Developing JCM methodologies

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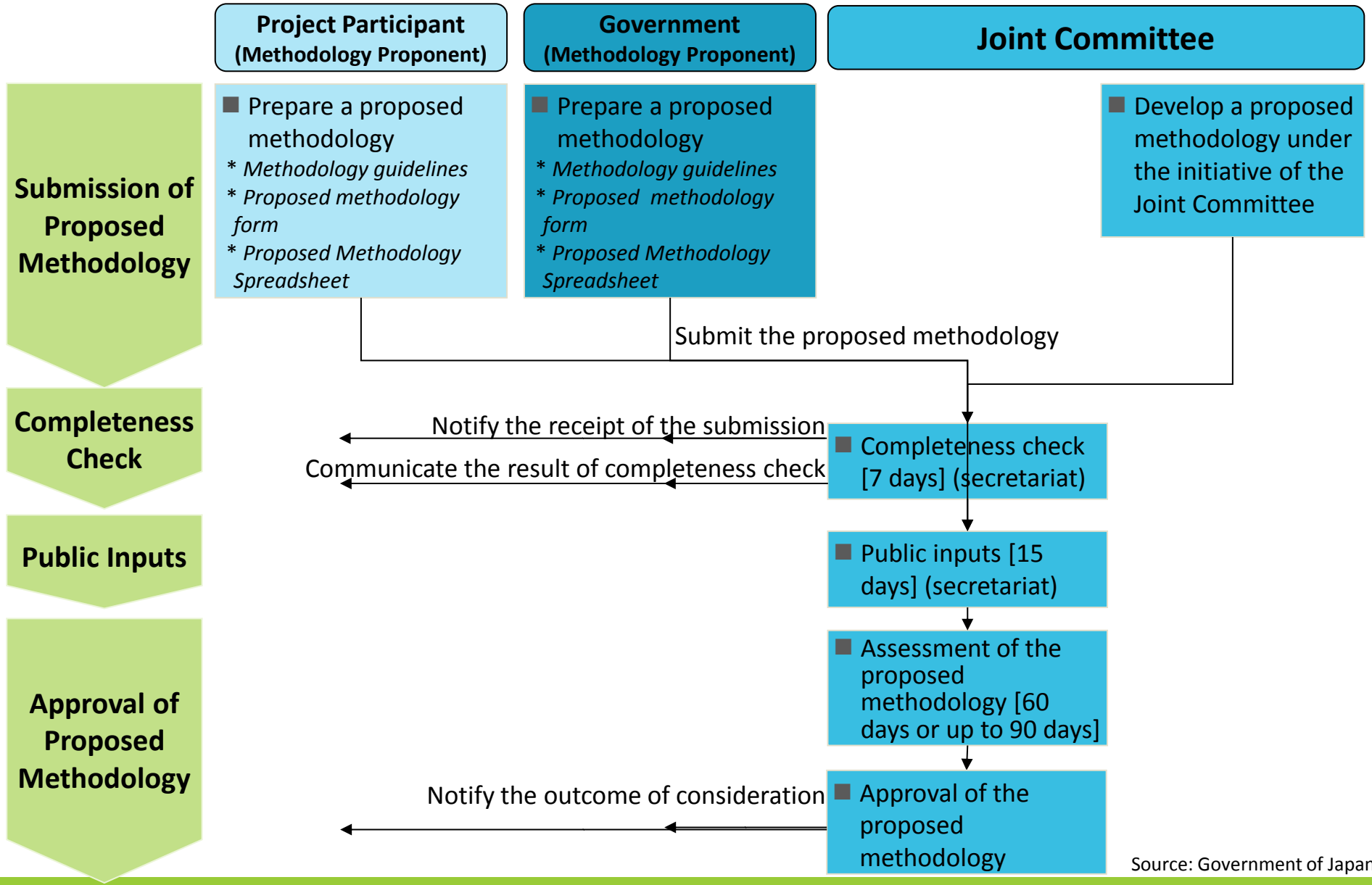
Procedures for submitting a proposed methodology



Source: Government of Japan

Key features of JCM methodology

- The Japanese side, the Vietnamese side or project participants are applicable to be methodology proponents.
- The proposed methodology:
  - ✓ Describes the procedures in a manner that is sufficiently explicit to enable the methodology to be used, be applied to projects unambiguously, and be reproduced by a third party;
  - ✓ Is possible for projects following the methodology to be subjected to JCM validation and/or verification;
  - ✓ Includes all algorithms, formulae, and step-by-step procedures needed to apply the methodology and validate the project, i.e. calculating reference emissions and project emissions;
  - ✓ Provides instructions for making any logical or quantitative assumptions that are not provided in the methodology and is made by the methodology user;
  - ✓ Avoids the intentional increase of credits caused by perverse incentives (e.g. when an increase in output is triggered by incentive to increase credits).

Reference => JCM Guidelines for Developing Proposed Methodology

Key factors on the JCM methodology

Eligibility criteria

Net emission reductions

Simplified monitoring method

Eligibility criteria

♦Eligibility criteria are requirements for the JCM project defined in the JCM methodology and contain the followings:

(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.

Source: JCM Guidelines for Developing Proposed Methodology

♦Eligibility criteria is

☞Clearly defined in the methodology can reduce the risks of rejection of the projects proposed by project participants.

☞Established, in order to reduce emissions by:

(a)Accelerating the deployment of low carbon technologies, products and services, which will contribute to achieving net emission reductions;

(b)Facilitating the NAMAs in host countries.

☞A “check list” will allow easy determination of eligibility of a proposed project under the JCM and applicability of JCM methodologies to the project.

Source: Government of Japan

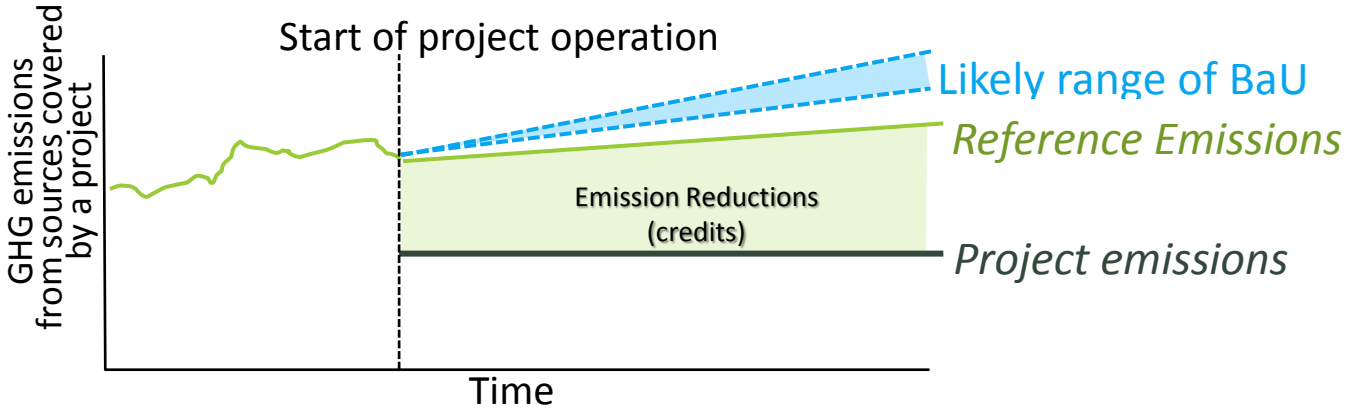
Category	Example of eligibility criteria
Type of technology/devise installed in the project	Technology to be employed in this methodology is coal-fired heat only boiler (HOB) for hot water supply system.
Positive list (Detail technical requirement)	WHR system consists of a Suspension Preheater boiler and/or Air Quenching Cooler boiler, turbine generator and cooling tower.
New installation/replacement, status before project implementation	The project activity involves the installation of new HOB and/or the replacement of the existing coal-fired HOB
Scale/capacity	Capacity of the project HOB ranges from 0.10 MW to 1.00MW.
Scope (sector, type/scale of facility)	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.
Benchmark (Performance level)	The catalog value of the boiler efficiency for the project HOB is 80% or higher
Treatment to avoid leakage emissions	Plan for not releasing refrigerant used for project chiller is prepared.
Past data availability/ MRV	Data of fuel consumption and distance travelled before activation of digital tachograph system is available for each freight vehicle
Operation	The project includes feedback of a driver's performance with the graphical representation to the driver regularly, at least once in three months.
Other	e.g. Reference scenario change, project car identification

WHR: Waste heat recovery

Net emission reductions (1)

- In the JCM, emission reductions to be credited are defined as the difference between reference emissions and project emissions.
- Reference emissions are 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 the Socialist Republic of Viet Nam (Net decrease and/or avoidance of GHG emissions)

1. Conservative reference scenario



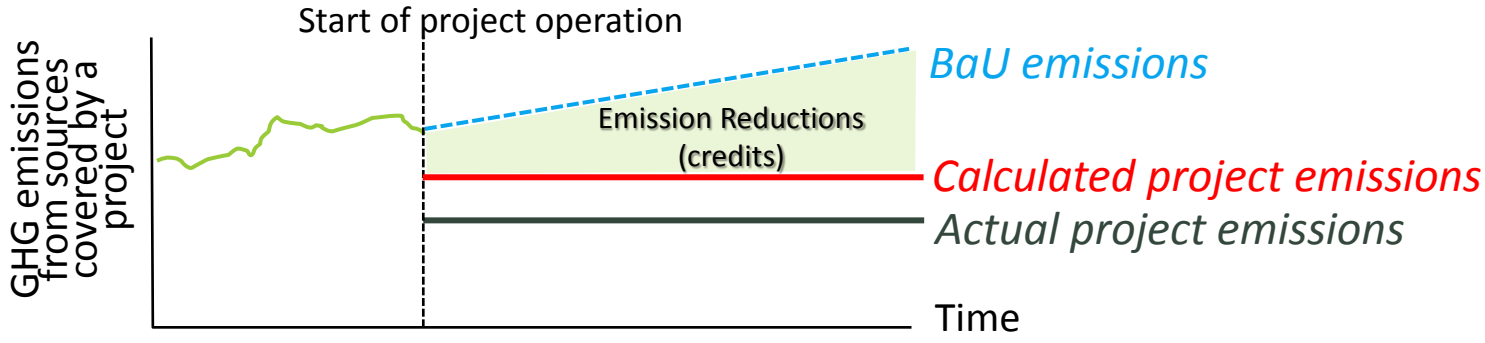
Example: ID_AM003 Installation of Energy-efficient Refrigerators Using Natural Refrigerant at Food Industry Cold Storage and Frozen Food Processing Plant

	BAU scenario	Reference scenario
COP value	The most common products in the market	The highest efficiency product in the market
Cold storage	1.6 - 1.65	1.71
Individual quick freezer	1.2 - 1.25	1.32

Net emission reductions (2)

2. Conservative project scenario

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



Example: ID_AM001 Power Generation by Waste Heat Recovery (WHR) in Cement Industry

Actual project emissions	Calculated project emissions in the methodology
Monitored actual electricity consumptions of WHR system	Calculated electricity consumptions of WHR system with it's maximum rated capacity

3. Upper limit in emission reductions

Example: VN_AM001Transportation energy efficiency activities by installing digital tachograph systems

Taking into account possibilities of emission reductions from other factors than installation of digital tachograph system, emission reductions for the project is limited to 10% of the reference emissions.

Simplified monitoring method

An approved methodology consists of an approved methodology document and a Monitoring Spread Sheet

Monitoring spreadsheet

Monitoring Plan Sheet

is used before validation for developing a monitoring plan and calculating emission reductions *ex ante*.

Monitoring Structure Sheet

is used before validation for developing an operational and management structure to be implemented in order to conduct monitoring.

Monitoring Report Sheet

is used before verification for developing a monitoring report and calculating emission reductions *ex post*.

An approved methodology provides a default value or an identification method of a value for a crediting threshold which is typically expressed as GHG emissions per unit of output by total outputs for reference emissions.

Average number of monitoring parameters among 11 approved JCM methodologies is 2.18

Key points on developing JCM methodologies

Eligibility criteria

- It needs to conduct a research to identified what is advanced low carbon technologies and performance level in the host countries
- To simplify emission reduction calculations and a monitoring method as well as reduce burden of the research, it is better to specify scope
- If there is possibility of leakage emissions, it needs to include a treatment for avoiding leakage emissions.

Net emission reduction

- Clarify BAU scenario and possible scenarios in Vietnam and select a conservative scenario with reasonable explanation.

Simplified monitoring method

- Establish default values or an identification method of values for a crediting threshold
- Number of monitoring parameters (ex-post) should set small as much as possible

Reference :

Guidelines
https://www.jcm.go.jp/id-jp/rules_and_guidelines

Approved methodologies
https://www.jcm.go.jp/id-jp/methodologies/approved