



JCM Project Formulation in Republic of Palau

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Pacific Consultants Co., Ltd.



P R O D U C I N G
T H E F U T U R E

PACIFIC CONSULTANTS CO., LTD.

- Pacific Consultants (PCKK) was founded in 1951 in Japan with a mission to contribute to society and human happiness by providing world-class technologies and services.
- PCKK has 1,220 professional engineers and targets the following fields.



PCKK's Experiences in the JCM

- PCKK has been conducting the following support in the field of JCM.
 - JCM project formulation study
 - Capacity building
 - Support implementation renewable/energy-saving project in Palau using financing programme for JCM Model Projects
 - Support processing JCM project cycle, methodology development, registration under JCM, Issuance of JCM credits...etc.
- Above experiences has been continuing since 2011 around the world and since 2013 in Palau.

Key Points when Formulating JCM Project

1. Securing Funds

- JCM financing programme provides finance every March – April in project period.
 - NOT provide the up-front payment.
 - Project participants need to prepare ALL of the initial investment cost at the beginning.

Key Points when Formulating JCM Project

2. Finding out a Japanese Entity to be Your Partner
 - To apply for the JCM financing programme, an international consortium should be formed.
 - At least one Japanese and one Palauan entity should be involved in the consortium.
3. Ensuring Scale of GHG Emission Reductions
 - Considering the criteria of cost-effectiveness, the amount of subsidy is capped by the total amount of GHG emission reduction.

Points to Consider when Formulating JCM Project in Palau

- Economic and Industrial Features in Palau:
 - Population is around 20,000.
 - Main industry is tourism.
- Challenges for JCM project formulation in Palau:
 - Large-scale project formulation is difficult because the population is small and there is no large GHG emitting industries.
 - Especially for small company, fund raising for the project is one of the difficulties.

Points to Consider when Formulating JCM Project in Palau

- High electricity rate.
(More than 30 cents/kWh in commercial)
- Indicative targets from Palau's NDC:
 - 22% energy sector emissions reductions below 2005 levels by 2025
 - 45% Renewable Energy target by 2025
 - 35% Energy Efficiency target by 2025

JCM Model Projects in Palau

Year of adaption as JCM Model Project	Project name	Project participants	Technology	Expected GHG emission reductions	Current status
2013	Small Scale Solar Power Plants for Commercial Facilities in Island States	Pacific Consultants Co., Ltd., Western Caroline Trading Company, Surangel and Sons Company	Solar (220.5kW and 150kW)	259 tCO2/year	JCM Model Project: completed JCM Project Cycle: registered, credit issued
2014	Solar PV System for Schools Project	Pacific Consultants Co., Ltd., Palau Adventist Schools	Solar (51.675kW and 103.350kW)	111 tCO2/year	JCM Model Project: completed JCM Project Cycle: registered, credit issued
2014	Small-Scale Solar Power Plants for Commercial Facilities Project II	Pacific Consultants Co., Ltd., Western Caroline Trading Company, Palau Investment and Development Company	Solar (263.64 kW, 80.03 kW and 101.92 kW)	320 tCO2/year	JCM Model Project: completed JCM Project Cycle: registered, credit issued
2018	Introduction of 0.4MW Rooftop Solar Power System in Supermarket	Sharp Energy Solutions Corporation Western Caroline Trading Company	Solar (0.4MW)	296 tCO2/year	JCM Model Project: installing
2019	Introduction of 1MW Solar Power System on Supermarket Rooftop	Sharp Energy Solutions Corporation Surangel and Sons Company	Solar (1MW)	842 tCO2/year	JCM Model Project: installing

Example of Applicable Technologies for JCM Financing Programme



Cement exhaust
heat recovery



Digital
tachograph



Energy saving
kiosk/supermarket



High efficiency
industrial air
conditioning



High efficiency
boiler for
heating



Energy saving
loom



Solar power
generation



Amorphous
metal
transformer



Co-generation
system



High efficiency
air conditioning



Solar power
generation



Waste to energy
plant



High efficiency
refrigerator



High efficiency
industrial
furnace



Radio control of
high efficiency
LED

Example of Possible Projects in Palau (1)

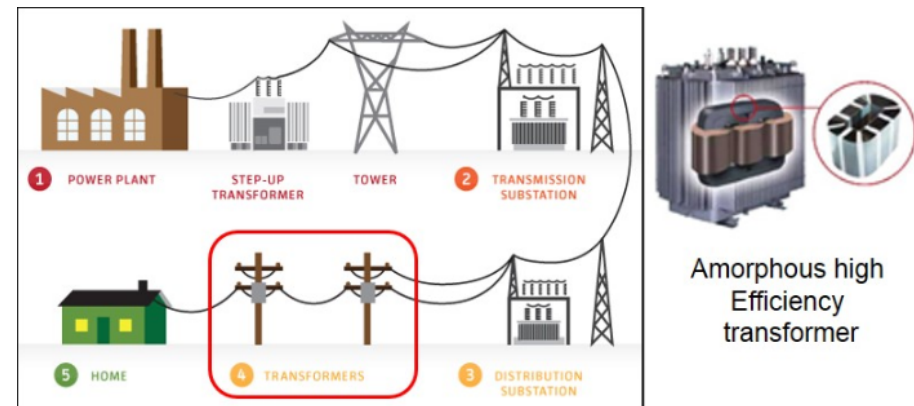
Introduction of Amorphous High Efficiency Transformers in Power Grid

Host country: Lao PRD Year: 2017

Sector: Energy Efficiency

Expected GHG emission reductions: 2,099 tCO₂/year

- Introduction of 1,394 amorphous high efficiency transformers in power grid.
- GHG emission reductions are achieved by reducing non-load losses (standby electricity) with introduced amorphous high efficiency transformers.



“④TRANSFORMERS” in the above are the subjects of the project.

Example of Possible Projects in Palau (2)

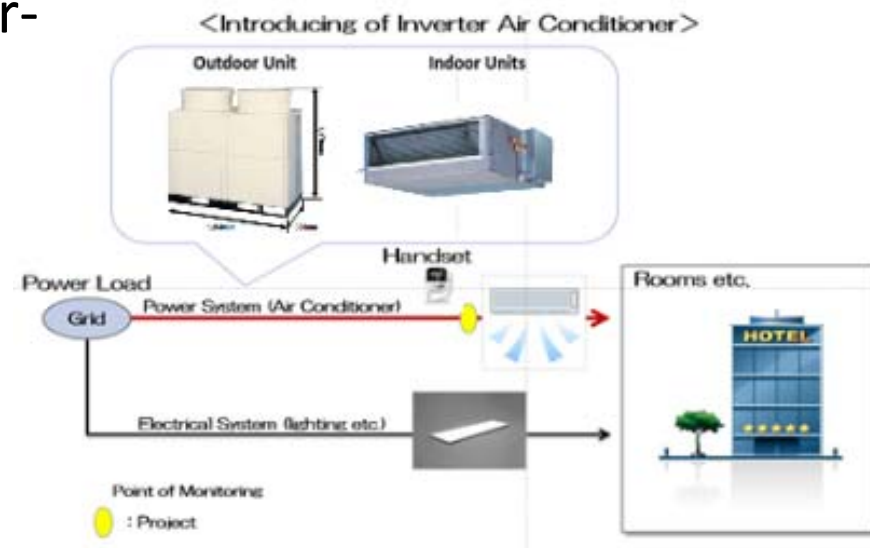
Introduction of High Efficiency Air-conditioning in Hotel

Host country: Vietnam Year: 2015

Sector: Energy Efficiency

Expected GHG emission reductions: 935 tCO₂/year

- Introduction of high-efficient air-conditioning system to a new hotel, which has 200 rooms.
- GHG emission reductions are achieved by reducing power consumption with introduced high-efficient air-conditioning.



Contact Information

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Thank you so much for
allowing us to make a presentation.

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