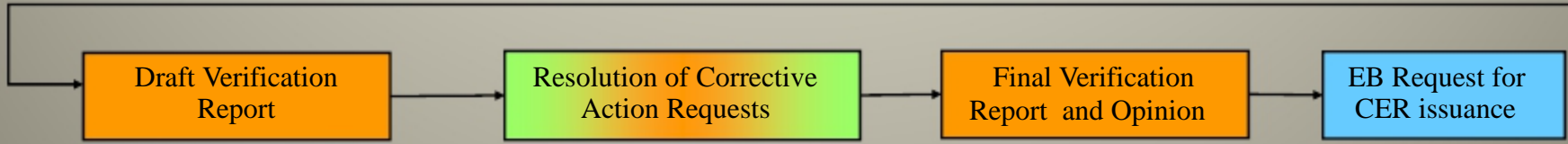
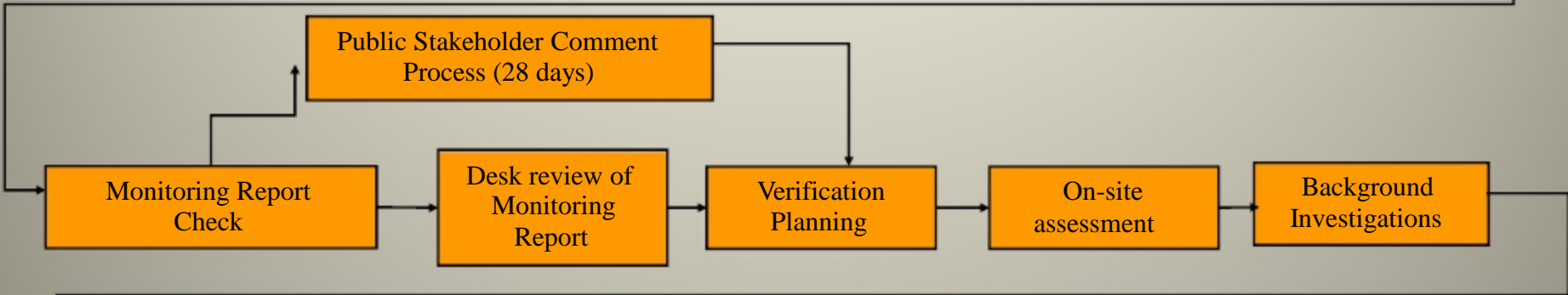
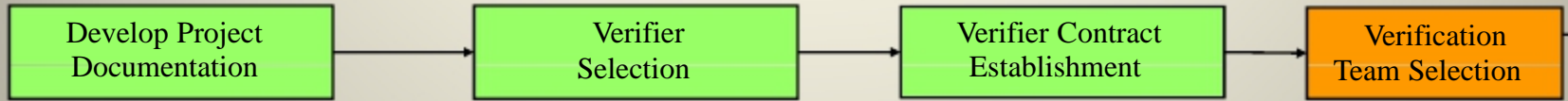


**DOE Verification  
objectives, process, and  
key reasons of low or no CERs**



# Verification/Certification

“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

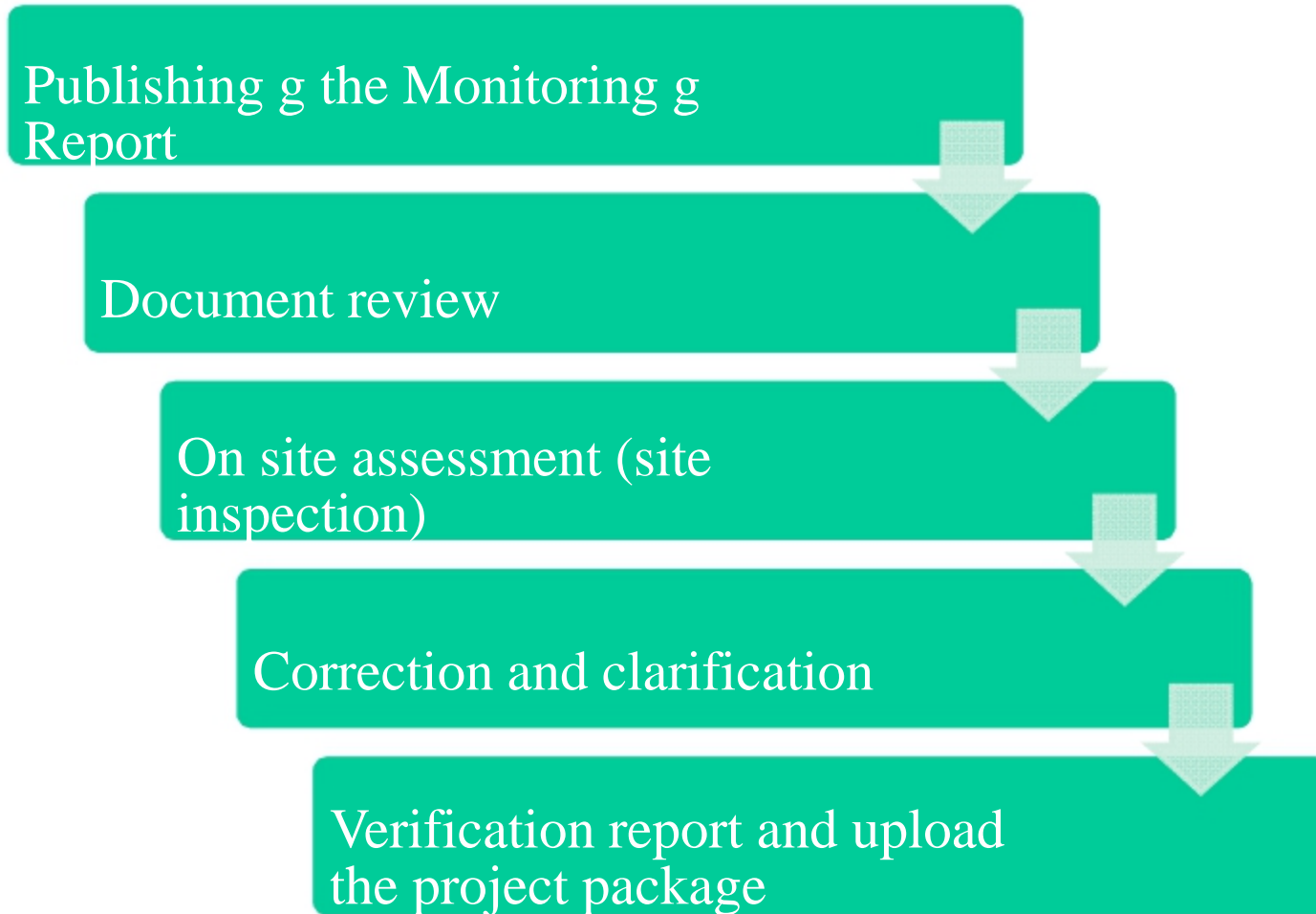
Publishing the Monitoring Report

Document review

On site assessment (site inspection)

Correction and clarification

Verification report and upload the project package



# Consistency check

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: Version 04

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

## 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

# PDD is still the base for verification

## **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 not 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.

# PDD is still the base for verification

## **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 1<sup>st</sup> 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.



# What's the main concern at project site?

- 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**

## 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.

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

## Problems (1) – Implementation

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

## Problems (2) - Data Management

- **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**

## Some solutions

**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 1<sup>st</sup> verification right after registration

THANK YOU!