The Current Development of the Joint Crediting Mechanism (JCM) in Indonesia

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Presentation structure

1. The Indonesia current market mechanism initiatives status
2. The JCM current development
3. How the JCM works?
4. The Indonesia participants involvement in JCM processes
5. The JCM steps
It’s all started from climate change issues

- Economic growth increases with GHG emission
- 7 years to achieve national commitment of GHG emissions reduction by 26% under BAU level in 2020 (up to 41% with international support).
- Emission reduction is not compromising growth (26/7 vision).

Lesson learned:
- Carbon market instruments such as CDM proved to be effective to spur emissions reduction by industries: 215 projects approved by DNA, 146 projects registered, 37 projects issued CERs (equals to 11 million tCO2)
- Increasing interest and opportunity from voluntary carbon markets, currently 9 projects are already delivered more than 8 million tons.
The JCM and other Indonesia initiatives on market mechanism

**CDM**
- Giving very high expectation in the beginning, very difficult and complex to be implemented, and suddenly everything was stopped due to the lack of demands, now we have no new project in 2014.
- But still we got a lot of experiences from the CDM projects that we have developed.

**VCS**
- Relatively small compare to CDM, but still growing smoothly.
- It’s very difficult to escalate the Indonesian business sector involvement in VCS mechanism, and until now only very limited projects that have been developed (one of it is our first REDD+ project).

**Nusantara Carbon Scheme**
- Still in the preliminary stage.
- Some of the methodologies had been tested, and so far receive positive responses from the business entities.
- We hope someday it will be one of the alternative for the market based mitigation actions.

**The JCM Scheme**
- We need more than three years to develop the agreement, started from 2010 and its finally signed at August 2013.
- The Joint Crediting Mechanism is the most progress mechanism now in Indonesia.
- It is not only about the bilateral carbon trading, but rather than how to develop and implement the green investment as well as low emission development and technology transfer between the 2 countries.
- Japan and Indonesia have their own national target on emission reduction to be achieved, and it can be done through JCM.
- Both countries also need to increase their economic development as well as develop more opportunities for their private sectors to grow.
How the JCM scheme works?

**Japan**
- **Government**
  - Issuance of credit
  - Request issuance of credits

**Joint Committee**
- **Secretariat**
  - Japanese Side
  - Indonesian Side
  - Communication
  - Request registration of projects
  - Submit PDD / monitoring report
  - Inform results of validation / verification

**Indonesia**
- **Government**
  - Issuance of credit
  - Request registration of projects
  - Report issuance of credits
  - Notifies registration of projects

**Third Party Entities**
- Validate projects
- Verify amount of GHG emission reduction or removal

**Project Participants**
- Implementation & monitoring of projects
- Report issuance of credits
- Notifies registration of projects
- May contact TPE and Secretariat through one Contact Entity
Steps in the JCM

- Submission of Proposed Methodology
- Approval of Proposed Methodology
- Development of PDD *
- Validation
- Registration
- Monitoring
- Verification
- Issuance of credits

*PDD: Project Design Document

Can be conducted by the same TPE
Can be conducted simultaneously

Joint Committee
Project Participant
Third Party Entities
Joint Committee
Project Participant
Third Party Entities

Joint Committee decides the amount
Each Government issues the credit
Baseline emission and reference emission differences
(an example of a comparison between calculation based on JCM and on MRV Regulation PerMenLH 15/2013)

Baseline emission is equivalent to BaU and/or Reference Emissions.
Mitigation Emission is equivalent to Project Emissions.
In JCM, 2 types of emission reduction are measured: Reference Emissions & Project Emission.
Reference Emissions is the emission value prior the project is implemented and its amount is below BaU emission.
The value of Reference Emissions in JCM depends on the methodology. Therefore, the value can be equal or different with Baseline Emission.
The measured emission reduction “recorded” in JCM can be equal, but will not be above the value recognized by MRV PerMenLH 15/2013.
The JCM projects current development

The Feasibility Study (FS)
• 75 FS have been done in 2010-2013 on 13 sub sectors.
• 21 FS will be finished on February 2015, including 3 FSs that cooperate with local government (one of it is Bandung FS project).

The Project Implementation
• 11 JCM projects are now in our pipeline.
• 1 project is withdraw due to the political issues.
• 1 project is registered as a JCM project.
• 9 projects on energy efficiency and 2 projects on renewable energy.
• All of the projects are being developed with the cooperation between Indonesia and Japan participants.

The Registered Project
“Energy Saving for Air-Conditioning and Process Cooling by Introducing High-efficiency Centrifugal Chiller” is our first registered project under the JCM.

The 1st JCM registered project:
• Collaboration between Ebara Equipment & Systems and PT Primatexco Indonesia
• Location: Batang, Central Java
• Estimated total emissions reduction 799 tCO₂ eq. by 2020
• Annual 965 MWh energy saving
## List of JCM implementation projects

<table>
<thead>
<tr>
<th>Num.</th>
<th>Project Names</th>
<th>Estimated Emission Reduction (ton CO2/year)</th>
<th>Capacity/estimated energy saving</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Energy saving by double bundle-type heat pump at beverage plant</td>
<td>585</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Energy saving for air-conditioning at textile factory</td>
<td>592</td>
<td>799 MWh</td>
</tr>
<tr>
<td>3.</td>
<td>Energy saving for air-conditioning and process cooling at textile factory</td>
<td>715</td>
<td>965 MWh</td>
</tr>
<tr>
<td>4.</td>
<td>Energy Savings at Convenience Stores</td>
<td>33.1</td>
<td>39 MWh</td>
</tr>
<tr>
<td>5.</td>
<td>Energy Efficient Refrigerants to Cold Chain Industry</td>
<td>213</td>
<td>288 MWh</td>
</tr>
<tr>
<td>6.</td>
<td>Energy Saving by Optimum Operation at Oil Refinery</td>
<td>3,400</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Utility Facility Operation Optimization Technology - &quot;RENKEI&quot; Control</td>
<td>58,000</td>
<td>800 MWh</td>
</tr>
<tr>
<td>8.</td>
<td>Energy saving through introduction of regenerative burners to the aluminum holding furnace of the automotive components manufacturer</td>
<td>855.6</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Energy saving for textile factory facility cooling by high efficiency centrifugal chiller</td>
<td>104</td>
<td>92.4 MWh</td>
</tr>
<tr>
<td>10.</td>
<td>Remote Auto-Monitoring System for Thin-Film Solar Power Plant in Indonesia</td>
<td>1,432</td>
<td>1 MW</td>
</tr>
<tr>
<td>11.</td>
<td>Power generation by waste heat recovery in cement industry</td>
<td>122,000</td>
<td>30.4 MW</td>
</tr>
<tr>
<td>12.</td>
<td><strong>Palm waste biomass power generation project</strong></td>
<td><strong>28,128</strong></td>
<td><strong>5.7 MW</strong></td>
</tr>
<tr>
<td>13.</td>
<td><strong>Solar power hybrid System installation to existing base transceiver stations in off-grid area</strong></td>
<td><strong>2,786</strong></td>
<td><strong>18 KW</strong></td>
</tr>
</tbody>
</table>

*Registered*

*Withdrawn*
The JCM actors

- The Government of Japan and the Government of Indonesia
- The Indonesia State Owned and Private Companies
- The Indonesia Local Governments
- The Japan private companies
- The Third Party Entities and Indonesia and Japan Consultants
Necessary documents for JCM

**Overall**
- Rules of Implementation
- Project Cycle Procedure
- Glossary of Terms
- Guidelines for Designation as Third Party Entity (TPE) Guidelines (in developing phase)

**Joint Committee**
- Rules of Procedures for the Joint Committee

**Project procedures**
- Developing a PDD
- Guidelines for Developing PDD and Monitoring Report
- Validation and Verification
- Guidelines for Validation and Verification

Some national guidelines are being prepared for the JCM implementation, e.g.:
- Project Monitoring and Evaluation Guidelines
- Sustainable Development Implementation Guidelines
- Capacity Building Implementation Procedures
- Etc

We facilitate the continuous discussions between Indonesian and Japanese side as one of the most crucial part for development of these guidelines and procedures.
The organizational and technical instruments matters

1. The Joint Committee Meeting is the highest decision making process in JCM Scheme, it was held 2 times a year.
2. In the 1st JC Meeting we agreed for the following issues:
   a. Indonesia JCM Secretariat establishment
   b. Adoption of 1st JCM Rules & Guidelines, etc
3. In the 2nd JC Meeting we agreed for the following issues:
   a. Adoption of the 1st methodology, the 2nd methodology was agreed via electronic decision
   b. Designation of 7 TPE, etc
4. In the 3rd JC Meeting we agreed for the following issues:
   a. Registered the 1st JCM project in the world for centrifugal chiller
   b. Adoption of 2 methodologies for energy efficiency in convenient store, etc
JCM methodology development, an example of the transparency processes

**Preparation of Methodology**
- Prepare a draft methodology
- Prepare a proposed methodology: Guidelines, form, spreadsheet, other documents

**Submission of Proposed Methodology**
- Submit the proposed methodology

**Completeness Check**
- Notify the receipt of the submission
- Communicate the result of completeness check

**Public Comment**
- Public comment [15 days] (secretariat)

**Approval of Proposed Methodology**
- Approval of the proposed methodology

**Joint Committee**
- Support and facilitate
- Discussion and review
- Completeness check [7 days] (secretariat)
- Assessment of the proposed methodology [60 days or up to 90 days]

**Secretariat**
- Notify the outcome of consideration

Note: Asterisk (*) indicates documentation relevant for each step of the procedure

- Consultation with local experts
- Consultation with international experts
- Using methodology review form
- Discussion meetings between JC ministries
Steps in JCM Feasibility Studies (FS) to be a JCM project

Exact procedures described in application guidelines of respective schemes should be referred to.

1. **FS Participant Candidates**
   - **METI/NEDO or MOE Japan**
     - Apply for FS support scheme

2. **FS implementation (1 study or more)**
   - **Feasible**
     - Apply for subsidy or entrustment (**)
   - **Not feasible**

3. **Apply for subsidy or entrustment (**)**
   - **METI/NEDO or MOE Japan**
     - **approved**
       - JCM Project with subsidy or entrustment
     - **not approved**
       - No subsidy or Entrustment (*)

4. **METI/NEDO or MOE Japan**
   - **approved**
     - JCM Project with subsidy or entrustment
   - **not approved**
     - No support for FS (*)

5. **No support for FS (**)**
   - **not approved**
     - Need further study

6. **Not feasible**
   - **Not apply (*)**

7. **No implementation as JCM project**

8. **(*) except for FS reapplication**
   - (***) PP candidate may apply without conducting FS
Steps in JCM implementation projects

- **Start of project (i.e. design, procurement, etc)**
  - The Embassy of Japan and Indonesia JCM Secretariat will arrange individual meeting with project participants from both sides.
  - If requested, or when obstacles occur (such as location finding or related to government systems), the Secretariat can involve the processes.

- **Technology Implementation**
  - “Monitor the development of JCM related programs and implementation of JCM projects, taking into account sustainable development criteria and environmental integrity.” (JCM Rule of Implementation Para 14 point (a) article (iii)).
  - The Secretariat and GOI at least will do 1 site visit in this phase.

- **Verification by TPE**
  - The project participants choose the TPE from the JCM list.
  - “The TPE describes all documentation supporting verification and makes such documentation available to the Joint Committee upon request.” (JCM Guidelines for Verification and Validation Para 128)
  - The TPE verify emission reduction
  - Together with the project participant, TPE prepare a verification report and submit it to the Government of Indonesia through JCM Secretariat.

- **Credit issuance**
  - “On the basis of a request for notification to each side for issuance of credits submitted by project participants, the Joint Committee notifies both sides to issue the credits which were verified by the third-party entities.” (JCM Rule of Implementation Para 10).
  - The JC then will decide the issuance of the credit, including the credit shares for each involved parties.

Submission & Validation of PDD
Visit our website at www.jcmindonesia.com for more information
Terima kasih

hartur Nuwun

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