JCM in CHARTS for Indonesia

Ver. 3.0 (Jan 2019)

mitra hijau
Green partnership for the blue planet

JCM
JOINT CREDITING MECHANISM
INDONESIA SECRETARIAT

Coordinating Ministry
for Economic Affairs
Republic of Indonesia

環境省
Ministry of the Environment

IGES
Institute for Global
Environmental Strategies

JCM in CHARTS for Indonesia, ver 2.0
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This document aims to provide a comprehensive and easy-to-understand description of the Joint Crediting Mechanism (JCM). It should be noted that this document does not replicate in the exact manner all the texts agreed upon in the international negotiations. Also, there are issues yet to be settled in the international negotiations regarding detailed interpretations and processes. As for the details and exact expressions in the agreed texts, please refer to the respective documents available on the website of the JCM <https://www.jcm.go.jp>.

For any queries relating to this document, please contact <ce-info@iges.or.jp>.

Tree Diagram of Contents

Approved methodologies

ID_AM001	Power Generation by Waste Heat Recovery in Cement Industry, Version 1.0
ID_AM002	Energy Saving by Introduction of High Efficiency Centrifugal Chiller, Version 2.0
ID_AM003	Installation of Energy-efficient Refrigerators Using Natural Refrigerant at Food Industry Cold Storage and Frozen Food Processing Plant, Version 2.0
ID_AM004	Installation of Inverter-Type Air Conditioning System for Cooling for Grocery Store, Version 2.0
ID_AM005	Installation of LED Lighting for Grocery Store, Version 2.0
ID_AM006	GHG emission reductions through optimization of refinery plant operation in Indonesia, Version 2.0
ID_AM007	GHG emission reductions through optimization of boiler operation in Indonesia, Version 1.1
ID_AM008	Installation of a separate type fridge-freezer showcase by using natural refrigerant for grocery store to reduce air conditioning load inside the store, Version 2.0
ID_AM009	Replacement of conventional burners with regenerative burners for aluminium holding furnaces, Version 3.0
ID_AM010	Introducing double-bundle modular electric heat pumps to a new building, Version 1.0
ID_AM011	Installation of energy saving air jet loom at textile factory, Version 1.0
ID_AM012	Reduction of Energy Consumption by Introducing an Energy-Efficient Old Corrugated Carton Processing System into a Cardboard Factory, Version 1.0
ID_AM013	Installation of Solar PV System, Version 1.0
ID_AM014	Installation of Tribrid Systems to mobile communication's Base Transceiver Stations, Version 1.0
ID_AM015	Energy Saving by Introduction of High Efficiency Once-through Boiler, Version 1.0
ID_AM016	Installation of gas engine cogeneration system to supply electricity and heat to facility, Version 1.0
ID_AM017	Installation of Solar PV System and Storage Battery System, Version 1.0

As of 31 December 2018. The updated list of Approved Methodologies are available on the JCM official website: https://www.jcm.go.jp/id-jp/methodologies/approved and JCM Indonesia website: http://jcm.ekon.go.id/en/

Abbreviations and Acronyms

GHG	Greenhouse gas
JC	Joint Committee
JCM	Joint Crediting Mechanism
MoC	Modalities of Communication
PCP	Project Cycle Procedure
PDD	Project design document
PPs	Project participants
SDIP	Sustainable Development Implementation Plan
SDIR	Sustainable Development Implementation Report
TPE	Third party entity
UNFCCC	United Nations Framework Convention on Climate Change
VV	Validation and Verification

Reference documents

Activity	Reference Rules/Guidelines Document	Form
General	• Bilateral Cooperation on the Joint Crediting Mechanism for the Low Carbon Growth Partnership between Japan and the Republic of Indonesia • Rules of Implementation for the JCM, ver02.2 • JCM Glossary of Terms, ver02.0 • Common Specifications of the JCM Registry, ver01.0	
Joint Committee	JCM Rules of Procedures for the Joint Committee, ver02.0	
Overall	JCM Project Cycle Procedure, ver05.0 JCM Guidelines for Developing Sustainable Development Implementation Plan and Report, ver01.0	• Sustainable Development Implementation Plan Form, ver01.0 • Sustainable Development Implementation Report Form, ver01.0
Developing a Methodology	JCM Guidelines for Developing Proposed Methodology, ver02.0	• JCM Proposed Methodology Form, ver01.0 • JCM Proposed Methodology Spreadsheet Form, ver01.1 • JCM Approved Methodology Revision Request Form, ver01.0
Developing a PDD	JCM Guidelines for Developing Project Design Document and Monitoring Report, ver02.0	• JCM Project Design Document Form, ver02.0 • JCM Modalities of Communication Statement Form, ver01.0
Monitoring	JCM Project Cycle Procedure, ver05.0	• Monitoring Plan Sheet • Monitoring Structure Sheet • Monitoring Report Sheet (all from adopted methodology developed using Proposed Methodology Form, ver01.0)
TPE **Validation** **Verification**	JCM Guidelines for Designation as a Third-Party Entity, ver03.1 JCM Guidelines for Validation and Verification, ver01.0	• JCM Application Form for Designation as a Third-Party Entity, ver02.0 • JCM Validation Report Form, ver01.0 • JCM Verification Report Form, ver01.1
Registration	JCM Project Cycle Procedure, ver05.0	• JCM Project Registration 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
Credit Issuance	JCM Project Cycle Procedure, ver05.0	• JCM Credits Issuance Request Form, ver03.1 • JCM Issuance Request Withdrawal Form, ver01.0

All reference documents are available on the JCM official website: https://www.jcm.go.jp/id-jp/rules_and_guidelines
and JCM Indonesia website: http://jcm.ekon.go.id/en/

1. The Joint Crediting Mechanism (JCM)

1-1. Bilateral document

Press conference by Ambassador of Japan to Indonesia and Deputy Minister of International Economic Cooperation, CMEA

"Bilateral Cooperation on the Joint Crediting Mechanism for the Low Carbon Growth Partnership between Japan and the Republic of Indonesia"

signed on 26 August 2013

by Minister for Foreign Affairs (Japan) and Coordinating Minister for Economic Affairs (Indonesia)

Covers the period from the signing of the MoU until the operationalization of a new international framework under the Convention.

Intended Nationally Determined Contributions (INDC) communicated to the UNFCCC

Japan

Reduction of **26.0%** by fiscal year (FY) 2030 compared to FY 2013 (25.4% reduction compared to FY 2005) (approximately 1.042 billion tCO_2eq. as 2030 emissions).

- The JCM is not included as a basis of the bottom-up calculation, but the amount of emission reductions and removals acquired by Japan under the JCM will be appropriately counted as Japan's reduction.
- Apart from contributions achieved through private-sector based projects, accumulated emission reductions or removals by FY 2030 through governmental JCM programs to be undertaken within the government's annual budget are estimated to be 50-100 million tCO_2.

Indonesia

- Unconditional GHG reduction of **26%** against the business as usual scenario by the year 2020.
- GHG reduction by **29%** compared to the business as usual (BAU) scenario by 2030.
- Support from international cooperation is expected to increase Indonesia's contribution up to **41%** reduction in emissions by 2030.
- Welcomes bilateral, regional and international market mechanisms.

[http://www4.unfccc.int/Submissions/INDC/Submission%20Pages/submissions.aspx]

1-2. Concept of the JCM

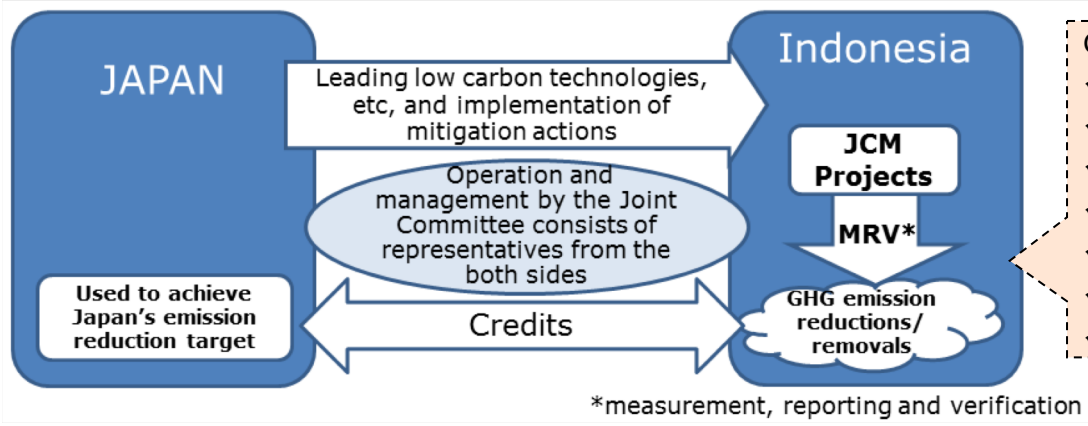
[Rules of Implementation for the JCM ver02.2]

Purposes:

- ☞ To facilitate diffusion of leading low carbon technologies, products, systems, services, and infrastructure as well as implementation of mitigation actions, and contributing to sustainable development of the Republic of Indonesia
- ☞ To appropriately evaluate contributions to GHG emission reductions or removals from Japan in a quantitative manner, through mitigation actions implemented in the Republic of Indonesia and use those emission reductions or removals to achieve emission reduction targets of the countries involved
- ☞ To contribute to the ultimate objective of the UNFCCC by facilitating global actions for emission reductions or removals.

- ☞ The JCM starts as non-tradable credit type mechanism. Both sides continue consultation for the transition to the tradable credit type mechanism and reach a conclusion of such consultation at the earliest possible timing, taking account of implementation of the JCM.
- ☞ Both sides aim for concrete contributions to assisting adaptation efforts through the JCM after the JCM is converted to the tradable credit type mechanism.
- ☞ Each side checks the status of the issuance and use of credits and makes sure that no double counting is discovered.

Figure: the JCM scheme between Indonesia and Japan



GHGs covered:

- ✓ carbon dioxide (CO_2)
- ✓ methane (CH_4)
- ✓ nitrous oxide (N_2O)
- ✓ hydrofluorocarbons (HFCs)
- ✓ perfluorocarbons (PFCs)
- ✓ sulphur hexafluoride (SF_6)
- ✓ nitrogen trifluoride (NF_3)

Chapter 2. JCM project cycle

[JCM Project Cycle Procedure ver05.0]

Step	Main Actor(s)	Activity	Output (documents)
0) Development of methodologies Chapter 4	PP JC	♦ Each side or PP prepares a draft methodology and submits it to the Joint Committee (JC). After completeness check, the proposed methodology goes through public comments process. ♦ The JC determines either to approve or reject the draft methodology.	1. Proposed methodology 2. Proposed Methodology Spreadsheet
1) Making the project design document (PDD) and SDIP Chapter 5 and 6	PP	PPs make a PDD and Monitoring Report for a JCM project activity after conducting a local stakeholder consultation. ☞ **PDD** presents information on the essential technical and organizational aspects of the project activity and is a key input into the validation, registration, and verification of the project. ☞ **SDIP** sets out a plan of the project to contribute to sustainable development based on **ex-ante** analysis.	1. PDD and Monitoring Spreadsheet 2. MoC 3. SDIP
2) Validation Chapter 6	TPE PP	TPE conducts an independent evaluation of a proposed JCM project on the basis of the PDD against the validation guidelines developed by the JC.	Validation report
3) Registration Chapter 6	JC	Consideration and formal acceptance by the JC of a validated project as a JCM project.	Project reference number

[JCM Project Cycle Procedure ver05.0]

Step	Main Actor(s)	Activity	Output (documents)
4) Monitoring a JCM project activity Chapter 5	PP	PP implement a JCM project and monitor GHG emission reductions or removals by the JCM project based on the PDD.	Monitoring report
5) Verification Chapter 8	TPE PP	TPE conducts a periodic independent review and ex post determination by TPE of the monitored GHG emissions reductions or removals as a result of a registered JCM project during the verification period.	Verification report
6) Issuance of credits, SDIR evaluation Chapter 8	PP JC	PPs request the JC to notify each side to issue the credits to its respective account in the registry on the basis of the verification report with the determined allocation of the credits among the PPs. The JC notifies each side of the result of consideration.	Credit serial number in the registry
7) Use of credits	Each side	Credits issued by each side can be used to achieve emission reduction targets of both sides.	(depends on each side policy)

3. JCM – related body

[Bilateral Cooperation Document] [Rules of Implementation for the JCM ver02.2]

3-1. Japanese government and Indonesian government

Each side, represented by the JCM secretariat, may:

Japanese side

Indonesian side

Jointly:

- Prepare draft methodologies and draft rules and guidelines and submit them to the JC for consideration
- Receive new initiatives from candidate PPs
- Monitor development of JCM programs and projects, taking into account sustainable development criteria and environmental integrity

Separately:

- Develop environmental and sustainable development criteria and identify capacity building needs
- Monitor development of JCM Feasibility Studies
- Facilitate PPs to perform project-based capacity building
- Establish and maintain a registry in line with the common specifications developed by the JC
- Issue credits to its registry

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- Develop environmental and sustainable development criteria and identify capacity building needs
- Monitor development of JCM Feasibility Studies
- Facilitate PPs to perform project-based capacity building
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- Issue credits to its registry

BOX: Support by Japanese government (FY2017) [Government of Japan "Recent Development of the JCM", October 2017]

Project finance support	Capacity building
• Financing Programme for JCM Model Projects, including collaboration with projects supported by JICA and other governmental-affiliated financial institute. • JCM REDD+ Model Project • ADB trust fund (JF JCM) • JCM Demonstration Projects • JCM Special Financing Scheme (JSF)	Feasibility study

Chapter 3-2. JCM Joint Committee (JC)

[JCM Rules of Procedures for the Joint Committee ver02.0]

Both side establish the JC to operate the JCM.

JC Members:

- ☞ Representatives from Japanese and Indonesian government
- ☞ Max. 10 members of each side (may be increased, decreased, or changed within the allowed number at any time)
- ☞ Should have no personal or direct financial interest in any matter under consideration by the JC
- ☞ Meets at least once a year to evaluate implementation of the JCM

JC develops/modifies:

- ☞ JCM rules and guidelines
- ☞ Methodologies
- ☞ Requirements for designation of TPEs
- ☞ Reports on the JCM implementation and, where necessary, discusses issues related to the operation and management of the JCM
- ☞ Designates, suspend or withdraw TPE
- ☞ Registers JCM projects
- ☞ Notifies both sides to issue the credits verified by the TPE, on the basis of a request by PPs

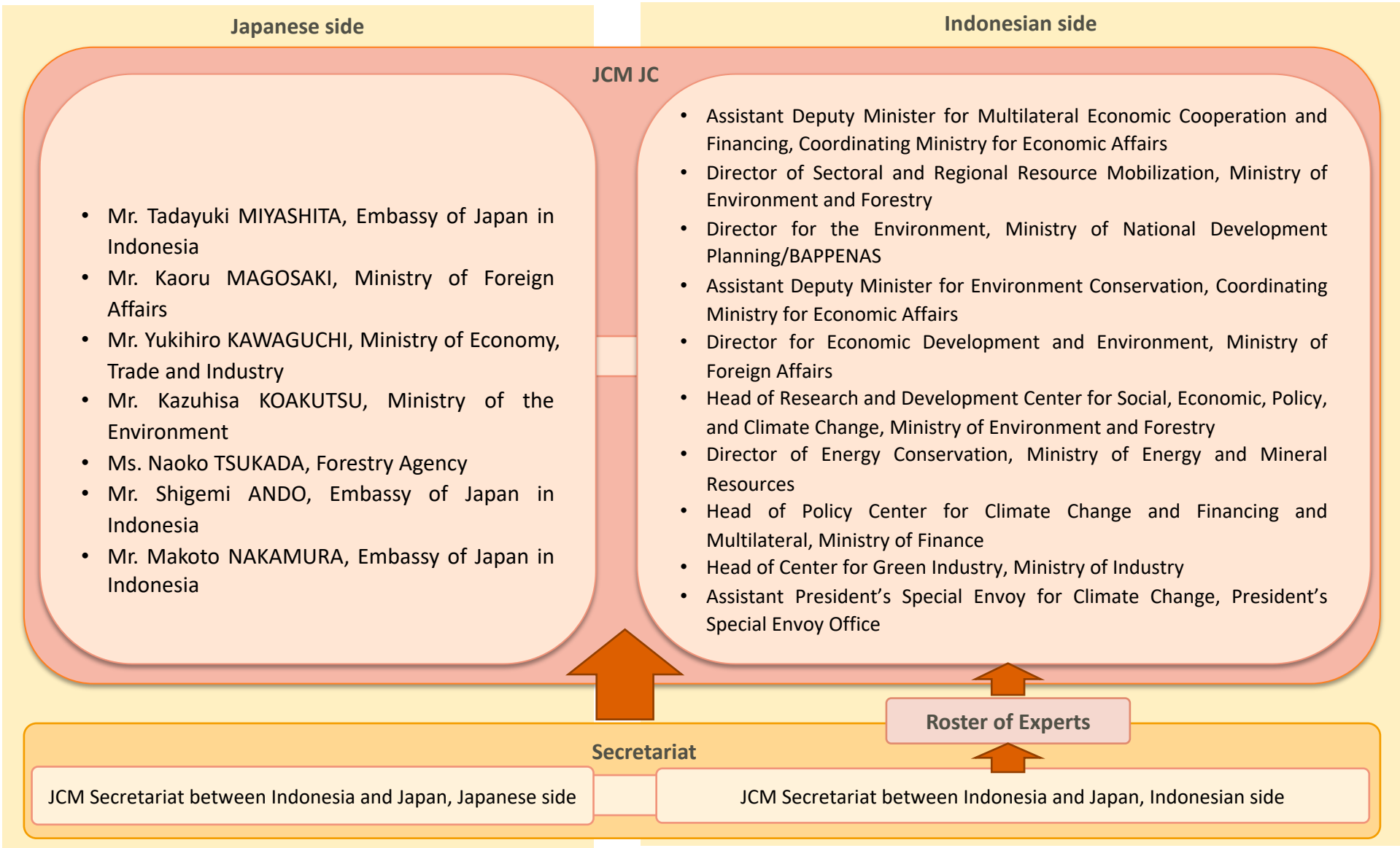
The JC may make decision by consensus through:

- ✓ JC meeting
- ✓ Electronic decision

JC Co-Chairs declare that a consensus does not exist if there is a stated objection to the proposed decision by a member of the JC.

[JCM Rules of Procedures for the Joint Committee ver02.0]

The support structure of JCM JC



Two JC Co-Chairs are appointed by each side.

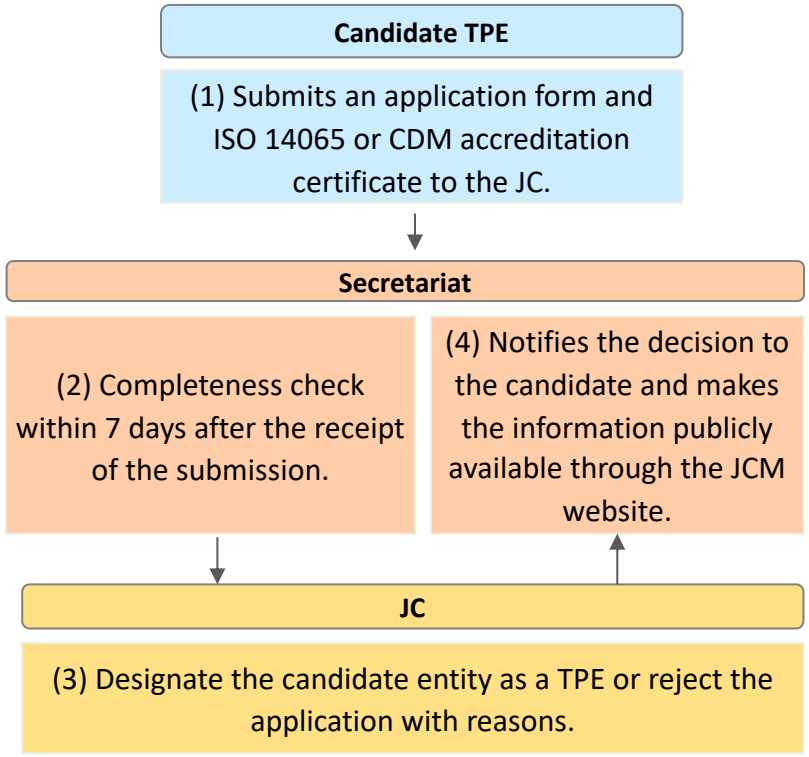
[List of JC members: https://www.jcm.go.jp/id-jp/jc_members, http://jcm.ekon.go.id/en/index.php/content/MTM%253D/joint_committee]

[Rules of Implementation for the JCM ver02.2] [JCM Guidelines for Designation as a TPE ver03.1]
[List of TPE: https://www.jcm.go.jp/id-jp/tpes]

Functions of a TPE designated by JC:

a) Validates the project as described in a PDD in line with the JCM Guidelines and informs the result to PPs.
b) Verifies GHG emission reductions or removals achieved by the JCM project as described in the monitoring report, in line with the JCM Guidelines and sends the verification report to the PPs.

Procedure for designation as a TPE:



Requirements for designation as a TPE:

- Accredited under ISO 14065 based on ISO 14064-2, or a Clean Development Mechanism (CDM) Designated Operational Entity (DOE).
- Has sufficient knowledge of the JCM between the Indonesia and Japan by reading and knowing all applicable rules and guidelines of the JCM.
- Include Indonesian personnel as team members.

The JC may suspend or withdraw the designation of a TPE if it has found fraud, malfeasance or incompetence of the entity.

Provisional designation for entities that are in the process of obtaining ISO 14065

- Number of provisional designations per year does not exceed two 2 of Indonesian entities and 2 of Japanese entities.
- Once the provisionally designated TPE is designated as a TPE, the results of its validation and/or verification witnessed by the accreditation body become valid automatically.

Sectoral scope for candidate entities accredited under ISO 14065 are as described in their application, and identical to scope under the CDM for candidate entities accredited as CDM DOE.

[Rules of Implementation for the JCM ver02.2]

Project Participant

A government, private entity and/or public entity involved to participate in a JCM project.

Project participants:

- ☞ Develop and implement a JCM project
- ☞ Prepare a draft methodology and submit the draft to the JC for its approval
- ☞ Prepare a draft PDD and submit the draft to a TPE for validation and notify the JC
- ☞ Submit the PDD that was validated by the TPE to the JC for its registration of the project
- ☞ Implement the JCM project and conduct monitoring in line with the PDD
- ☞ Prepare a monitoring report of GHG emission reductions or removals and send the report to a TPE for verification
- ☞ Submit a verification report prepared by TPE to the JC
- ☞ Request the JC to notify each side for issuance of credits under the JCM.

[JCM Project Cycle Procedure ver05.0]

Modalities of Communication

A statement from all PPs participating in a JCM project that designates one or more focal point entities to communicate on their behalf with the JCM secretariat and the JC in line with established scopes.

Procedure for MoC:

- The PPs submit completed "JCM Modalities of Communication Statement Form" to the JC and the TPE, at the time of submitting the draft PDD to the TPE for validation and the JC for public comments.
- The secretariat publishes the MoC form on the JCM website following the registration of the project.
- MoC is shared among the PPs, the JC, the secretariat and the TPE involved in the project.

Focal point:

Granted by the PPs the authority to communicate:

(a) In relation to requests for issuance of credits to respective accounts

(b) In relation to requests for addition and/or voluntary withdrawal of PPs and changes to the focal point, as well as changes to company names, legal status, contact details and specimen signatures

(c) In relation to other project-related matters.

Focal point may be changed anytime by submitting a new MoC form signed by all PPs.

4. JCM project methodology

4-1. Proposed and Approved Methodology

Project methodology

A methodology applied to JCM projects for calculating emission reductions achieved by each project and monitoring the JCM project.

Proposed Methodology (PM)

Submitted to the JC for approval.
Consists of PM form and PM Spreadsheet.

PM Spreadsheet

- ☞ Defines a monitoring plan and enables calculation of GHG emission reductions automatically by inputting values.
- ☞ Consists of 2 sheets:

Calculation Process Sheet contains:

- Default values which cannot be changed by the PP
- Calculation process of reference emissions, project emission, and emission reductions.

Input sheet contains:

- Parameters to be monitored *ex post* by PPs
- Project-specific parameters to be fixed *ex ante* by PPs (e.g. historical data)
- Default factors which can be changed by the PPs.

- Public inputs
- Assessment by JC

Approved Methodology (AM)

Approved by the JC for application to projects.
Consists of AM document and Monitoring Spreadsheet.

Monitoring spreadsheet

Monitoring Structure Sheet
Used before validation for developing an operational and management structure for monitoring.

Monitoring Plan sheet
Used before validation for developing a monitoring plan and calculating emission reductions ex ante.

Monitoring Report Sheet
Used before verification for developing a monitoring report and calculating emission reductions ex post.

Added by the secretariat after the PM approval

Based on the PM Spreadsheet

4-2. Reference emissions

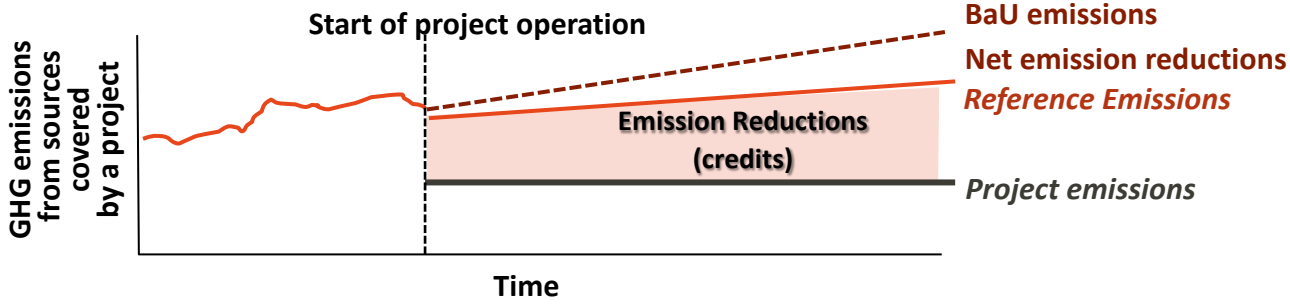
[JCM Guidelines for Developing Proposed Methodology ver02.0] [JCM Glossary of Terms ver02.0]

Emission reductions to be credited = the difference between **reference emissions** and **project emissions.**

Reference emissions

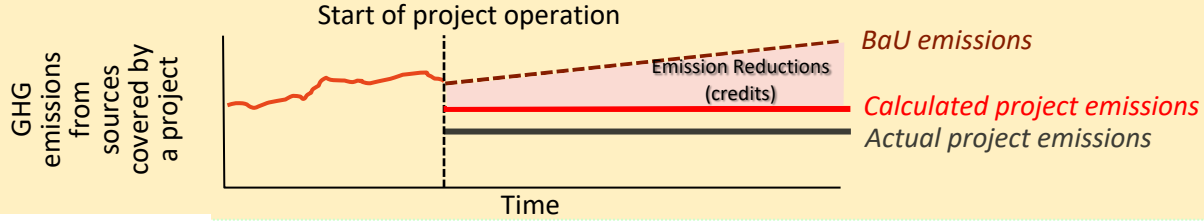
- ☞ Calculated to be below business-as-usual (BaU) emissions which represent plausible emissions in providing the same outputs or service level of the proposed JCM project in Indonesia (to ensure net decrease and/or avoidance of GHG emissions)
- ☞ Calculated by multiplying a crediting threshold which is typically expressed as GHG emissions per unit of output by total outputs.
- ☞ In methodology sheet, estimated values of reference and project emissions are not rounded. Estimated values of emission reductions are rounded down after the decimal point.

Figure: Indicative diagram of the relationship between the BaU emissions, reference emissions and project emissions



BOX: Alternative way to realize net reduction [Government of Japan "Recent Development of the JCM", October 2017]

- ☞ Using conservative default values in parameters to calculate project emissions instead of measuring actual values will lead calculated project emissions larger than actual project emissions.



4-3. Eligibility criteria

[JCM Guidelines for Developing Proposed Methodology ver02.0] [JCM Glossary of Terms ver02.0]
[Government of Japan "Recent Development of the JCM", October 2017]

Eligibility criteria:

Requirements for the JCM project defined in the JCM methodology, which contain:

(a) Requirements for the project in order to be registered as a JCM project.

(b) Requirements for the project to be able to apply the approved methodology.

Eligibility criteria are:

- ☞ Clearly defined in the methodology, reducing the risks of rejection of projects proposed by PPs
- ☞ A "check list", allowing easy determination of eligibility of a proposed project under the JCM and applicability of JCM methodologies to the project.
- ☞ Determined by both Governments on what technologies, products, etc. should be included in the eligibility criteria through the approval process of the JCM methodologies by the JC.
- ☞ Basis for the assessment of validation and registration of a proposed project.
- ☞ Same as "applicability condition of the methodology" under the CDM.

Examples:

- ✓ Introduction of xx (products/technologies) whose design efficiency is above xx (e.g. output/kWh)
  <Benchmark Approach>
- ✓ Introduction of xx (specific high efficient products/technologies, e.g. air conditioner with inverter, electric vehicles, or PV combined with battery)
  <Positive List Approach>
- ✓ Existence of historical data for x year(s)
- ✓ Electricity generation by xx (e.g. PV, wind turbine) connected to the grid
- ✓ Retrofit of the existing boiler

4-4. Methodology development

[JCM Guidelines for Developing Proposed Methodology ver02.0] [JCM Glossary of Terms ver02.0]

Methodology Proponent:

- The Japanese side, the Indonesian side, PPs, or the JC can be methodology proponents.
- Methodology is submitted to and approved by the JC.
- Methodology proponents provide supporting documents to justify key logical and quantitative assumptions regarding the choice of eligibility criteria, default values and establishment of reference emissions.

A proposed methodology:

- ☞ Includes all algorithms, formula, and step-by-step procedures needed to apply the methodology and validate the project
- ☞ Provides instructions for methodology user in making any assumptions not provided in the methodology
- ☞ Avoids intentional increase of credits caused by perverse incentives (e.g. when an increase in output is triggered by incentive to increase credits)

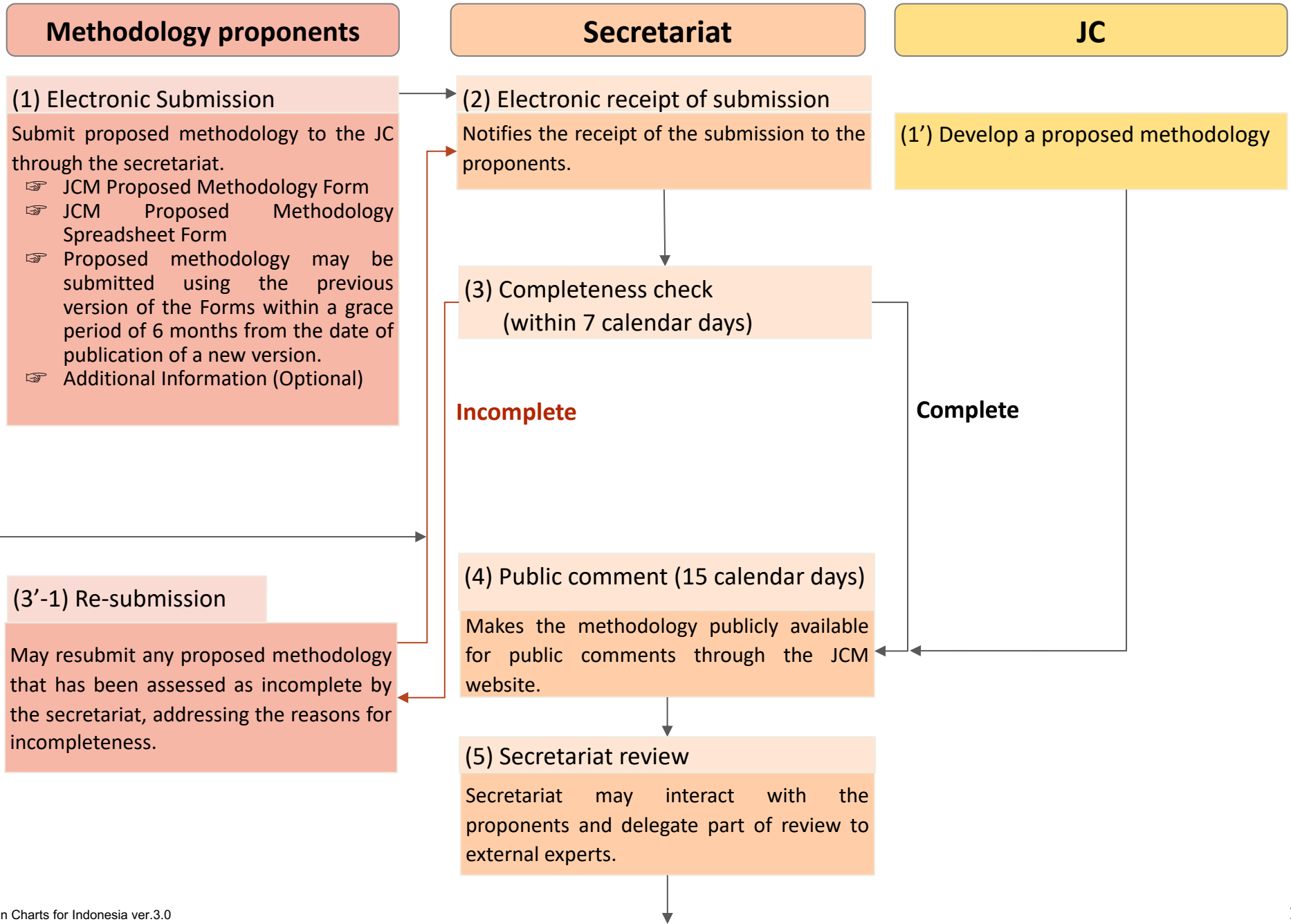
The JCM sectoral scope

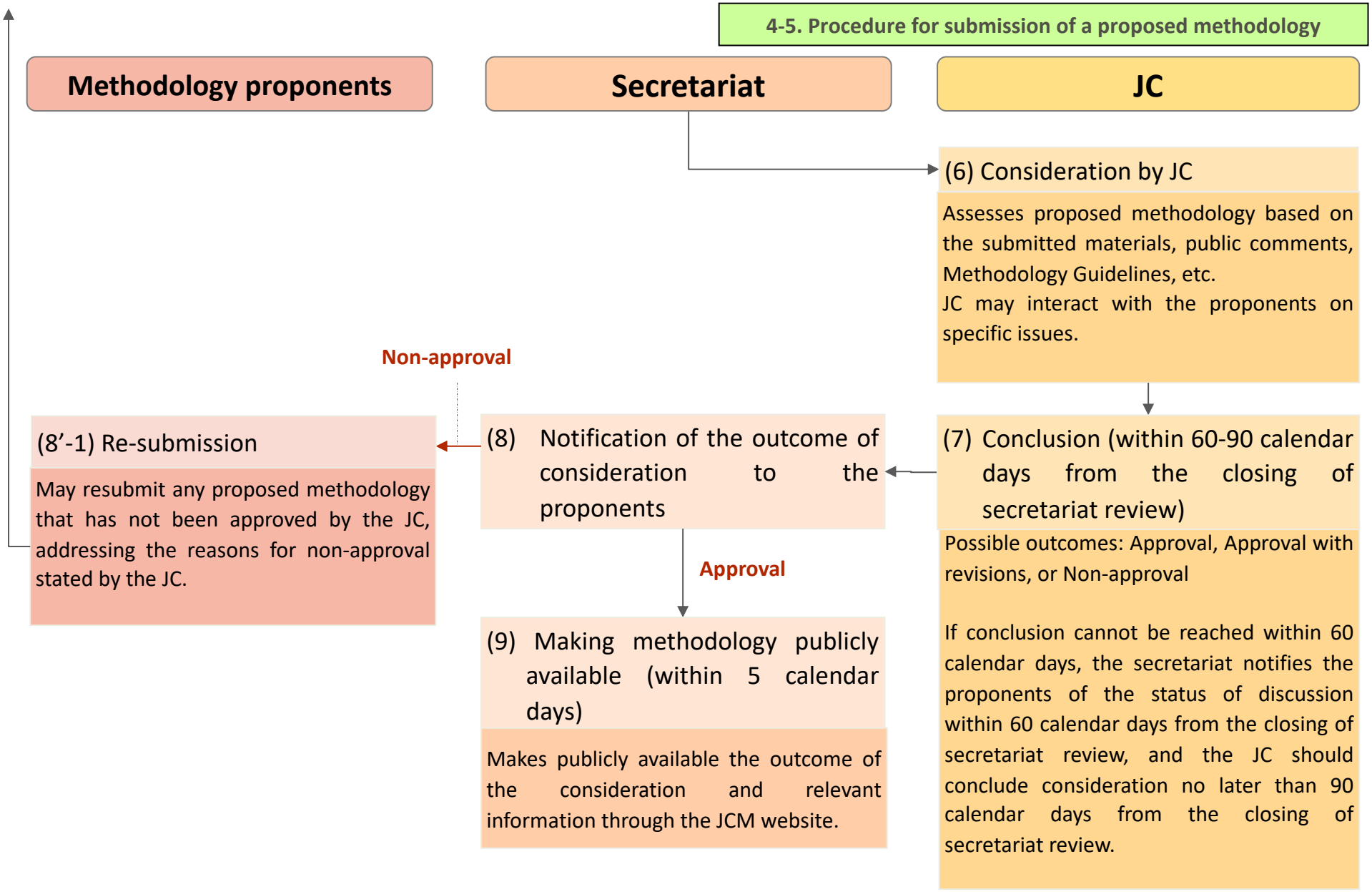
A JCM project may fall within more than one sectoral scope:

1. Energy industries (renewable-/non-renewable sources)
2. Energy distribution
3. Energy demand
4. Manufacturing industries
5. Chemical industry
6. Construction
7. Transport
8. Mining/Mineral production
9. Metal production
10. Fugitive emissions from fuels (solid, oil and gas)
11. Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride
12. Solvents use
13. Waste handling and disposal
14. Reducing Emissions from Deforestation and Forest Degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries (REDD-plus)
15. Agriculture

Chapter 4-5. Procedure for submission of a proposed methodology

[JCM Guidelines for Developing Proposed Methodology ver02.0] [JCM Project Cycle Procedure ver05.0]




Methodology proponents
Secretariat
JC
(6) Consideration by JC
Assesses proposed methodology based on the submitted materials, public comments, Methodology Guidelines, etc.
JC may interact with the proponents on specific issues.
(7) Conclusion (within 60-90 calendar days from the closing of secretariat review)
Possible outcomes: Approval, Approval with revisions, or Non-approval
If conclusion cannot be reached within 60 calendar days, the secretariat notifies the proponents of the status of discussion within 60 calendar days from the closing of secretariat review, and the JC should conclude consideration no later than 90 calendar days from the closing of secretariat review.
(8) Notification of the outcome of consideration to the proponents
Non-approval
Approval
(8'-1) Re-submission
May resubmit any proposed methodology that has not been approved by the JC, addressing the reasons for non-approval stated by the JC.
(9) Making methodology publicly available (within 5 calendar days)
Makes publicly available the outcome of the consideration and relevant information through the JCM website.

4-6. Procedure for revision of an approved methodology

[JCM Project Cycle Procedure ver05.0]

Methodology proponents

(1) Electronic Submission

Request the JC to revise an approved methodology by submitting:

- ☞ Completed "JCM Approved Methodology Revision Request Form"
- ☞ Proposed revised methodology highlighting proposed changes
- ☞ Request may be submitted using the previous version of the Form within a grace period of 6 months from the date of publication of a new version.
- ☞ Additional documents (optional)

Secretariat

(2) Electronic receipt of submission

Notifies the receipt of the submission to the proponents.

(3) Completeness check
(within 7 calendar days)

(4) Assessment

Assesses the proposed revision and classify them as:
(a) Substantive revision proposal, or
(b) Editorial revision proposal

(a) Substantive

(5) Public comment
(15 calendar days)

Makes all substantive revision proposals publicly available for public comments through the JCM website.

JC

(1)' May request the proponents to submit additional documents including a draft PDD to which the proposed revised methodology is applied.
Methodologies may also be revised under the JC initiative.

Revision by JC

(b) Editorial

(6) JC approval

(7) Making revised approved methodology publicly available

Within 5 calendar days from the date of decision by the JC (as described in Chapter 4-5 of this Guidebook)

BOX: Putting an approved methodology on hold

In case new or better comprehension of scientific evidence indicates that emission reductions may be overestimated based on the approved methodology, or there are identified inconsistencies, errors and/or ambiguities in the approved methodology, the JC may put on hold an approved methodology at any time.

5. Making project design document (PDD) and Monitoring Plan

[Guidelines for Developing Project Design Document and Monitoring Report ver02.0]
[JCM Project Cycle Procedure ver05.0]

5-1. Making PDD

PDD

- ♦ Sets out in detail the JCM project which is to be realized.
- ♦ PPs conduct the implementation and monitoring of registered JCM projects in accordance to the approved PDD.

PDD consists of a completed PDD form and monitoring plan prepared by PPs.

PDD Form	**Monitoring plan**	
JCM Project Design Document Form	Monitoring Plan	Monitoring Structure

Confidentiality

- ☞ Where a PDD contains information that the PPs wish to be treated as confidential or proprietary, PPs can submit documentation in two versions: for public (without confidential information) and for the JC internal use (with confidential information).
- ☞ Description related to application of eligibility criteria and environmental impact assessment is not considered confidential or proprietary.

Project starting date and lifetime

- ☞ Starting date of a JCM project does not predate January 1, 2013.
- ☞ Expected operational lifetime may be explained with publicly available statistical data, reference data from similar projects, legal durable years, expert judgment, etc.

5-2. Making Monitoring Plan

[Guidelines for Developing Project Design Document and Monitoring Report ver02.0]

Monitoring Plan

Sets out the methodology to be used by PPs for the monitoring of JCM project and by TPEs for verification of the amount of GHGs emission reductions achieved by the JCM project. PPs develop a monitoring plan before validation using the relevant approved methodology documents.

For Monitoring Plan Sheet, PPs:

- ☞ Input estimated values for each parameter including those fixed ex ante for parameters not to be monitored.
- ☞ Ensure data monitored are kept and archived electronically for two years after the final issuance of credits.

For Monitoring Structure Sheet, PPs:

- ☞ Clearly indicate the roles and responsibilities and procedures for data collection, archiving and reporting.
- ☞ Appoint responsible persons for overall monitoring activity and person(s) responsible for collecting data and maintaining measuring instruments.

Items to be described in Monitoring Plan:

(a) Estimated values of the parameter for calculating emission reductions *ex ante*

(b) Monitoring option:

  i. Option A: public data measured by entities other than the PPs (e.g. publicly recognized data such as statistical data and specifications)

  ii. Option B: amount of transaction measured directly using measuring equipment (e.g. commercial evidence such as invoices)

  iii. Option C: actual measurement using measuring equipment (e.g. measured values)

(c) Source (e.g. daily records, surveys) and spatial level (e.g. local, international) of data to be used

(d) Measurement methods and procedures: including Quality Assurance/Control procedures. If the parameter will be measured, describe the equipments to be used to measure it, including accuracy level and calibration information (frequency, date of calibration and validity)

(e) Monitoring frequency (e.g. continuously, annually)

6. Registration

6-1. Validation requirements

[JCM Guidelines for Validation and Verification ver01.0]

Validation

Independent evaluation of a proposed JCM project by a TPE against VV Guidelines on the basis of the PDD.

Validation requirements are applied in assessing:

- PDD form
- Project description
- Application of approved methodology(ies)
- Emission sources and calculation of emission reductions
- Environmental impact assessment
- Local stakeholder consultation
- Monitoring
- public comments
- Modalities of Communication (MoC)
- Avoidance of double registration
- Start of operation

Reference documents:

a) "ISO 14064-3:2006 Greenhouse gases -- Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions"
b) PCP
c) PDD and Monitoring Guidelines

The TPE:

a) Determines whether the proposed JCM project complies with the requirements of the applied methodology, VV Guidelines and JC decisions
b) Assesses the claims and assumptions made in the PDD and MoC. The evidence used is not limited to those provided by the PPs.
c) Assesses the information provided by the PPs and applies the means of validation specified throughout VV Guidelines.

Means of validation:

May include document review, follow-up actions (e.g. on-site visit and interviews), etc.

BOX: Validation and verification

Validation and verification can be conducted either simultaneously or separately before, during or after the public comment duration.

6-2. Sustainable Development Implementation

[JCM Guidelines for Developing Sustainable Development Implementation Plan and Report ver01.0]

SDIP: Sustainable Development Implementation Plan

SDIP sets out a plan of the JCM project to contribute to sustainable development based on **ex-ante** analysis.

- ☞ 7 items:
  1) Environmental Impact Assessment
  2) Pollution Control
  3) Safety and health
  4) Natural Environment and biodiversity
  5) Economy
  6) Social Environment and Community Participation
  7) Technology
- ☞ 20 Yes/No questions to identify potential of negative impact
- ☞ If any potential negative impact of the project on sustainable development is identified, appropriate action plans are described.

SDIR: Sustainable Development Implementation Report

SDIR sets out the achievement of SDIP implementation for a particular monitoring period, based on **ex-post** evaluation.

- ☞ 7 items:
  1) Environmental Impact Assessment
  2) Pollution Control
  3) Safety and health
  4) Natural Environment and biodiversity
  5) Economy
  6) Social Environment and Community Participation
  7) Technology
- ☞ 20 checklist for Identified/Not Identified negative impacts
- ☞ If any negative impact of the project on sustainable development is identified, corrective action plans are described.

6-3. Publication of PDD

[JCM Project Cycle Procedure ver05.0]

PPs

(1) Electronic Submission

- ☞ Draft PDD (PDD Form and monitoring plan)
- ☞ MoC
- ☞ SDIP
- ☞ Draft PDD and MoC may be submitted using the previous version of the Forms within a grace period of 6 months from the date of publication of a new version.
- ☞ Supporting documentation.

Secretariat

(2') SDIP Review (14 calendar days)

Potential negative impacts are identified without appropriate action plan.	No potential negative impacts identified or appropriate action plan is properly described

Positive review: Project may be requested for registration

(2) Issuance of project reference number

(3) Public comment (30 calendar days)

Makes the PDD publicly available for public comments through the JCM website.

(4) Making PDD and project information publicly available

Makes the inputs publicly available through the JCM website and removes those that the TPE has determined to be unauthentic.

TPE

(2''') Validates MoC and the draft PDD and prepares a validation report for PPs.

(4') Checks the authenticity and relevance of public input submitters' contact details in case of doubt.

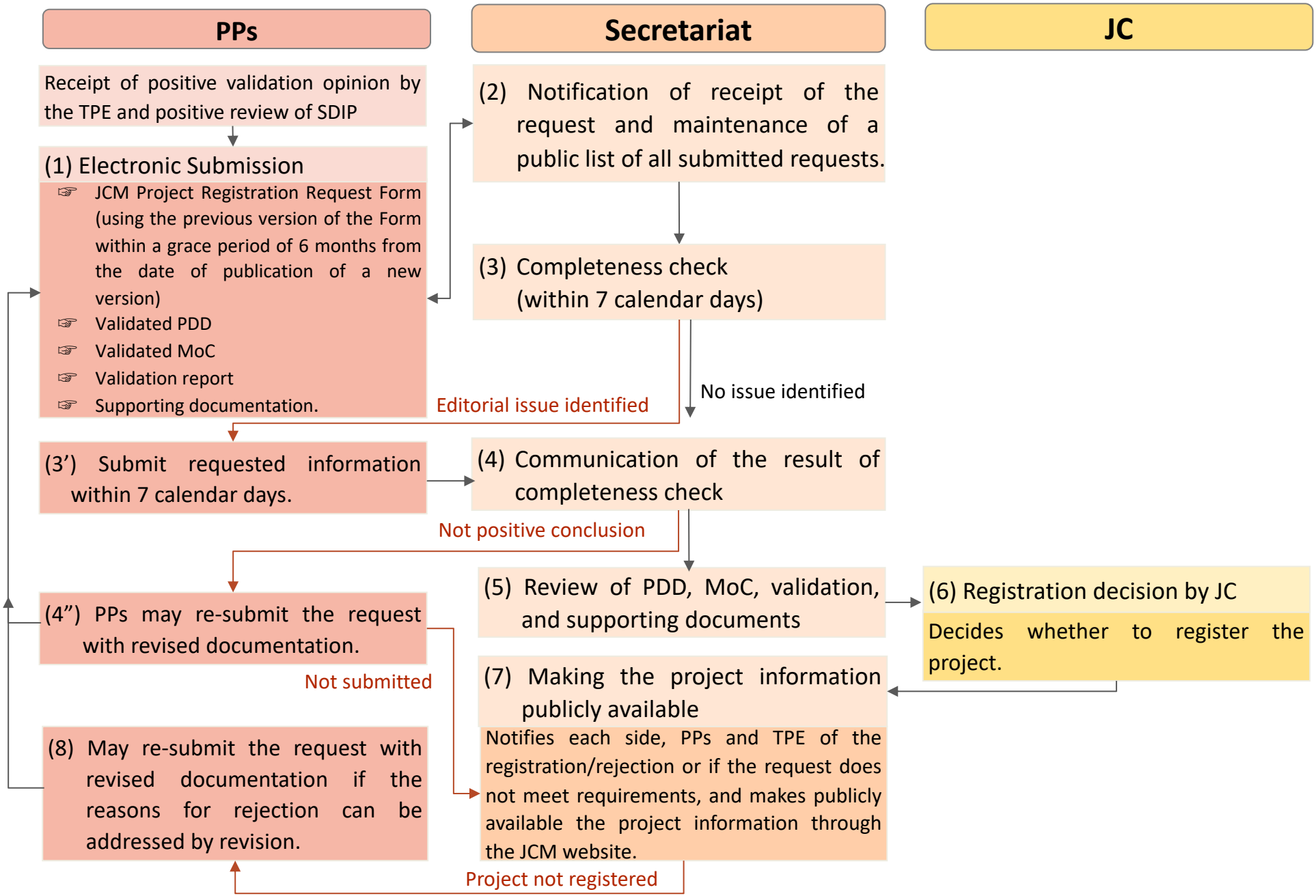
BOX: SDIP Review

Reviews on SDIP and PDD are conducted in parallel through separate procedures. The SDIP is reviewed by the Indonesian side.

6-3. Procedures for requests for registration

6-4. Procedures for requests for registration

[JCM Project Cycle Procedure ver05.0]



7. Post-registration activities

7-1. Changes to registered JCM project

[JCM Project Cycle Procedure ver05.0]

Procedures applied for changes are based on the type of change:

Changes determined by the TPE *that do not prevent* the use of the applied methodology	Changes identified by the PPs prior to verification or by the TPE during verification *that would prevent* the use of the applied methodology	Changes identified by the PPs that would affect the applicability of the reviewed SDIP	Changes identified by the PPs or determined by the TPE *that prevent* the use of the applied methodology
The PPs revise the PDD and submit it for the first issuance request subsequent to the revision.	The PPs proceed to obtain approval of changes by the JC with the procedure described in page 25 of this CHARTS.		The PPs withdraw the project in line with Chapter 9 of this CHARTS. The PPs may re-submit a request for registration for the withdrawn project.
	Follow procedure in page 25		Follow procedure in Chapter 9

[JCM Project Cycle Procedure ver05.0]

7-1. Procedure for approval of changes to registered JCM project

PPs

(1) Electronic Submission

Request for changes on the registered PDD, methodology and/or positively reviewed SDIP, by submitting the relevant documents:

- ☞ Completed "JCM Post-Registration Changes Request Form" (may use the previous version of the Form within a grace period of 6 months from the date of publication of a new version)
- ☞ Revised PDD
- ☞ Revised SDIP, where applicable

Secretariat (JC)

(2) Maintenance of a public list of all submitted requests for approval of changes through the JCM website

(3) Completeness check (within 7 calendar days)

(4) Summary note for Co-Chair (within 14 calendar days)

Sends to Co-Chairs a summary note with a recommendation on the course of action, or notification that the case will be considered by the JC.

(4') Seeks guidance from experts where necessary. The secretariat sends the summary note to the Co-Chairs within 14 calendar days of receipt of the inputs from the experts.

(5) Approval decision by JC

Distributes summary note to the JC and the JC decides whether to approve the request.

(6) Informs the PPs of the JC decision and any guidance provided

(7'-1) Project withdrawal or resubmission after revision

Withdraw project, or submit a revised draft PDD to the TPE (for validation) and to the JC (for public comments) and revised SDIP to the secretariat (for review).

Not approved

(7'-2) Resubmission after revision

Submits the revised PDD, reflecting the guidance.

Approved with guidance

(7) Making the revised PDD publicly available

Makes the revised PDD publicly available through the JCM website as the registered PDD.

Approved without guidance

[JCM Project Cycle Procedure ver05.0]

7-2. Changes to registered MoC

The focal point of the JCM project requests changes to the contents of the registered MoC to the secretariat as soon as possible after the changes become effective by electronic means.

Requirements:

- Supporting documentation (powers of attorney, extracts from board meeting minutes, etc. that cannot be verified online) is dated or notarized within 2 years from the time of submission of the request. This time limitation does not apply to copies of national personal identity documents.
- Changes applicable to more than one JCM project or multiple changes affecting the same JCM project are consolidated in a single form.

Changes to focal point and PPs

Any of the PPs for a registered JCM project may request for changes on the designation of the focal point(s) for any reason and at any time by submitting a new MoC signed by all PPs.

If the PPs of a registered JCM project have changed after the registration of the project, PPs submit a completed annex 1 of the "JCM Modalities of Communication Statement Form" for each of the changes.

The secretariat displays the updated MoC including its Annex 1 as necessary and their effective dates on the JCM website.

8. Issuance of credits

8-1. Verification requirements

[JCM Guidelines for Validation and Verification ver01.0]

Verification

Periodic independent review and ex post determination by a TPE of the monitored GHG emissions reductions or removals as a result of a registered JCM project during the verification period.

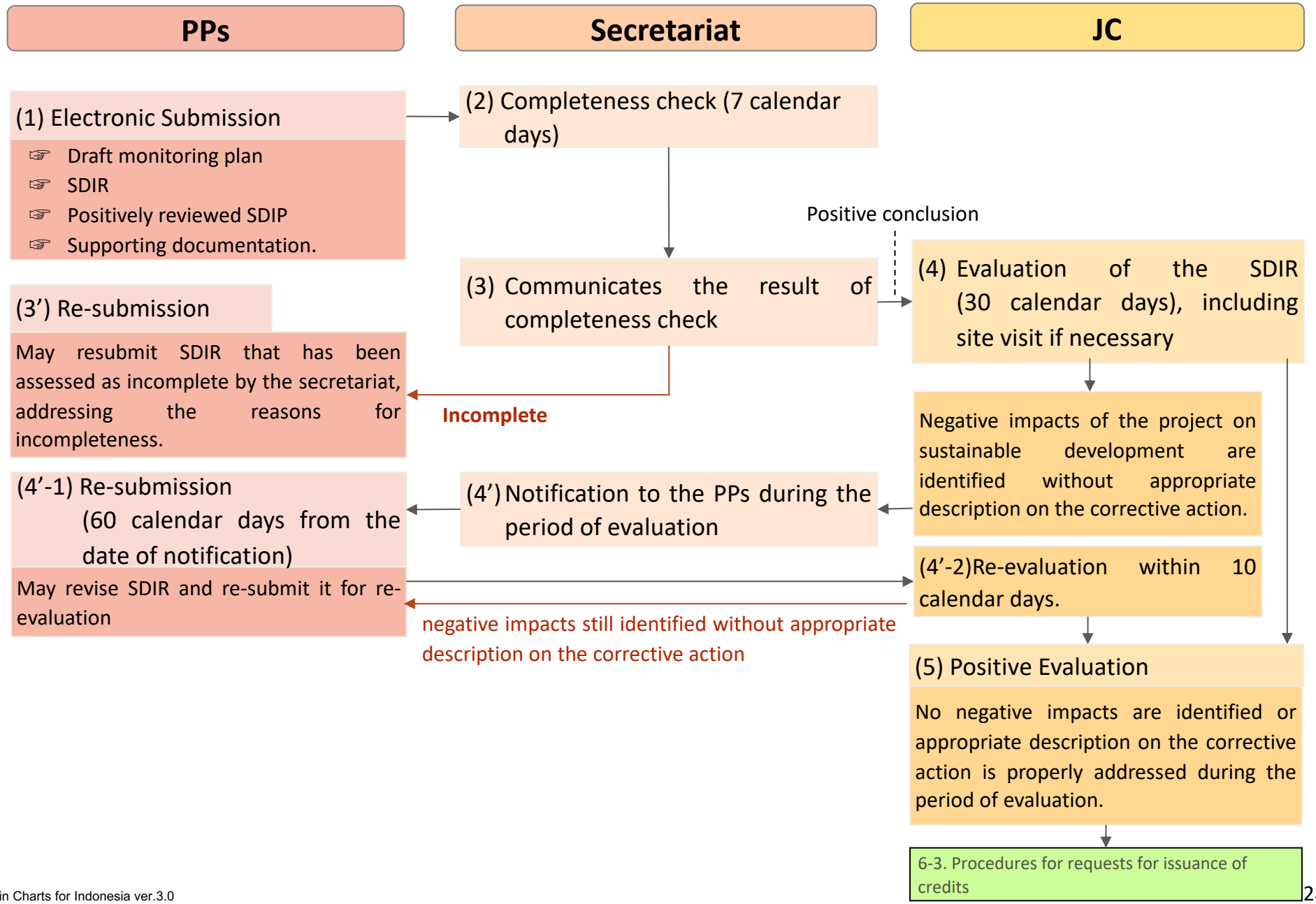
- Verification of compliance of the project implementation with the eligibility criteria of the applied methodology
- Assessment of the project implementation against the registered or approved revised PDD
- Verification of compliance of calibration frequency and correction of measured values with requirements
- Assessment of data and calculation of GHG emission reductions
- Assessment of avoidance of double registration (The TPE determines whether the project is not registered under other international climate mitigation mechanisms.)
- Assessment on post registration changes.
- Monitoring report are prepared for verification. If calculated CO2 emission reductions in the Monitoring Report Sheet unexpectedly differ from those which were estimated at the time of validation, PPs should describe the reason(s).

☞ **Reasonable assurance level** is applied in line with ISO 14064-3:2006.

☞ The threshold of **materiality** for verification is set at 5 percent of emission reductions.

8. Issuance of credits

8-2. Evaluation of Sustainable Development Implementation Report



8-3. Procedures for requests for issuance of credits

[JCM Project Cycle Procedure ver05.0]

PPs

(1) Open registry account

Open an account in the registry of the Japanese or Indonesian side.

(2) Electronic Submission

Request the JC to notify each side to issue verified credits to their accounts by submitting:

- ☞ Completed "JCM Credits Issuance Request Form" (may use previous version of the Form within a grace period of 6 months from date of publication of a new version)
- ☞ Verification report
- ☞ Verified monitoring report
- ☞ Evaluated SDIR.

(4'-1) Submission of requested documents (within 7 calendar days)

Not submitted

(4"-2) May re-submit the request with revised documentation.

(6'-1) May re-submit the request with revised documentation if the reasons for rejection can be addressed by revision.

Secretariat

(3) Notifies the receipt of the request for issuance to the PPs by electronic means.

(4) Completeness check (within 7 calendar days)

If editorial issue is identified, request PP to submit missing/revised information

Incomplete

(4'-2) Concludes that the request is incomplete.

(4") If the request does not meet the requirements of the completeness check, communicates the reasons to the PPs and the TPE and makes the information publicly available.

(6') Notifies each side, PPs and the TPE of the issuance or rejection and updates the information on the JCM website immediately, including the reasons for rejection when applicable.

(8) Archives all data and makes them publicly available through the JCM website.

JC

BOX: Allocation of credits

PPs consult and determine actual amount of allocation of credits is consulted and determined, including allocation to the respective governments where applicable.

Positive conclusion

(5) Issuance decision by JC

Decides on whether to notify each side of the amount of credits to be issued.

Indonesian/Japanese government

(7) Credit issuance by each side

Each side issues the amount of credits specified in the notification to respective PPs accounts in the registry and notifies the JC through the secretariat.

9. Withdrawal

9-1. Procedures for requests for withdrawal

[JCM Project Cycle Procedure ver05.0]

PPs take liability for damages caused by their withdrawal to the affected parties.

Procedures of request to the JC by PPs are applied based on each case:

PPs/TPE

The PPs may voluntarily withdraw a proposed or registered JCM project anytime.	The PPs voluntarily wish to withdraw a request for registration	The TPE has revised its validation opinion based on new insights or information and has notified it to the PPs	The PPs voluntarily wish to withdraw a request for issuance for the specified monitoring period	The TPE has revised its verification report based on new insights and has notified it to the PPs
(1) The PPs submit a completed "JCM Project Withdrawal Request Form"*	(1') The PPs submit a completed "JCM Registration Request Withdrawal Form"*		(1'') The PPs submit a completed "JCM Issuance Request Withdrawal Form"*	

* PPs may use previous version of the Form within a grace period of 6 months from date of publication of a new version

Secretariat

(2) Upon receipt of the request for withdrawal, confirms the documents submitted. → (3) The project, request for registration, and/or request for issuance is marked as "withdrawn" on the JCM website.

Methodology Case Study

ID_AM003 ver02.0 “Installation of Energy-efficient Refrigerators Using Natural Refrigerant at Food Industry Cold Storage and Frozen Food Processing Plant”

Reference emissions	GHG emissions from the usage of reference refrigerators: $RE_p = \sum_i \{EC_{PJ,i,p} \times (COP_{PJ,i} \div COP_{RE,i}) \times EF_{elec}\}$ $EC_{PJ,i,p}$: Amount of electricity consumption of the project refrigerator *i* during the period *p* (MWh/p) $COP_{PJ,i}$: Coefficient of Performance of the project refrigerator type *i* $COP_{RE,i}$: Coefficient of Performance of the reference refrigerators type *i* EF_{elec} : CO_2 emission factor for electricity consumed (tCO_2/MWh)
Project emissions	GHG emissions from the usage of project refrigerator: $PE_p = \sum_i (EC_{PJ,i,p} \times EF_{elec}\}$ $EC_{PJ,i,p}$: Amount of electricity consumption of the project refrigerator *i* during the period *p* (MWh/p) EF_{elec} : CO_2 emission factor for electricity consumed (tCO_2/MWh)
Monitoring parameters	1. Amount of electricity consumed by project refrigerator 2. Electricity imported from the grid, where applicable 3. Operating time of captive electricity generator, where applicable

Methodology proposed	・ 1 August 2014 ・ ID_PM003
Public comment	・ 10-24 September 2014 ・ Inputs received: 3
Methodology approved	・ 30 October 2014 (JC Meeting) ・ ID_AM003
Methodology applied	・ Projects ID002, ID003
Methodology revision requested	・ 7 October 2015 ・ ID_PM012 ・ Substantive revision
Public comment	・ 9-23 October 2015 ・ No comment received
Methodology approved	・ 10 November 2015 (JC Meeting) ・ ID_AM003, ver.2.0

Project Case Study

ID003 Project of Introducing High Efficiency Refrigerator to a Food Industry Cold Storage in Indonesia

The project installed a high-efficiency refrigerator for individual quick freezing at an existing frozen fish processing plant in West Java, Indonesia. A higher Coefficient of Performance (COP) of the project refrigerator resulted in reduced GHG emissions.
The project participants conducted a local stakeholder consultation meeting with Regency and Provincial Governments. The expected operational lifetime of project is 12 years.

Further reference:
https://www.jcm.go.jp/id-jp/projects/2#!/general,
http://jcm.ekon.go.id/en/index.php/content/MjY%253D/registered_projects

Public comment	・7 January – 5 February 2015 ・Inputs received: 2
Validation completed	・6 March 2015
Request for registration	・6 March 2015
Completeness check finished	・9 March 2015
Project registered	・29 March 2015 (electronic decision)
Monitoring period	・First monitoring period: 2 February 2015 – 3 July 2015
Verification completed	・2 November 2015
Credits issued	・First issuance: 12 May 2016 ・Allocation to Japan side: 8 tCO_2 ・Allocation to Indonesia side: 3 tCO_2

Frequently Asked Questions (FAQ)

How do I apply my project to the JCM Scheme?	• You can propose your project using PIN (Project Idea Note) form, available on http://jcm.ekon.go.id – Participate – Propose a Project
Can we apply as JCM Project without Indonesian/Japanese partner?	• You can send the PIN to Secretariat without filling in the Japanese/Indonesian Partner. Indonesia JCM Secretariat will send it to the Government of Japan to be announced via Japanese JCM Website, which is expected to help the project finding a partner.
Can only Japanese-owned company be a partner for Indonesian side in JCM Scheme?	• Until now, participation in JCM is open to consortia between Indonesia and Japan legal entities. Other companies can be involved as long as the main partner is Japanese-owned company (e.g. as technology/system or methodology provider).
Can carbon credits from JCM be traded with Japan? How much is the price?	• Until now, carbon credits achieved by JCM Projects do not have a price and are not tradable either bilaterally or multilaterally.
How about the ownership of the carbon credits from JCM activities?	• The ownership of carbon credits from JCM activities carried out by private entities will be shared and registered in the JCM registry owned by each government.
What kind of fee will apply for JCM methodology development procedure, registration of JCM projects and issuance of JCM credits?	• No fee is required for JCM methodology development procedure. Fee to a TPE is necessary for conducting validation and verification. The amount of fee usually differs according to type of project and scale. Please contact the TPEs for further information.
How can we confirm the eligibility criteria? Where is it indicated?	• They are indicated in an approved methodology. These criteria show conditions for a proposed project to be eligible to be registered under the JCM and well as for the approved methodology to be applicable to the said project.

Further reference: http://jcm.ekon.go.id/, https://www.carbon-markets.go.jp/eng/faq/jcm.html

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