

# Introduction to the Japan Fund for the Joint Crediting Mechanism (JFJCM)

6 September 2016

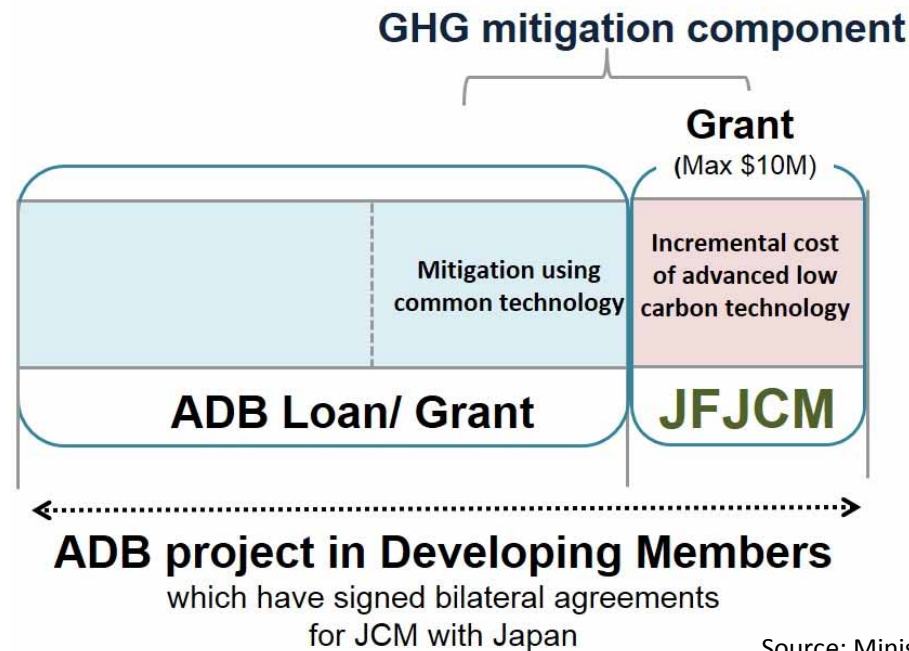


Asia Pacific Carbon Forum 2016  
Side Event in Jeju Island, Republic of Korea



# Japan Fund for the Joint Crediting Mechanism

- Established in June 2014 as one of ADB's trust funds
- \$42.6M contributed by MOEJ between 2014-2016
- Provides financial incentives for adoption of advanced low-carbon technologies in ADB-financed projects
- Provides grants and technical assistance to projects using the JCM



Source: Ministry of the Environment, Japan

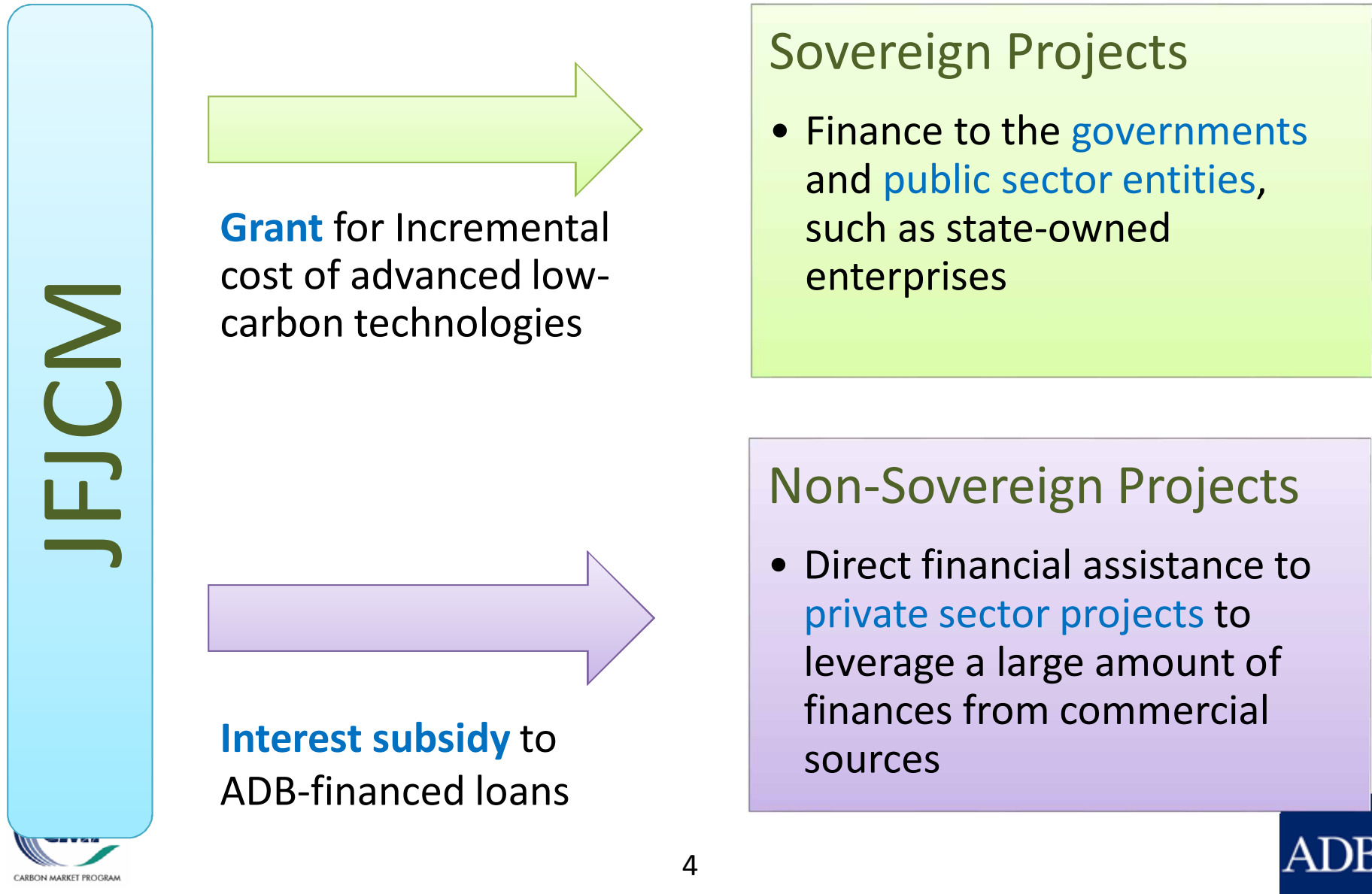
# JFJCM Eligible Countries

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➤ Of the 16 JCM host countries, 10 are ADB Developing Members

	2013	2014	2015	2016
JCM host countries	<b>Mongolia</b> <b>Bangladesh</b> Ethiopia Kenya <b>Maldives</b> <b>Viet Nam</b> <b>Lao PDR</b> <b>Indonesia</b> Costa Rica	<b>Palau</b> <b>Cambodia</b> Mexico	Saudi Arabia Chile <b>Myanmar</b> <b>Thailand</b>	<b>Philippines (?)</b>

# Use of JFJCM



# Use of JFJCM

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## Sovereign Projects

- Used for equipment, training for operation of advanced technology, civil works
- maximum of:
  - (i) \$10 million or 10% of the project cost, whichever is lower; and
  - (ii) \$ 5 million if the project cost < \$50 million.

## Non-sovereign Projects

- Used for reduction of interest rate of ADB's loan
- \$10 million or 10% of the project cost, whichever is lower

# Eligible Projects and Technologies

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## Eligible Project

- Project co-financed with an ADB or ADB administered funds.
- Additional financing to ADB ongoing project.

## Eligible Technology

- Advanced **low carbon technologies** that reduce greenhouse gas (GHG) emission including CO<sub>2</sub> from energy source.
- The technologies must have a proven implementation and operation record of its technical effectiveness.

# JFJCM Approved Projects

## Solar Power Project in Maldives

- Additional financing of \$5M Grant to Addu Atoll subproject
- Install advanced battery system and energy management system (EMS) for smart micro-grid system

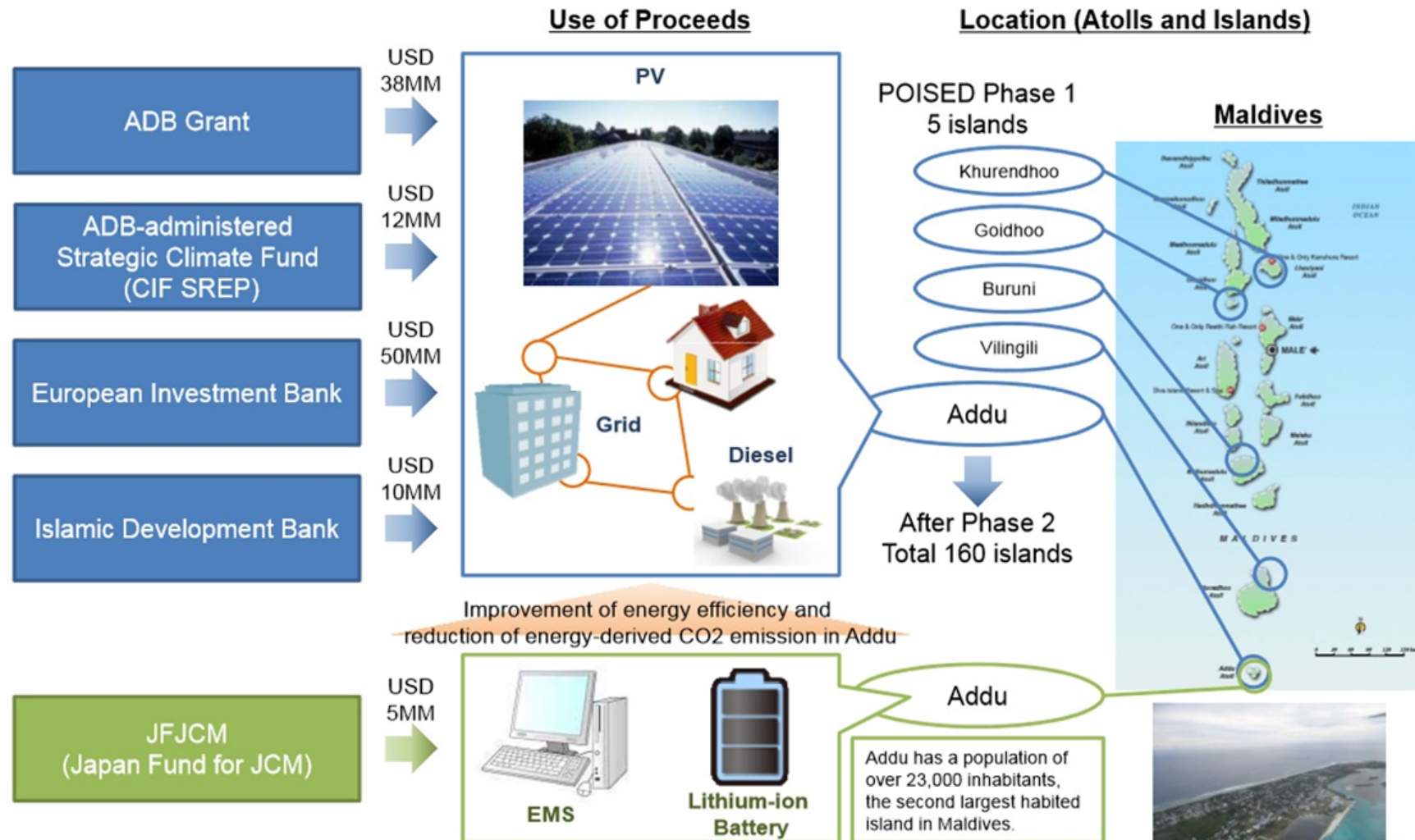
## Distribution Project for CHP in Mongolia

- \$10M approved by MOEJ in November 2015
- Install energy efficient transformers

## Regional-Capacity Development Technical Assistance

- \$1.5M Supporting the Adoption of Low Carbon Technologies in Developing Member Countries

# Case study 1: Maldives



\*POISED: Preparing Outer Islands for Sustainable Energy Development



# Case study 1: Maldives (cont'd)

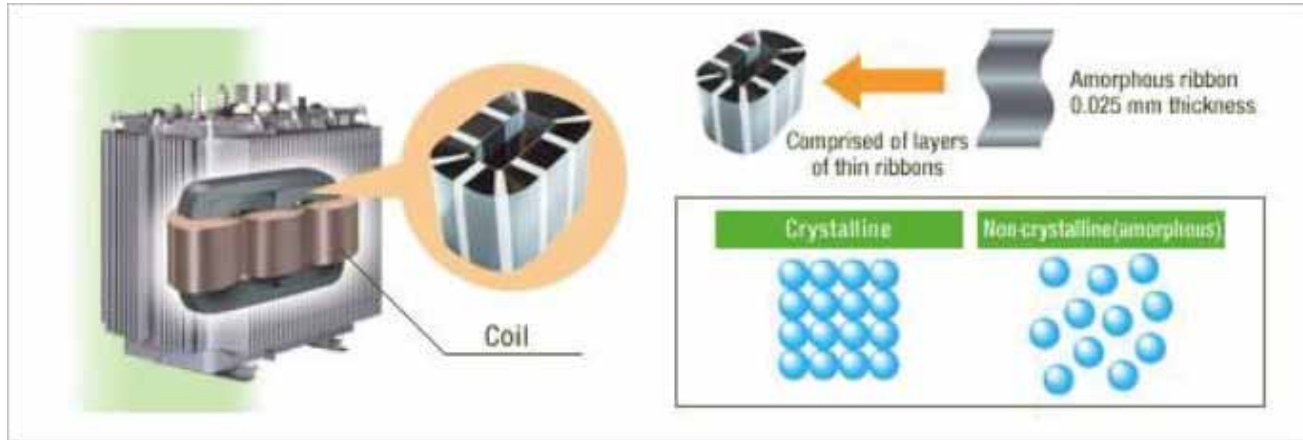
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- Install smart micro-grid technology with advanced battery system and energy management system (EMS)
- Increase Solar PV penetration Capacity in the island
  - ✓ Suppression of PV and load fluctuations
  - ✓ Large amounts of renewables integrated to the grid
  - ✓ Optimization of diesel generator operation
  - ✓ Expected emission reductions: 2.5 - 3 thousand tCO<sub>2</sub>/yr



Source: Ministry of Environment and Energy, Maldives

## Case study 2: Mongolia



### Amorphous Transformer (AMT)

- widely used in distribution network system in developed countries
- Reduces power loss (no-load loss) and improves energy efficiency of transformers

[https://www.jcm.go.jp/vn-jp/methodologies/24/attached\\_document1](https://www.jcm.go.jp/vn-jp/methodologies/24/attached_document1)

# Other Eligibility Criteria and Requirements

## JCM Application

- Defining the JCM Methodology;
- Preparation of the Project Design Documents (PDD);
- Validation by Third Party Entities (TPEs);
- Registration of the Project with the JCM;
- Monitoring and verification of GHG emission reduction;
- Issuance of the JCM credits and delivery to both governments

## Life cycle cost consideration on the bidding

- The evaluation and qualification criteria will incorporate the technical performance related criteria which may affect life cycle costs.
- Example: fuel cost, energy loss amount as operation cost, cost of spare parts or replacement of the equipment.

# Life Cycle Cost Consideration on Bidding

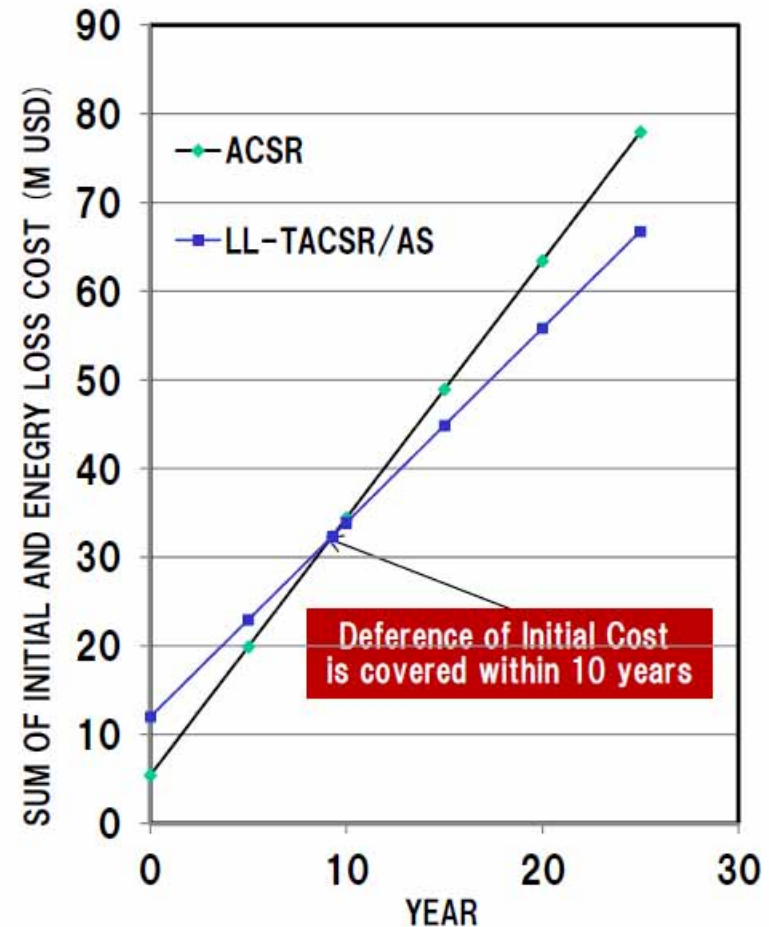
Efficient transformer  
and conductor



Reduce the power loss



Reduce electricity  
generation amount and cost



(Source: J-Power presentation)

$$Index = (Initial\ Cost) + (Electricity\ Loss\ Cost / Year) \times (Year)$$

# Financing support under JCM

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- As of now, JCM credits are internationally non-tradable
- Financial supports to JCM projects are made at the early stages of the project
  - supplement the initial investment cost
  - mitigate the financing cost

Japanese gov't	<ul style="list-style-type: none"><li>• Subsidy / funding to projects</li><li>• Need to engage Japanese partners</li></ul>
ADB	<ul style="list-style-type: none"><li>• Grant to sovereign projects</li><li>• Interest subsidy to private sector projects</li><li>• Host country government &amp; private sector developers can initiate</li></ul>
Carbon credit	<ul style="list-style-type: none"><li>• Not currently available</li></ul>

# Contact us

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