SSC-PDD template.	OK	OK
A.3.5. Has the PDD published for Global Stakeholder Consultation (GSC) in UNFCCC website?	DR	Yes, the PDD was made publicly available for Global Stakeholder Consultation (GSC) in the UNFCCC website on 24 September 2011.	OK	OK
A.3.6. Have there been any comments during the GSC process?	DR	The following comments were received during the GSC process: <i>"The published PDD does not contain Annex 3 with the DEWA grid EF calculation. The value used is quite different from the grid EF for the Abu Dhabi grid and I would like to study why this is so. If possible, I would appreciate if the DOE could send me the Annex 3 spreadsheets"</i>	OK	OK
A.3.7. Have them correctly addressed by the validation team?	DR	Yes, they have been correctly addressed. The DOE contacted the stakeholder in order to clarify the comment.	OK	OK
A.4. Description of the project activity				
The PDD (section A.2) shall contain a clear description of the project activity that provides the reader with a clear understanding of the precise nature of the project activity.				
A.4.1. Is the description delivering a transparent overview of the project activities? Is the description of the proposed CDM project activity as contained in the PDD sufficiently covers all relevant elements, is accurate and that it provides the reader with a clear understanding of the nature of the proposed CDM project activity?	DR	Yes, the description gives a good overview. The description of the project activity covers all relevant elements.	OK	OK

VALIDATION PROTOCOL
10MW Photovoltaic Plant in Dubai, UAE

A.4.2. What proofs are available demonstrating that the project description is in compliance with the actual situation or planning?	DR	<p>A map of the project activity has been provided during the on-site visit.</p> <p>CL 1: Evidence of the current situation of the implementation of the project activity shall be provided to the validation team. For example: feasibility study, technical report, EIA, etc.</p> <p>Reliable evidence of the proposed implementation plan of the project activity has been to the validation team.</p> <p>CL 1 is closed.</p>	CL 1	OK
A.4.3. Is the information provided by these proofs consistent with the information provided by the PDD?	DR	Yes, the proposed implementation plan is consistent with the information included in the PDD.	CL 1	OK
A.4.4. Has the validation team conducted a physical site inspection to confirm the description of the PDD? If not, justify.	DR	Yes, the validation team has conducted an on-site visit to the project activity on 24 October 2011.	OK	OK
A.4.5. If the proposed CDM project activity involves the alteration of an existing installation or process, does the project description clearly state the differences resulting from the project activity compared to the pre-project situation?	DR	The project activity does not involve the alteration of an existing installation.	OK	OK
A.4.6. In the case of greenfield project activity, is the project design described sufficiently by means of specifications, drawings and manuals?	DR	Yes. The project is described sufficiently in the PDD.	CL 1	OK

VALIDATION PROTOCOL
10MW Photovoltaic Plant in Dubai, UAE

A.4.7. Does the PDD explain how the proposed project activity reduces greenhouse gas emissions (i.e. what type of technology is being employed, what measures are undertaken as part of the project activity, etc);	DR	Yes, the PDD describes correctly how the proposed project activity reduces greenhouse gas emissions.	OK	OK
A.5. Technical description of the project activity				
The PDD (section A.4) shall contain a clear description of the project activity that provides the reader a clear understanding of the technical aspects of its implementation.				
<i>A.5.1. Location of the project activity</i>				
A.5.1.1. Does the information provided on the location of the project activity allow for a clear identification of the site(s)? Are the latitude and longitude on the site indicated (decimal points)?	DR	Yes, the description of the location of the project activity is clear in section A.4.1.4 of the PDD. The latitude and longitude coordinates for the power house and intake are correctly indicated in decimal points. The coordinates were verified on-site by the validation team.	OK	OK
A.5.1.2. How is it ensured and/or demonstrated that the project proponents can implement the project at this site (ownership, licenses, contracts etc.)?	DR	CL 2: Evidence to justify the PP can implement the project activity (i.e. ownership, licenses, and contracts) shall be provided to the validation team. Land assignment for the solar park has been provided to the validation team, which is considered reliable evidence. CL 2 is closed.	CL 2	OK
<i>A.5.2. Category of the project activity</i>				
A.5.2.1. Does the project qualify as a small scale CDM project activity as defined in paragraph 6 (c) of decision 3/CMP.1 on the modalities and procedures for the CDM?	DR	Yes, the installed capacity of the project is 13 MW (10 MW output). Therefore, it qualifies as a small scale CDM project activity.	OK	OK

VALIDATION PROTOCOL

10MW Photovoltaic Plant in Dubai, UAE

A.5.2.2. To which category(ies) does the project activity belonging to? Is this category correctly identified and indicated?	DR	The project belongs to: Type I: Renewable Energy Projects Category D: Renewable Electricity Generation for System. The category of the project activity has been correctly identified and indicated in the PDD.	OK	OK
A.5.2.3. Does proposed project activity confirm to one of the project categories defined for small scale CDM project activities?	DR	Yes, the project belongs to category I D.	OK	OK
A.5.2.4. In the case of a small scale project activity, is it justified that it is not a debundled component of a larger project activity?	DR	The PDD describes in section A.4.5 that proposed project is not a debundled project. This fact has been validated by the AENOR team based on maps provided by PPs and on site visit.	OK	OK
A.5.2.5. In case of small scale project activities, is the estimate of emissions reductions increasing during the crediting period? In affirmative case, have project participants demonstrated in the CDM-SSC-PDD that the project activity characteristics are defined in a way that precludes project activities to go beyond the limits for SSC Project activities (as stipulated in paragraph 3 of the General Guidelines to SSC CDM methodologies)?		No, the projected emission reductions are considered constant through the crediting period.	OK	OK
<i>A.5.3. Technology to be employed by the project activity</i>				

VALIDATION PROTOCOL
10MW Photovoltaic Plant in Dubai, UAE

A.5.3.1. Does the description of the technology to be applied provide sufficient and transparent input/information to evaluate its impact on the greenhouse gas balance? And, is the explanation how the project will reduce greenhouse gas emission transparent and suitable?	DR	<p>The project activity is PV power plant with an installed of 13 MW (10 MW output) and expected electricity per year of 24.778 GWh.</p> <p>CL 3: The interconnection point of the project activity shall be clarified and evidences shall be provided to the validation team.</p> <p>Interconnection point map has been provided to the validation team, which is considered reliable evidence.</p> <p>CL 3 is closed.</p> <p>The description of the technology in the final PDD provides sufficient and transparent input/information to evaluate its impact on the greenhouse gas balance and suitable evidence has been provided</p>	CL 1, CL 3	OK
A.5.3.2. Does the project require extensive initial training and maintenance efforts in order to be carried out as scheduled during the project period? If so, does the project make provisions for meeting training and maintenance needs?	DR	<p>No, the project is being implemented by Dubai Electricity and Water Authority (DEWA) which has experience in power generation, transmission and distribution in the Emirate of Dubai.</p>	OK	OK
A.5.3.3. Is a schedule available for the implementation of the project and are there any risks for delays? Is the schedule consistent with the starting date of the crediting period?	DR	<p>CL 4: Schedule for the implementation of the project activity shall be provided to the validation team.</p> <p>Key milestones have been included in the PDD in section C.1.1 and evidence provided.</p> <p>CL 4 is closed.</p> <p>The schedule for the implementation of the project is consistent with the starting date of the crediting period.</p>	CL 4	OK
<i>A.5.4. Estimated amount of emission reductions over the chosen crediting period</i>				
A.5.4.1. Is the form required for the indication of projected emission reductions correctly applied?	DR	<p>Yes, the form for the indication of the projected emission reductions is correctly applied.</p>	OK	OK

VALIDATION PROTOCOL
10MW Photovoltaic Plant in Dubai, UAE

A.5.4.2. Are the figures provided consistent with other data presented in the PDD?	DR	Yes, the figures provided are consistent.	OK	OK
<i>A.5.5. Public funding of the project activity</i>				
A.5.5.1. In case of public funding from Annex I Parties is it confirmed that such funding does not result in a diversion of official development assistance?	DR	The project activity will not receive any public funding from Parties included in Annex I.	OK	OK
A.5.5.2. Is all information provided consistent with the details given in remaining chapters of the PDD (in particular annex 2)	DR	Yes, it is consistent.	OK	OK
B. BASELINE AND MONITORING METHODOLOGY				
B.1. Title and reference of the approved baseline and monitoring methodology				
B.1.1. Are reference number, version number, and title of the approved baseline and monitoring methodology clearly indicated?	DR	The applied methodology is AMS I.D. "Grid Connected Renewable Energy Generation", Version 17	OK	OK
B.1.2. Is the applied version the most recent one and / or is this version still applicable?	DR	Yes, the most recent version is applied.	OK	OK

VALIDATION PROTOCOL
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B.1.3. Does the PDD refer to the corresponding tools with their latest approved versions?	DR	<p>No. the PDD refers to the version 2.2.0 of the Tool to calculate the emission factor for an electricity system.</p> <p>CAR 1.- Latest approved versions of the tools shall be used.</p> <p>Latest approved version of the tool is used in the latest version of the PDD.</p> <p>CAR 1 is closed.</p>	CAR 1	OK
B.1.4. Have any sources of greenhouse gas emissions been identified by the DOE ,within the project boundary following project implementation, which are expected to contribute more than 1% of the overall expected average annual emissions reductions, and which are not addressed by the applied methodology?	DR	No they have not been identified.	OK	OK
B.2. Applicability of the selected methodology to the project activity				
B.2.1. Are the chosen tools considered applicable in accordance with the design of the project and the provisions of the applied methodology?	DR	Yes, latest approved version of the “Tool to calculate the emission factor for an electricity system” is used in the latest version of the PDD.	CAR 1	OK
B.2.2. Is the choice of the methodology correctly justified by the PDD and is the project in conformance with all applicability criteria of the applied methodology?	DR	Yes, applicability criteria of the applied methodology are correctly justified.	OK	OK

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B.2.3 Has been applied the specific guidance provided by the CDM Executive Board in respect to the approved methodology?	DR	Yes, the specific guidance provided by the CDM Executive Board in respect to the approved methodology has been applied.	OK	OK								
Fill in the required amount of sub checklists for applicability criteria as given by the methodology applied and comment at least every line answered with “No”												
B.2.4. Criterion 1 and 2– This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass: a) Supplying electricity to a national or a regional grid; or b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling.	DR	<div>The project activity involves PV power plant that supply electricity to the national grid.</div> <table><tr><th>Applicability checklist</th><th>Yes/No</th></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Evidence provided?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table>	Applicability checklist	Yes/No	Criterion discussed in the PDD?	Yes	Evidence provided?	Yes	Compliance verified?	Yes	OK	OK
Applicability checklist	Yes/No											
Criterion discussed in the PDD?	Yes											
Evidence provided?	Yes											
Compliance verified?	Yes											
B.2.5. Criterion 3 – This methodology is applicable to project activities that: (a) Install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant); (b) Involve a capacity addition; (c) Involve a retrofit of (an) existing plant(s); or (d) Involve a replacement of (an) existing plant(s).	DR	<div>The project activity is a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project.</div> <table><tr><th>Applicability checklist</th><th>Yes/No</th></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Evidence provided?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table>	Applicability checklist	Yes/No	Criterion discussed in the PDD?	Yes	Evidence provided?	Yes	Compliance verified?	Yes	OK	OK
Applicability checklist	Yes/No											
Criterion discussed in the PDD?	Yes											
Evidence provided?	Yes											
Compliance verified?	Yes											

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<p>B.2.6. Criterion 4 –</p> <p>Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology:</p> <ul style="list-style-type: none">- The project activity is implemented in an existing reservoir with no change in the volume of reservoir;- The project activity is implemented in an existing reservoir, where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the Project Emissions section, is greater than 4 W/m2;- The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the Project Emissions section, is greater than 4 W/m2.	DR	<p>The project activity is not a hydro power plant.</p> <table><tr><th>Applicability checklist</th><th>Yes/No</th></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Evidence provided?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table>	Applicability checklist	Yes/No	Criterion discussed in the PDD?	Yes	Evidence provided?	Yes	Compliance verified?	Yes	N/A	N/A
Applicability checklist	Yes/No											
Criterion discussed in the PDD?	Yes											
Evidence provided?	Yes											
Compliance verified?	Yes											
<p>B.2.7. Criterion 5 –</p> <p>If the new unit has both renewable and non-renewable components (e.g., a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the new unit co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.</p>	DR	<p>The project activity has only a renewable component and it is within the 15 MW limits for SSC CDM project activities.</p> <table><tr><th>Applicability checklist</th><th>Yes/No</th></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Evidence provided?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table>	Applicability checklist	Yes/No	Criterion discussed in the PDD?	Yes	Evidence provided?	Yes	Compliance verified?	Yes	N/A	N/A
Applicability checklist	Yes/No											
Criterion discussed in the PDD?	Yes											
Evidence provided?	Yes											
Compliance verified?	Yes											

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<p>B.2.8. Criterion 6 –</p> <p>Combined heat and power (co-generation) systems are not eligible under this category.</p>	DR	<p>The project activity is not a co-generation system.</p> <table><tr><th>Applicability checklist</th><th>Yes/No</th></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Evidence provided?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table>	Applicability checklist	Yes/No	Criterion discussed in the PDD?	Yes	Evidence provided?	Yes	Compliance verified?	Yes	N/A	N/A
Applicability checklist	Yes/No											
Criterion discussed in the PDD?	Yes											
Evidence provided?	Yes											
Compliance verified?	Yes											
<p>B.2.9. Criterion 7 –</p> <p>In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units</p>	DR	<p>The project activity is a Greenfield project.</p> <table><tr><th>Applicability checklist</th><th>Yes/No</th></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Evidence provided?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table>	Applicability checklist	Yes/No	Criterion discussed in the PDD?	Yes	Evidence provided?	Yes	Compliance verified?	Yes	N/A	N/A
Applicability checklist	Yes/No											
Criterion discussed in the PDD?	Yes											
Evidence provided?	Yes											
Compliance verified?	Yes											
<p>B.2.10. Criterion 8 –</p> <p>In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.</p>	DR	<p>The project activity is neither a retrofit nor a replacement project.</p> <table><tr><th>Applicability checklist</th><th>Yes/No</th></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Evidence provided?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table>	Applicability checklist	Yes/No	Criterion discussed in the PDD?	Yes	Evidence provided?	Yes	Compliance verified?	Yes	N/A	N/A
Applicability checklist	Yes/No											
Criterion discussed in the PDD?	Yes											
Evidence provided?	Yes											
Compliance verified?	Yes											

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B.2.11. Was there a request for clarification, revision or deviation made for the adopted methodology in relation to the proposed project activity? If so, were the correct procedures provided by the CDM EB followed?	DR	No, there was not made any request for clarification, revision or deviation of the adopted methodology in relation to the proposed project activity.	OK	OK
B.3. Description of the Project Boundary				
B.3.1 Are all the sources and gases included in the project boundary of the project activity (baseline scenario, project scenario and leakage) in accordance with the applied methodology?	DR	Yes, the project boundary is in accordance with the applied methodology.	OK	OK
B.3.2. Are the inclusion or exclusion of the sources of gases correctly justified?	DR	CAR 2.- Emission source and gases included in the project boundary for the purpose of calculating project emissions and baseline emissions according to the applicable methodology shall be stated in the PDD. The table of summary of gases and sources included in the project boundary of the final PDD of the proposed project activity is in accordance with the methodology. CAR 2 is closed.	CAR 2	OK
B.3.3. Do the spatial and technological boundaries as verified on-site comply with the discussion provided by the PDD?	DR	The PDD include a discussion about the spatial and technical boundaries of the project activity. During on site visit the boundaries of the project have been verified.	OK	OK

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B.3.4. In case of grid connected electricity projects, is the relevant grid correctly identified in accordance with EB guidance and the underlying methodology?	DR	Yes, the relevant grid is DEWA grid.	OK	OK
B.4. Description of the baseline scenario identification				
B.4.1. Is the baseline scenario clearly described?	DR	Yes, the baseline scenario is correctly described in the PDD in accordance with the applied methodology.	OK	OK
B.4.2. Have there been other alternative scenarios considered? Is it justified the selected scenario as the most likely one?	DR	Only one scenario is considered for the baseline selection in accordance with the version 17 of the methodology AMS-I.D. "Grid connected renewable electricity generation".	OK	OK
B.4.3. Does the PDD follow the steps to determine the baseline scenario required by the methodology?	DR	The PDD follows the steps defined in the applicable methodology for determining the baseline. Thus, no other alternative scenarios have been identified.	OK	OK
B.4.4. Has the baseline scenario been determined using conservative assumptions where possible?	DR	Yes, the baseline scenario has been determined using conservative assumptions.	OK	OK
B.4.5. Does the baseline scenario sufficiently take into account relevant national and/or sectoral policies? (<i>Note: refer Annex 3 EB 22</i>). Are they listed in the PDD?	DR	Yes, relevant national and/or sectoral policies and circumstance has been considered in the determination of the baseline.	OK	OK

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<p>B.4.6 If alternatives are excluded:</p> <p>a.- Is sufficient evidence/ justification provided to support every exclusion of alternatives? Is it reasonable?</p> <p>b.- Is it shown that at least one credible and feasible alternative does not face a barrier? Is this reasonable?</p>	DR	<p>N/A. Only one scenario is reasonable in accordance with the applied methodology.</p>	OK	OK
<p>B.4.7 Is the baseline scenario determination compatible with the available data and are all literature and sources clearly referenced?</p>	DR	<p>CAR 3.- Baseline development shall follow the steps required by the methodology</p> <p>Baseline development has been revised in accordance with the steps required by the methodology.</p> <p>CAR 3 is closed.</p> <p>Yes, the baseline scenario is compatible with the available data and sources are clearly referenced</p>	CAR 3	OK
<p>B.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered CDM project activity (assessment and demonstration of additionality):</p>				

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B.5.1 Is the start date defined in accordance with the "Glossary of CDM terms"? What evidence is provided to verify that this was the official start date? Is this considered reliable and reasonable?	DR	<p>CAR 4. - The proposed starting date is not stated in the appropriate date format. In addition evidence of the starting date shall be provided. The main milestones of the project shall be addressed in the PDD and their evidence provided in order to assess whether this date represents the earliest date on which the project activity begins</p> <p>The expected starting date has been stated as 27/08/2012 in the final PDD, the main milestones of the project have been addressed and appropriate evidence have been provided.</p> <p>CAR 4 is closed.</p>	CAR 4	OK
B.5.2 Is it a new project activity (start date on or after August 2008) or an existing project?	DR	The proposed project activity is a new project.	OK	OK

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<p>B.5.3 For a new project which does not require a new methodology and has not published its PDD for stakeholder comments prior to the start date, then:</p> <p>a. Have the project proponents informed the DNA and/or UNFCCC secretariat in writing? How has this notification been verified? (i.e. confirmation from the DNA or UNFCCC)</p> <p>b. Was the notification made within 6 months of the project activity start date?</p> <p>c. Does the letter/ notification indicate the precise geographic location and provide a brief description of the proposed project?</p> <p>d. Have the project proponents informed the DNA and/ or UNFCCC secretariat of the progress of the project activity every subsequent two years after the initial notification?</p>	DR	Not applicable. The PDD has been published for global stakeholder comments prior to the start date.	CAR 4	OK
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<p>B.5.4 For an existing project which has a start date prior to the publication of the PDD for global stakeholder comments, has the project proponent provided the following:</p> <p>a. Evidence of awareness of the CDM prior to the project activity start date and that the benefits of the CDM were a decisive factor in the decision to proceed with the project? (e.g. Board minutes, notes etc) Is this sufficient?</p> <p>b. Reliable evidence that demonstrates real actions were taken to secure CDM status in parallel with the project's implementation? (e.g. contracts with consultants for CDM/PDD/methodology services, ERPAs, correspondence with CER buyers, DOEs, DNAs or the UNFCCC). Is this sufficient?</p>	DR	Not applicable. The project is a Greenfield project.	N/A	N/A
<p>B.5.5. Is the project additionality assessed according to the applicable methodology? Detail the Tool used to demonstrate the Additionality of the project activity.</p>	DR	<p>CAR 5.- The Attachment A to Appendix B is not applied appropriately</p> <p>The latest version of the "Guidelines on the demonstration of additionality of small-scale project activities" (version 09.0) previously known as "Attachment A of Appendix B to simplified modalities and procedures of small scale CDM project activities" has been applied and section B.5 revised accordingly.</p> <p>CAR 5 is closed.</p> <p>Yes, the additionality is assessed according to the latest version of the "Guidelines on the demonstration of additionality of small-scale project activities".</p>	CAR 5	OK

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B.5.6. In the case of a small scale project activity, is the additionality justified according to the applicable CDM requirements specific for small scale project activities?	DR	The proposed project is a newly built grid connected photovoltaic electricity generation project activity of installed capacity 13 MW (10 MW output capacity) and is thereby automatically defined as additional	CAR 5	OK
B.5.7 Have realistic and credible alternatives been identified providing comparable outputs or services?	DR	The project applies the latest version of the "Guidelines on the demonstration of additionality of small-scale project activities". Taking into account the VVM 01.2, as the approved methodology prescribes de baseline scenario, no further analysis is required in the identification of alternatives	OK	OK
B.5.8. Is the project activity without CDM included in these alternatives?	DR	Not applicable. The project applies the latest version of the "Guidelines on the demonstration of additionality of small-scale project activities".	N/A	N/A
B.5.9. Is a discussion provided for all identified alternatives concerning the compliance with applicable laws and regulations?	DR	Not applicable. The project applies the latest version of the "Guidelines on the demonstration of additionality of small-scale project activities".	N/A	N/A
B.5.10. In case of using a FSR as a basis of the decision, is this analysis made in accordance with the EB Guidance?	DR	Not applicable. The project activity does not use a FSR as a basis of the decision.	N/A	N/A
B.5.11. In case the PDD argues that specific laws are not enforced in the country or region: Is evidence available concerning that statement?	DR	Not applicable.	N/A	N/A
B.5.12. In case of applying step 2 / investment analysis of the additionality tool: Is the analysis method identified appropriately?	DR	Not applicable.	N/A	N/A

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<p>B.5.13. In case of Option I (simple cost analysis): Is it demonstrated that the activity produces no economic benefits other than CDM income?</p> <p>a. Are the assumptions for all alternatives compared consistent (including discount rates if applicable)?</p>	DR	Not applicable.	N/A	N/A
<p>B.5.14. In case of Option II (investment comparison analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?</p> <p>a. Are the assumptions for all alternatives compared consistent (including discount rates if applicable)?</p>	DR	Not applicable.	N/A	N/A
<p>B.5.15. In case of Option III (benchmark analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?</p> <p>a. If an IRR indicator is used, is the choice of benchmark appropriate to the type of IRR calculated? (</p> <p>b. Is the choice of benchmark or discount rate justified with supporting evidence for its appropriateness?</p>	DR	Not applicable.	N/A	N/A
<p>B.5.16 If risk premiums are applied in the development of the benchmark, are they reasonable and justified?</p>	DR	Not applicable.	N/A	N/A

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B.5.17 Do the project participants justify the period of assessment in the context of the underlying project activity?	DR	Not applicable.	N/A	N/A
B.5.18 Is the period of assessment appropriate?	DR	Not applicable.	N/A	N/A
B.5.19 Is any residual value of the project activity assets included in the analysis? Are residual value calculations reasonable and justified and consistent with local accounting rules or international best practice?	DR	Not applicable.	N/A	N/A
B.5.20 Are depreciation and other non-cash items related to the project activity deducted from net profits used for calculating the financial indicator (e.g. IRR, NPV)?	DR	Not applicable.	N/A	N/A
B.5.21 Is the treatment of taxation consistent with the chosen benchmark? (i.e. taxation should only be treated as an expense in the IRR/NPV calculation if the chosen benchmark is intended for post-tax calculations?	DR	Not applicable.	N/A	N/A

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<p>B.5.22 Recommended project: If the implementation of the project ceased and then recommenced due to consideration of the CDM, then:</p> <p>a. Are input values valid and applicable at the time of making the decision to recommence the project?</p> <p>b. Are capital costs incurred prior to the revised project activity start date input as the recoverable value of the assets (limited to the potential reuse/ resale of tangible assets)?</p> <p>c. How has the fair market value of the capital expenditures been calculated and validated? (e.g. by chartered specialists). Is this fair market value reasonable and justified?.</p> <p>d.- Is the book value as well as the expectation of the potential profit or loss included in the fair value calculation?</p>	DR	Not applicable.	N/A	N/A
B.5.23 Has the project participant supplied unprotected and traceable spreadsheet versions of all investment analysis?	DR	Not applicable.	N/A	N/A
B.5.24 From the investment analysis provided, is it possible to reproduce the results?	DR	Not applicable.	N/A	N/A

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B.5.25 Costs of financing expenditures (i.e. loan repayments and interest) should only be included in the cashflow as costs if an equity IRR is used, not if a project IRR is used. Are interest payments taken into account in the calculation of tax, if the benchmark is for after-tax comparison?	DR	Not applicable.	N/A	N/A
B.5.26 If an Equity IRR has been used, is the debt portion of the investment cost included as a cash outflow? (i.e. as well as interest costs and principle repayments – double counting)	DR	Not applicable.	N/A	N/A
B.5.27 Sensitivity analysis: a. Are all variable and critical costs and revenues in the analysis included in the sensitivity analysis? b. Is the assessed range of variations reasonable in light of the reliability of the estimated input values and the likely range? c. Is the sensitivity analysis possible to reproduce?	DR	Not applicable.	N/A	N/A

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B.5.28 Are input values used in all the investment analysis valid and applicable at the time of the investment decision taken by the project participant? Is the time of investment decision appropriately justified by evidences?	DR	Not applicable.	N/A	N/A
B.5.29 Does the PDD present the investment analysis in a transparent manner and provide all the relevant assumptions (preferably in the CDM-PDD form, or in separate annexes to the CDM-PDD)	DR	Not applicable.	N/A	N/A
B.5.30 Have the listed input values been consistently applied in all calculations?	DR	Not applicable.	N/A	N/A
B.5.31 Are all references made in the investment analysis correctly referenced/ sourced? Have these sources been verified?	DR	Not applicable.	N/A	N/A
B.5.32 Have financial calculations been verified by: assessing all parameters and assumptions against the available evidence and expertise; crosschecking the parameters against 3rd party or publicly available sources; reviewing feasibility reports, public announcements and annual financial reports; assessing the correctness of computations and the sensitivity analysis?	DR	Not applicable.	N/A	N/A

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<p>B.5.33 Have values from a feasibility study report (FSR) approved by national authorities been used? If so:</p> <p>a. Has the FSR been the basis of the decision to proceed with the investment in the project?</p> <p>How has this been verified?</p> <p>b. Are the values used in the PDD and associated annexes valid and consistent with the FSR?</p> <p>c. At the time of the investment decision, are the input values from the FSR valid and applicable (based on specific local and sectoral expertise and knowledge)?</p>	DR	Not applicable.	N/A	N/A
<p>B.5.34. In case of applying step 3 (barrier analysis) of the additionality tool: Is a complete list of barriers developed that prevent the different alternatives to occur?</p>	DR	Yes a complete list of barriers has been developed.	OK	OK
<p>B.5.35. Do any such identified barriers have a clear and direct impact on the financial returns of the project activity? (these are not barriers and should be assessed in the investment analysis)</p>	DR	No, they don't have a direct impact on the financial returns of the project activity.	OK	OK
<p>B.5.36 Are the identified barriers real and substantiated by independent sources of data such as relevant national legislation, surveys of local conditions and national or international statistics?</p>	DR	Not applicable.	CAR 5	N/A

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B.5.37. Is it clearly explained how approval of the project in the CDM would enable the proposed project activity to surmount the barrier? Is the rationale reasonable and justified with evidence?	DR	Not applicable.	CAR 5	N/A
B.5.38. Does the review of relevant background information on the nature of the company(ies) and entity(ies) involved in the financing and implementation of the project sufficiently justify that the barriers related to the lack of access to capital, technologies and skilled labour are real?	DR	Not applicable.	N/A	N/A
B.5.39 Has common practice analysis been undertaken?	DR	Not applicable. The project applies the latest version of the "Guidelines on the demonstration of additionality of small-scale project activities".	N/A	N/A
B.5.40 Is the geographical and temporal scope of the common practice analysis appropriate for the assessment related to the project activity's technology or industry type?	DR	Not applicable. The project applies the latest version of the "Guidelines on the demonstration of additionality of small-scale project activities".	N/A	N/A
B.5.41 Have all comparable projects been included in the common practice analysis If some projects have been excluded as non comparable, is the exclusion reasonable and justified?	DR	Not applicable. The project applies the latest version of the "Guidelines on the demonstration of additionality of small-scale project activities".	N/A	N/A
B.5.42 Have similar and operational projects other than CDM project activities been undertaken in the region?	DR	Not applicable. The project applies the latest version of the "Guidelines on the demonstration of additionality of small-scale project activities".	N/A	N/A

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<p>B.5.43 Are these widely observed and commonly carried out?</p> <p>If so:</p> <p>a. How have the essential distinctions with the proposed CDM project activity been assessed?</p> <p>b. Are such distinctions justified with sufficient evidence?</p> <p>c. If inaccessibility of data is the reason why some projects have not been included in the analysis, is justification of this claim provided?</p>	DR	Not applicable. The project applies the latest version of the "Guidelines on the demonstration of additionality of small-scale project activities".	N/A	N/A
B.5.44 Overall, is the proposed CDM project activity considered common practice?	DR	Not applicable. The project applies the latest version of the "Guidelines on the demonstration of additionality of small-scale project activities".	N/A	N/A
B.5.45. Is it demonstrated/justified that the project activity is not a likely baseline scenario?	DR	Yes, it is demonstrated.	CAR 5	OK
B.6. Emissions reductions				
<i>B.6.1. Explanation of methodological choices</i>				
B.6.1.1. Is it explained how the procedures provided in the methodology are applied by the proposed project activity?	DR	Yes, the PDD explains how the procedures provided in the methodology and the tool applied by the project activity.	CAR 1	OK

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B.6.1.2. Is every selection of options offered by the methodology correctly justified and is this justification in line with the situation verified on-site?	DR	Yes, the options selected have been justified according to the applied methodology AMS-I.D. version 17.	OK	OK
B.6.1.3. Are the formulae required for the determination of emissions reductions correctly presented and used? (<i>Open excel, trazability of data, etc</i>)	DR	<p>The spreadsheets for the calculation of the emission reductions shall be provided to the validation team.</p> <p>CL 5.-Evidence and source of data used in the spreadsheets shall be provided to the validation team.</p> <p>Spreadsheet with the determination of the emission reductions and the emission factor and supporting evidence have been provided to the validation team and found to be correct.</p> <p>CL 5 is closed.</p> <p>Yes, the formulae required for the determination of emissions reductions are correctly presented and used in the PDD and the spreadsheet.</p>	CL 5	OK
B.6.1.4 Are all the data and assumptions listed in the PDD and are appropriate and calculations result in a conservative estimate of emission reductions?	DR	Yes, the calculations result in a conservative estimate of emission reductions.	CAR 1 CL 5	OK
<i>B.6.2. Data and parameters that are available at validation</i>				
B.6.2.1. Is the list of parameters presented in chapter B.6.2 considered to be complete with regard to the requirements of the applied methodology? Is all the information required for each parameter included?	DR	<p>CAR 6: The list of parameters in chapter B.6.2 shall be completed in accordance with the applied methodology and tool.</p> <p>The list of the parameters has been completed in the latest PDD in accordance with the methodology and the tool applied.</p> <p>CAR 6 is closed.</p>	CAR 6	OK

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B.6.2.2. Are all the data derived from official data sources or replicable records and have been correctly quoted?	DR	Yes, the latest PDD and the spreadsheets with the determination of the emission reductions and determination of the emission factor of the project activity include the source of all the data.	CAR 6	OK
B.6.2.3. Parameter FC_{i,m,y} a. Title in line with Methodology? b. Data unit correctly expressed? c. Appropriate description? d. Source clearly referenced? (and appropriate?) e. Correct value provided? f. Has this value been verified? g. Choice of data correctly justified? h. Measurement method correctly described?	DR	a) to h) are OK.	OK	OK

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<p>B.6.2.4. Parameter FC_{i,y}</p> <p>a. Title in line with Methodology?</p> <p>b. Data unit correctly expressed?</p> <p>c. Appropriate description?</p> <p>d. Source clearly referenced? (and appropriate?)</p> <p>e. Correct value provided?</p> <p>f. Has this value been verified?</p> <p>g. Choice of data correctly justified?</p> <p>h. Measurement method correctly described?</p>		<p>a) to h) are OK.</p>	OK	OK
<p>B.6.2.5. Parameter NCV_{i,y}</p> <p>a. Title in line with Methodology?</p> <p>b. Data unit correctly expressed?</p> <p>c. Appropriate description?</p> <p>d. Source clearly referenced? (and appropriate?)</p> <p>e. Correct value provided?</p> <p>f. Has this value been verified?</p> <p>g. Choice of data correctly justified?</p> <p>h. Measurement method correctly described?</p>		<p>a) to h) are OK.</p>	OK	OK

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<p>B.6.2.6. Parameter EF_{CO2,i,y}</p> <p>a. Title in line with Methodology?</p> <p>b. Data unit correctly expressed?</p> <p>c. Appropriate description?</p> <p>d. Source clearly referenced? (and appropriate?)</p> <p>e. Correct value provided?</p> <p>f. Has this value been verified?</p> <p>g. Choice of data correctly justified?</p> <p>h. Measurement method correctly described?</p>		<p>a) to h) are OK.</p>	OK	OK
<p>B.6.2.7. Parameter EF_{CO2,m,i,y}</p> <p>a. Title in line with Methodology?</p> <p>b. Data unit correctly expressed?</p> <p>c. Appropriate description?</p> <p>d. Source clearly referenced? (and appropriate?)</p> <p>e. Correct value provided?</p> <p>f. Has this value been verified?</p> <p>g. Choice of data correctly justified?</p> <p>h. Measurement method correctly described?</p>		<p>a) to h) are OK.</p>	OK	OK

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<p>B.6.2.8. Parameter EG_{m,y}</p> <p>a. Title in line with Methodology?</p> <p>b. Data unit correctly expressed?</p> <p>c. Appropriate description?</p> <p>d. Source clearly referenced? (and appropriate?)</p> <p>e. Correct value provided?</p> <p>f. Has this value been verified?</p> <p>g. Choice of data correctly justified?</p> <p>h. Measurement method correctly described?</p>		<p>a) to h) are OK.</p>	OK	OK
<p>B.6.2.9. Parameter EG_y</p> <p>a. Title in line with Methodology?</p> <p>b. Data unit correctly expressed?</p> <p>c. Appropriate description?</p> <p>d. Source clearly referenced? (and appropriate?)</p> <p>e. Correct value provided?</p> <p>f. Has this value been verified?</p> <p>g. Choice of data correctly justified?</p> <p>h. Measurement method correctly described?</p>		<p>a) to h) are OK.</p>	OK	OK

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<p>B.6.2.10. Parameter EF_{OM,y}</p> <p>a. Title in line with Methodology?</p> <p>b. Data unit correctly expressed?</p> <p>c. Appropriate description?</p> <p>d. Source clearly referenced? (and appropriate?)</p> <p>e. Correct value provided?</p> <p>f. Has this value been verified?</p> <p>g. Choice of data correctly justified?</p> <p>h. Measurement method correctly described?</p>		<p>a) to h) are OK.</p>	OK	OK
<p>B.6.2.11. Parameter EF_{BM,y}</p> <p>a. Title in line with Methodology?</p> <p>b. Data unit correctly expressed?</p> <p>c. Appropriate description?</p> <p>d. Source clearly referenced? (and appropriate?)</p> <p>e. Correct value provided?</p> <p>f. Has this value been verified?</p> <p>g. Choice of data correctly justified?</p> <p>h. Measurement method correctly described?</p>		<p>a) to h) are OK.</p>	OK	OK

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<p>B.6.2.12. Parameter EF_{grid,CM,y}</p> <p>a. Title in line with Methodology?</p> <p>b. Data unit correctly expressed?</p> <p>c. Appropriate description?</p> <p>d. Source clearly referenced? (and appropriate?)</p> <p>e. Correct value provided?</p> <p>f. Has this value been verified?</p> <p>g. Choice of data correctly justified?</p> <p>h. Measurement method correctly described?</p>		a) to h) are OK.	OK	OK
B.6.2.13. Will the data and parameters result in a conservative estimate of emissions reductions?	DR	Yes, the data and parameters result in a conservative estimate of emission reductions.	CAR 6	OK
<p><i>B.6.3 Calculation of GHG Emission Reductions – Baseline Emissions</i></p> <p><i>It is assessed whether the baseline emissions are stated according to the methodology and whether the argumentation for the choice of default factors and values – where applicable – is justified.</i></p>				
B.6.3.1 Are the calculations documented according to the approved methodology and in a complete and transparent manner?	DR	Calculations for the emission reductions have been provided and they are documented according to the approved methodology in a complete and transparent manner.	CAR 6	OK
B.6.3.2. Have conservative assumptions been used when calculating the baseline emissions?	DR	Conservative assumptions have been used when calculating the baseline emissions	CAR 6	OK

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B.6.3.3 Are uncertainties in the baseline emission estimates properly addressed?	DR	Uncertainties in the baseline emission estimates are properly addressed.	CAR 6	OK
B.6.3.4. Is additional background information on baseline data provided in Annex 3 of the PDD? Is this information consistent with data presented by other sections of the PDD?	DR	Yes the information is consistent with data presented by other sections of the PDD.	OK	OK
B.6.4 Calculation of GHG Emission Reductions – Project Emissions <i>It is assessed whether the project emissions are stated according to the methodology and whether the argumentation for the choice of default factors and values – where applicable – is justified.</i>				
B.6.4.1 Are the calculations documented according to the approved methodology and in a complete and transparent manner?	DR	Not applicable. Since the project activity is a small scale PV power plant, the calculation of Project Emissions do not applied.	N/A	N/A
B.6.4.2. Have conservative assumptions been used when calculating the project emissions?	DR	Not applicable. Since the project activity is a small scale PV power plant, the calculation of Project Emissions do not applied.	N/A	N/A
B.6.4.3 Are uncertainties in the project emission estimates properly addressed?	DR	Not applicable. Since the project activity is a small scale PV power plant, the calculation of Project Emissions do not applied.	N/A	N/A
B.6.5. Calculation of GHG Emission Reductions – Leakage <i>It is assessed whether leakage emissions are stated according to the methodology and whether the argumentation for the choice of default factors and values – where applicable – is justified.</i>				

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B.6.5.1 Are the leakage calculations documented according to the approved methodology and in a complete and transparent manner?	DR	Not applicable. According to the methodology applied, project activity do not need to consider leakage because the energy generating equipment is new, and is not transferred from another activity.	N/A	N/A
B.6.5.2. Have conservative assumptions been used when calculating the leakage emissions?	DR	Not applicable. According to the methodology applied, project activity do not need to consider leakage because the energy generating equipment is new, and is not transferred from another activity.	N/A	N/A
B.6.5.3. Are uncertainties in the leakage emission estimates properly addressed?	DR	Not applicable. According to the methodology applied, project activity do not need to consider leakage because the energy generating equipment is new, and is not transferred from another activity.	N/A	N/A
<i>B.6.6. Ex-ante calculation of emission reductions</i>				
B.6.6.1. Are the GHG calculations documented in a complete and transparent manner? Are all the calculations correct?	DR	Yes, the calculations are documented in a complete and transparent manner.	CAR 6	OK
B.6.6.2. Is the data provided in this section consistent with data as presented in other chapters of the PDD?	DR	Yes, the data are consistent along the PDD.	CAR 6	OK
<i>B.6.7. Summary of the ex-ante estimation of emission reductions</i>				
B.6.7.1. Will the project result in fewer GHG emissions than the baseline scenario?	DR	Yes, the project will result in fewer GHG emissions.	CAR 6	OK
B.6.7.2. Are the emissions reductions projected in line with the envisioned time schedule for the project' implementation and the indicated crediting period?	DR	Yes, the emissions reductions projected are in line with the time schedule for the project' implementation and the indicated crediting period.	CL 4	OK

B.7. Application of the monitoring methodology and description of the monitoring plan				
B.7.1. Description of the monitoring plan				
B.7.1.1 Is the monitoring plan documented according to the approved methodology and relevant tools and in a complete and transparent manner?	DR	<p>CAR 7.- Monitoring plan in not documented in a complete and transparent manner in the PDD. Installation, accuracy and calibration of meters as well as QA/QC procedures and Data record and management system shall be further explained.</p> <p>Monitoring plan has been revised, installation, accuracy and calibration of meters has been included.</p> <p>CAR 7 is closed.</p> <p>Yes, the monitoring plan is documented according to the approved methodology.</p>	CAR 7	OK
B.7.1.2. Does the monitoring methodology provide a consistent approach in the context of all parameters to be monitored and further information provided in the PDD?	DR	<p>CAR 8.- It shall be clarified the use of $EG_{BL,y}$ in monitoring activities, as its identification is not correct according to methodology, but also its QA/QC procedures shall be in compliance with the applicable methodology.</p> <p>$EG_{BL,y}$ has been substituted by $EG_{facility,y}$, source of data is consistent with the measurement methods and its QA/QC procedures are in compliance with the applicable methodology.</p> <p>CAR 8 is closed.</p> <p>CAR 9.- $EG_{gross,y}$ and EC_y value of data and QA/QC procedures shall be in compliance with the applicable methodology.</p> <p>Since the project will use a bi-directional meter, above parameters have been deleted from the latest version of the PDD.</p> <p>CAR 9 is closed.</p> <p>Yes a consistent approach is provided in the PDD.</p>	CAR 8 CAR 9	OK

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B.7.1.3. Does the monitoring plan provide a clear description of the organization structure involved in monitoring activities and their responsibilities?	DR	Yes, a clear description is provided.	CAR 7 CAR 8 CAR 9	OK
B.7.1.4. If applicable: Does annex 4 provide useful information enabling a better understanding of the envisioned monitoring provisions?	DR	Not applicable.	N/A	N/A
B.7.1.5. Is the registration, monitoring, measurement and reporting procedure defined?	DR	The PDD defines the registration, monitoring, measurement and reporting activities.	CAR 7	OK
<i>B.7.2 Compliance of the monitoring plan with the approved methodology</i>				
B.7.2.1 Is the list of parameters considered to be complete with regard to the requirements of the applied methodology? Are all of them clearly described in the monitoring plan and in accordance with the methodology and tools?	DR	The list of the parameters has been completed in the latest PDD in accordance with the methodology and the tool applied.	CAR 8 CAR 9	OK
B.7.2.2. 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?	DR	Yes, provisions are included in the monitoring plan	CAR 8 CAR 9	OK

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<p>B.7.2.3. For the parameter EG_{facility}, is the:</p> <p>a. Title in line with methodology?</p> <p>b. Data unit correctly expressed?</p> <p>c. Parameter appropriately described?</p> <p>d. Source clearly referenced?</p> <p>e. Correct value provided for the purpose of PDD estimations?</p> <p>f. Has this value been verified?</p> <p>g. Measurement methods correctly described and in line with the methodology/tools?</p> <p>h. Correct reference to standards (i.e. for calibration and maintenance)?</p> <p>i. Indication of accuracy provided?</p> <p>j. QA/QC procedures described?</p> <p>k. QA/QC procedures appropriate?</p>	DR	<p>For the each parameter in the monitoring plan, of the final PDD i.e., $EG_{\text{facility,y}}$ the titles are in line with methodology, data units are correctly expressed, the descriptions are appropriate, the sources are clearly referenced, the values are correct, they have been verified and correctly justified, and measurement methods described in compliance with the methodology/tools, correct references to standards if applicable, the accuracy defined if possible and the QA/QC further detailed and appropriate.</p>	<p>CAR 8</p> <p>CAR 9</p>	OK
B.7.3 Implementation of the Monitoring Plan				
<p>B.7.3.1 Do the means of monitoring of each of the parameters included in the plan complies with the requirements of the methodology?</p>	DR	<p>Yes, all the parameters included in the plan comply with the requirements of the methodology.</p>	<p>CAR 7</p> <p>CAR 8</p> <p>CAR 9</p>	OK

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B.7.3.2. Is the measurement equipment described and deemed appropriate?	DR	Yes, the measurement equipment is described appropriately.	CAR 7 CAR 8 CAR 9	OK
B.7.3.3. Are procedures identified for maintenance of monitoring equipment and installations? Are provisions regarding the calibration intervals included in the monitoring plan?	DR	The monitoring plan considers procedures and provisions for the maintenance of monitoring equipment and installations as well as provisions regarding the calibration requirements.	CAR 7 CAR 8 CAR 9	OK
B.7.3.4. Is the measurement accuracy addressed and deemed appropriate? Are procedures in place on how to deal with erroneous measurements or lack of data?	DR	The calibration requirements are addressed and deemed appropriate if applicable. Procedures are in place on how to deal with erroneous measurements or lack of data.	CAR 7 CAR 8 CAR 9	OK
B.7.3.5. Is the monitoring Plan sufficient to ensure the verification of a proper implementation of the monitoring plan?	DR	Yes, the monitoring plan is considered to be sufficient.	CAR 7 CAR 8 CAR 9	OK
B.8. Date of completion of the application of the baseline study and monitoring methodology and the name of the responsible person(s)/entity(ies)				
B.8.1. Is there any indication of a date when the baseline and monitoring was determined?	DR	Yes, the baseline and monitoring methodology were completed on 22 September 2011.	OK	OK
B.8.2. Is this consistent with the time line of the PDD history?	DR	Yes, it is.	OK	OK

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B.8.3. Is the information on the person(s)/entity(ies) responsible for the application of the baseline and monitoring methodology provided consistent with the actual situation?	DR I	Yes, it is.	OK	OK
B.8.4. Is information provided whether this person / entity is also considered a project participant? <i>(Guidelines for Completing the Project Design Document (CDM-PDD) and the Proposed New Baseline and Monitoring Methodologies (CDM-NM))</i>	DR	<p>CAR 10.- Information whether Energy Changes Projektentwicklung is considered a project participant shall provided in the PDD.</p> <p>The final PDD states that the person/entity responsible for the application of the baseline and monitoring methodology is not a project participant listed in Annex 1.</p> <p>CAR 10 is closed.</p>	CAR 10	OK
C. DURATION OF THE PROJECT ACTIVITY / CREDITING PERIOD				
C.1. Duration of the project activity				
C.1.1. Are the project's starting date and operational lifetime clearly defined and reasonable?	DR	Yes, the starting date of the project activity and operational lifetime are clearly defined and reasonable.	CAR 4	OK
C.2. Choice of the crediting period and related information				
C.2.1. Is the assumed crediting period clearly defined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max. 10 years)? And, is the starting date of the crediting period corrected considered?	DR	Yes, the assumed crediting period is a renewable crediting period of max 7 years with potential for 2 renewals which start on July 01, 2013. The starting date of the crediting period is considered correct.	OK	OK

D. ENVIRONMENTAL IMPACTS				
D.1. Documentation on the analysis of the environmental impacts, including transboundary impacts				
D.1.1. Has the analysis of the environmental impacts of the project activity been sufficiently described in the PDD?	DR	<p>CAR 11.- Environmental impacts shall be further described in the PDD.</p> <p>Section D of the final PDD has been revised to include the description of the environmental impacts and mitigation measures to be adopted in accordance with the EIA.</p> <p>CAR 11 is closed</p>	CAR 11	OK
D.1.2. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been approved?	DR	<p>An EIA is required by the host party.</p> <p>CL 6.- Clarification and evidence about the steps followed in order to get the EIA approval shall be provided.</p> <p>The EIA approval has been provided.</p> <p>CL 6 is closed.</p>	CL 6	OK
D.1.3. Will the project create any adverse environmental effects? Has any environmental impact identified as significant?	DR	No significant impacts have been addressed; however, main environmental impacts were diminished by a mitigation plan.	CAR 11 CL 6	OK
D.1.4. Are transboundary environmental impacts identified in the analysis?	DR	No transboundary impacts have been identified.	CAR 11 CL 6	OK
D.1.5. Does the project comply with any other environmental legislation in the host country?	DR	There is no additional legislation affecting the project activity.	CAR 11 CL 6	OK

D.2. If environmental impacts are considered significant by the project participants or the host Party, please provide conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party.				
D.2.1. Have the identified environmental impacts been addressed in the PDD sufficiently?	DR	Yes, environmental impacts have been identified in the PDD, although not significant.	CAR 11 CL 6	OK
E. STAKEHOLDERS' COMMENTS				
E.1. Brief description how comments by local stakeholders have been invited and compiled				
E.1.1. Have relevant local stakeholders been consulted prior to the publication of the PDD? Is the exact date of the consultation process included in the PDD?	DR	<p>Stakeholders' consultation process has been performed prior to the GSC and the date is clearly stated in the PDD. Relevant stakeholders have been consulted.</p> <p>CL 7.- Evidence of the stakeholder's consultation has to be provided to the validation team.</p> <p>Appropriate and reliable evidence has been provided.</p> <p>CL 7 is closed.</p> <p>Stakeholders' consultation process has been performed prior to the GSC and the dates are clearly stated in the PDD. Relevant stakeholders have been consulted.</p>	CL 7	OK
E.1.2. Have appropriate media been used to invite comments by local stakeholders?	DR	<p>CL 8.- Evidence of the media used has to be provided to the validation team.</p> <p>Appropriate and reliable evidence has been provided.</p> <p>CL 8 is closed.</p> <p>Appropriate media have been used to performance the stakeholders consultation</p>	CL 8	OK

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E.1.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	DR	The stakeholder consultation has been carried out in accordance with the relevant UAE laws.	CL 7 CL 8	OK
E.1.4. Is the undertaken stakeholder process that was carried out described in a complete and transparent manner?	DR	The process is described in a clear and transparent manner.	CL 7 CL 8	OK
E.2. Summary of the comments received				
E.2.1. Is a summary of the stakeholder comments received provided?	DR	Sections E.1 and E.2 of the PDD gather main information of stakeholder consultation process, and comments received.	OK	OK
E.3. Report on how due account was taken of any comments received				
E.3.1. Has due account been taken of any stakeholder comments received?	DR	The PDD in section E.3 describes how the comments have been taken into account.	OK	OK

CERTIFICATES OF QUALIFICATION
10MW Photovoltaic Plant in Dubai, UAE

ANNEX 2: CERTIFICATES OF QUALIFICATION VALIDATION AND TECHNICAL REVIEW TEAM

CERTIFICATE OF QUALIFICATION

Subject: Validation and Technical Review Team for "10MW Photovoltaic Plant in Dubai, UAE"

Madrid, 8th August 2012

Hereby I confirm the following records of qualification, according with AENOR internal instruction "Validation, Verification and Certification of Clean Development Mechanism (CDM) project activities" IE-DTC-039.07, and in relation with the validation process of the above mentioned project activity:

Name: **Marcelino Pellitero Martínez**

CDM Chief Validator: Yes

CDM Validator: Yes

CDM Chief Verifier: N/A

CDM Verifier: N/A

Technical Expert: Yes

Technical areas related with the project activity:

TA 1.2: Energy generation from renewable energy sources.



José Luis TEJERA OLIVER
CDM Operational Director

CERTIFICATES OF QUALIFICATION

10MW Photovoltaic Plant in Dubai, UAE

CERTIFICATE OF QUALIFICATION

Subject: Validation and Technical Review Team for "10MW Photovoltaic Plant in Dubai, UAE"

Madrid, 8th August 2012

Hereby I confirm the following records of qualification, according with AENOR internal instruction "Validation, Verification and Certification of Clean Development Mechanism (CDM) project activities" IE-DTC-039.07, and in relation with the validation process of the above mentioned project activity:

Name: **Luis Robles Olmos**

CDM Chief Validator: Yes

CDM Validator: Yes

CDM Chief Verifier: N/A

CDM Verifier: N/A

Technical Expert: Yes

Technical areas related with the project activity:

TA 1.2: Energy generation from renewable energy sources.



José Luis TEJERA OLIVER
CDM Operational Director

CERTIFICATE OF QUALIFICATION

Subject: Validation and Technical Review Team for "10MW Photovoltaic Plant in Dubai, UAE"

Madrid, 8th August 2012

Hereby I confirm the following records of qualification, according with AENOR internal instruction "Validation, Verification and Certification of Clean Development Mechanism (CDM) project activities" IE-DTC-039.07, and in relation with the validation process of the above mentioned project activity:

Name: **Fernando Segarra Orero**

CDM Chief Validator: Yes

CDM Validator: Yes

CDM Chief Verifier: N/A

CDM Verifier: N/A

Technical Expert: Yes

Technical areas related with the project activity:

TA 1.2: Energy generation from renewable energy sources.



José Luis TEJERA OLIVER
CDM Operational Director

CERTIFICATE OF QUALIFICATION

Subject: Validation and Technical Review Team for "10MW Photovoltaic Plant in Dubai, UAE"

Madrid, 8th August 2012

Hereby I confirm the following records of qualification, according with AENOR internal instruction "Validation, Verification and Certification of Clean Development Mechanism (CDM) project activities" IE-DTC-039.07, and in relation with the validation process of the above mentioned project activity:

Name: Alfonso Medrano Gutierrez

CDM Chief Validator: Yes

CDM Validator: Yes

CDM Chief Verifier: N/A

CDM Verifier: N/A

Technical Expert: Yes

Technical areas related with the project activity:

TA 1.2: Energy generation from renewable energy sources.



José Luis TEJERA OLIVER
CDM Operational Director