

How to Select a DOE and preparation for validation and verification– Presentation Report

Introduction to DOE's

The two key functions of DOEs are:

Validation: assessing whether a project proposal meets the eligibility requirements and subsequently request registration of the project by the Clean Development Mechanism (CDM) Executive Board (EB).

Verification/certification: verifying emission reductions from a project, certify as appropriate, and recommend to the CDM EB the amount of Certified Emission Reductions (CERs) that should be issued.

Hence it can be said that the core task of a DOE is to protect the environmental integrity of the CDM and facilitate the trade in emission reductions by providing confidence. To ensure DOE's independent assessment, the DOE cannot consult on the development of the project or the writing of the project design document.

The DOE's are *accredited* (or "provisionally designated") by the Executive Board upon a recommendation by the CDM Accreditation Panel, which is advised by a specially constituted CDM Accreditation Team, and then *designated* by the COP/MOP. The DOEs are accredited according to their expertise and are responsible for ensuring compliance of the proposed project with CDM rules. The list of accredited DOE's is available on the UNFCCC website.

A DOE can either be auditing or accounting firms, consulting firms, law firms, or non-governmental organizations with the relevant technical expertise. Based on the technical expertise the DOEs are accredited for various sectoral scopes which qualify them to submit requests for project registration and CER issuance in that sectoral scopes.

Under the current framework there are 15 sectoral scopes in total. The list of sectoral scopes is available on UNFCCC website.

Example - Sectoral Scope 1 deals with projects related to energy industry (renewable and non-renewable) while Sectoral Scope 13 deals with projects related to waste handling and disposal. Hence for performing the validation/verification of a project dealing with both sectoral scopes 1 and 13, for example methane capture and recovery for power generation from wastewater, the DOE needs to have accreditation for both the sectoral scopes.

At present there are more than 35 DOE's accredited for different sectoral scopes and operating in different regions. The list of sectoral scopes and the DOE's accredited for each sectoral scope is available on <http://cdm.unfccc.int/DOE/scopes.html>. Under the current regulations except for small scale projects, the DOE performing the validation must be different from the DOE performing the verification i.e. for large scale project the validator and the verifier cannot be the same organization.

DOE Selection Criteria for Validation/ Verification

Firstly identify the list of DOE's accredited for sectoral scopes under which the project falls. The sectoral scopes of the project can be known from the approved CDM methodology used for developing the project design document (PDD). The list of sectoral scopes and the DOE's accredited for each sectoral scope is available on <http://cdm.unfccc.int/DOE/scopes.html>

Considering that CDM validation and verification task requires some local understanding (e.g. local regulations on environment, industry, etc vary from country to country) it is preferable to have a DOE that has an operational set up in the region where the project is located.

As the CDM project validation/verification process requires technical expertise relevant to the sector in which the project belongs, it is worth understanding the DOE team's experience in the sector and the region where the project is located.

The CDM validation and verification process at times can get delayed significantly and can impact project cashflows. Hence it is important to discuss the timeline proposed by the DOE for completion of the task (validation/verification) and also understanding the availability of resources to adhere to the timeline.

The fee charged by DOE is one of the main criteria. All the DOEs charge a fixed fee for validation and verification services. However it is important to note that the commercial terms vary from DOE to DOE (e.g. inclusion/exclusion of travel cost, additional cost for requesting clarification to UNFCCC, etc).

Validation Process

The following section details the step followed during the CDM validation process.

Validation objective

The purpose of 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 the requirements of Article 12 of the Kyoto Protocol; the CDM modalities and procedures as agreed in the Marrakech Accords under decision 3/CMP.1, the annex to the decision; subsequent decisions made by COP/MOP & CDM EB and other relevant rules, including the host country legislation and sustainability 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 seen as necessary to provide assurance to stakeholders on the quality of the project and its intended generation of certified emission reductions (CERs).

CDM Validation Criteria

The DOE reviews the PDD and any supporting documentation to confirm that the following requirements have been met:

- The participation requirements are satisfied.
- Comments by local stakeholders have been invited, a summary of the comments received has been provided
- Project participants (PPs) have submitted to the DOE documentation on the analysis of the environmental impacts of the project activity, including transboundary impacts and, if those impacts are considered significant by the project participants or the host Party, have undertaken

an environmental impact assessment in accordance with procedures as required by the host Party.

- The project activity is expected to result in a reduction in anthropogenic emissions by sources of greenhouse gases that are additional to any that would occur in the absence of the proposed project activity.
- Complying with the baseline and monitoring methodologies and other relevant requirements.
- Provisions for monitoring, verification and reporting are in accordance all the existing guidelines and procedures.
- The project activity conforms to all other requirements for CDM project activities as per Kyoto Protocol Article 12 criteria, CDM Modalities & Procedures and other relevant decisions by the CDM EB.

Steps followed during Validation Process

The following tasks are performed by DOE during the validation of a project:

- Contract review (contract between DOE and PP).
- Appointment of team members and technical reviewers by the DOE.
- Publication of the project design document (PDD) for Global Stakeholder Consultation process (28 days).
- Desk review of the PDD and supporting documents.
- Validation planning.
- On-Site assessment.
- Background investigation and follow-up interviews with personnel of the project developer and its contractors.
- Preparation of the Draft validation report.
- Resolution of corrective actions (if any) with the help of the Project Participant.
- Preparation of the Final validation report.
- Technical review of the PDD and the validation report (by DOE technical expert).
- Final approval of the validation report.
- Submission of PDD, Final Validation Report and other relevant documents to UNFCCC for registration.

Understanding Validation Process

All evidences referred in the PDD needs to be submitted/presented to DOE as and when requested. The DOE applies standard auditing techniques to assess the correctness of the information provided by the PPs, including, where appropriate, but not limited to - document review, follow-up interviews with relevant stakeholders, cross-check of information provided by interviewed personnel, comparison with projects or technology that have similar or comparable characteristics, test of the correctness of critical formulas and calculations and comparisons of similar projects in the host country.

Draft Validation Report

In order to ensure consideration of all relevant assessment criteria, a validation protocol is used. The protocol shows, in a transparent manner, criteria and requirements, means of validation and the results from pre-validating the identified criteria. The validation protocol reflects the generic CDM requirements each CDM project has to meet as well as project specific issues as applicable. The validation protocol serves the following purposes:

- It organises, details and clarifies the requirements that a CDM project is expected to meet;

- It ensures a transparent validation process where the validating entity will document how a particular requirement has been validated and the result of the determination

To assist the DOEs in achieving quality and consistency in their validation and verification work the CDM Validation and Verification Manual (VVM) has been published CDM EB. The DOEs are required to accomplish the validation process in accordance with the latest version of this manual.

After the site visit, background investigations, follow up interviews, the DOE prepares a list of CAR/CL/FAR while working on the draft validation protocol. Based on the PP's response to the CAR/CL the DOE closes the CAR/CL or raises further questions.

Resolution of CAR/CL

Closing of CAR/CL is a pre-requisite for finalization of the validation report and requesting registration. The CAR/CL can be closed by one of the following actions

- Modifying/ rectifying/ updating the PDD (amendments to the project monitoring plan, or adjustments of the selected project baseline) and other relevant documents submitted along with PDD to meet the CDM requirements as discussed earlier.
- Providing additional evidences to substantiate the claims made in the PDD

Final Validation Report

After satisfactory closure of all the CAR/CLs the DOE prepares the final validation report. The Final Validation Report reflects responses to corrective action and clarification requests, discussions and revisions of project documents. It gives the final conclusions of the DOE on the project's conformance with relevant UNFCCC requirements. More importantly it includes a **validation opinion**, which either forms the basis for UNFCCC registration of the project or explains the reason for non-acceptance if the project is judged not to fulfil validation requirements. The report also indicates the implications of any remaining corrective action requests not resolved during the validation and will require attention of the verifying DOE during first verification.

Verification Process

The following section details the step followed during the CDM verification process.

What is Verification?

Verification is defined as follows-Verification is the periodic independent review and *ex post* determination by the DOE of the monitored reductions in anthropogenic emissions by sources of greenhouse gases that have occurred as a result of a registered CDM project activity during the verification period.

Essentially, verification is the process of confirming the authenticity of reductions in greenhouse gas emissions by a CDM project over a defined period of time (a verification period). In order to do this, a CDM project's emission reductions are monitored and the monitoring data for a verification period is reviewed and assessed.

CDM Verification Objective/Criteria

The purpose of verification is to have an independent third party assess the project implementation. The DOE aims to assess that:

- The project activity has been implemented and operated as per the registered PDD and that all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place.

- The monitoring report and other supporting documents provided are complete in accordance with the latest CDM requirements.
- The actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan and the approved methodology.
- The data are recorded and stored as per the monitoring methodology.
- Emission reductions are verifiable.

CDM Verification Process

The following tasks are performed by DOE during the verification of a project:

- Contract review (contract between DOE and PP)
- Appointment of team members and technical reviewers by the DOE.
- Publication of the Monitoring Report (MR) for Global Stakeholder Consultation process (28 days)
- Desk review of the MR and supporting documents.
- Verification planning
- On-Site assessment
- Background investigation and follow-up interviews with personnel of the project developer.
- Preparation of the Draft verification report.
- Resolution of corrective actions (if any) with the help of the Project Participant.
- Preparation of the Final verification report.
- Technical review of the MR and the verification report (by DOE technical expert).
- Final approval of the verification report.
- Submission of MR, Final Verification/Certification Report and other relevant documents to UNFCCC for CER issuance.

Means of Verification

The DOE applies standard auditing techniques to assess the correctness of the information provided by the project participants, including, where appropriate, but not limited to - document review, follow-up interviews with relevant stakeholders, cross-check of information provided in the monitoring report and data from other sources such as plant log books, inventories, purchase records or similar data sources and test of the correctness of critical formulas and calculations. The DOE also reviews the frequency of measurements, the quality of metering equipment including calibration requirements and the quality assurance and quality control procedures implemented on site. The DOE also compares the actual project performance against the expected performance of the project as mentioned in the PDD and the monitoring plan.

Draft Verification Report

To assist the DOEs in achieving quality and consistency in their verification work the CDM Validation and Verification Manual (VVM) have been published CDM EB. The DOEs are required to accomplish the verification process in accordance with the latest version of this manual.

After the site visit, background investigations, follow up interviews, the DOE prepares a list of CAR/CL/FAR while working on the draft verification report. A CAR is raised by a DOE in case

- there are non-conformities in monitoring and/or reporting with the monitoring plan and/or methodology or
- the evidence provided is not sufficient to prove conformity
- there are mistakes in assumptions, data or calculations that impair the ER or doesn't result in a conservative ER calculation;

- In case where FARs stated during validation or previous verification are not resolved until the on-site visit.

Resolution of CAR/CL

Closing of CAR/CL is a pre-requisite for finalization of the verification report and requesting issuance of CERs for the monitoring period. The CAR/CL can be closed by one of the following actions:

- Modifying/rectifying/updating the monitoring report (amendments to the project monitoring plan, or adjustments of the selected project baseline) and the data used for preparing the MR or any other relevant documents submitted along with MR to meet the CDM requirements as discussed earlier.
- Providing additional evidences to substantiate the claims made in the PDD.

Final Verification Report

After satisfactory closure of all the CAR/CLs the DOE prepares the Final Verification Report (FVR). The FVR reflects responses to corrective action and clarification requests, discussions and revisions of MR and the data used for calculating the MR. It gives the final conclusions of the DOE on the project's conformance with relevant UNFCCC requirements. Once approved by the DOE TR the monitoring report and verification and certification report is submitted to UNFCCC for CER issuance.