

# **Lessons learned from JCM project development activities in Asia and JCM potential in Thailand**

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# Contents

- **Who we are?**
- **What we do for JCM project development?**
- **Lessons learned and potential in Thailand**



# JCM outreach & project development activities

## **1) Disseminating the JCM information:**

Information platform “Carbon Market Express” to provide A to Z of the JCM

## **2) Identifying priority sector and relevant policies:**

JCM information sheet & information report

## **3) Identifying JCM project seeds**

On-site & online survey in JCM partner countries

## **4) Encouraging match-making:**

Workshop & study tour

## **5) Applying to JCM financing programme:**

Preparation of application document for JCM Model Project

JCM Methodology and PDD development in case of necessary



# Recent JCM model projects supported by OECC

**OECC has supported over 20 JCM pipeline projects in Asia.**

Country	Project
Philippines	Biogas Power Generation & Fuel Conversion Project in Pineapple Canneries
Mongolia	Fuel Conversion by Introduction of LPG Boilers to Beverage Factory
Myanmar	8.8MW Power Generation System by WHR for Cement Plant
Mongolia	Upscaling Renewable Energy Sector Project [JFJCM by ADB]
Mongolia	20MW Solar PV in Darkhan City
Mongolia	15MW Solar PV in New Airport Suburb
Indonesia	Absorption Chiller at Chemical Factory
Philippines	1.2MW Solar PV at Refrigerating Warehouse
Philippines	1.53MW Solar PV at Auto Parts Factories
Laos	Amorphous Transformers in Nationwide Power Grids
Vietnam	Amorphous Transformers in Southern and Central Power Grids II
Cambodia	Introduction of 0.8MW Solar Power Generation in International School

# Case 1: Promoting renewable energy generation



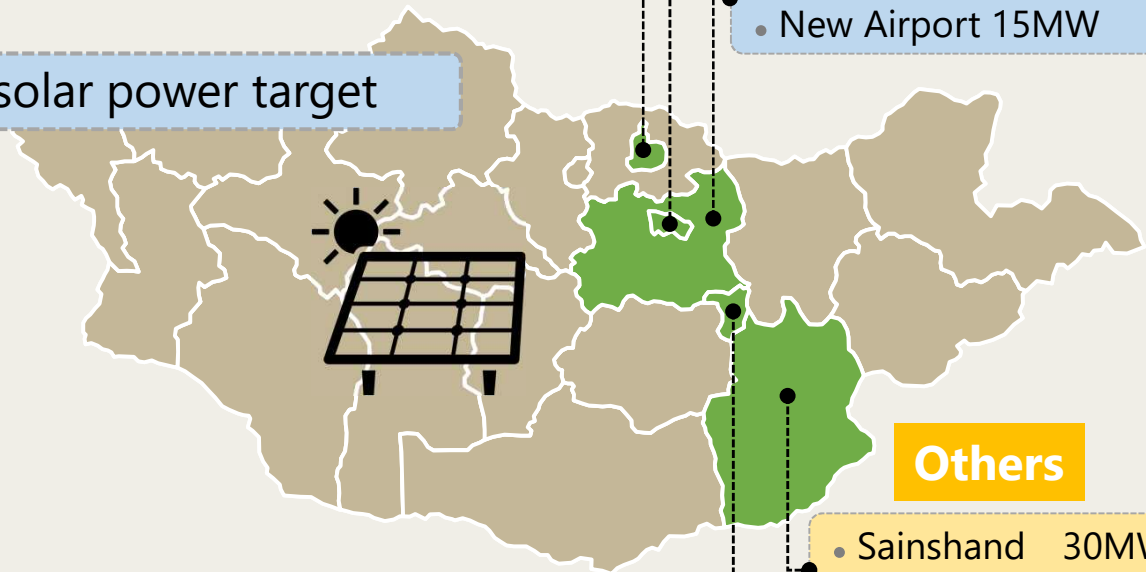
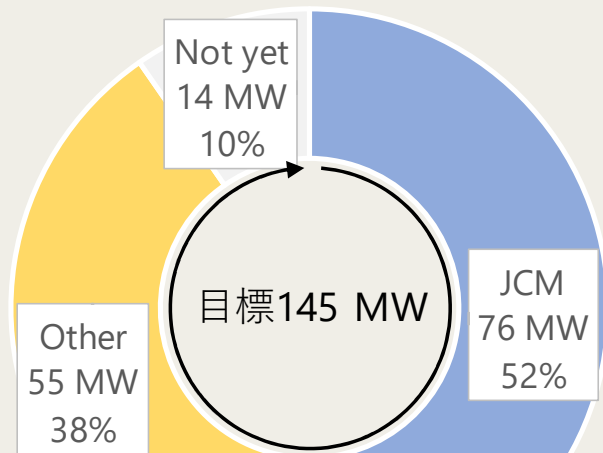
## Mongolia's renewable energy targets

Increase renewable electricity capacity from 7.62% in 2014 to 20% by 2020 and to 30% by 2030. \*National Green Development Policy (2014), Sustainable Development Vision 2030 (2016), NDC (2017)

Increase solar power generation capacity to 145 MW by 2030 \*NDC (2017)

**Contributing to sustainable development & climate policies**

JCM is contributing to the solar power target



- JCM** \*Including projects in progress
- Darkhan 10MW
  - Darkhan 20MW
  - Monnaran 8.3MW
  - Monnaran 2.1MW
  - Bayanchandmani 21MW
  - New Airport 15MW
- Others**
- Sainshand 30MW
  - Zaminuud 15MW
  - Choir 10MW

# Case 1: Promoting renewable energy generation



## Needs finding and Match-making

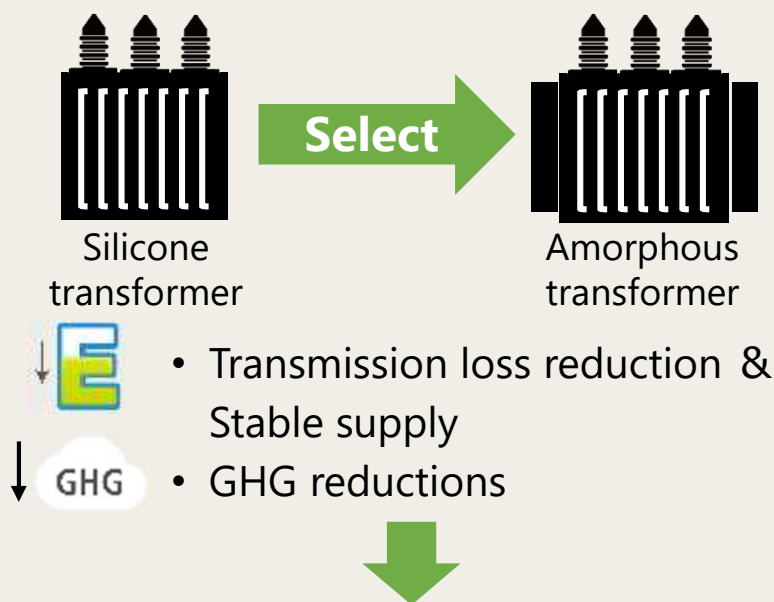
- **Need from Mongolia**: Plan for solar power project by private company but lacking technology and investment  
→ <OECC's support> Match-making with the PV manufacture
- **Need from Japan**: Potential for expanding agricultural project by Japanese company to "Solar firming" project  
→ <OECC's support> Match-making with the PV manufacture

## Project formulation

- Study tour to Japan
- Close communication with the JCM secretariat and relevant public authorities for smooth implementation
- Support for the application to the JCM Model Project

**Point:** Focus on business-wise & policy-wise effective projects

# Case 2: Transferring & replicating low-carbon technology



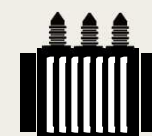
- More expensive than conventional product

**JCM: Reducing initial investment cost**



- Environmental performance was not sufficiently considered in procurement process

**Local Power Authority : Revising Procurement process**



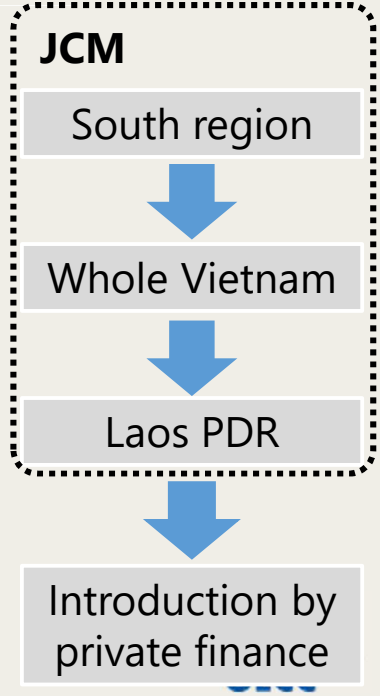
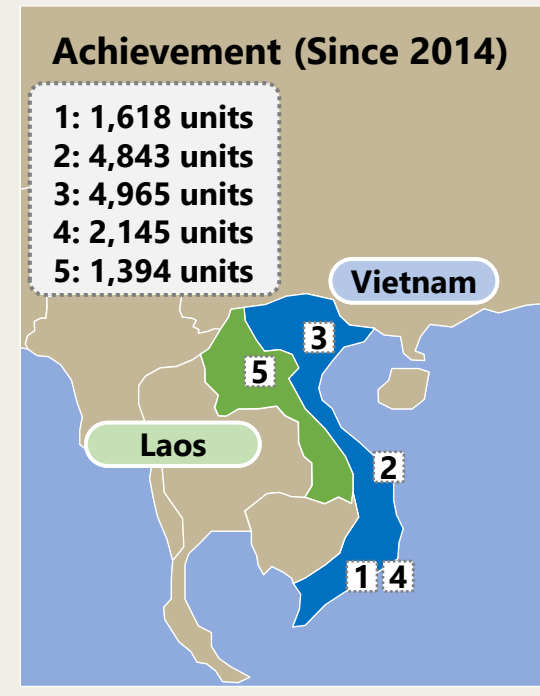
- Challenges for introducing new technology

**Cooperation between Japan (amorphous supply) & Vietnam (Transformer production)**

Power loss in Vietnam Electricity's systems has reduced from 7.24% in 2017 to **6.83% in 2018** and over achieved the target of 7.2%. \*EVN news

Ensure the balanced capacity of power sources in each region: ensuring the reliability of electricity supply in each regional electricity system so as to **reduce losses of transmissions**, share the electricity yield and efficiently exploit hydropower plants in rainy and dry seasons.

\*Revised National Power Development Master Plan for the 2011-2020 (2016)





### Needs finding and Match-making

- ✓ Bottom-up approach to regional power companies
- <OECC's support> Cooperation with local supplier of the transformers
- <OECC's support> Match-making with representative entity

### Project formulation

- ✓ Environmental performance was not sufficiently considered in procurement process → Procurement requirements were revised
- <OECC's support> Consensus building: Advantages of the AMT was well recognized by EVNs through the survey/sales activities with local supplier. (Entire system efficiency, total cost with the JCM finance)
- ✓ <OECC's support> MRV methodology development

**Point:** Difficult but possible to apply to the public bidding process



# Example of JCM potentials for RE & EE in Thailand



## Renewable Energy

**Policy background:** Revised AEDP(2018-2037) to increase the RE target, and large potential especially on Solar & Biomass.

Solar	Biomass	Waste to Energy	Wind
Off-grid: Increasing demand for captive use such as rooftop PV/biomass in factory/building			ADB financed 1st of its kind
On-grid: EGAT plans floating solar at 9 dams.	On-grid: "Energy for All" policy for supporting community power plant using municipal waste/biomass is under consideration.		Wind + Battery project

**Incentives:** BOI's tax/import duties exemption for investment in RE project

## Energy Efficiency (Commercial sector)

**Policy background:** Revised PDP(2018-2037) to implement a new Building Energy Code (BEC) to regulate newly constructed buildings >2000m2.

**Energy efficient HVAC & lighting, renewable energy (e.g. rooftop PV)**

# Thank you for your attention!

Find more about JCM on the website:

Carbon Market Express: <https://www.carbon-markets.go.jp/eng/>



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