



EU-China CDM Facilitation Project Workshop on Verification

Initial Verification

Beijing

March 4th – 5th, 2008

You Cui

TÜV Rheinland Group



EU China CDM Facilitation Project



► Contents

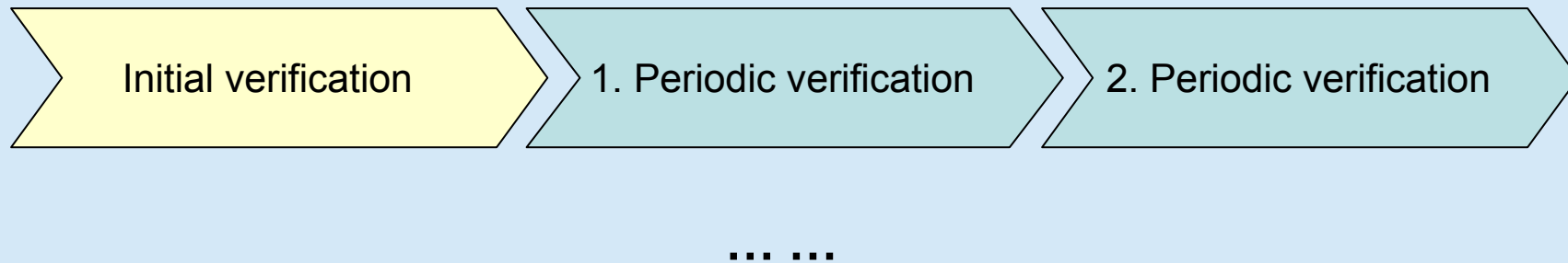
- Introduction of Initial Verification
 - Entities
 - Scopes
 - Process
- Desk Review
- On-site Assessment
- Summary



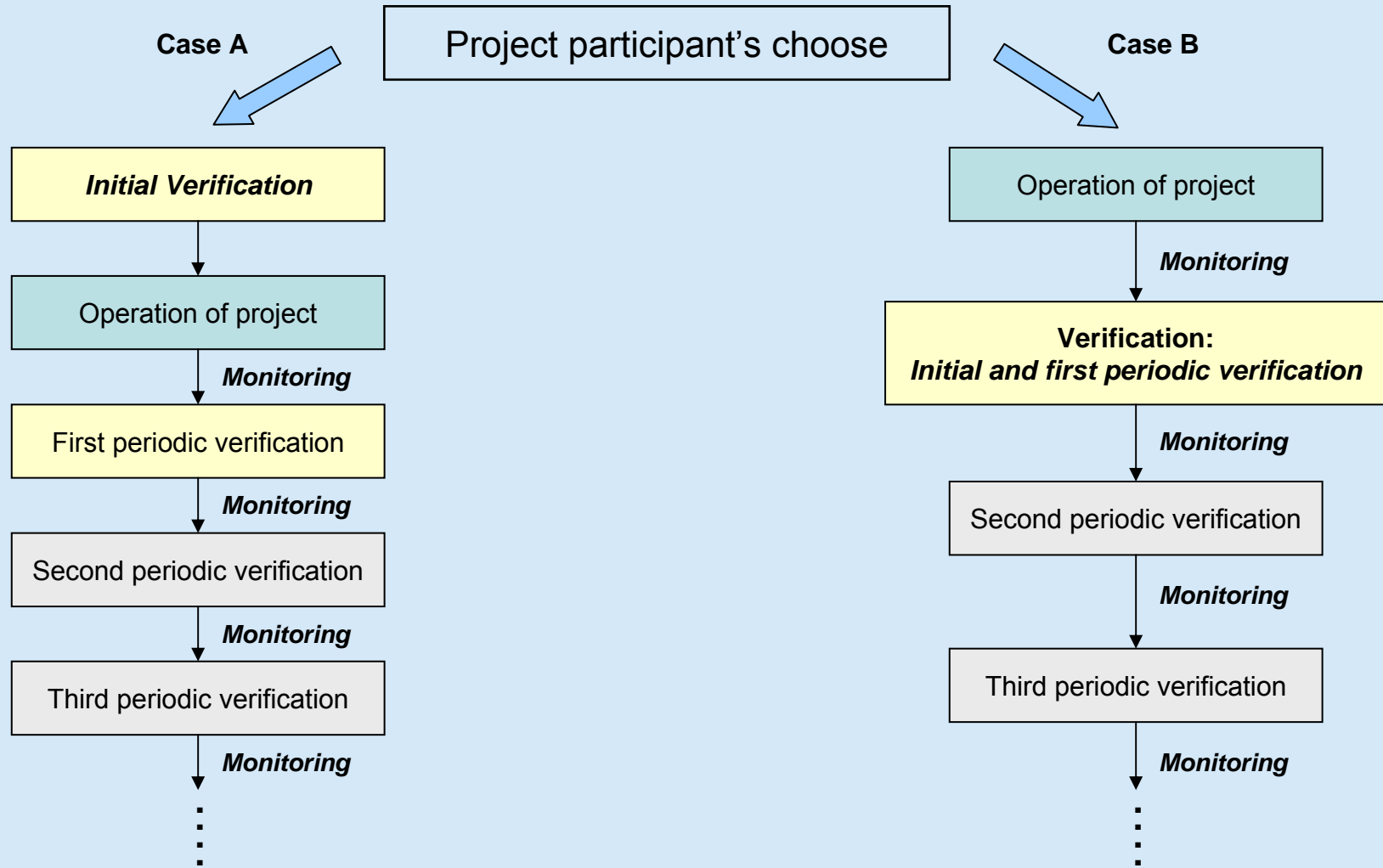
▶ Definition of Initial Verification

“During an initial verification, the verifier will review that all operations are implemented and installed as planned and that all physical features of the project are in place. One important purpose of the initial verification is to confirm that the monitoring system is in place and fully functional.”

- *VVM*



► Overview of Initial Verification



► Case A vs. Case B

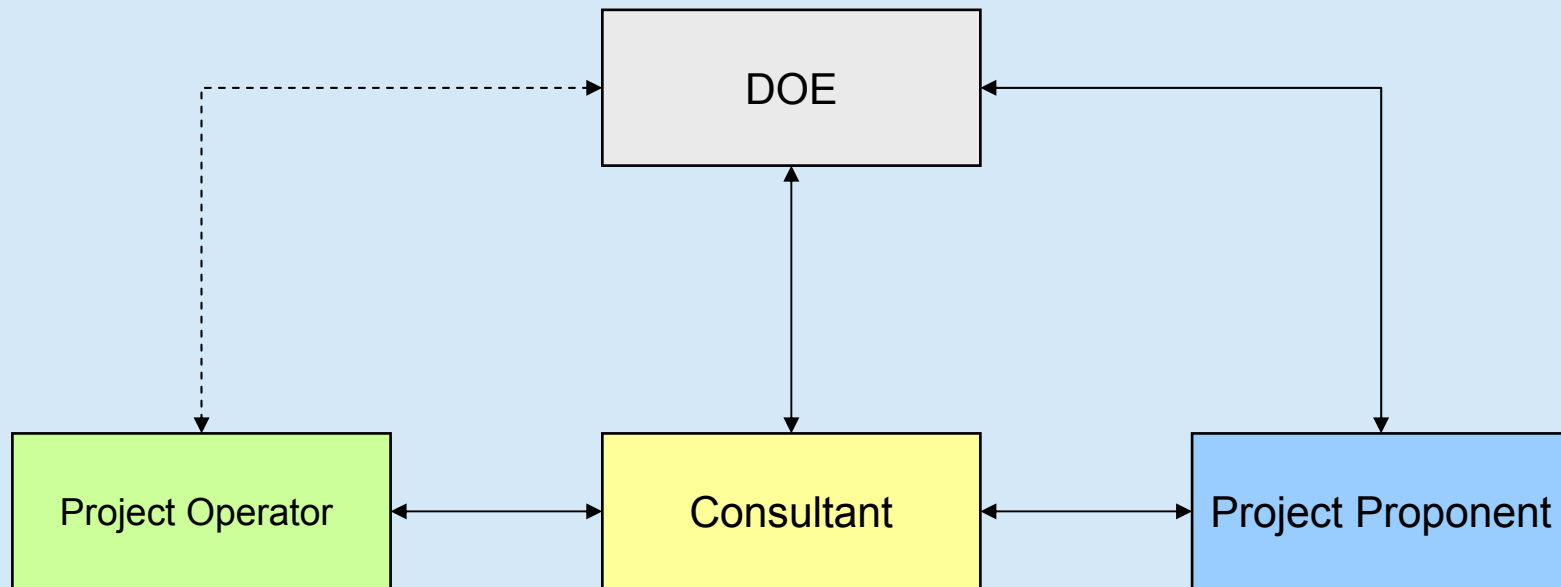
| | Case A | Case B |
|-------------------------------------|----------------|-------------------------------------|
| Verification Costs | Higher | Lower |
| Assurance of CER-generation | Higher | Lower |
| Certification of CERs | No | Yes (No) |
| Publication of Verification Report | Not required | Required |
| Publication of Certification Report | Not applicable | Required (if generation of CERs) |

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▶ Initial Verification Entities



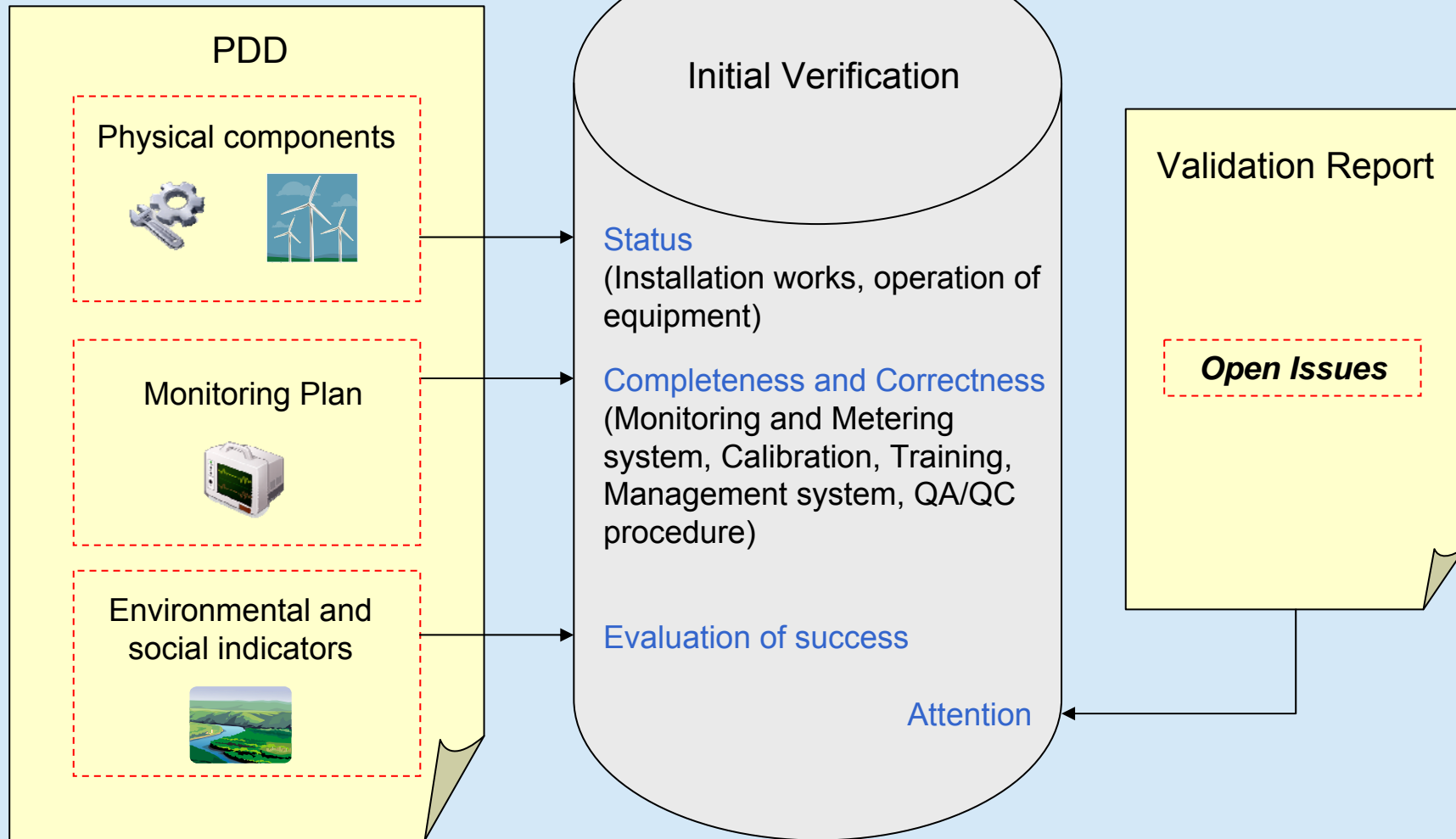
↔ Contractual relationships
- - - Communication channels during initial verification

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▶ Initial Verification Scopes



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▶ Initial Verification Process

| Step | Action | PP | CB of DOE | Verification Team |
|------|-----------------------------------|------------|-----------|-------------------|
| 1 | DOE Selection | X | | |
| 2 | Verifier Contract Establishment | X | X | |
| 3 | Verification Team Selection | | X | |
| 4 | Desk Review | | | X |
| 5 | On-Site Assessment | X | | X |
| 6 | Draft Initial Verification Report | | | X |
| 7 | CAR and FAR (if applicable) | (X) | | X |
| 8 | Final Initial Verification Report | | X | X |

CB: Certification Body

CAR: Corrective Action Requests

FAR: Forward Action Requests



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▶ Desk Review

| Documents to be reviewed | Additional documents to be reviewed |
|---------------------------------------|---|
| PDD and its attachment | Process flow diagrams (More details as in PDD) |
| Validation Report | Technical drawings |
| Management Manual | Manuals of equipment suppliers |
| Operation licenses (if applicable) | |

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► On-site Assessment

| Step | | Subject | Purpose |
|----------------|---|--|---|
| Preparation | 1 | Timetable | On-site visit, verification report |
| | 2 | Checklist | Key issues, documentation |
| Implementation | 3 | Opening meeting | Workflow, available persons |
| | 4 | Data management | Check of proper application |
| | 5 | Metering equipment and its maintenance and calibration | Preparation of next periodic verification |
| | 6 | Interview stakeholders | Achievement of environmental and social impact during construction phase |
| | 7 | Interview operating staff | Check of risks for inappropriate operation and data collection procedures |
| | 8 | Closing meeting | CAR/FAR (if any); Summary and outlook |
| | 9 | Reporting | Draft initial verification report |

▶ On-site Assessment

During site visit (Initial Verification) the auditor shall pay particular attention to:



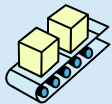
Status of project installation



Internal data (collection and calculation) and external data (type and quality)



Monitoring and metering system (monitoring plan, data sampling, metering equipment, calibration records)



Management system (procedures for training, emergency cases, data archiving, internal audits and QA/QC)



Environmental and social impact

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► Summary

- No mandatory requirement, if initial verification is before operation of project
- Assurance of CER-generation
- Verification scopes
- Technical expertise of verifier

