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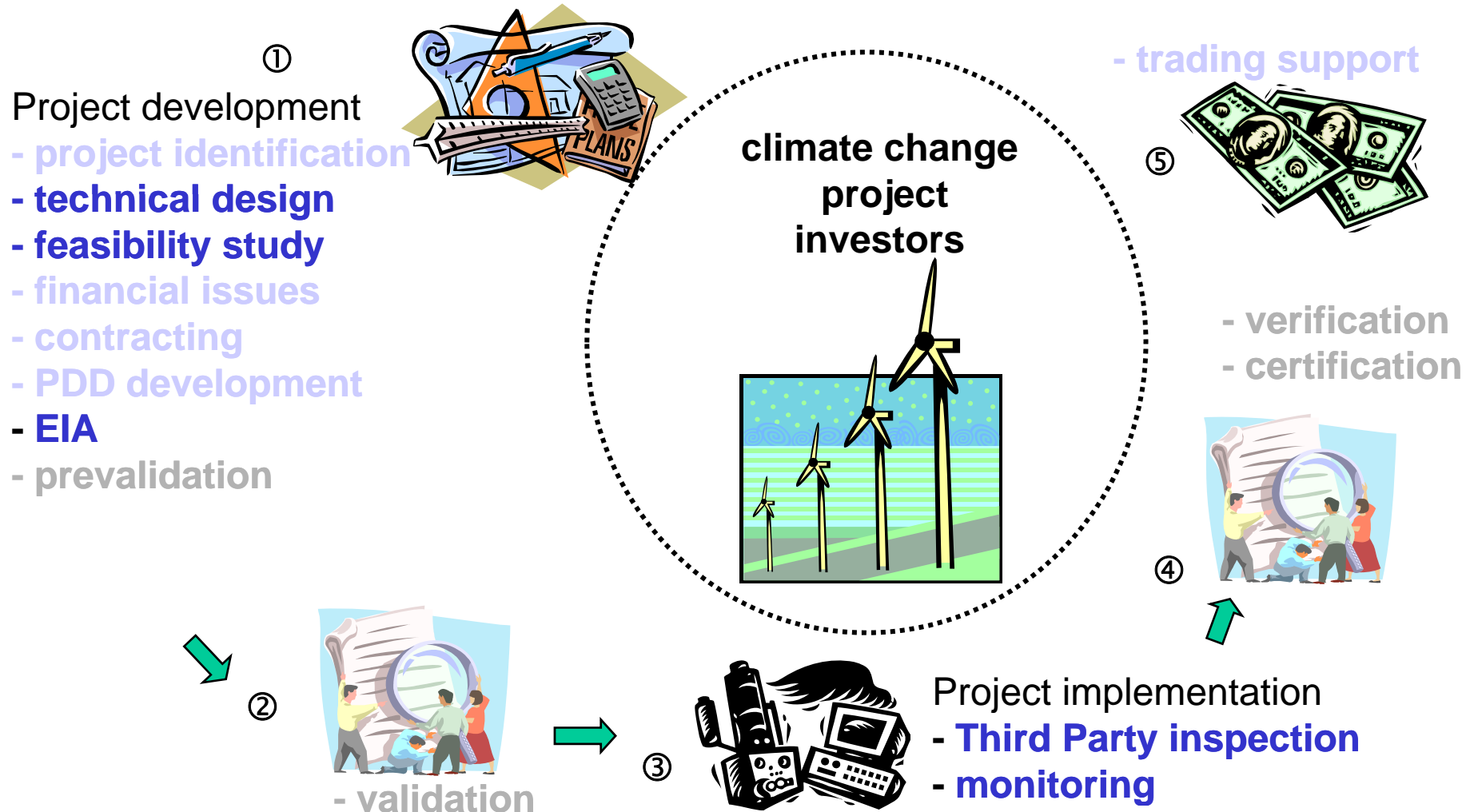
DOE Verification objectives, process, and key reasons of low or no CERs

Suva, Fiji, 31 October, 2011

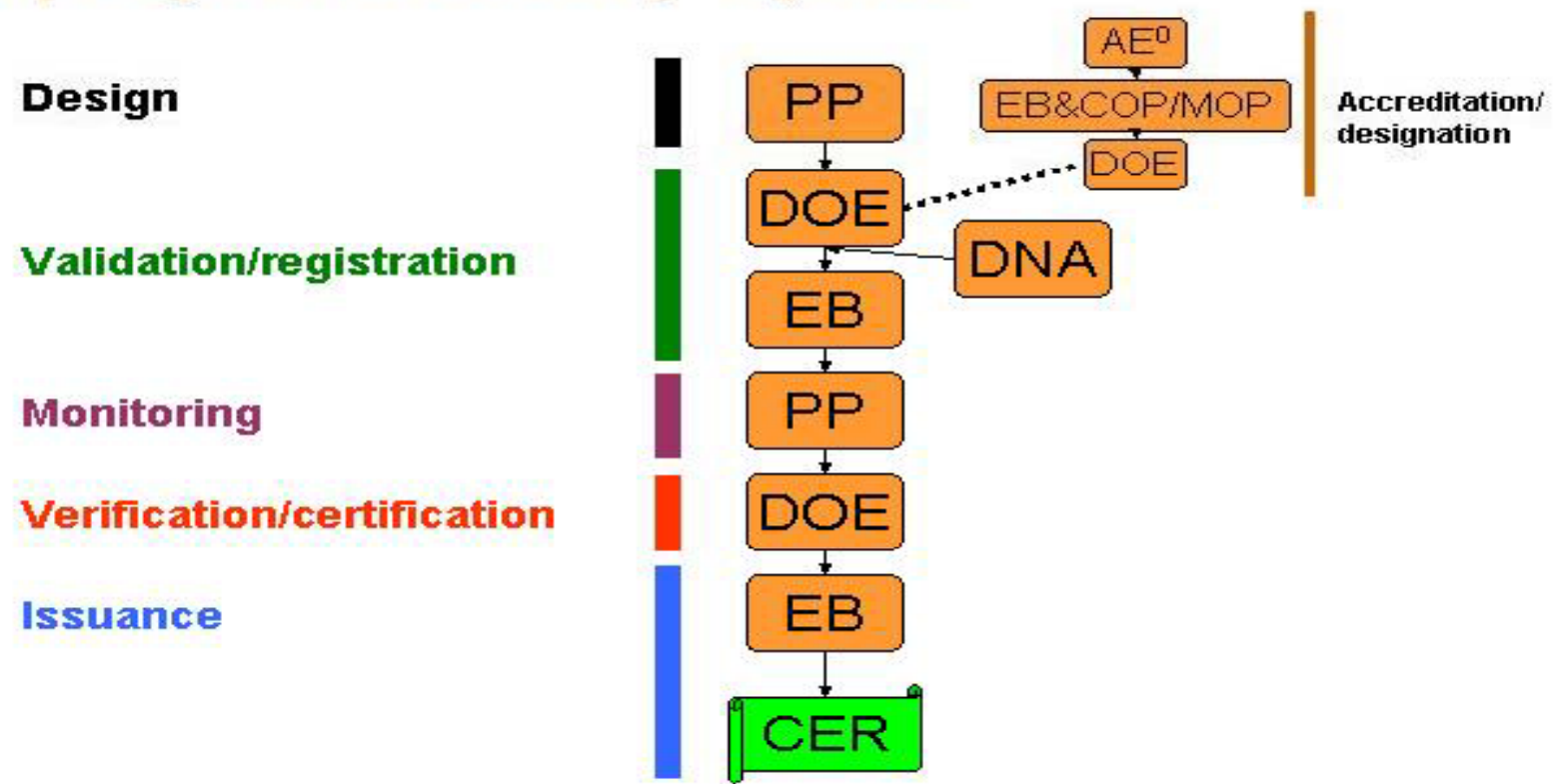
DOE's role in the project cycle



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CDM project activity cycle



“Verification is the periodic independent review and ex post determination by the designated operational entity of the monitored reductions... during the verification period. Certification is the written assurance ... “
(Marrakech accords)

Simply understanding:

DOE needs to verify the **real** emission reduction



Basic process of verification



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Publishing the Monitoring Report

Document review

On site assessment (site inspection)

Correction and clarification

Verification report and upload the project package

DOE's „BIBLE“

CDM Validation and Verification Manual (VVM)

History of VVM

At the very beginning, there is a [Validation & Verification Manual](#) an initiative of World Bank, IETA and all Applicant Entities, which aims to [harmonize](#) the process and quality of all GHG assessments.

Official Manual was published by UNFCCC in 2008

01 version -- November 2008 (EB 44)

01.1 version – December 2009 (EB 51)

01.2 version – July 2010 (EB 55)

Consistency check



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At the beginning of verification, the consistency among these documents will be checked.

- Registered PDD
- Methodology
- Monitoring Report

Question:

The project was registered in 2009, at that time, the valid methodology version is 04.

The verification started in July 2010, the valid version of methodology is 08.

Which version shall be used for verification work?

Answer: 04 version

Let's go back to PDD.....



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CONTENTS

- A. **General description of project activity**
- B. Application of a baseline and **monitoring methodology (Section B.7)**
- C. Duration of the project activity / crediting period
- D. Environmental impacts
- E. Stakeholders' comments

Annexes

- Annex 1: Contact information on participants in the project activity
- Annex 2: Information regarding public funding
- Annex 3: Baseline information
- Annex 4: Monitoring plan



A. General description of project activity

DOE: Whether the real project activity is same to the one in the PDD?

Extremely bad sample:

The installed capacity of a hydropower has been changed from 12MW to 20MW.

- The project might be additional, which means it's not CDM project anymore
- the small scale methodology is not applicable anymore

Another sample:

The supplier of turbine has been changed from GE to Siemens, but the capacity and main characters are unchanged.

- DOE will report the change in the verification report.

A. General description of project activity

Case 3:

In the PDD, a hydropower plant is expected to produce 1000MWh electricity/year. However, in reality, 1300MWh is produced in the 1st year.

Reason?

- The water source in this year is much better than previous 20 years records.

Notification to UNFCCC will be prepared by DOE

Reason?

- The water source is underestimated in the PDD, in the entire lifetime, the electricity generation will be at least 50% higher than the value in the PDD.

Changes to the PDD will be prepared by DOE, which will lead to re-validation, giving a limitation of annual emission reduction or rejection of project.

Let's go back to PDD.....



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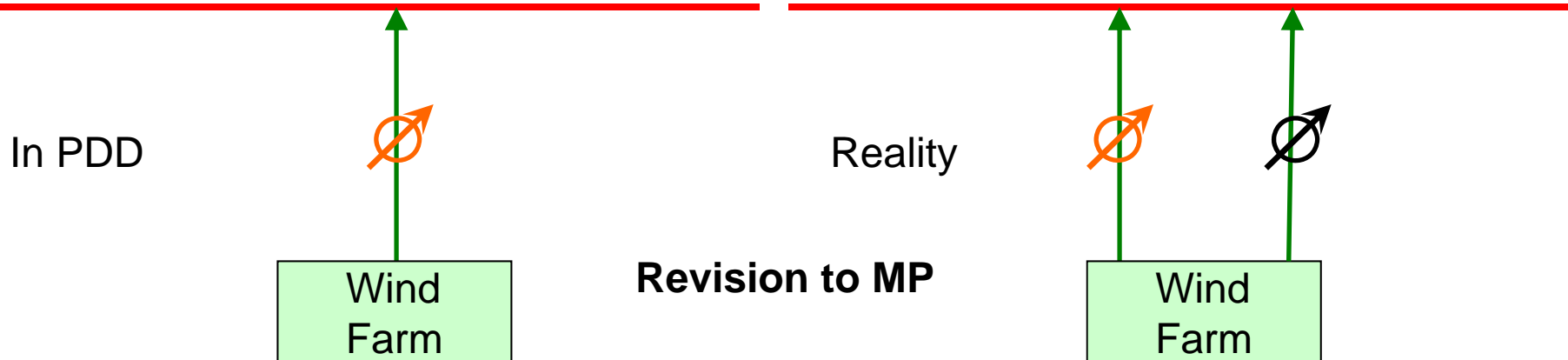
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B.monitoring methodology (Section B.7)

Case 1:

It's a wind farm project, a meter with certain accuracy will be used to measure how much electricity is supplied to the grid. However, in reality, there are 2 meters with the same accuracy.

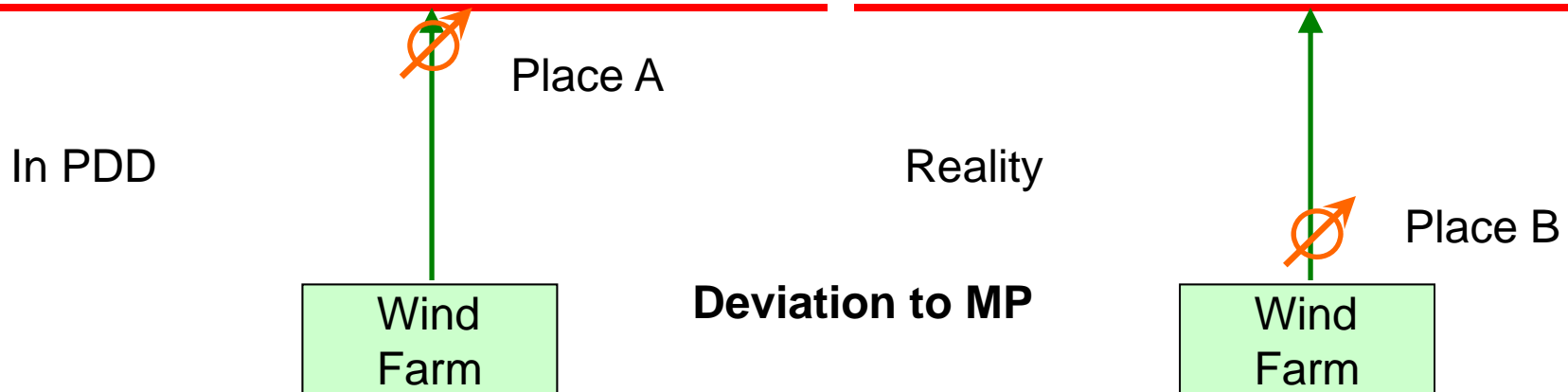


If in reality, these 2 meters are in less accuracy?

B.monitoring methodology (Section B.7)

Case 2:

It's a windfarm project, the meter will be installed at Place A, however, due to some reason, in the 1st operation year, it was temporarily installed at Place B.



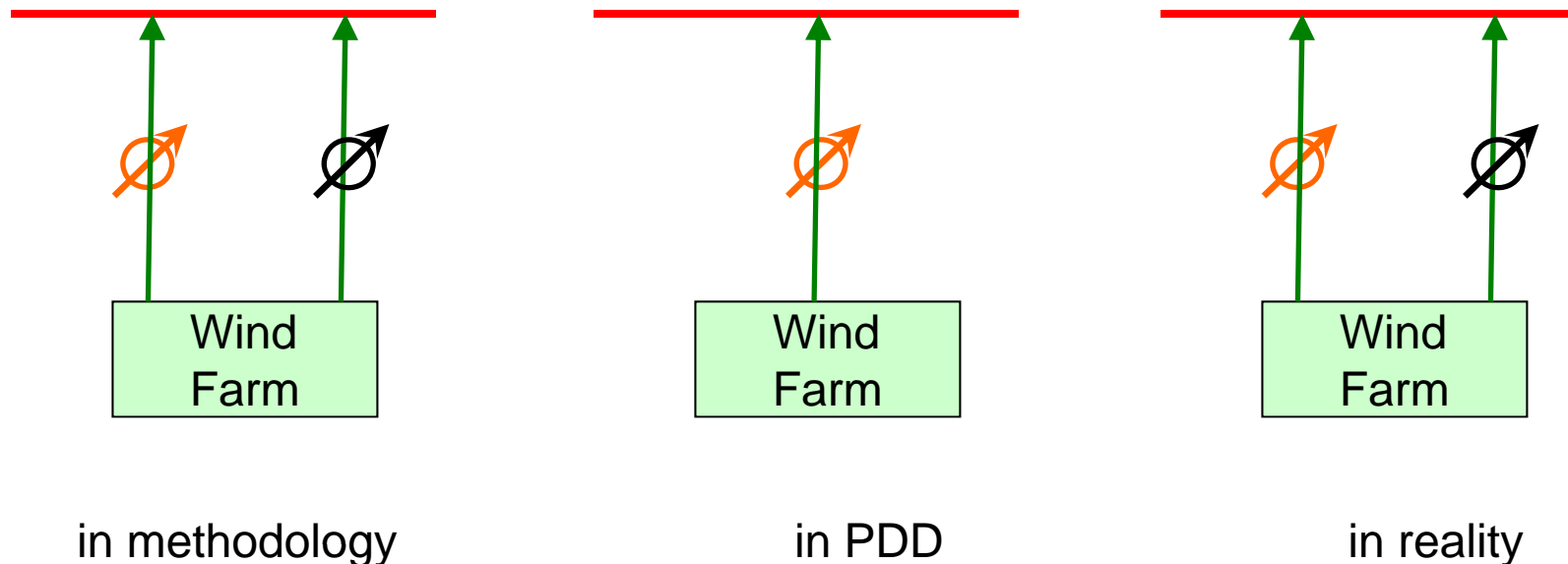
Let's go back to methodology



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During verification, the registered PDD shall be checked with methodology again to make sure the entire PDD is in line with methodology.

Case 3:



If there any inconsistency between methodology and registered PDD, a **revision to MP** is a must.

What's the main concern at project site?



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- The implementation situation
- The real monitoring system is same to methodology and registered PDD
- **The calibration to the facility has been done accordingly.**
- The project emission mentioned in the PDD is complete.
- Measured data are recorded in proper way and the information flow will not lead to the loss of data.
- The calculation follows the approach provided in the methodology and PDD
- Real time check is a must
- If possible, cross-check is the best way to confirm the reliability of data
- **Logical thinking is the best friend to an auditor**



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The calibration to the facility has been done accordingly.

If the calibration has been delayed, what shall DOE and PP do?

Only one option: refer to one UNFCCC guideline

[guidelines to assessing compliance with the calibration](#)



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Logical thinking is the best friend to an auditor

Example:

One 1MW hydropower plant and the yearly output is 17,520MWh.

Something is wrong?! Or everything is fine.

$$1 * 365 * 24 = 8,760 \text{ MWh}$$



- **interpretable descriptions of monitoring method**
- **missing approvals or licenses**
- **inconsistencies of external data sources**
- **no availability of local support (e.g. accredited laboratories)**



- **consistency in time over reporting period**
- **data transfer between multiple computerized systems**
- **time demand for consolidating data**
- **verifiability of data processing (software codes, excel spreadsheets)**
- **missing documentations**
- **„private Know-How“ of single employees**



How can we avoid “less or no CER” situation?

Strictly follow the methodology and registered PDD

Pay great attention on the data flow which is not mentioned in the methodology

Talk to your consultant if any deviation is detected

Do the 1st verification right after registration



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