

Joint Crediting Mechanism Recent Updates in Indonesia

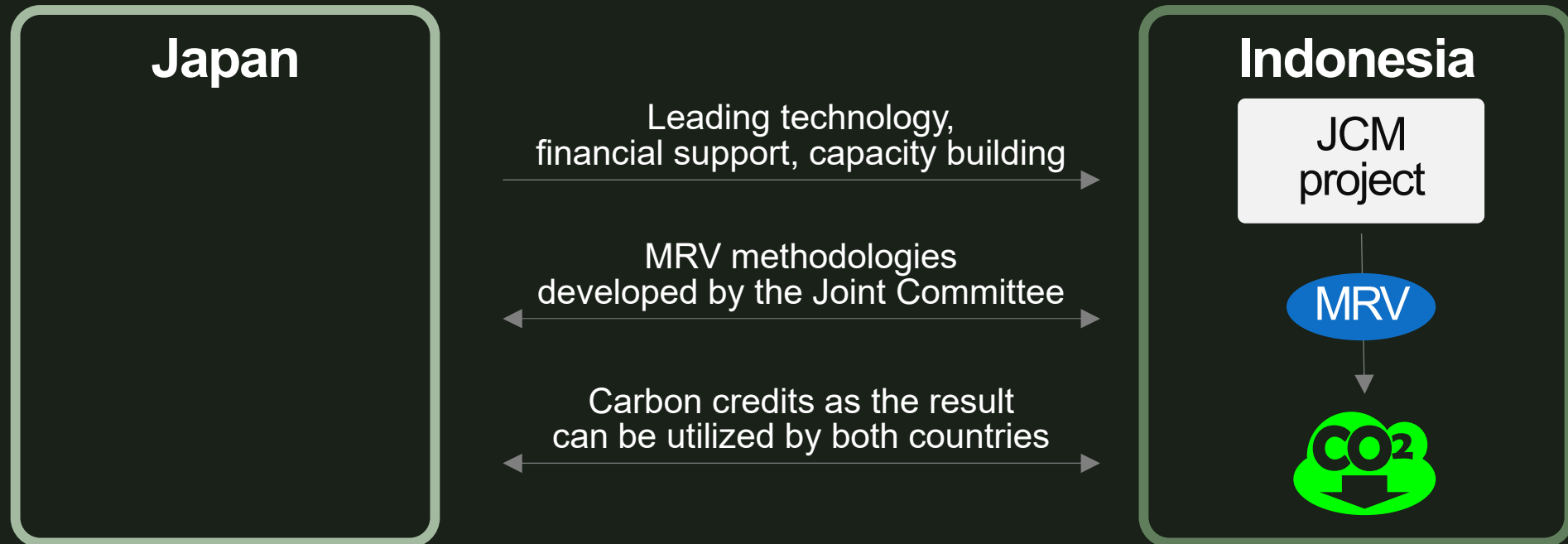
Jakarta, 2 September 2021



Coordinating Ministry
for Economic Affairs
Republic of Indonesia



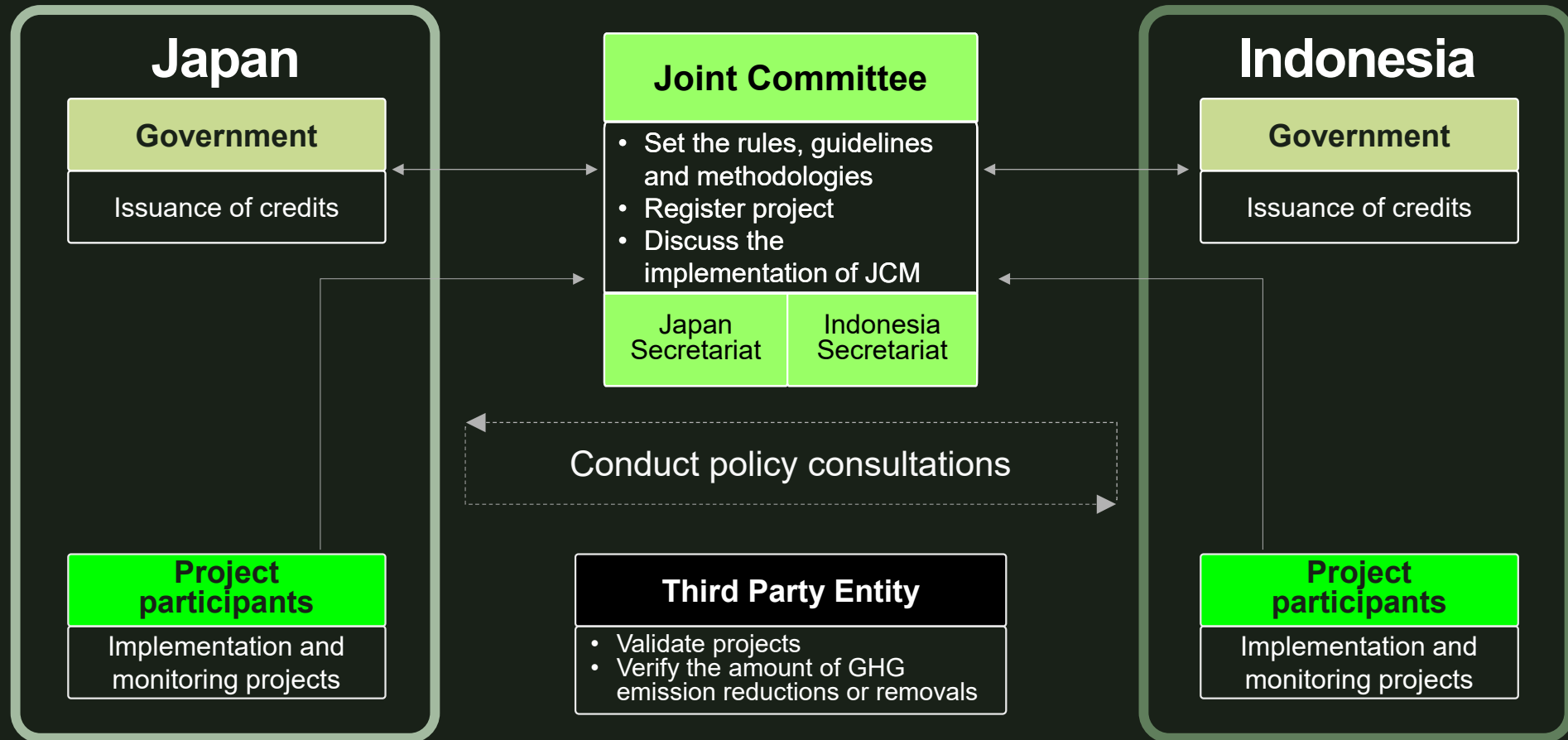
Basic concept



Key objectives of JCM implementation:

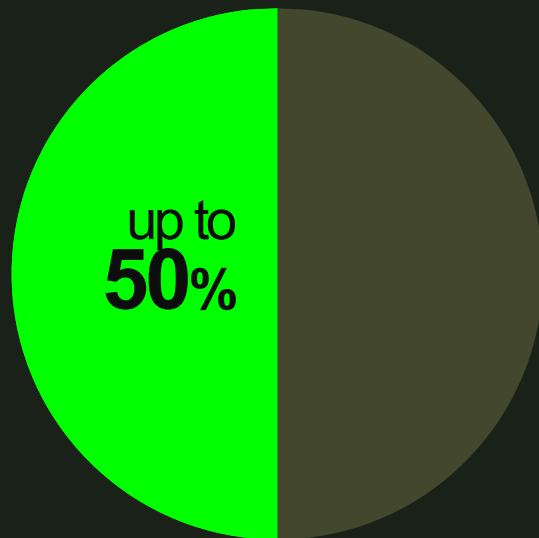
1. Facilitate diffusion of leading low carbon technologies, products, systems, services, and infrastructure
2. Implementation of mitigation actions
3. Contributing to sustainable development in developing countries.

Structure of cooperation



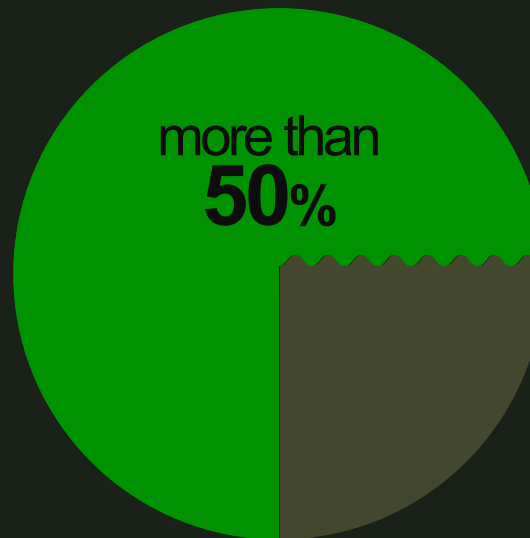
Financial supports

Model project



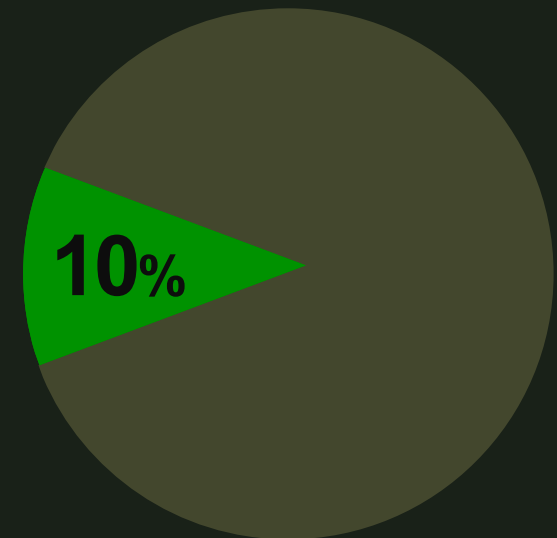
- Supported by MOEJ
- 41 projects

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

Guidelines

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

M

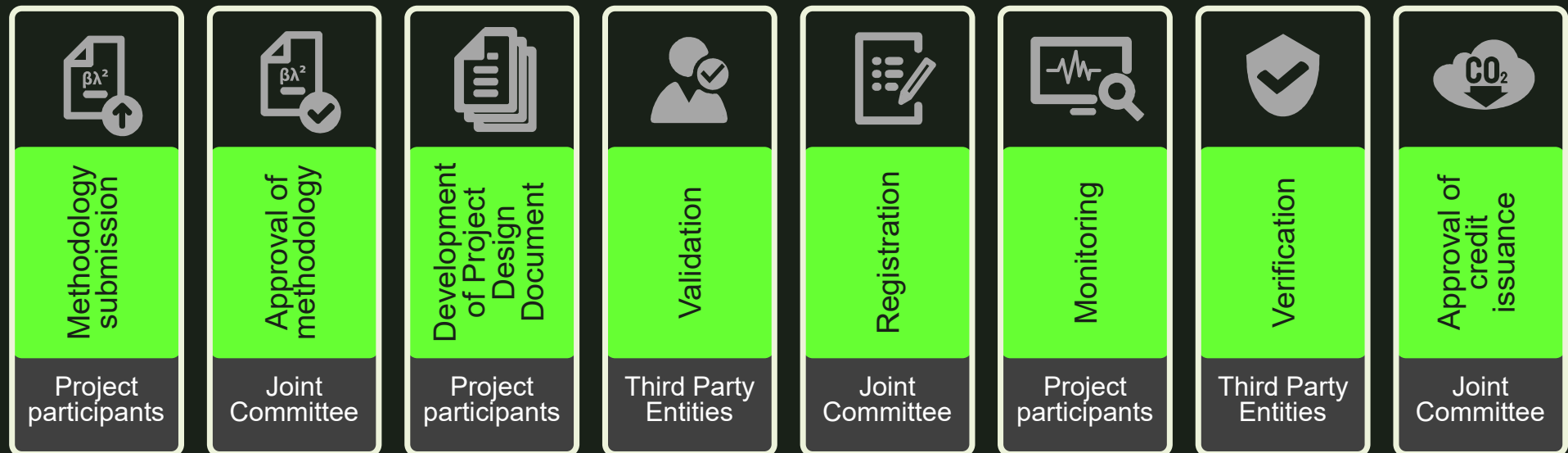
Measurement

R

Reporting

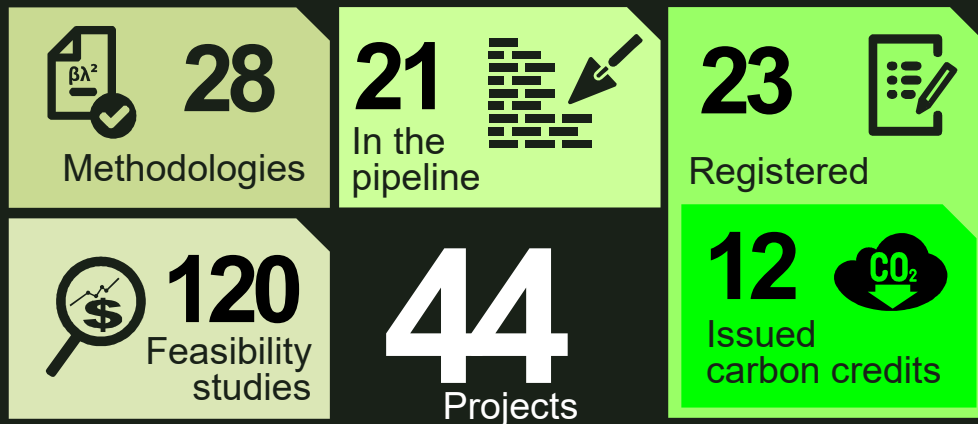
V

Verification



Can be done simultaneously
Can be conducted by the same TPE

Recent updates



Sectors

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



City to city cooperations

Surabaya & Kitakyushu

Energy management in buildings
Waste management

Batam & Yokohama

Energy efficiency in airport and waste water treatment

Bandung & Kawasaki

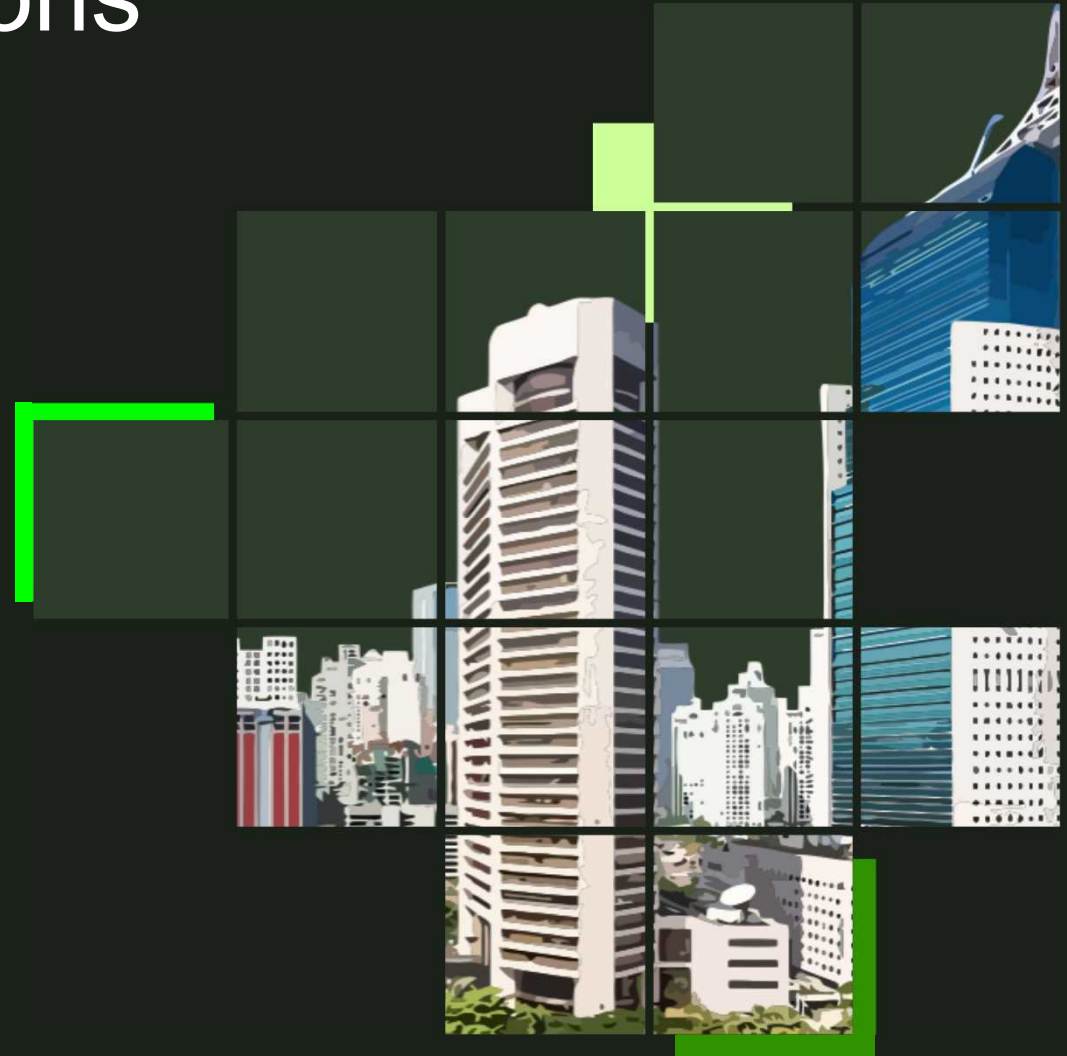
Energy management in buildings
Street lamps
Waste management

Semarang & Toyama

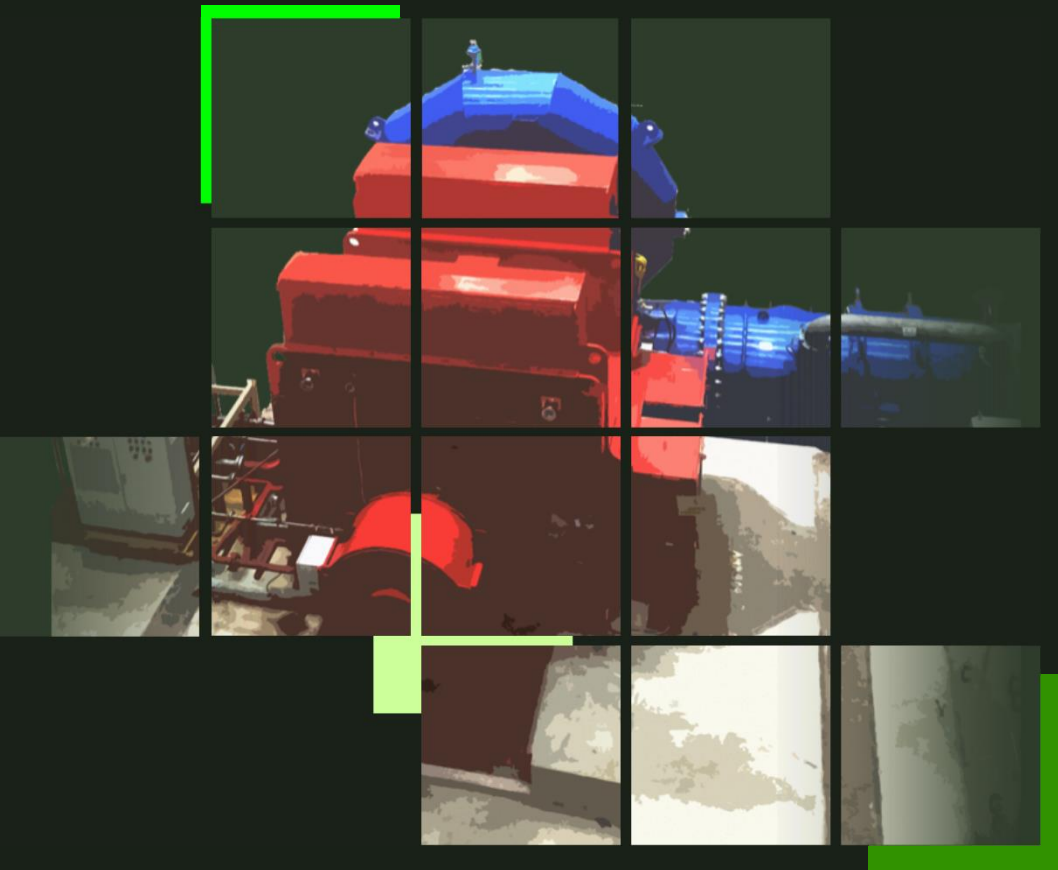
Bus rapid transit
Mini hydro
Solar PV

Jakarta & Kawasaki

Green building & green industry
Solid waste
Solar PV



Project example 1



10MW Mini Hydro Power Plant Project in North Sumatra

Project participants

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

Location

Parlilitan, Humbang Hasundutan

Estimated emission reduction

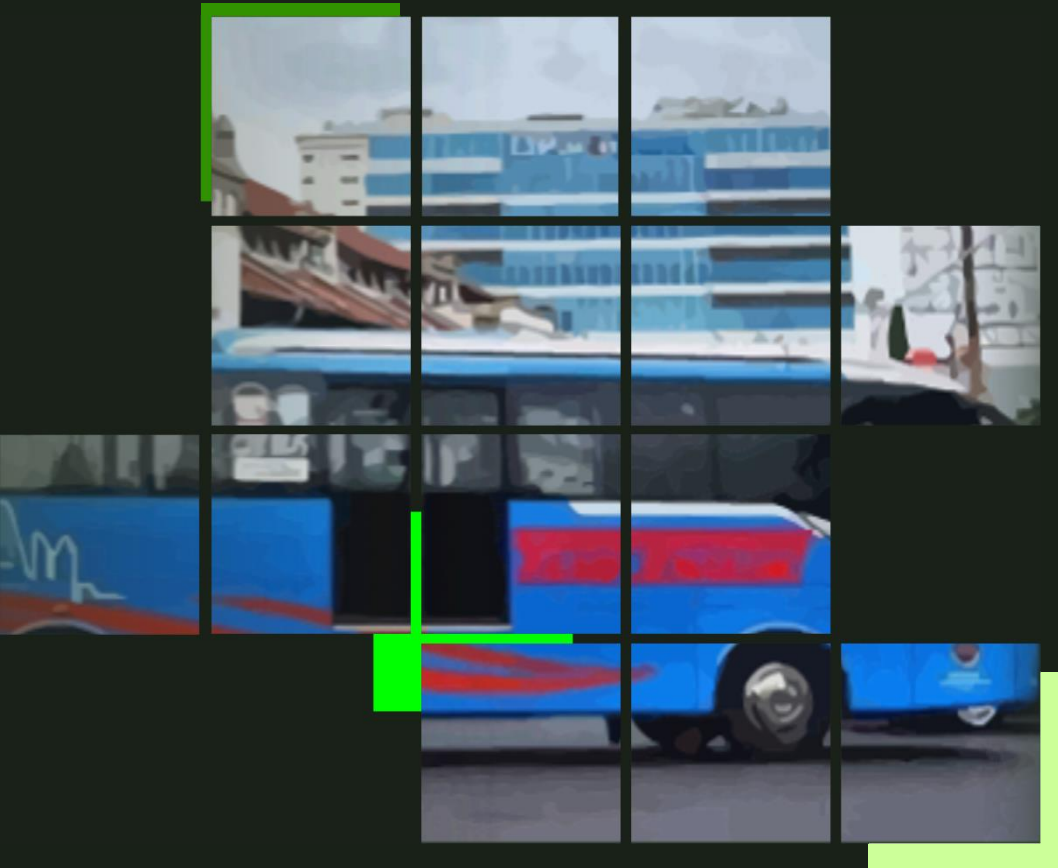
47,182 tCO₂e/year

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.

Project example 2



Introduction of CNG-Diesel Hybrid Equipment to Public Bus

Project participants

BLU UPTD Semarang & Hokusan Co., Ltd.

Location

Semarang

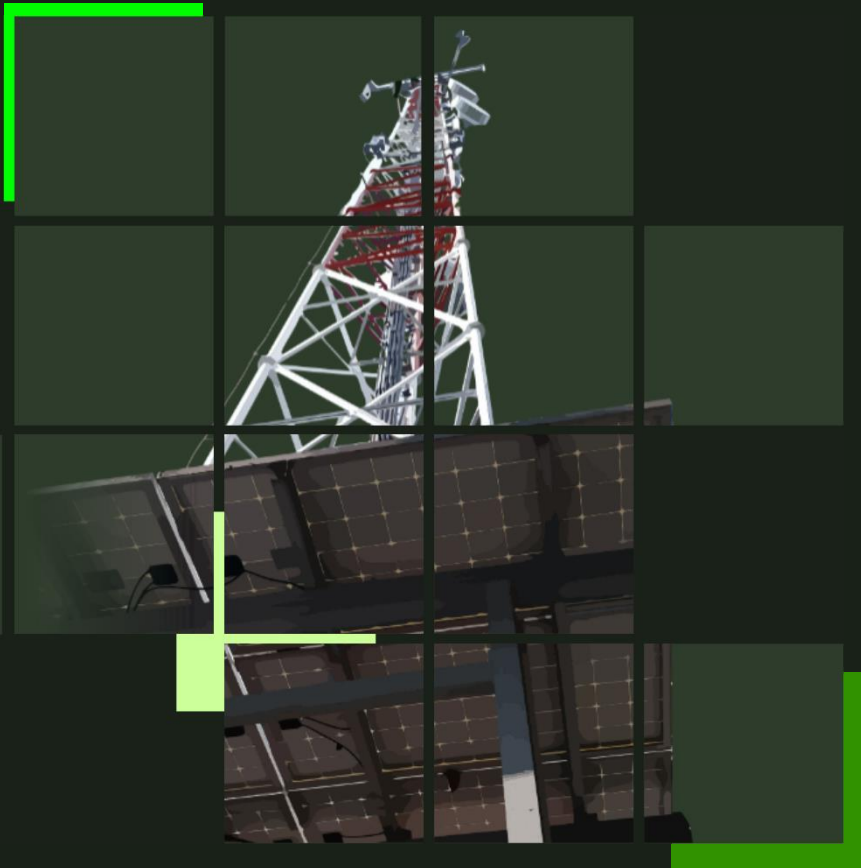
Estimated emission reduction

1,870 tCO₂/year

Based on the City to City cooperation between Toyama City and Semarang City, this project aims to reduce GHG emissions through fuel switch from diesel to CNG.

72 diesel buses owned by Trans Semarang, including 25 large-sized buses and 47 mid-sized buses, are retrofitted from diesel engine to hybrid engine with CNG system available. These buses are considered more cost-effective through fuel switching.

Project example 3



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

Project participants

PT. XL Axiata & KDDI Corp.

Location

20 locations in Sumatera, Java & Kalimantan

Estimated emission reduction

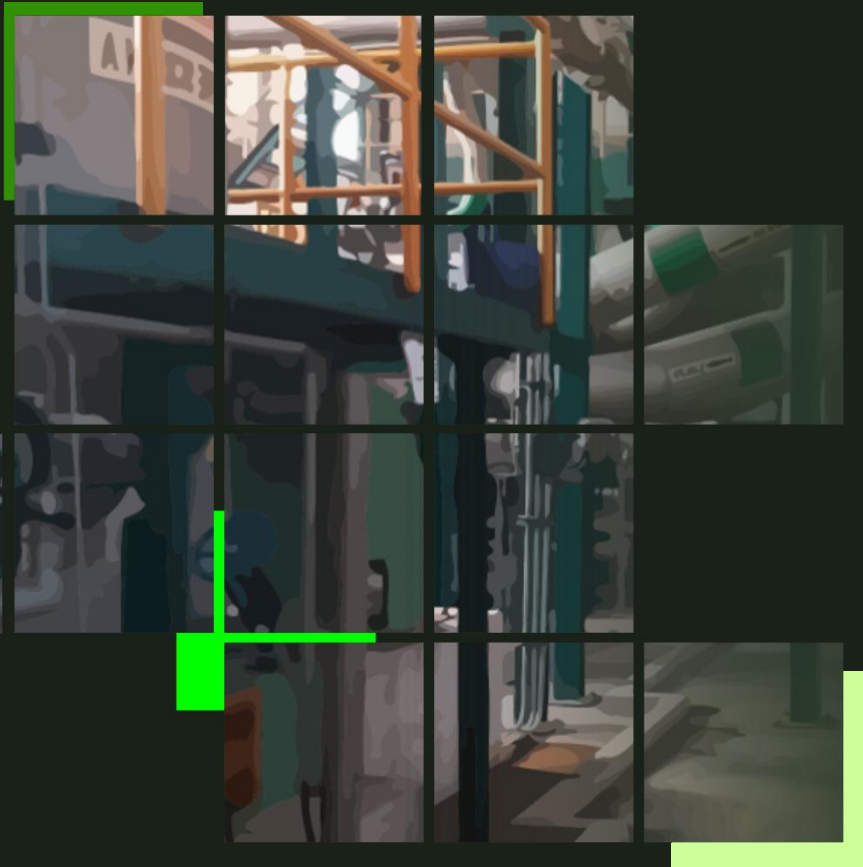
380 tCO₂/year

Tribrid System at mobile communication's Base Transceiver Stations (BTS) are installed at 20 location in off-grid and poor-grid area in Republic of Indonesia.

Tribrid System is defined as a combined system of solar PV, batteries, and electric power control system.

Tribrid System controls charge-discharge of battery, and also improves the operational efficiency of diesel generators with its electric power control system. Therefore, it enables BTS to reduce CO₂ emissions from electricity and fossil fuel

Project example 4



Energy-Efficient Waste Paper Processing System

Project participants

PT. Fajar Surya Wisesa & Kanematsu Corp.

Location

PT. Fajar Surya Wisesa Factory, Bekasi

Estimated emission reduction

19,011 tCO₂/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.

This OCC process is a process to prepare clean raw materials containing dissolved paper fibers by mixing used corrugated board into water for defiberization and removing foreign substances.

Since a large amount of material (water) is used in this process, the electricity is significantly consumed to the power motors.

Project example 5



Installation of Gas Co-generation System for Automobile Manufacturing Plant

Project participants

PT. Toyota Motor MI (TMMIN) & Toyota Tsusho

Location

TMMIN factory, Karawang

Estimated emission reduction

20,310 tCO₂/year

The purpose of this project is to reduce energy consumption and CO₂ emission by installing a gas co-generation system.

This system adopts a high efficiency gas-engine and heat recovery system to generate steam 7,8 MW and hot water.

This project contributes to the reduction of energy consumption at coal fired power generation prevailed in Indonesia, and to the reduction of GHG and air pollutant emissions.

Thank You



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