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# Key steps and considerations in JCM

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# Why are we here?

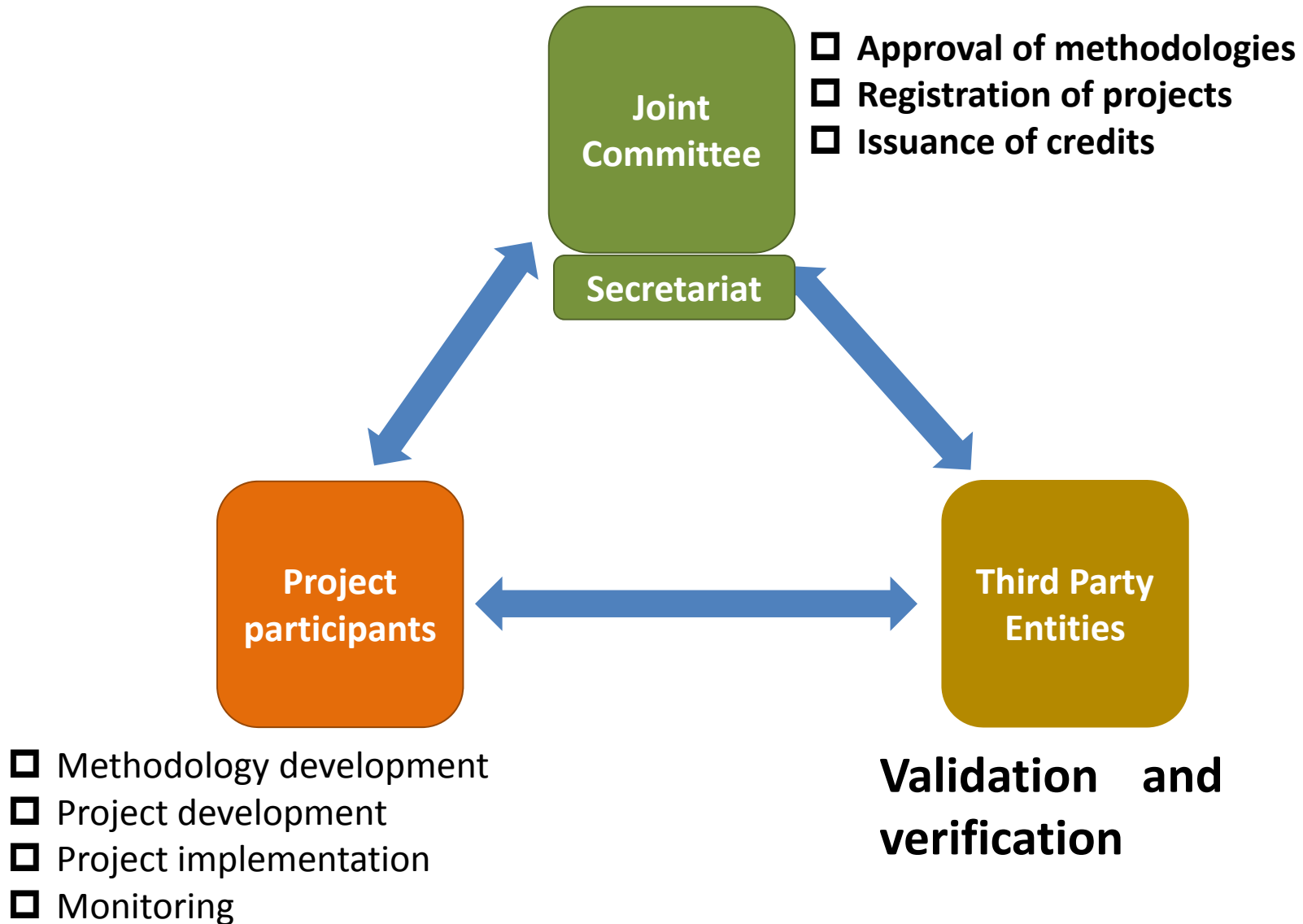
- If you are a **member of JCM Joint Committee**,
  - You will have an opportunity to learn what JC should/can do. You can ensure that JCM projects are in line with Mongolian national or sectoral interests.
- If you are a **technical expert**, then
  - You will have an opportunity to learn JCM in-depth. You could work as a consultant to support JCM project proponents or support JC by providing technical inputs.

# Today's outline

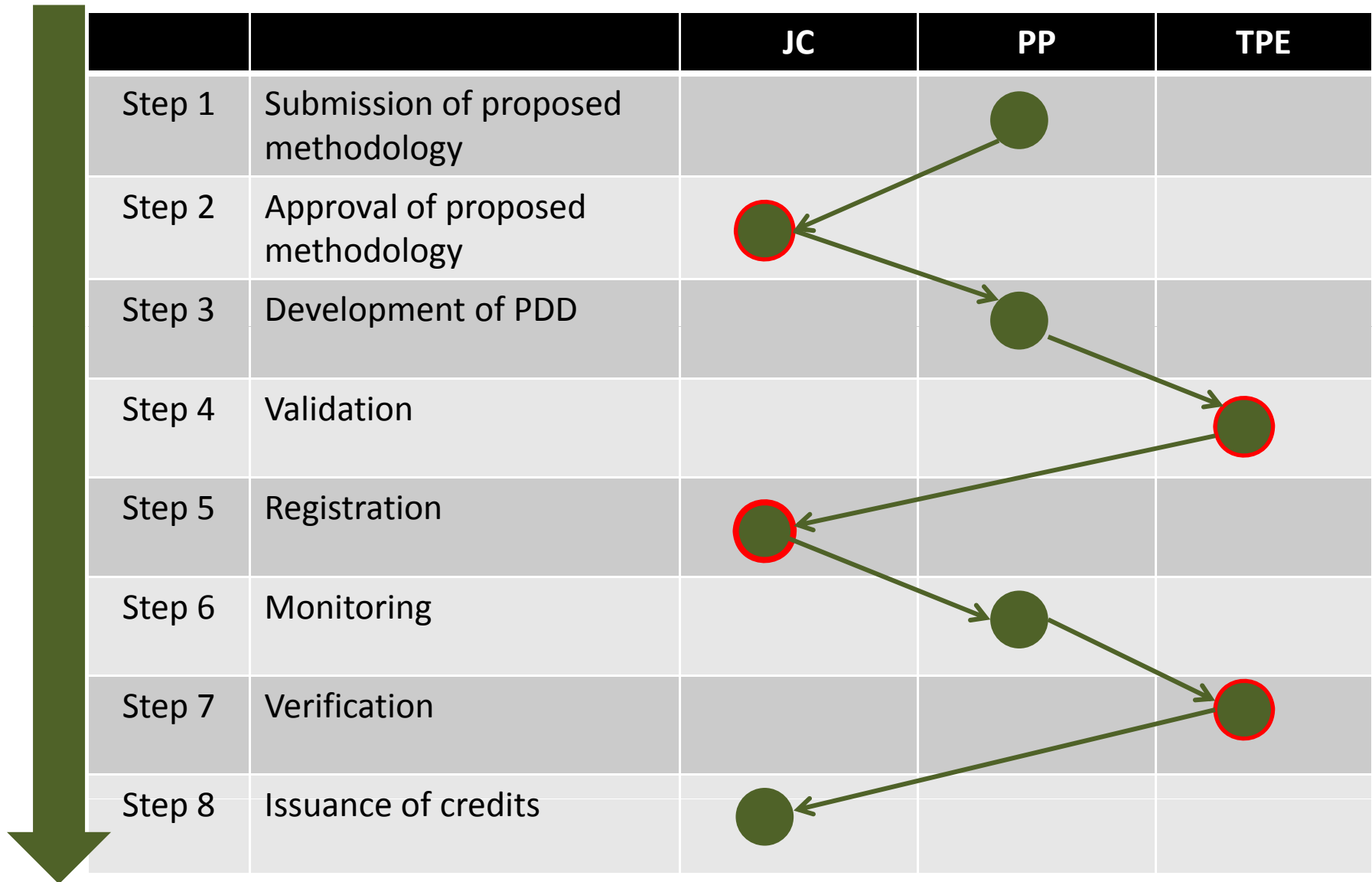
1. Introduction
2. JCM key procedures
  - a. Methodology
  - b. Validation/Project registration
  - c. Verification
3. Funding sources for JCM

# **1. INTRODUCTION**

# Three key actors in JCM



# Project cycle of JCM



Note: Issuance of credit is done by each government, but the amount of credits is decided by the JC.

# **A. METHODOLOGY**

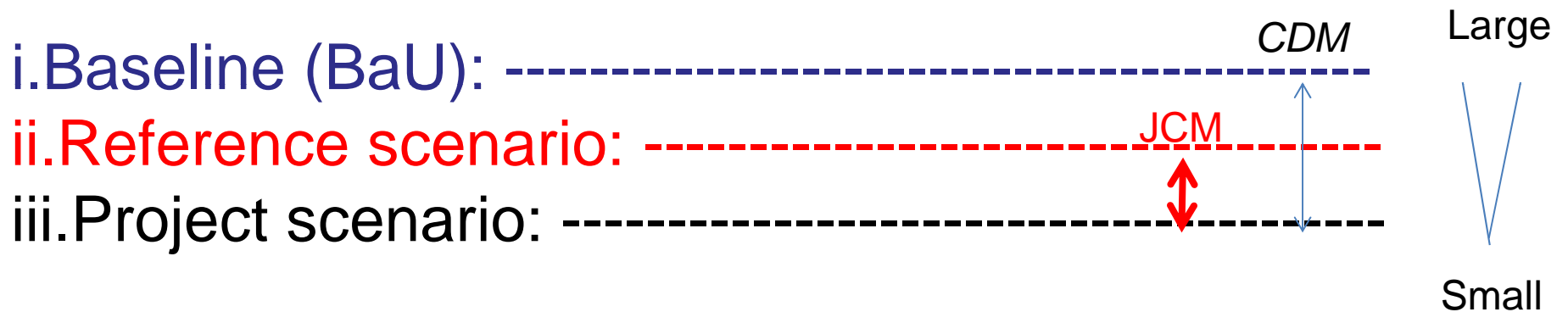
# How should a JCM methodology look like?

- Methodology in JCM quantifies GHG reduction from project implementation.
- “Net emission reduction” is important
- Key concepts
  - Reference emission
  - Eligibility criteria



# Reference scenario

ERs in the JCM are defined as the difference of the emission level between ii and iii:



i,iii: defined by direct monitoring (ex-post, mandatory).

⇔ ii: calculated (ex-ante), conservatively (smaller than BaU).  
not to be monitored

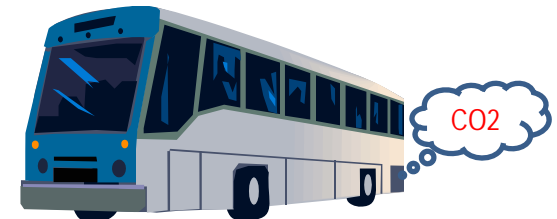
... More conservative ERs could reduce more monitoring tasks!

# In case of electric bus project

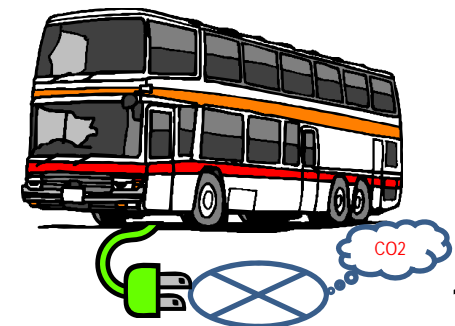
- i. **Baseline scenario (BaU) :**  
the most presumable scenario,  
eg. Old diesel-fueled bus with low fuel efficiency



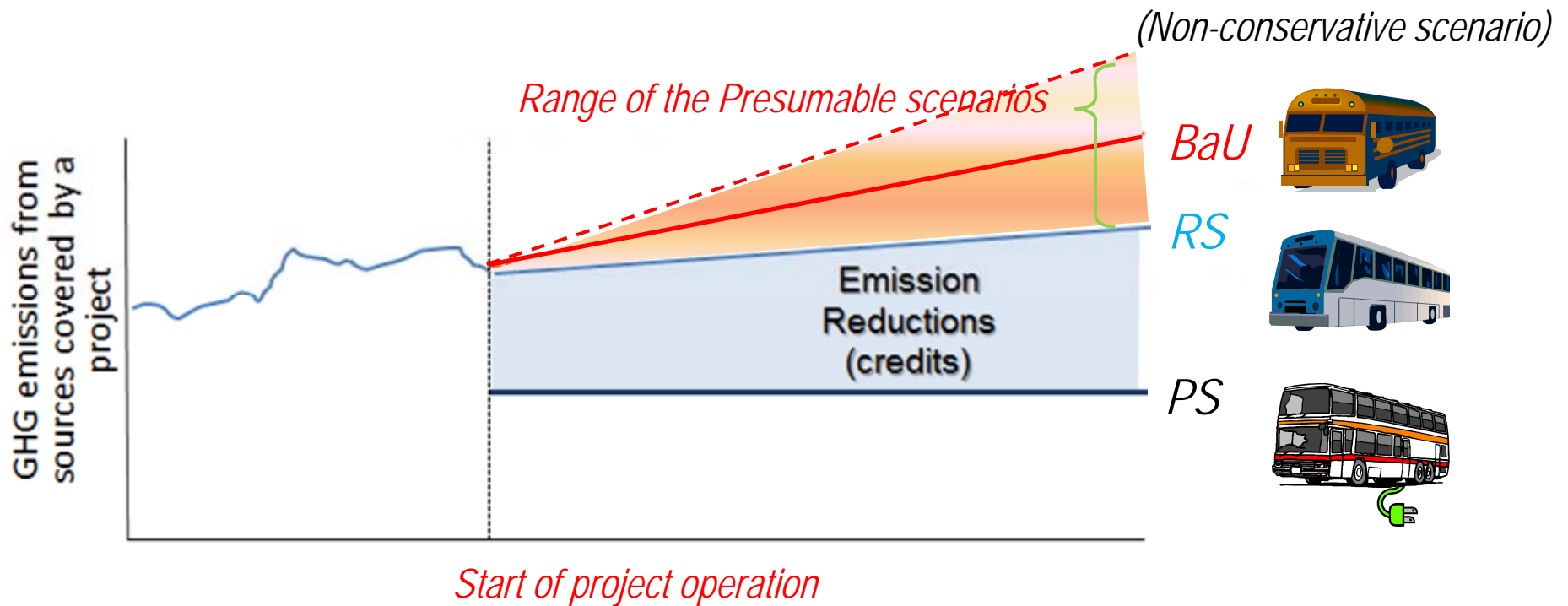
- ii. **Reference scenario (RS):**  
conservative scenario among presumable scenarios,  
eg. New diesel-fueled bus with high fuel efficiency



- iii. **Project scenario (PS):**  
electric bus operation



# Emission reduction of electric bus project



Source: Views on FVA, submission from Japan, 2013, edited by the speaker

# Eligibility criteria

- Eligibility criteria of methodologies should be objective without relying on expert judgment.
  - Eligibility criteria normally provides (very) technical specifications to apply the methodologies
  - The objectivity of eligibility criteria is important to ensure consistent judgment by TPEs.

## Eligibility criteria: MN\_AM001

### “Installation of energy-saving transmission lines in the Mongolian Grid”

Criterion 1	The transmission line constitutes of a single or double circuit(s) directly connecting a substation and another substation within the country with no branching in between, and does not constitute a part of a loop.				
Criterion 2	The type of conductor is LL-ACSR/SA, which meets the following technical criteria <sup>1</sup> .				
	Type of energy-saving conductors	unit	Equivalent to LL-ACSR/SA 279/20mm <sup>2</sup>	Equivalent to LL-ACSR/SA 337/27mm <sup>2</sup>	Equivalent to LL-ACSR/SA 445/36mm <sup>2</sup>
	Outer diameter of conductor	mm	≅ 21.6	≅ 24.0	≅ 27.5
	Direct current resistance (@20degC)	Ω/km	≅ 0.1063	≅ 0.0862	≅ 0.0659
	Tensile strength	N	≅ 75,050	≅ 90,574	≅ 120,481
	Weight	kg/km	≅ 921	≅ 1,132	≅ 1,490
	Corresponding conductors currently in use that forms the basis of calculating the reference emissions.		ACSR 240/32mm <sup>2</sup>	ACSR 300/39mm <sup>2</sup>	ACSR 400/51mm <sup>2</sup>

# Eligibility criteria: IN\_AM001

## “Power Generation by Waste Heat Recovery in Cement Industry”

<b>Criterion 1</b>	The project utilizes waste heat from the cement production facility by waste heat recovery (WHR) system to generate electricity.
<b>Criterion 2</b>	WHR system consists of a Suspension Preheater boiler (SP boiler) and/or Air Quenching Cooler boiler (AQC boiler), turbine generator and cooling tower.
<b>Criterion 3</b>	WHR system utilizes only waste heat and does not utilize fossil fuels as a heat source to generate steam for power generation.
<b>Criterion 4</b>	WHR system has not been introduced to a corresponding cement kiln of the project prior to its implementation.
<b>Criterion 5</b>	The WHR system is designed to be connected only to an internal power grid of the cement factory.
<b>More...</b>	

# **B. VALIDATION/PROJECT REGISTRATION**

# Step 3-5: Validation/project registration

1. PPs prepare the 3 required documents and submit them to the JC and the contracted TPE.

## The 3 Required Documents:

- ✓ PDD
- ✓ Monitoring plan, incl. structure sheet
- ✓ Modalities of communication (MoC)

## 2a. JC Secretariat

(Call for public inputs)

2a-1. Preparation stage

- ✓ issues a unique reference No. to the project.
- ✓ makes the documents publicly available for public inputs.

2a-2 Call for public inputs stage (via website for 30 days)

- ✓ makes the inputs publicly available.

## 2b. TPE

(Validation)

2b-1. Desk review

2b-2. Follow-up interview (Site visit)

2b-3. Validation report (follow the official form and send to PPs)

3. PPs submits registration request form and the 4 required documents to the JC

## The 4 Required Documents:

- ✓ PDD
- ✓ Monitoring plan, incl. structure sheet
- ✓ Modalities of communication (MoC)
- ✓ **Validation report with positive opinion**

4. JC Secretariat conducts completeness check (< 7 days)

- ✓ *JC is supposed to focus SD criteria, which is not assessed by TPE.*
- ✓ *In case of "reject" due to inappropriate performance of TPE, suspension of designation shall be considered.*

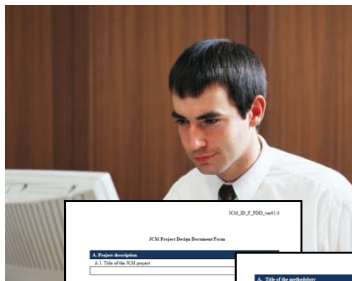
5. JC decides to approve/reject the request





# What is Validation under the JCM

- the process of independent evaluation of a proposed JCM project by a TPE against the validation guidelines as developed by the JC on the basis of the PDD (JCM RoI)
- Systematic, independent and documented process for the evaluation of a GHG assertion in a GHG project plan, against agreed validation criteria (ISO14064-3)

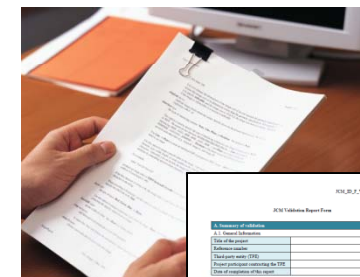


JCM Validation Report Form	
A.1. Name of the JCM project	
A.2. Detailed description of project and applicable technology and use	
A.3. Location of project, including coordinates	
A.4. Name of project participant	
A.5. Period	
A.6. Period	
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Desk review



On site assessment and interview etc



JCM Validation Report Form	
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A.100. Name of validation	

Prepare a validation report

# What is the requirement for the Validation (and Verification)

## 1. “Guidelines for Validation and Verification”

➤ “3. Normative references: The following referenced documents are **indispensable** for the application of these Guidelines:

(a) “ISO 14064-3 (para 4)”

## 2. “ISO 14064-3:2006 Greenhouse gases -- Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions”

# What is the Validation Report

## ◆ Contents

### A. Summary of validation

A.1 General information

A.2 Conclusion of validation

A.3 Overview of final validation conclusion

### B. Validation team and other experts

### C. Means of validation, findings and conclusions based on reporting requirements

C.1 Project design document form

C.2 Project description

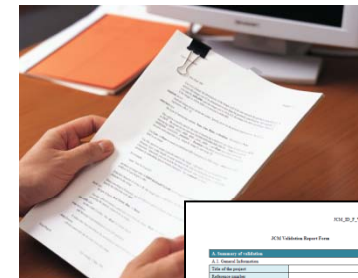
...

C.10 Start of operation

C.11 Other issues

### D. Information on public inputs

### E. List of interviewees and documents received



KINR, 2.10.14, 2.15.14.1	
KIN Validation Report Form	
<b>A. Summary of validation</b>	
<b>A.1 General Information</b>	
Title of the system	
Reference number	
Responsible person (PI)	
Project partner(s) according to ETS	
Date of completion of the report	
<b>A.2 Conclusion of validation</b>	
Overall validation status	<input type="checkbox"/> Positive <input type="checkbox"/> Negative
<b>A.3 Overview of final validation conclusion</b>	
The main aim of the validation was to check if the validation criteria were satisfied	
Project description	The project description, including the project goals, objectives and the scope of the project, was reviewed and found to be in line with the validation criteria. The project description was reviewed and found to be in line with the validation criteria.
Requirements	The project description, including the project goals, objectives and the scope of the project, was reviewed and found to be in line with the validation criteria. The project description was reviewed and found to be in line with the validation criteria.
Validation criteria	The project description, including the project goals, objectives and the scope of the project, was reviewed and found to be in line with the validation criteria. The project description was reviewed and found to be in line with the validation criteria.
Findings	The project description, including the project goals, objectives and the scope of the project, was reviewed and found to be in line with the validation criteria. The project description was reviewed and found to be in line with the validation criteria.
Conclusions	The project description, including the project goals, objectives and the scope of the project, was reviewed and found to be in line with the validation criteria. The project description was reviewed and found to be in line with the validation criteria.
Recommendations	The project description, including the project goals, objectives and the scope of the project, was reviewed and found to be in line with the validation criteria. The project description was reviewed and found to be in line with the validation criteria.

Prepare a validation report

# Project registration

- Once the project receives validation with positive opinion, the PP can request registration to JC.
- **However, current guideline provide no guidance on how JC should decide approval/ rejection of proposed projects.**
- JC could possibly assess the project's contribution to sustainable development of Mongolia.

# Sustainable development (SD)

- Japan-Mongolia low-carbon partnership document includes text on **sustainable development**
- But SD is not explicitly included in JCM processes (although EIA and local stakeholder consultation are included)
- In CDM, host countries developed sustainable development criteria.

# SD Criteria for CDM in Mongolia

	SD criteria groups	11 specific SD criteria
<b>Sustainable development criteria</b>	<b>Impact on environment</b>	Climate change (fossil fuel use, carbon sequestration, energy efficiency)
		Local environment (air, water, soil, waste)
		Natural resource use (depleting natural resource base, biodiversity)
	<b>Impact on society</b>	Poverty reduction (employment)
		Equity (income distribution)
		Health
		Satisfying basic demand (energy, water, sanitation)
		Improving ecological education
	<b>Impact on economy and technology</b>	Efficient resource utilisation (financial, technical and human resource)
		Transfer of technology and know-how
		Creation of infrastructure (road, transport, water pipe and energy grid etc.)

# **C. VERIFICATION**

# Step 6-8: Verification and credit issuance

1. PPs prepare the monitoring report (only) and submit it to the contracted TPE.

2b. TPE (Verification)

2b-1. Desk review

2b-2. Follow-up interview (Site visit)

2b-3. Verification report

(follow the official **form** and send to PPs)

3. PPs submits credit issuance request **form** and the 2 required documents to the JC

**The 2 Required Documents;**

- ✓ Monitoring report
- ✓ **Verification report (with positive opinion?)**

4. JC Secretariat conducts completeness check (< 7 days)

5. JC decides the amount of credits to be issued

*In case of the significant difference on the amount, between decided by JC and verified by TPE, due to inappropriate performance of the TPE, suspension shall be considered.*



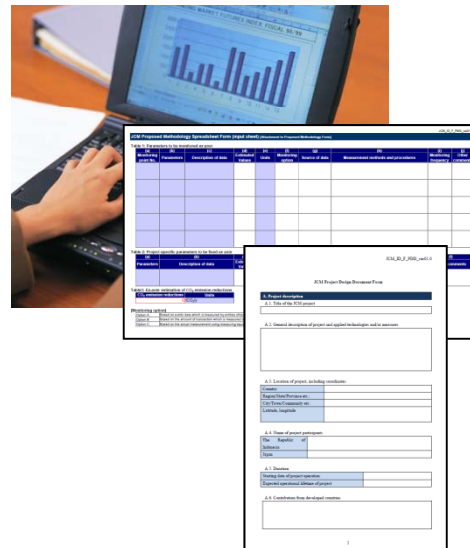


# Monitoring

1. Prepare a draft monitoring report in line with the methodology, the PDD and Monitoring guidelines
2. Submit it together with supporting documentation to the contracted TPE



Record of Monitored data

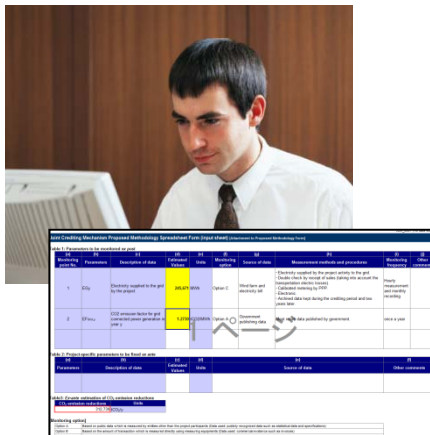


Prepare a monitoring report and submit it with evidences



# What is Verification under the JCM

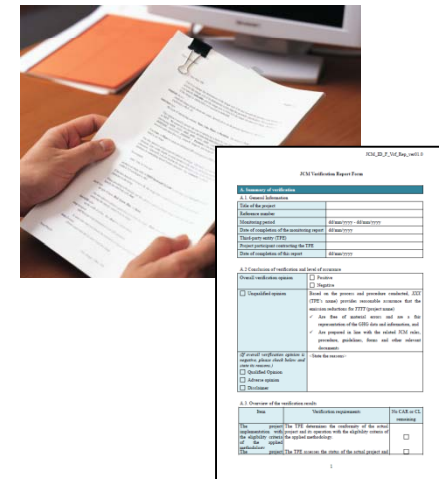
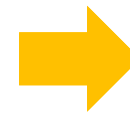
- *the periodic independent review and ex post determination by a TPE of the monitored GHG emissions reductions as a result of a registered JCM project during the verification period (JCM RoI)*
- *Systematic, independent and documented process for the evaluation of a GHG assertion, against agreed verification criteria (ISO14064-3)*



Desk review



On site assessment and interview etc

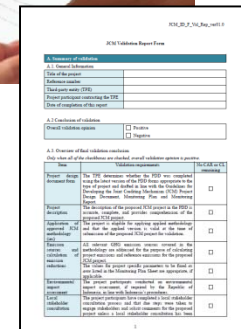
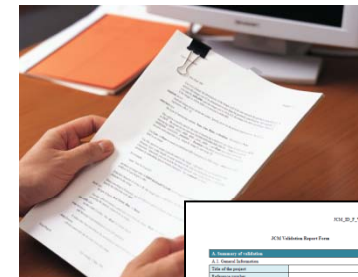


Prepare a verification report

# What is the Verification Report

## ◆ Contents

<b>A. Summary of verification</b>
A.1 General information
A.2 Conclusion of verification and level of assurance
A.3 Overview of the verification results
<b>B. Verification team and other experts</b>
<b>C. Means of verification, findings and conclusions based on reporting requirements</b>
C.1 Compliance of the project implementation and operation with the eligibility criteria of the applied methodology
C.2 Assessment of the project implementation against the registered PDD or any approved revised PDD
...
C.5 Assessment of avoidance of double registration
C.6 Post registration changes
<b>D. Assessment of response to remaining issues</b>
<b>E. Verified amount of emission reductions achieved</b>
<b>F. List of interviewees and documents received</b>



Prepare a verification report

# Official forms for the procedure

- All the forms are available at the following website;

<http://www.mmechanisms.org/e/initiatives/mongolia.html>

- ✓ JCM Modalities of Communication Statement Form ver01.0
- ✓ JCM Project Registration Request Form ver01.0
- ✓ JCM Credits Issuance Request Form ver01.0
- ✓ JCM Approved Methodology Revision Request Form ver01.0
- ✓ JCM Post-Registration Changes Request Form ver01.0
- ✓ JCM Registration Request Withdrawal Form ver01.0
- ✓ JCM Project Withdrawal Request Form ver01.0
- ✓ JCM Issuance Request Withdrawal Form ver01.0
- ✓ JCM Proposed Methodology Form ver01.0
- ✓ JCM Proposed Methodology Spreadsheet Form ver01.0
- ✓ JCM Project Design Document Form ver01.0
- ✓ JCM Application Form for Designation as a TPE ver01.0
- ✓ JCM Validation Report Form ver01.0
- ✓ JCM Verification Report Form ver01.0

Item	Guidelines	Forms
General	 <a href="#">Bilateral Document</a>	
	 <a href="#">Rules of Implementation ver01.0</a>	
	 <a href="#">Glossary of Terms ver01.0</a>	
Project Cycle		<ul style="list-style-type: none"> <li>• JCM Modalities of Communication Statement Form ver01.0 [PDF] [WORD]</li> <li>• JCM Project Registration Request Form ver01.0 [PDF] [WORD]</li> <li>• JCM Credits Issuance Request Form ver01.0 [PDF] [WORD]</li> <li>• JCM Approved Methodology Revision Request Form ver01.0 [PDF] [WORD]</li> <li>• JCM Post-Registration Changes Request Form ver01.0 [PDF] [WORD]</li> <li>• JCM Registration Request Withdrawal Form ver01.0 [PDF] [WORD]</li> <li>• JCM Project Withdrawal Request Form ver01.0 [PDF] [WORD]</li> <li>• JCM Issuance Request Withdrawal Form ver01.0 [PDF] [WORD]</li> </ul>
	 <a href="#">Project Cycle Procedure ver01.0</a>	
		<ul style="list-style-type: none"> <li>• JCM Proposed Methodology Form ver01.0 [PDF] [WORD]</li> <li>• JCM Proposed Methodology Spreadsheet Form ver01.0 [PDF] [EXCEL]</li> </ul>
	 <a href="#">Guidelines for Developing Proposed Methodology ver01.0</a>	
	 <a href="#">Guidelines for Developing Project Design Document and Monitoring Report ver01.0</a>	<ul style="list-style-type: none"> <li>• JCM Project Design Document Form ver01.0 [PDF] [WORD]</li> </ul>
		<ul style="list-style-type: none"> <li>• JCM Application Form for Designation as a Third-Party Entity ver01.0 [PDF] [WORD]</li> </ul>
Third-Party Entity (TPE)	 <a href="#">Guidelines for Designation as a Third-Party Entity ver01.0</a>	
	 <a href="#">Guidelines for Validation and Verification ver01.0</a>	<ul style="list-style-type: none"> <li>• JCM Validation Report Form ver01.0 [PDF] [WORD]</li> <li>• JCM Verification Report Form ver01.0 [PDF] [WORD]</li> </ul>

## **2. FINANCE SOURCES**

# JCM Funding sources

Suggestive name	Executed by:	Scale	Period	Form
<b>1. GEC subsidy programme</b>	Global Environment Center	12 million USD /year	2013-2016 and maybe more	Grant
<b>2. JICA+ grant programme</b>	Low Carbon Society Promotion Association (in cooperation with JICA)	42 million USD	2014 and maybe more	Grant
<b>3. ADB+ subsidy programme</b>	Asian Development Bank	18 million USD	2014-2020	Grant
<b>4. NEDO programme</b>	New Energy Development Organisation	48 million USD (2014)	2013-unknown	Purchase back

# GEC subsidy programme



Name	JCM model project
Funding source	Ministry of the Environment of Japan
Executed by:	Global Environment Center Foundation
Scale	12 million USD per year
Period	2013-2016, and maybe more
Note	<ul style="list-style-type: none"><li>- Subsidizes up to 50% of initial cost</li><li>- Subsidy is provided as a reimbursement after installation is complete</li></ul>

# ADB+ grant programme



Name	Japan Fund for the Joint Crediting Mechanism (JFJCM)
Funding source	Ministry of the Environment of Japan
Executed by:	Asian Development Bank
Scale	18 million USD per year
Period	2014-2020

## Note

- Provide supplementary grant to existing projects in the pipeline of ADB
- Unclear whether use of this fund require project registration as JCM
- Bangladesh, Cambodia, Indonesia, Lao People's Democratic Republic, Maldives, Mongolia, Palau, and Viet Nam are currently eligible
- Targeted technologies include, but not limited to, smart grids, waste-to-energy schemes, and energy efficiency measures in facilities such as water supply and sanitation plants, transport systems, and buildings.



# JICA+ subsidy programme



Name	Leapfrog subsidy (unofficial)
Funding source	Ministry of the Environment of Japan
Executed by:	Low Carbon Society Promotion Association (in cooperation with JICA)
Scale	42 million USD per year
Period	2014- Unknown

## Note

- Provides supplementary grant to existing projects in the pipeline of JICA's Private Sector Investment (approval by JICA prerequisite)
- User of this fund must register the project as JCM

## Note of JICA's Private Sector Investment

- Provide investment or loan to private sector
- Re-started in 2012

# NEDO programme



Name	JCM demonstration programme
Funding source	Ministry of Economy, Trade and Industry
Executed by:	New Energy Development Organisation
Scale	48 million USD (2014) (50 million USD – 1500 million USD per project per year. Up to three years per project)
Period	2013- unknown

## Note

- NEDO, in cooperation with Japanese and host country entities, implements GHG-reducing projects.
- The installed facility is to be purchased by Japanese firms after the demonstration at discounted price (this may possibly be further transferred to the host country side)

