

# **Steps and Points for JCM Project development**

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**I. Steps for JCM Project development support by OECC**

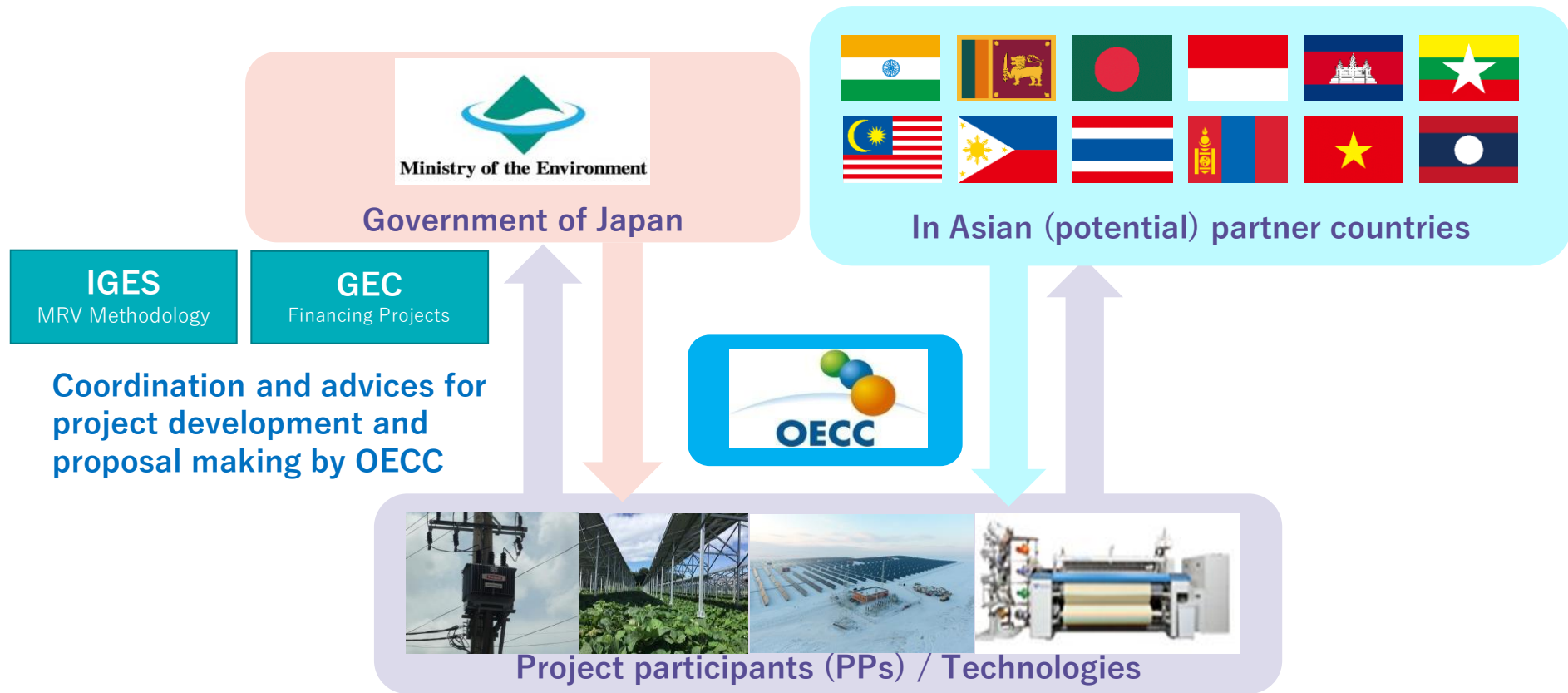
**II. Points for JCM project development**

**III. Case study**

# I. Steps for JCM Project development support by OECC



OECC works for project findings and development in Asian 12 countries (Philippines, Mongolia, Bangladesh, Viet Nam, Lao PDR, Indonesia, Cambodia, Myanmar, Thailand, Sri Lanka, India and Malaysia).



# I. Steps for JCM Project development support by OECC



## **-Bridging**

- Proposals on business model and technology

Maturity process toward business implementation

Applying for a JCM model project finance  
- Support preparation application forms

- Meetings with local partners to identify local needs, potentials and issues





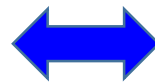
# I. Steps for JCM Project development support by OECC



**Bridging** between local potential partner and Japanese companies



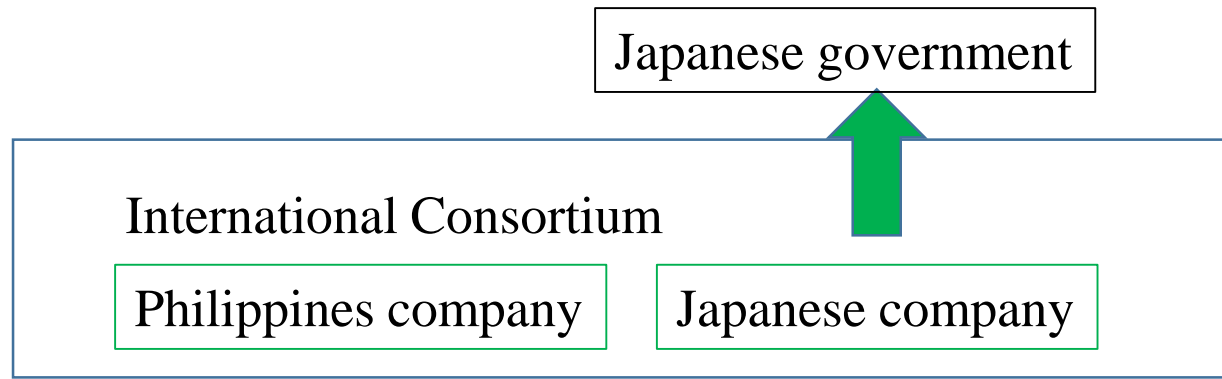
Potential Philippines partner



Japanese companies

## II. Points for JCM Project development

1. Since Japanese companies apply for JCM, it is important to build partnerships with Japanese companies.



2. Reliable financial arrangement is expected

- In the subsidy examination for the JCM model project, the status of financing other than the subsidy is confirmed in considerable detail to check the fusibility of the project.
- Whether it's equity to a SPC or borrowing, it is necessary to make it clear that those are ready.

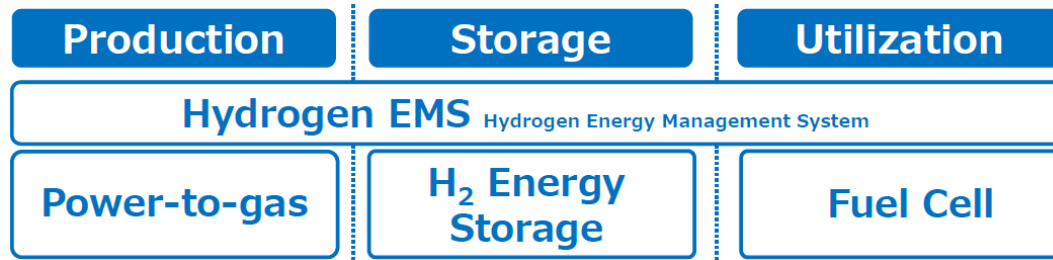
# II. Points for JCM Project development

## 3. Projects that contribute to decarbonization

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>➤ Solar power generation</li><li>➤ Wind power generation</li><li>➤ Geothermal power generation</li><li>➤ Hydro power generation</li><li>➤ Waste to energy</li></ul> | <ul style="list-style-type: none"><li>➤ Storage battery &amp; Electric grid system</li><li>➤ Energy-saving infrastructure</li><li>➤ Hydrogen technology</li><li>➤ Carbon Capture and Storage</li><li>➤ Ammonia fuel</li></ul> |
|---|---|

H<sub>2</sub>

Digital power mitigation



NIES super computer



Fukushima H2 energy research field



Toyota FCV

# 3. Case study



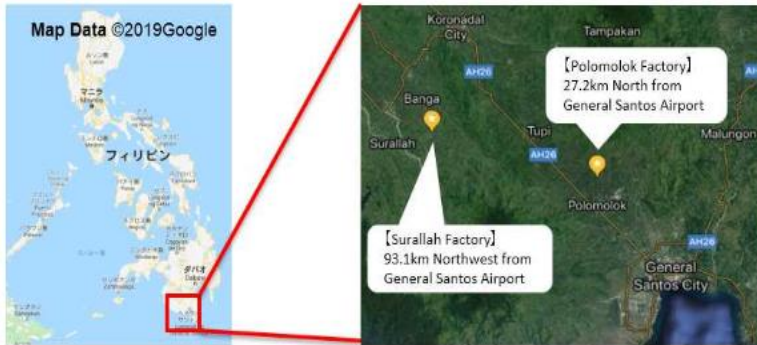
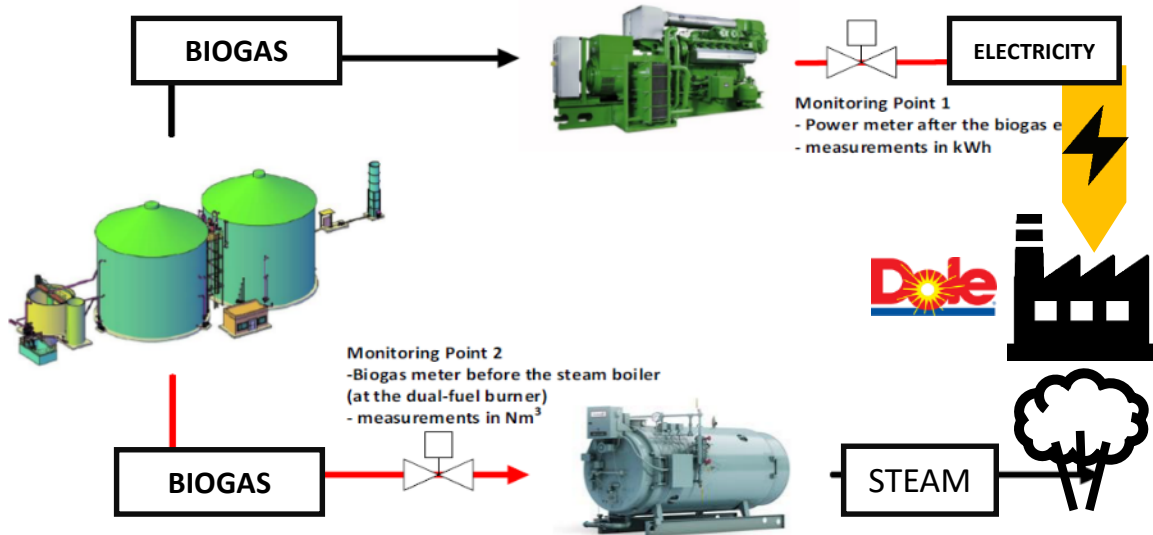
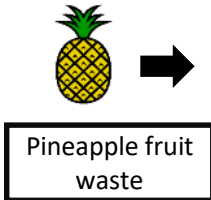
## JCM model projects consulted by OECC

OECC has been successfully supported the project development for 24 projects

Year	Partner country	Technology introduced and project boundary	GHG reduction (tCO <sub>2</sub> /year)
2021	Indonesia	Introduction of 3.3MW Rooftop Solar Power System in Woodworking Factories	2,396
2020	Myanmar	7.3MW Solar PV in Mandalay International Airport and Yangon City	3,276
2020	The Philippines	2MW Solar PV at Shopping Mall (JCM Eco Lease Scheme)	1,476
2020	Vietnam	2MW Solar PV for Pellet Factory	1,024
2019	The Philippines	Biogas Power Generation and Fuel Conversion Project in Pineapple Canneries	52,156
2019	Mongolia	Fuel Conversion by Introduction of LPG Boilers to Beverage Factory	5,781
2018	Mongolia	21MW Solar PV in Bayanchandmani	27,008
2017	Mongolia	20MW Solar PV in Darkhan City	22,927
2017	Mongolia	15MW Solar PV in New Airport Suburb	18,438
2017	Indonesia	Absorption Chiller at Chemical Factory	1,084
2017	The Philippines	1.2MW Solar PV at Refrigerating Warehouse	838
2017	The Philippines	1.53MW Solar PV at Auto Parts Factories	1,124
2017	Laos	Amorphous Transformers in Nationwide Power Grids	2,099
2017	Viet Nam	Amorphous Transformers in Southern and Central Power Grids II (phase 4)	1,469
2016	Thailand	1.5MW Solar PV and EMS at Paint Factory	1,344
2016	Cambodia	800kW Solar PV project at International School	772
2016	Mongolia	8.3MW Solar PV at Farm in Ulaanbaatar Suburb	10,580
2016	Viet Nam	Amorphous Transformers in Northern, Central and Southern Power Grids (phase 3)	2,098
2015	Mongolia	10MW Solar PV in Darkhan City	14,746
2015	Mongolia	2.1MW Solar PV at Farm in Ulaanbaatar Suburb	2,707
2015	Bangladesh	High Efficiency Loom at Weaving Factory	1,518
2015	Bangladesh	340kW PV-diesel Hybrid System at Fastening Manufacturing Plant	265
2015	Viet Nam	Amorphous Transformers in Southern and Central Power Grids (phase 2)	3,564
2014	Viet Nam	Amorphous Transformers in Southern Power Grids (phase 1)	610



# Case I: Biogas power generation and fuel substitution project by fruit residue in pineapple canneries



**GHG reduction: 52,156 tCO<sub>2</sub>/year**

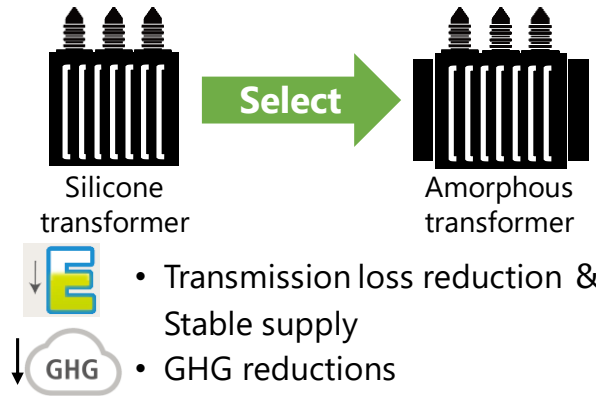
- By Power Generation: 11,881 t-CO<sub>2</sub> reduction / year
- By Boilers: 40,275 t-CO<sub>2</sub> reduction/year

**\*INDC aims to reduce 70% GHG emissions by 2030 through improved power supply and proper disposal of waste.**

Lowering electricity cost for the operation in Dole Philippines

# Case2: Contribution to domestic procurement standard and autonomous investment

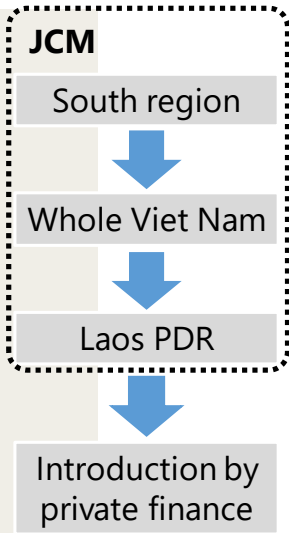
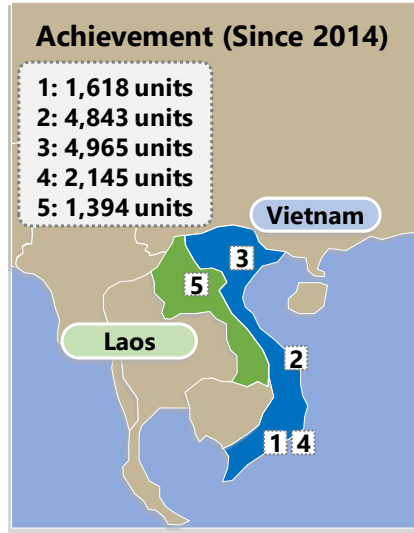
In the 2015-2019 period, electricity loss was cut by about 29.7 billion kWh compared to 2010 and helped reduce emissions by 26.5 million tCO<sub>2</sub> (NDC 2020).



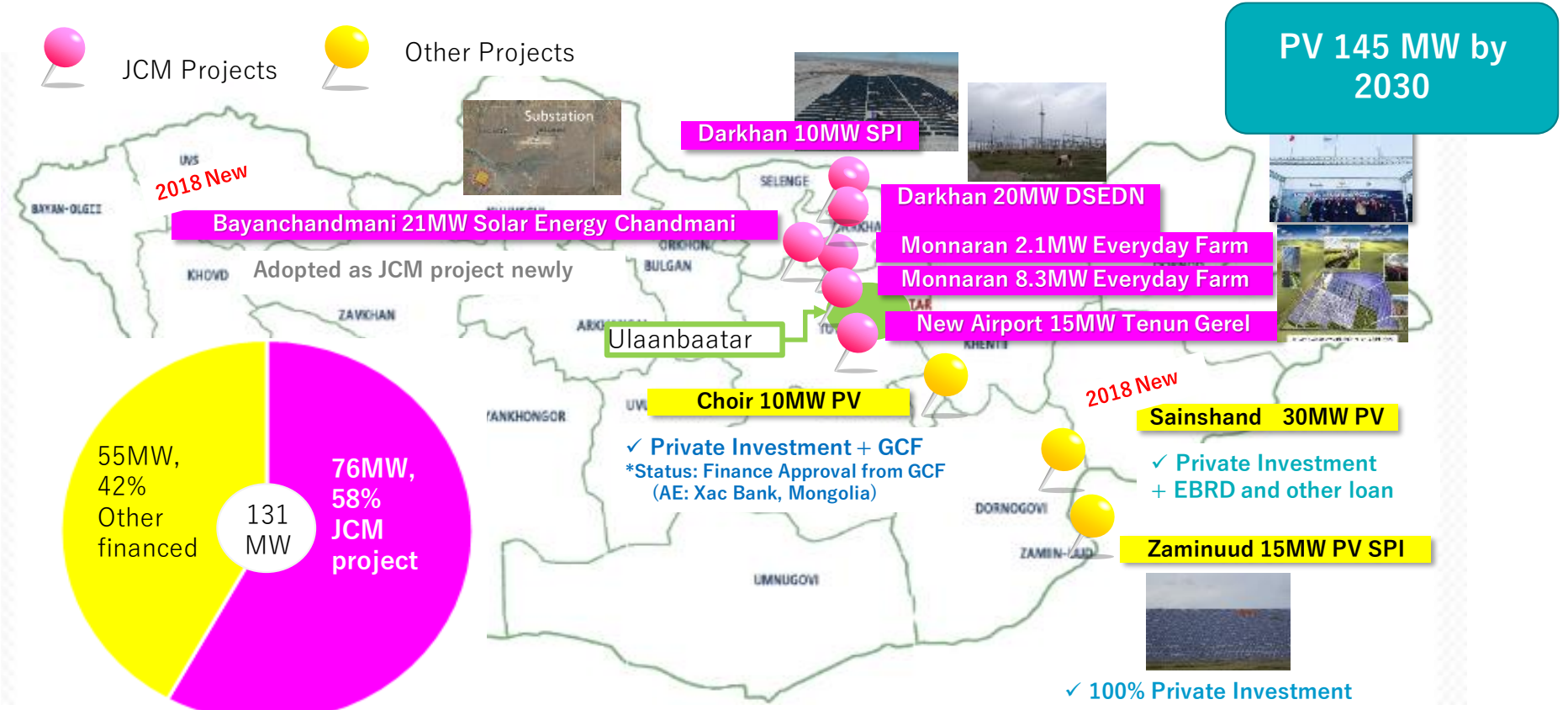
- More expensive than conventional product
  - Environmental performance is not sufficiently considered in procurement process
  - Challenges for introducing new technology
- JCM: Reducing initial investment cost**
- Local Power Authorities : Revising Procurement process**
- Cooperation between Japan (amorphous supply) & Viet Nam (Transformer production)**

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

- OECC formed a scheme where only iron cores were exported from Japan and transformers were manufactured locally, which led to local competition and price reduction, thus taking away subsidies.
- As a top runner technology, Amorphous transformers became a procurement criterion for EVNs (VIETNAM ELECTRICITY).



# Case3: Contribution to Nationally Determined Contributions of Mongolia



\*JCM related Contribution for NDC in Mongolia: 76 MW  
 \*Private Investment PV Project by the trigger of successful JCM projects: 55MW

**Thank you for your attention!**

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