



# **Project Development in Kenya and Tips for Successful JCM Project Formation**

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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

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- PCKK has been providing the following support in the field of JCM since 2014.
  - JCM project formulation study
  - Capacity building
  - Assist obtaining grant of JCM Financing Programme for renewable energy project
  - Support methodology development, registration under JCM, Issuance of JCM credits...etc.

# Key Points when Formulating JCM Project

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## 1. Securing loans BEFORE application

- 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

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2. Identify a Japanese Entity to be Your Partner
  - At least a Japanese company should be involved in the consortium and be applicant.
  
3. Estimate GHG Emission Reductions (ton-CO<sub>2</sub>)
  - Cost-effectiveness criteria:  
Maximum grant is JPY 4,000 (approx. USD36 in Jan 2020)  
ton-CO<sub>2</sub>/year \* statutory life time (year)  
Note: The amount of finance is capped by the total amount of GHG emission reduction.

# Points to Consider when Formulating JCM Project in Kenya

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- Challenges for JCM project formulation in Kenya:
  - Limited number of Japanese companies making capital investments for utility scale renewable energy (e.g. more than 2MW)
  - Few large scale energy saving projects
  - Fund raising of US 1 million or more for some of the local Kenya companies

# JCM Model Projects in Kenya

Year of adaption as JCM Model Project	Project name	Project participants	Technology	Expected GHG emission reductions	Current status
2018	38MW Solar Power Project in Makueni county	Sharp Energy Solutions Corporation, rAREH Icon Solar Limited, responsAbility Renewable Energy Holding, Legacy Energy Limited	Solar (38MW)	35,034 tCO2/year	JCM Model Project: on-going
2015	Introduction of Solar PV System at Salt Factory	Pacific Consultants Co., Ltd., Krystalline Salt Limited	Solar (991kW)	888 tCO2/year	JCM Model Project: completed JCM Project Cycle: registered

Source: The website of the Administrator of JCM Financing Programme, Global Environment Centre Foundation <http://gec.jp/jcm/projects/>



# 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



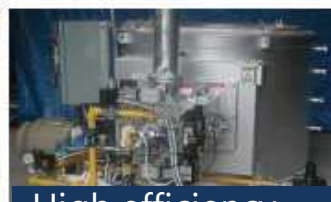
Solar power  
generation



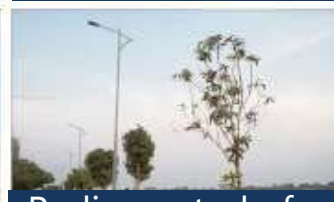
Waste to energy  
plant



High efficiency  
refrigerator



High efficiency  
industrial  
furnace



Radio control of  
high efficiency  
LED



# Example of Possible Projects in Kenya (1)

## Biogas Power Generation and Fuel Conversion Project in Pineapple Canneries

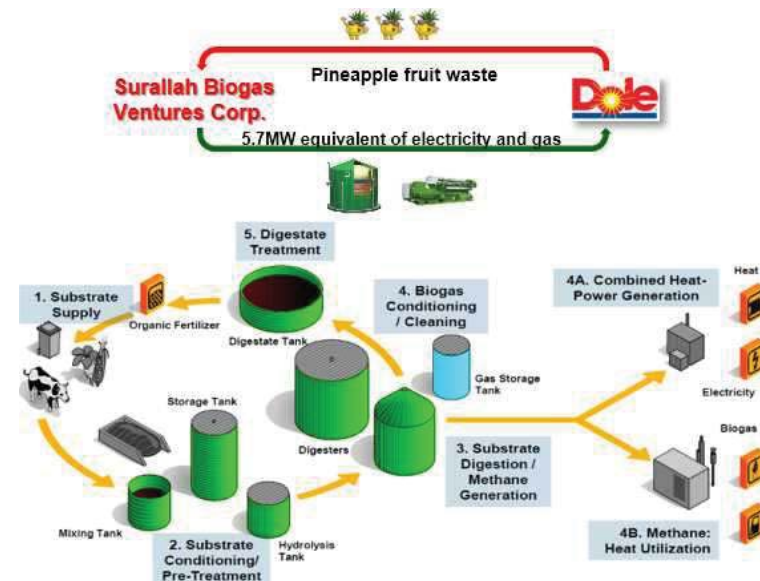
Host country: The Philippines

Year: 2019

Sector: Renewable energy

Expected GHG emission reductions: 52,156tCO<sub>2</sub>/year

- Introduction of gas engines and boilers to generate power and steam to 2 factories.
- GHG emission reductions are achieved by replacing grid electricity



# Example of Possible Projects in Kenya (2)

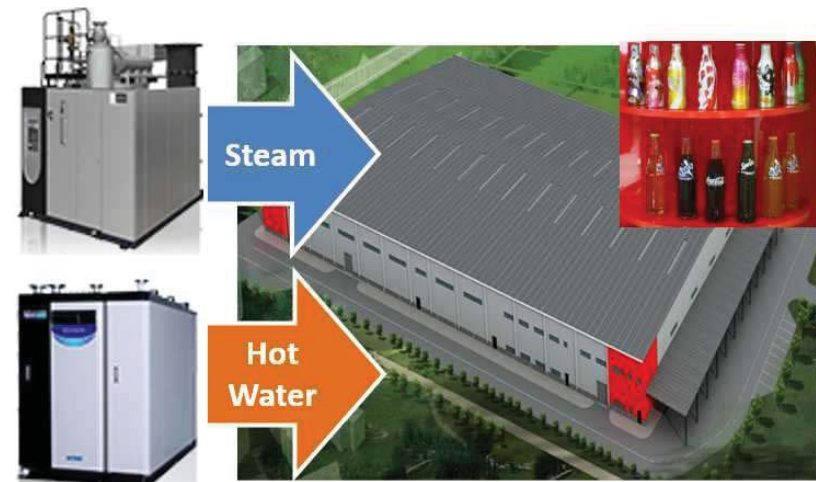
## Fuel Conversion by Introduction of LPG Boilers to Beverage Factory

Host country: Mongolia      Year: 2019

Sector: Energy Efficiency

Expected GHG emission reductions: 5,781tCO<sub>2</sub>/year

- Introduction of LPG boilers, the most efficient and newest model of LPG once-through boilers and vacuum type water heaters, to a beverage factory.
- GHG emission reductions by fuel conversion, reducing power consumption with LPG boilers



# Contact Information

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

 Pacific Consultants

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