Joint Crediting Mechanism
Implementation in Indonesia

14 January 2021

Coordinating Ministry
for Economic Affairs
Republic of Indonesia

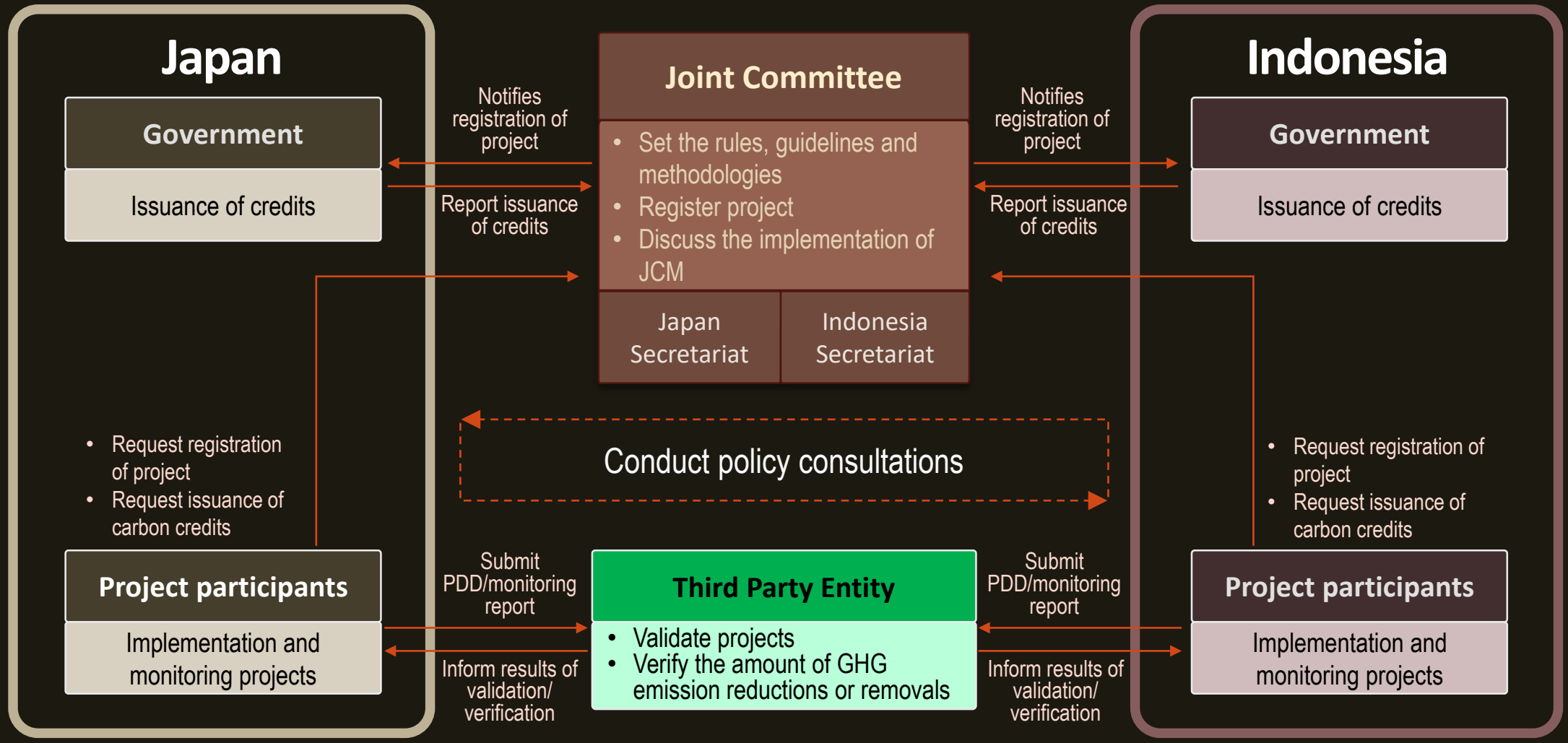
JCM
JOINT CREDITING MECHANISM
INDONESIA SECRETARIAT

Basic concept

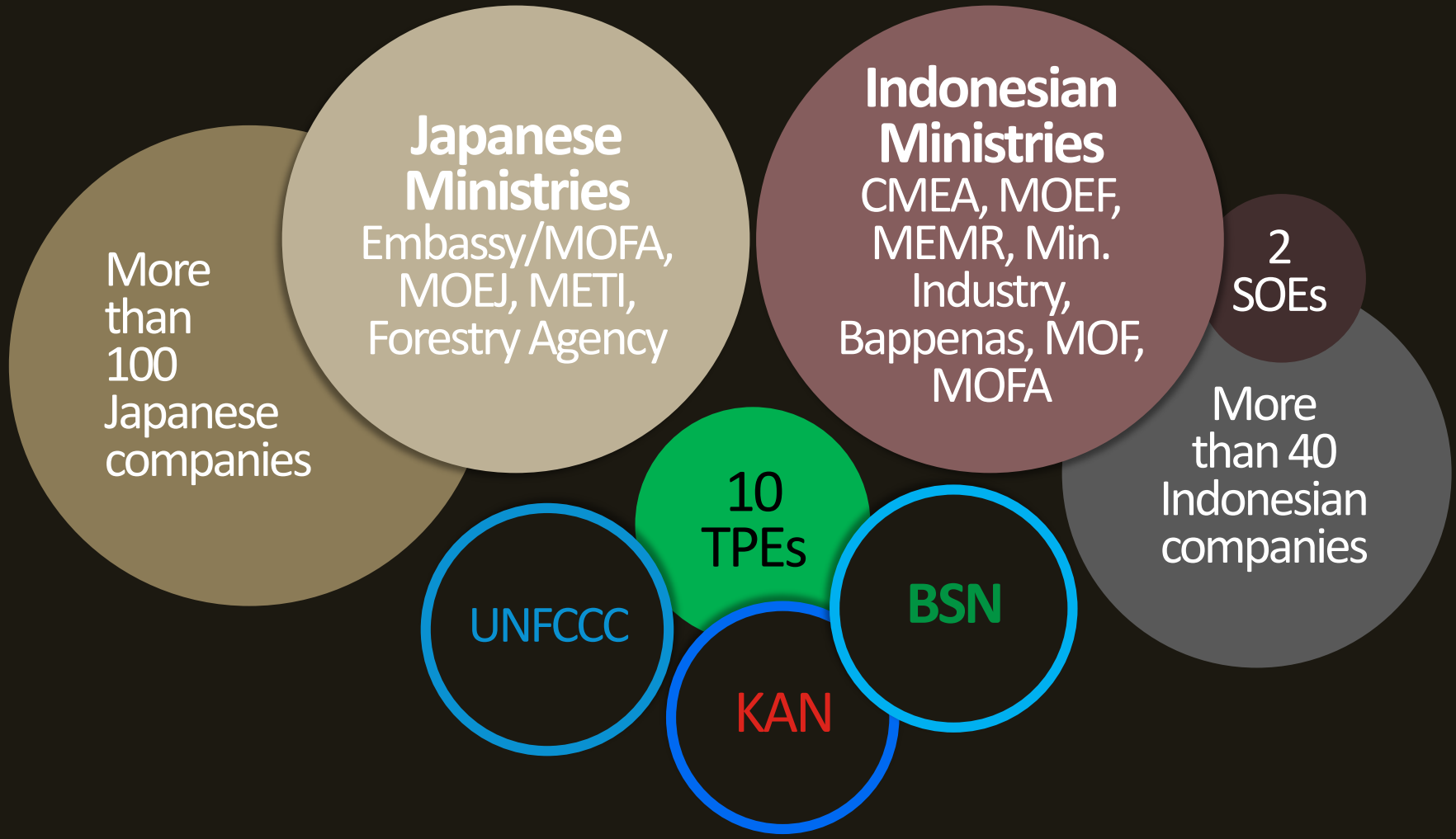
Important objectives of JCM implementation:

1. Facilitate diffusion of leading low carbon technologies, products, systems, services, and infrastructure
2. Implementation of mitigation actions
3. Contributing to sustainable development in developing countries.

Structure of cooperation

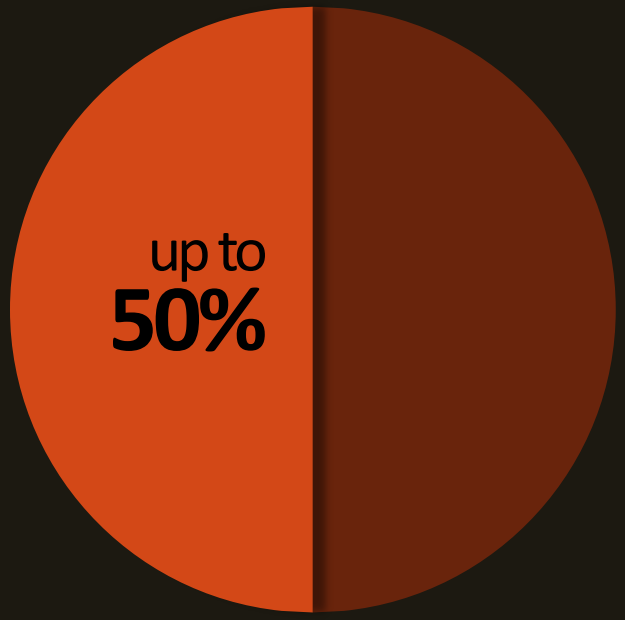


Stakeholders



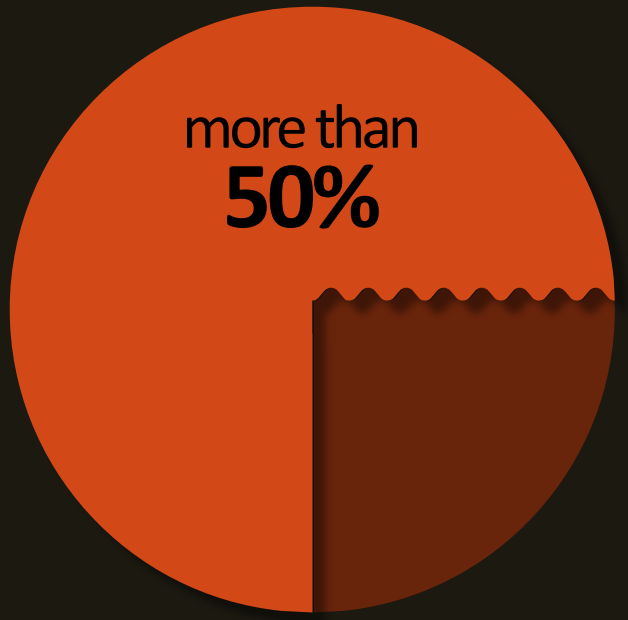
Financing schemes

Model project



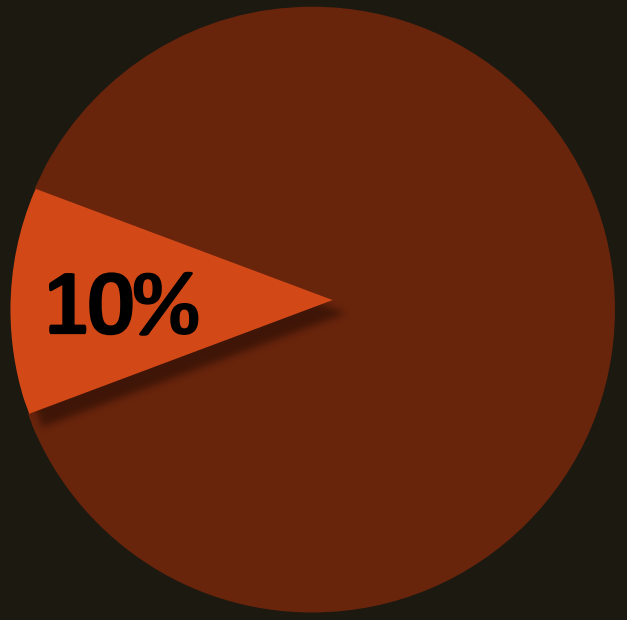
- Supported by MOEJ
- 36 projects

Demonstration project



- Supported by METI/NEDO
- 3 projects
- Implement new technology

Japan Fund for JCM



- Managed by ADB
- Sovereign: grant for incremental cost
- Non-sovereign: interest subsidy for ADB's loan

Infrastructure of JCM

Guideline:

1. **Project Design Document**
2. **Proposed Methodology**
3. **Third Party Entity**
4. **Validation and Verification**
5. **Sustainable Development Implementation Plan and Report**

Rules:

1. Rules of Implementation
2. Rules of Procedure for Joint Committee

Procedure:

Project Cycle Procedure

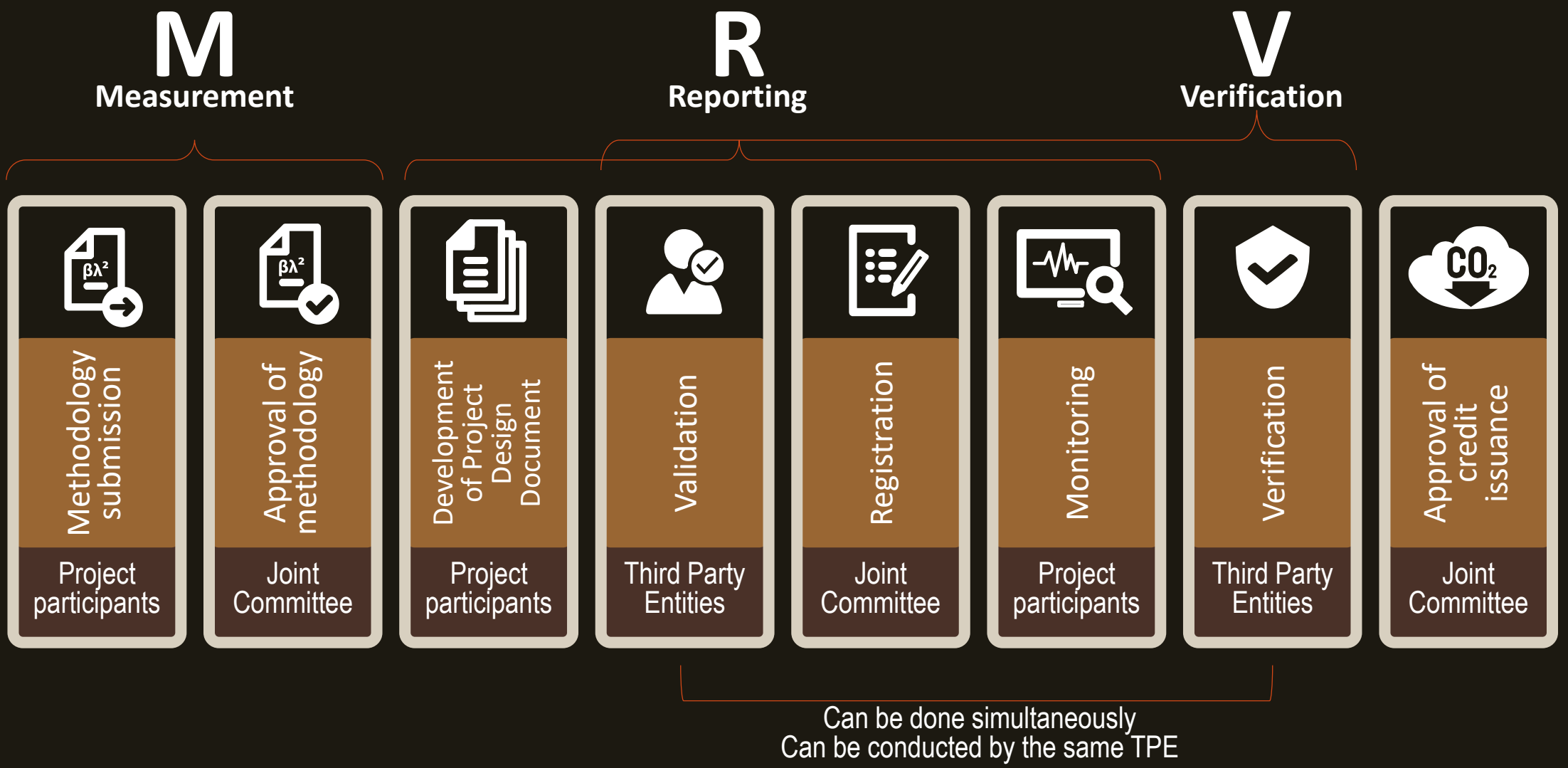
Methodologies:

22 methodologies of energy efficiency and renewable energy

Registry system

ISO 14065 based

Project cycles



Recent updates

26 Methodologies

18 In the pipeline

22 Registered

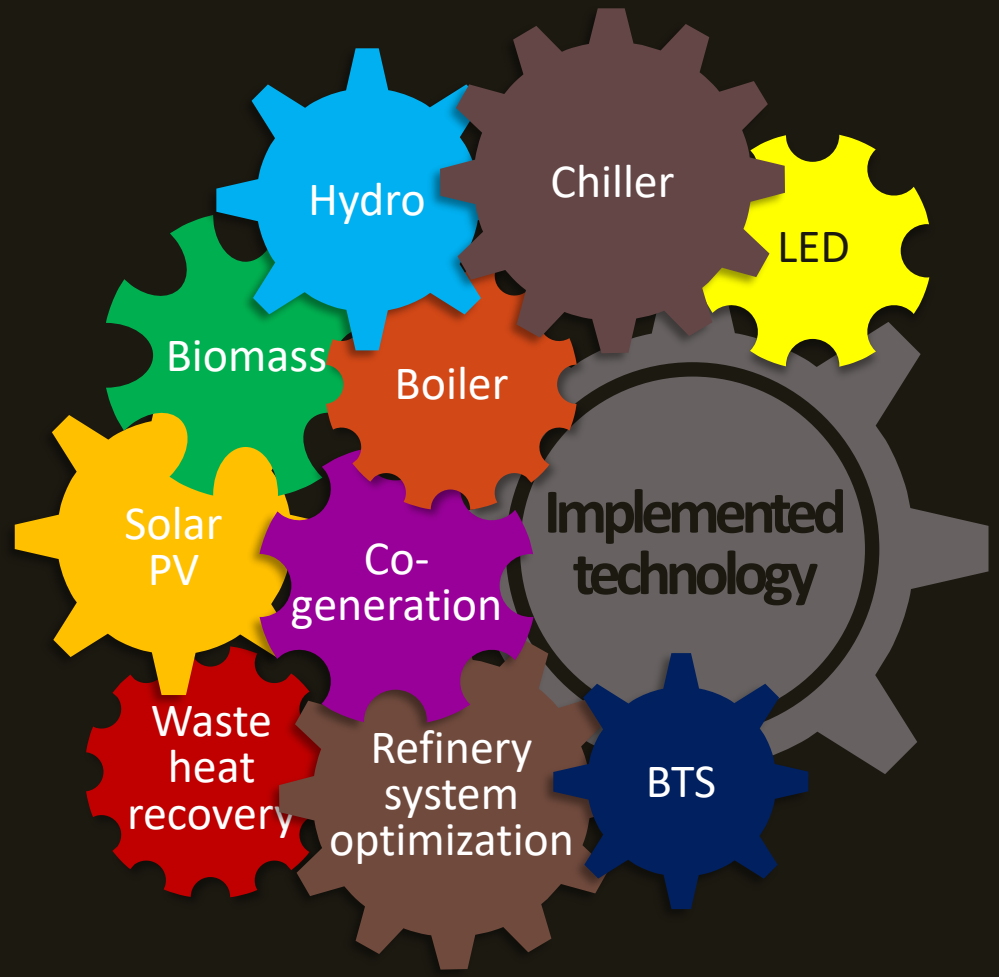
115 Feasibility studies

40 Projects

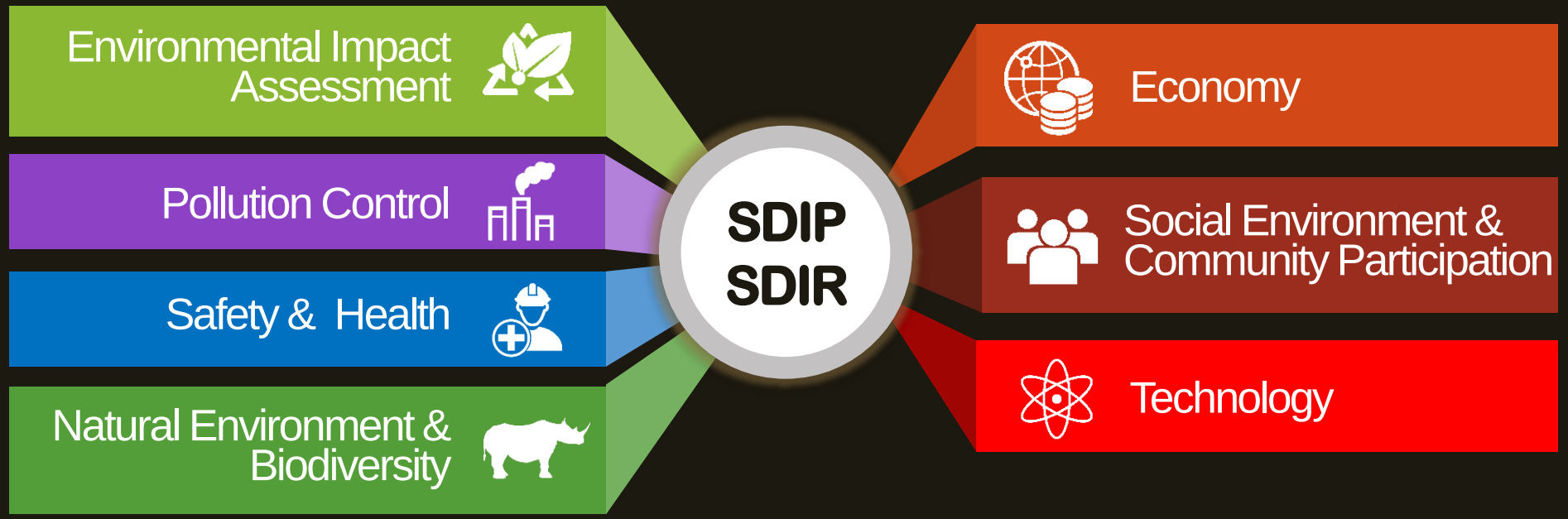
12 Issued carbon credits

Sectors

Automotive, building, cement, chemical, food, oil and gas, paper, plastic, power generation, retail, rubber, telecommunication, textile, transportation



Sustainable Development Aspects of JCM Project



- Sustainable Development Implementation Report is a self-assessment report on the achievement of previously submitted Sustainable Development Implementation Plan for a specific monitoring period, based on ex-post evaluation
- With SDIP & SDIR it is expected to ensure the objectives of JCM implementation through:
  - Technology transfer
  - Capacity building
  - Increase welfare due to the introduction of new technology
  - And eventually reduction of emission.

City to city cooperation

Surabaya & Kitakyushu
- Energy management in buildings
- Waste management

Batam & Yokohama
- Energy efficiency in airport
- Energy efficiency in waste water treatment
- Biomass energy

Jakarta & Kawasaki
- Green building & green industry
- Solid waste
- Solar PV in remote areas

Bandung & Kawasaki
- Energy management in buildings
- Waste management
- Street lamps

Semarang & Toyama
- Bus rapid transit
- Mini hydro
- Solar PV

JCM project #1

Power generation by waste heat recovery

PT. Semen Indonesia & JFE Engineering Co.

PT. Semen Indonesia, Tuban Factory

14,063 tCO2eq/year

- The waste heat recovery (WHR) system utilizes unused waste heat currently emitted from 4 kiln plants at the cement factory.
- System will produce steam using the waste heat exhausted from the cement plant, and the steam is fed to the steam turbine generator to generate electricity.

JCM project #2

Energy-Efficient Waste Paper Processing System

PT. Fajar Surya Wisesa & Kanematsu Corp.

PT. Fajar Surya Wisesa factory, Bekasi

19,011 tCO2eq/year

- This project aims to achieve 10% electricity usage reduction per ton produced by introducing high efficient system for the old corrugated carton (OCC) proces, thereby contributing to CO2 reduction.
- The OCC is a process to prepare clean raw materials containing dissolved paper fibers by mixing used corrugated board into water for defiberization and removing dirt.
- Since a large amount of material (water) is used in this process, the electricity is significantly consumed to the power motors.

JCM project #3

GHG emission reductions through utility facility operation optimization system for refineries

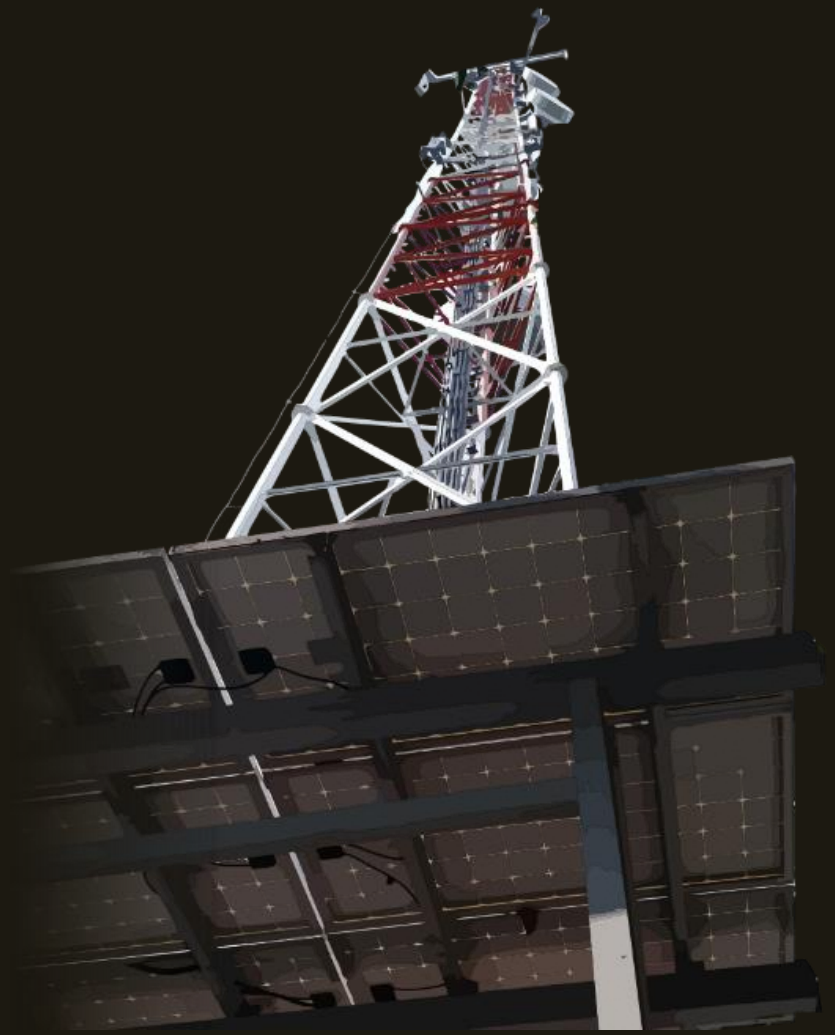
PT. Pertamina & Azbil Corp.

PT. Pertamina, Refinery Unit IV Cilacap

55,000 tCO2eq/year

- The implementation project applied in utility facility at RU IV consists of 10 boilers, which supply high pressure steam to the steam turbine generators. “RENKEI Control”, or the utility facility operation optimization technology through application of software algorithm using linear programming method and advanced process control (APC).
- A remote monitoring system to monitor the performance of the system is also installed. As a result, a great saving in fuel consumption for the utility facility is achieved.

JCM project #4



Installation of Tribrid System to mobile communication's Base Transceiver Stations

PT. XL Axiata & KDDI Corp.

20 locations in Sumatera, Java & Kalimantan

380 tCO2eq/year

- Tribrid System is defined as a combined system of solar PV, batteries, and electric power control system
- This system controls charge-discharge of battery, and also improves the operational efficiency of diesel generators with its electric power control system
- Installed in off-grid and poor-grid areas in Indonesia

JCM project #5

Solar PV Power Plant Project in Jakabaring Sport City

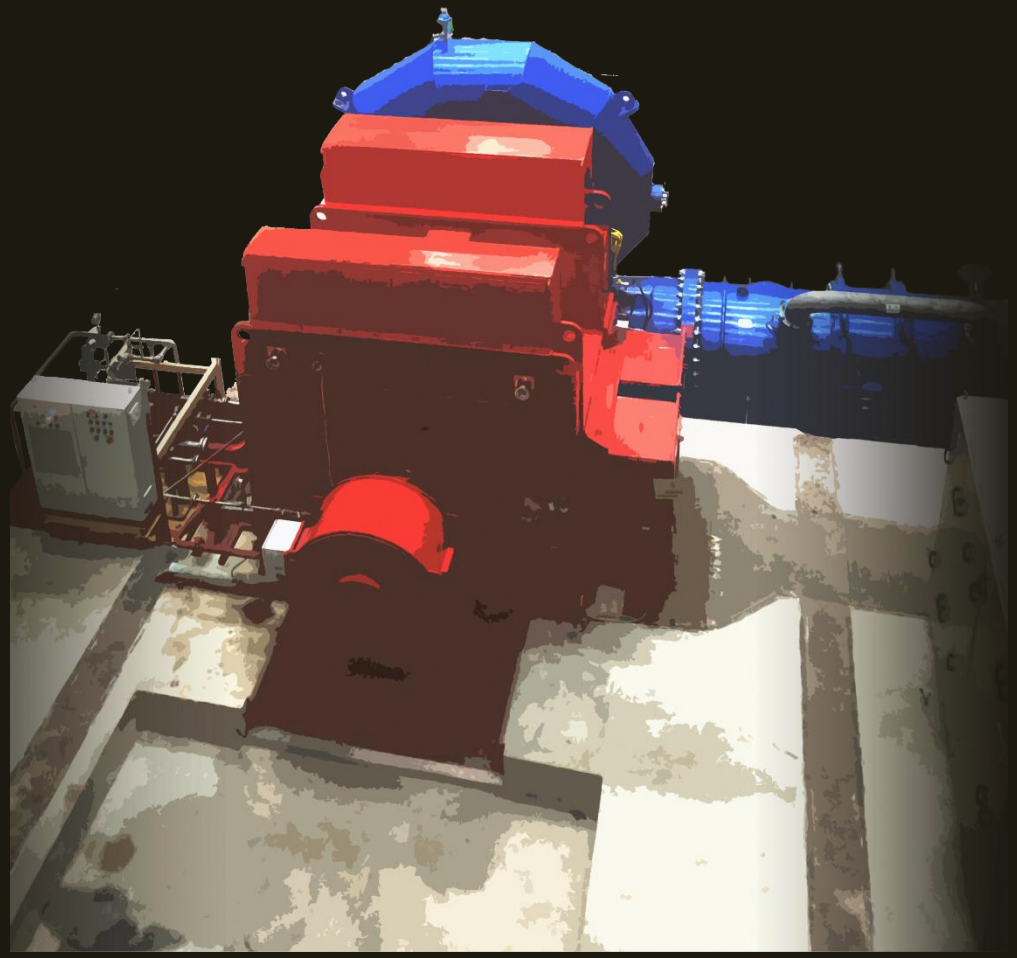
PDPDE Sumsel & Sharp Corp.

Jakabaring Sport City, Palembang

1,277 tCO2eq/year

- This project aims to reduce CO2 emissions by introducing a 2 MW solar power plant in the Jakabaring Sport City complex of South Sumatra Province
- The power plant uses polycrystalline PV modules, 315W, module efficiency 15.5%. About 5,243 of these modules and peripheral systems installed on an expansive area of about 2.5 ha.

JCM project #6



10MW Mini Hydro Power Plant Project in North Sumatra

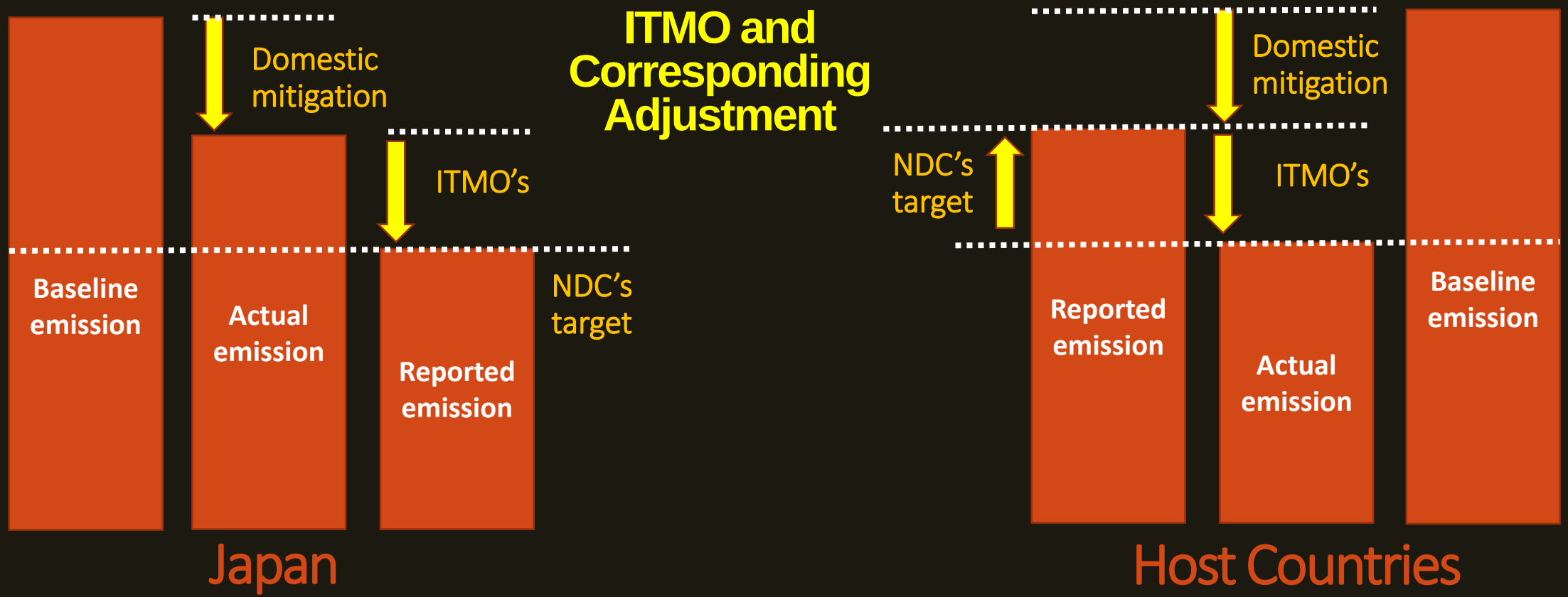
PT. Citra Multi Energi & Toyo Energy Farm Co., Ltd.

Parlilitan, Humbang Hasundutan

47,182 tCO2eq/year

- A run of river power plant constructed in North Sumatra with a capacity of 10MW (5MW x 2)
- Generated electricity is to be supplied to the state power company (PLN) resulting in GHG emission reductions by replacing grid electricity
- This project is also expected to contribute to improving energy supply in the region.

JCM and Article 6

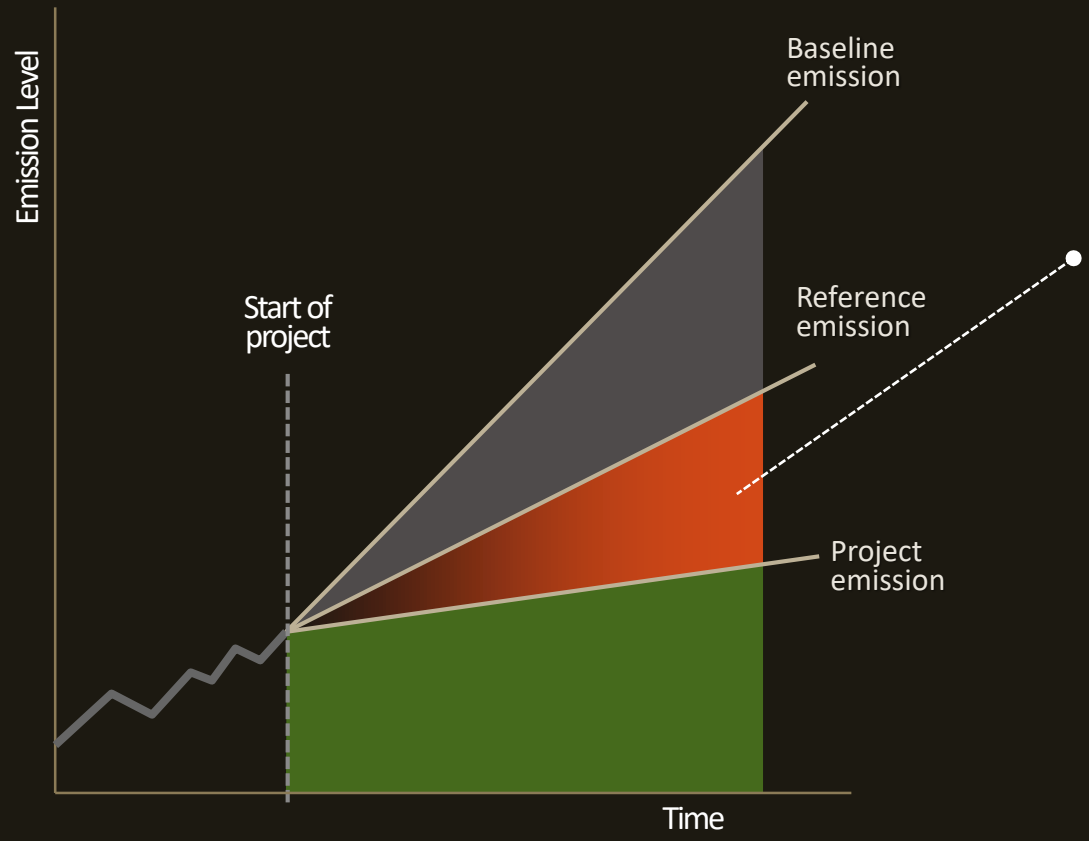


Japan

Host Countries

- JCM will be categorized into Internationally Transfer Mitigation Outcome (ITMO), based on Article 6 para 6.2, and currently becomes one of the Article 6 pilots that implemented in 17 countries.
- As a consequence, the rules regarding the corresponding adjustment will then be applied to avoid double counting in carbon credit sharing.
- We will follow all of the Paris Agreement rules when it is implemented, the JCM can be a good example for the international cooperation under Article 6.

Carbon credits allocation in corresponding adjustment



Project Emission Reduction (carbon credits)
= Reference emission – Project emission

Verified carbon credits are allocated among all parties:

1. Government of Indonesia
2. Indonesian project participant
3. **Corresponding adjustment**
4. Government of Japan
5. Japanese project participant

- Corresponding adjustment must be taken from verified carbon credits allocation.
- The share of each involved parties will be smaller, but double counting on credits allocation will be avoided

Thank you

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