

JCM Projects Development Through City-to-City Collaboration



Development Cooperation Division, International Affairs Bureau
City of Yokohama

Identifying priority issues

Support for the formulation of a Master Plan

- Cebu
- Da Nang
- Bangkok
- Batam

overview



Identification of priority issues

Master Plans which the City of Yokohama has worked together with Four Cities

Case of Batam

Bangkok, Thailand

- Bangkok Master Plan on Climate Change



JICA

- JICA Report "Technical cooperation project on the Bangkok master plan on climate change 2013-2023 in the Kingdom of Thailand" (1)<http://libopac.jica.go.jp/images/report/P1000025878.html> (2)<http://libopac.jica.go.jp/images/report/P1000025879.html>

Da Nang City, Vietnam

- Da Nang Urban Development Forum (Making Urban Development Action Plan)

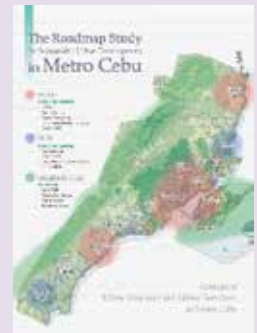


JICA

- JICA Report "Data collection survey on sustainable and integrated urban development in Danang final report" <http://libopac.jica.go.jp/images/report/P1000026544.html>

Cebu City, Philippines

- Mega Cebu Roadmap 2050



JICA

- JICA Report "The Roadmap study for sustainable urban development in Metro Cebu final report" <http://libopac.jica.go.jp/images/report/P1000022002.html>

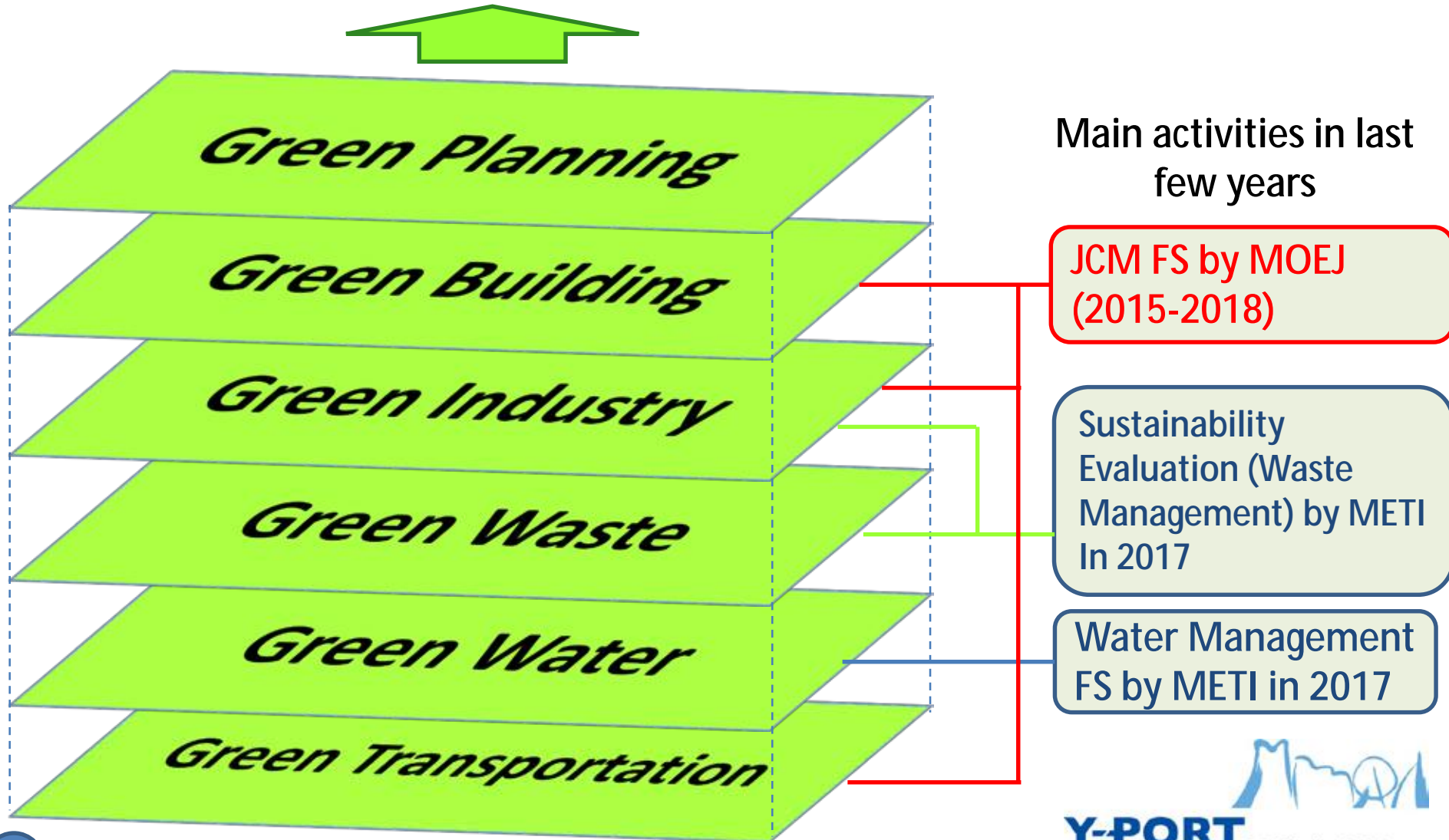
Batam City, Indonesia

- Project Mapping (planned) based on Batam Green Cities Program



**JCM
METI**

Toward Batam Green Island



Proposing further 3 years actions

BATAM

(Portion under the support of Ministry of the Environment only)

		Realization of Green & Smart Island Batam			
Scope	FY	2017	2018	2019	2020
Green Industry	BATAMINDO Industrial Park (One of largest core industrial parks)	FS Smart LED + PV	JCM Model Project Smart LED+PV(1MW)	JCM Model Project <ul style="list-style-type: none"> Maximization of PV power generation Control of thermal power generation Demand Response 	JCM Model Project Regional optimization of energy utilization in Batam
	KABIL/PAMBIL Industrial Park (Core industrial parks)		FS 1. Maximization of PV Power Generation by Energy Management & Demand Response 2. Optimization of Energy Utilization among Industrial Parks	FS Optimization of energy utilization among industrial parks & surrounding facilities	
	Other industrial parks + Large-scale facilities				
Green Building	Green Building (Energy saving in buildings)	FS Energy saving in shopping malls	JCM Model Project Energy saving in a shopping malls	JCM/BtoB Energy saving in complexes	JCM/BtoB Energy saving in complexes

Support of Yokohama City

Development of green building (GB) regulation

Issuance of GB regulation (*Perwal*)

1) Promotion of GB regulation
2) Capacity building for GB assessors

Development of GHG emissions reduction plan

JCM Feasibility study in FY2018

Items	Description
Project Title	Feasibility Study on Maximization of PV Power Generation by Energy Management and Demand Response in Industrial Parks
Leading low-carbon technologies	Installing technologies/system regarding “Energy management” and “Demand response”.
Potential emission reduction	Approx. 3,200 tCO2/year



Target Industrial Park (Batamindo)



PV module with sun-tracking system

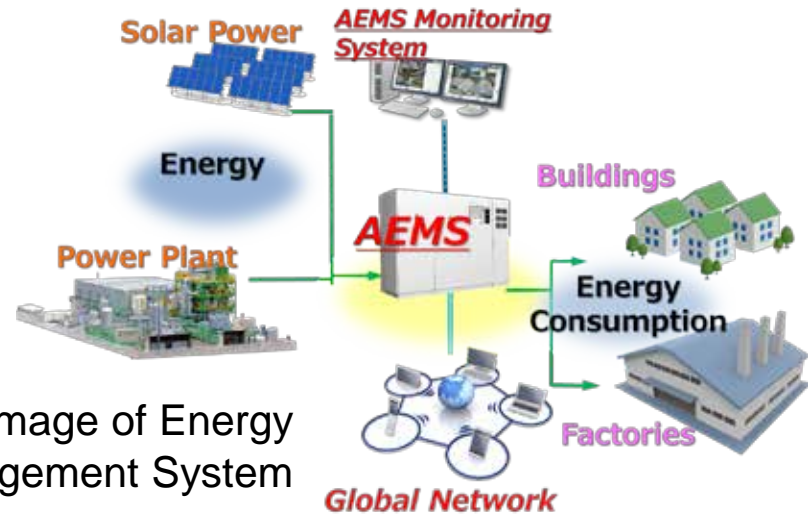


Image of Energy Management System

Development of Green Building Regulation

BATAM

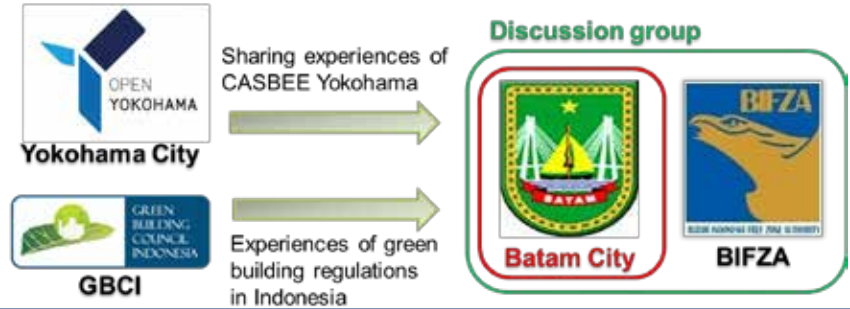
Purpose: By developing practical **Green Building (GB) Regulation**, disseminating green building concept and realizing **'Smart and Green Island, Batam'**

FY2017

1. Drafted **Evaluation Items** based on exiting GB regulations in Indonesia
2. Decided **3 priority items (Water, Energy & Waste management)** in consideration of characteristics as a small island
3. Held a **Workshop** for raising awareness on the concept of GB

FY2018

1. Formulating **Discussion Group** and holding **Regular Meetings** (ongoing)
2. **Visit to DKI Jakarta** to share information & experiences of GB regulation development (Plan)
3. **GB Seminar** in Batam (Plan)



Workshop (25/Jan/2018)

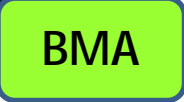
Director for Building and Environment Coordination, Building Instruction Department, made a presentation about benefits of CASBEE Yokohama and participated in panel discussion.



1st meeting among Discussion Group (21/Sep/2018)

Support from Yokohama City:

Joining the discussion and sharing experiences of development and operation of the green building regulation in Yokohama, especially from the perspective of **Practicality** including **Incentives** and **Capacity Building of Assessors**. etc.



Making Master Plans and Action Plan

Bangkok Master Plan on Climate Change 2013-2023



Capacity buildings through working together for city's plans



BMA



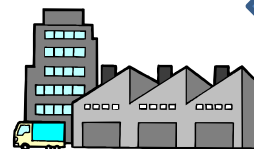
Yokohama

Implementation with Private Sector

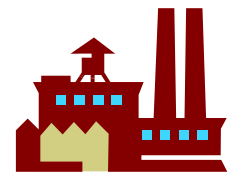


Project Implementation for Sustainable Urban Development

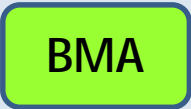
(JCM Finance)



Public/Business



Business



Introduction of 2.0MW Rooftop Solar Power System for Power Supply in Factory

1.0MW (each of two factories) PP (Japan): Finetech Co., Ltd. PP (Thailand): Siam Brothers Corp., Ltd. (Fish Net Manufacturer) Thai Merry Co., Ltd. (Cigarette Lighter Manufacturer)

Outline of GHG Mitigation Activity

The objective of this project is to replace a part of EGAT-provided grid electricity with PV solar power generation and reduce greenhouse gas emissions at the major plastic net manufacturing factory as well as the major cigarette lighter manufacturing factory in Thailand by introducing 1.0MW Roof Top Solar System in each factory. The generated electricity from the solar power generation system is going to be self-consumed in the each of factory facilities.



Siam Brothers Corp., Ltd.



Thai Merry Co., Ltd..

1.0MW Capacity of PV solar power generation system is going to be installed on the roof top of the each of factories enclosed in led lines.

Expected GHG Emission Reductions

781.7 tCO₂/y (Siam Brothers Corp., Ltd.)
751.4 tCO₂/y (Thai Merry Co., Ltd.)
< Total 1,533.1 tCO₂/yea >

= Project Electricity Generation(EG)
 x Emission Factor (EF)
 = Power Generation Capacity[kW]
 x Annual Operating Rate[%]
 x 24hours x 365days x EF

Site of JCM Model Project



Siam Brothers Corp., Ltd.

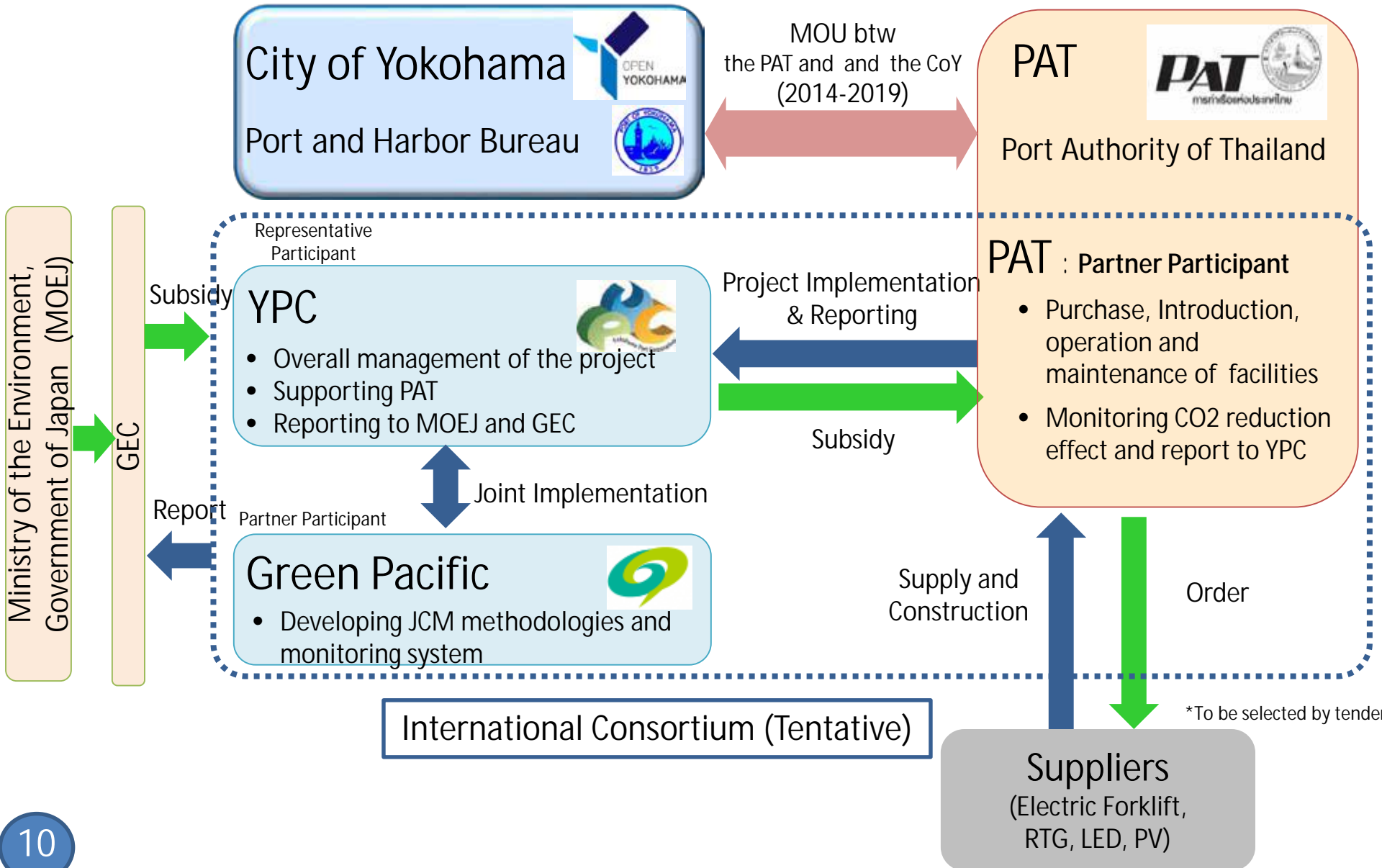


Thai Merry Co., Ltd..

JCM feasibility Study in 2017 and 2018 Based on the MOU with PAT

Study Organization Structure

PAT

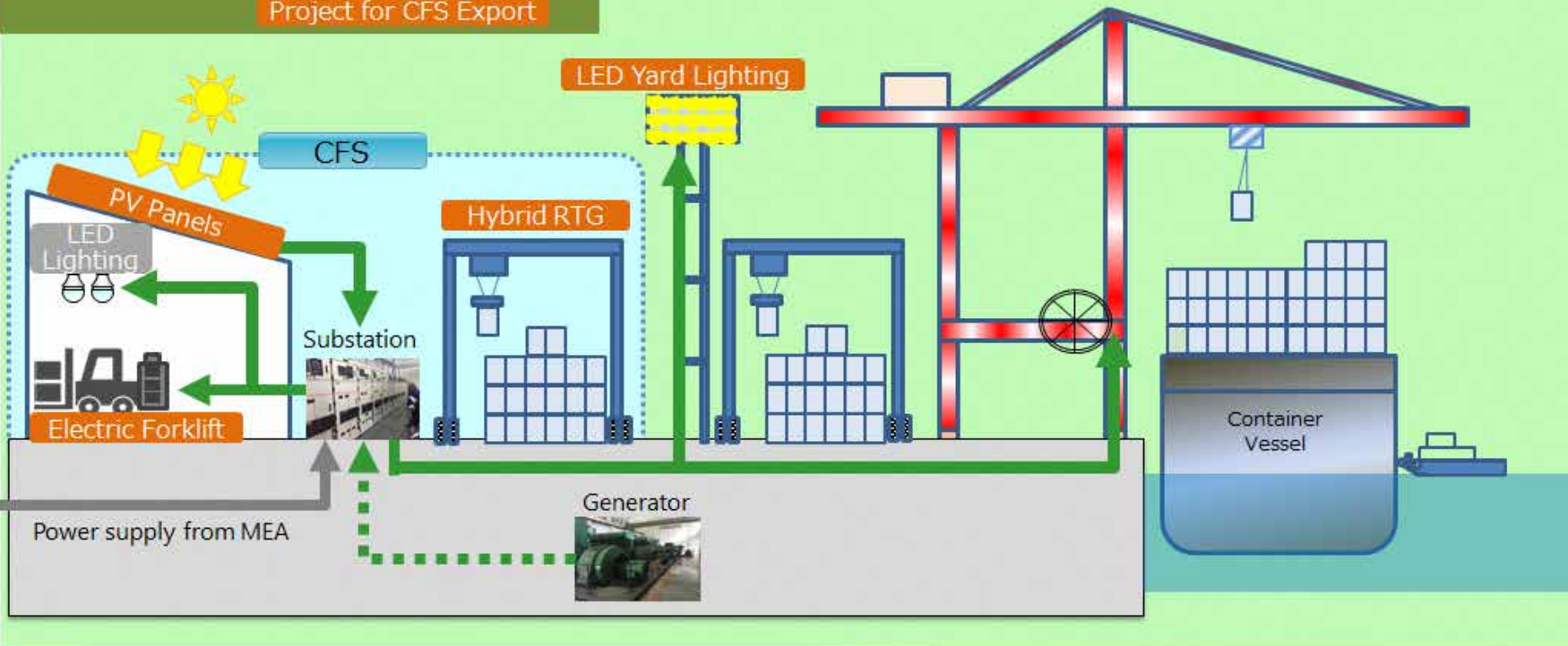


Developing JCM Model Projects as a one of Schemes to achieve "the Green Port" in the Bangkok Port and Laem Chabang Port

- PAT will introduce 4 facilities such as (1) Electric Forklift (2) Hybrid RTG (3) LED Yard Lightings (4) PV system as 1 package in Bangkok port by utilizing JCM subsidy.
- Realize "Smart Port" to form low carbon, low cost, and stable energy system in whole Bangkok port.

Container Terminal (Bangkok Port)

Project for CFS Export



Y-PORT CENTER – Knowledge hub for smart city management

Please visit our web site:

<http://www.city.yokohama.lg.jp/kokusai/yport/en/>

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7TH Asia Smart City Conference Nov. 13-15th 2018 in Yokohama

【 Inquiry 】 The 7th ASCC Management Office
<http://www.city.yokohama.lg.jp/kokusai/yport/en/ascc/>
 Email : ki-ascc@city.yokohama.jp

【 Co-located Event 】 **Yokohama Info-Market!**
 Nov.14 10:00-16:00 / Nov.15 9:30-14:00

∅ To provide opportunities for networking between Japanese businesses and overseas participants seeking solutions for urban issues

