



JCM

**The Joint Crediting Mechanism (JCM):
Feasibility Study through City-to-City Collaboration**

2016



Ministry of the Environment

Overview of JCM Feasibility Study through City-to-City Collaboration

The Paris Agreement, adopted by the 21st Session of the Conference of Parties to the United Nations Framework Convention on Climate Change (UNFCCC) held in December 2015, implicated the importance of actions by non-state actors including local governments. In line with this, city-to-city collaboration for low-carbon city development is expected to be further strengthened.

The Ministry of the Environment, Japan has been supporting efforts by overseas cities towards low-carbon, resilient and sustainable cities through a JCM feasibility study programme (F/S), utilising the city-to-city collaboration framework since 2013. The F/S aims to continuously promote the development and formulation of JCM projects that can contribute to energy-oriented CO₂ emissions reduction, expanding the model into other areas or cities. The F/S is also carried out in partnership with research institutes, private companies and universities in Japan. Japan's experiences to promote low-carbon policies and technologies are translated into the local context of the partner cities/regions, which may increase the potential for application to other areas or cities.

Joint Crediting Mechanism (JCM)

The Joint Crediting Mechanism (JCM) is a means to facilitate the diffusion of leading low-carbon technologies, products, systems, services and infrastructure as well as implementation of mitigation actions. It also aims to evaluate contributions from Japan to GHG emissions reduction or removals in a quantitative manner and use them to achieve Japan's emissions reduction target. JCM contributes to the ultimate objective of the UNFCCC by facilitating global actions for GHG emissions reduction or removals.

List of JCM Feasibility Studies through City-to-City Collaboration in FY2016

Yokohama - Batam, Indonesia

01	City-to-City Collaboration under the Joint Crediting Mechanism (JCM) Project (Energy-saving: Batam City)	Implementation Body : Nippon Koei Co., Ltd.
02	City-to-City Collaboration under the Joint Crediting Mechanism (JCM) Project (Energy-saving: BIFZA)	
03	City-to-City Collaboration under the Joint Crediting Mechanism (JCM) Project (Energy-saving: Harris hotel)	
04	City-to-City Collaboration under the Joint Crediting Mechanism (JCM) Project (Energy-saving: installation of high efficiency thermal desorption unit)	

Yokohama - Bangkok, Thailand

05	Feasibility Study for Assisting Ports in Thailand to Reduce CO ₂ Emissions and to Become Smart Port	Implementation Body: Yokohama Port Corporation
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Kanagawa - Siem Reap, Cambodia

06	JCM Feasibility Study for Biomass Power Generation with Municipal Waste and Rice Husk	Implementation Body: Asian Gateway Corporation Japan Development Institute
07	JCM Feasibility Study for Community Solar by Using Public High Schools	

Kitakyushu - Phnom Penh, Cambodia

08	Phnom Penh City Climate Change Strategic Action Plan (PPCCSAP)	Implementation Body: NIKKEN SEKKEI CIVIL ENGINEERING LTD.
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09	Project to Realize Low Carbonization in Phnom Penh Capital City, through Introduction of Saving Energy Technologies and Renewable Energy	Implementation Body: NTT Data Institute of Management Consulting, Inc.
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Kitakyushu - Rayong, Thailand

10	Waste to Energy by Utilizing Waste Heat from MSW Incineration at Rayong Integrated MSW Management Center	Implementation Body: EX Research Institute Limited
11	Low Carbonization Model Realization Project at Ecological Industrial Town in Rayong	Implementation Body: NTT Data Institute of Management Consulting, Inc.

Kitakyushu - Hai Phong, Viet Nam

12	Project to Accelerate Low Carbonization in Hai Phong City (Energy Field)	Implementation Body: NTT Data Institute of Management Consulting, Inc.
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Kitakyushu - Iskandar Development Area, Malaysia

13	Project to Accelerate Low Carbonization Model Projects in Iskandar Development Area for Expansion of JCM	Implementation Body: NTT Data Institute of Management Consulting, Inc.
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Kawasaki - Yangon, Myanmar

14	JCM Project Formulation Study through City-to-City Collaboration in Yangon (PV generation project for YCDC facility)	Implementation Body: Nippon Koei Co., Ltd.
15	JCM Project Formulation Study through City-to-City Collaboration in Yangon (High efficiency one-through boiler project)	

Tokyo - Bali, Indonesia

16	Waste to Energy Power Plant Project for Bali Province in Indonesia	Implementation Body: JFE Engineering Corporation
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Fukushima - Patheingyi, Myanmar

17	Study of a Low-Carbon Water and Sewerage Treatment System in Patheingyi Industrial City	Implementation Body: Mitsubishi Research Institute, Inc.
18	Study of a Low-Carbon Waste Treatment System in Patheingyi Industrial City	

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19	JCM Project Feasibility Study on Energy Saving Sector through City-to-City Cooperation in Ulaanbaatar	Implementation Body: Overseas Environmental Cooperation Center
20	JCM Project Feasibility Study on Renewable Energy Sector through City-to-City Cooperation in Ulaanbaatar	
21	JCM Project Feasibility Study on Waste Treatment Sector through City-to-City Cooperation in Ulaanbaatar	

City-to-City Collaboration under the Joint Crediting Mechanism (JCM) Project (Energy-saving: Batam City, BIFZA, Harris Hotel)

Nippon Koei Co., Ltd.

In 2015, Batam City in Indonesia and Yokohama City in Japan signed a Letter of Intent (LoI) to promote city-to-city collaboration for sustainable urban development. In 2016, the two cities, Batam Indonesia Free Zone Authority (BIFZA) and IGES formed a taskforce to promote the concept of the smart green island of Batam. This project aims to conduct F/S for energy-saving operation systems such as automated control for air conditioning and lighting in the following three sectors as JCM model projects over the next year.

Batam City

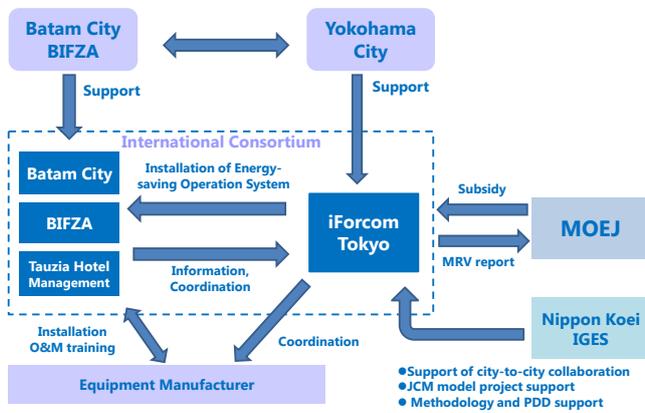
Target: Seven hospitals including one administrated by Batam city

Batam Indonesia Free Zone Authority (BIFZA)

Target: a hospital and six ferry terminals administrated by BIFZA

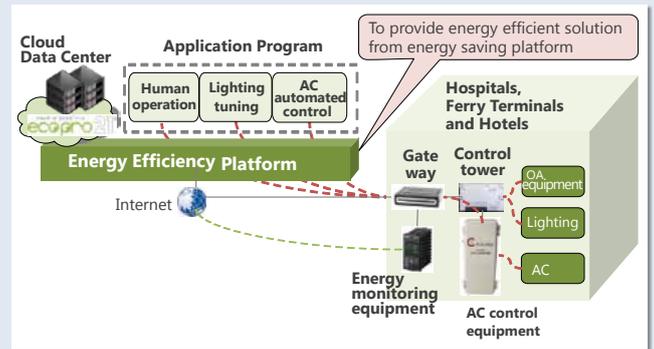
Harris Hotel

Target: Harris brand hotels located in Batam and other major cities in Indonesia (total 20 hotels)



Project Outline

- ▶ Detail design on installation of energy saving system, economic analysis and preparation of monitoring plan
- ▶ Confirmation of consortium agreement and condition of contract of project for JCM model project
- ▶ Promotion of JCM model project in line with the Batam-Yokohama city collaboration including application in other cities

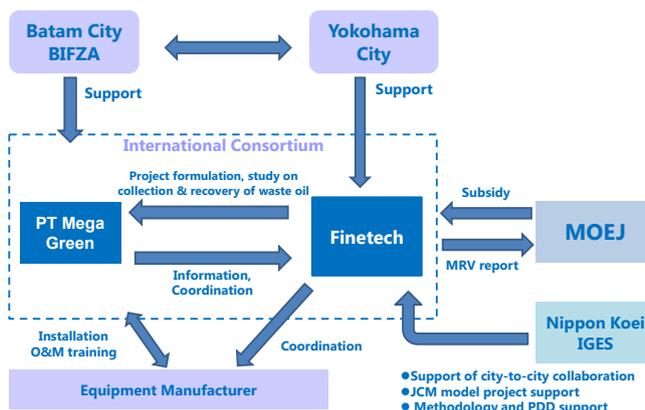


Optimal energy efficiency platform based on the needs of users

City-to-City Collaboration under the Joint Crediting Mechanism (JCM) Project (Energy-saving: installation of high efficiency thermal desorption unit)

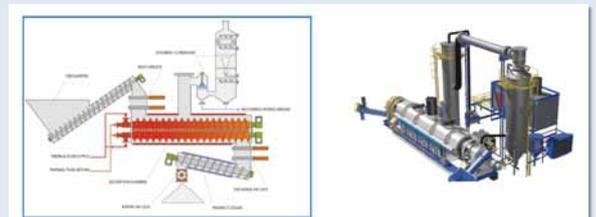
Nippon Koei Co., Ltd.

In 2015, Batam City in Indonesia and Yokohama City in Japan signed a LoI to promote city-to-city collaboration for sustainable urban development. In 2016, the two cities, BIFZA and IGES formed a taskforce to promote the concept of the smart green island of Batam. This project aims to conduct F/S for high efficiency oil sludge treatment system by thermal desorption unit to enable recycling of oil by PT Mega Green Technology which is the biggest treatment company in Batam as a JCM model project over the next year.



Project Outline

- ▶ Detail design on installation of oil sludge treatment system, economic analysis and preparation of monitoring plan
- ▶ Confirmation of consortium agreement and condition of contract of project for JCM model project
- ▶ Promotion of JCM model project in line with the Batam-Yokohama city collaboration including application in other cities



High efficiency thermal desorption unit



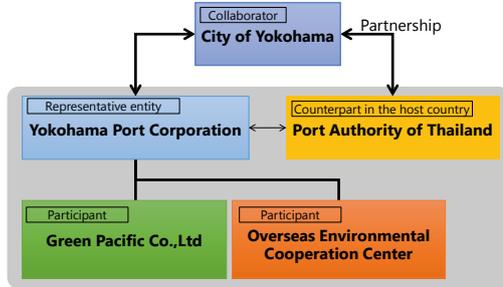
KINGDOM of THAILAND

Feasibility Study for Assisting Ports in Thailand to Reduce CO₂ Emissions and to Become Smart Port

Yokohama Port Corporation

YOKOHAMA × BANGKOK

Aiming at promoting low-carbon efforts and smart ports at major ports in Thailand utilizing JCM, the project is to introduce Japan's advanced low-carbon technologies and services etc., such as PV generation facility and LED lighting etc., which were proven at the Port of Yokohama, to Bangkok Port, Leam Chabang Port and other ports managed by the Port Authority of Thailand (PAT). This feasibility study will be conducted based on the partnership between the City of Yokohama, the Bangkok Metropolitan Administration and the PAT.



Project Outline

- ▶ Introducing energy management system which has functions of peak shaving and emergency power, by implementing solar power generation system on the roof of port facilities together with LED lighting and cargo handling equipment etc.
- ▶ Promoting efficient cargo handling and low carbon efforts by introducing hybrid Rubber-Tired Gantry Cranes (RTGs), LED lighting for container yards etc.



LED Yard Lighting



Solar power generation system on port facility



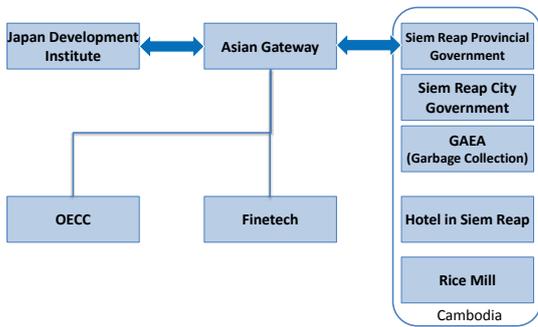
KINGDOM of CAMBODIA

JCM Feasibility Study for Biomass Power Generation with Municipal Waste and Rice Husk

Asian Gateway Corporation
Japan Development Institute Ltd.

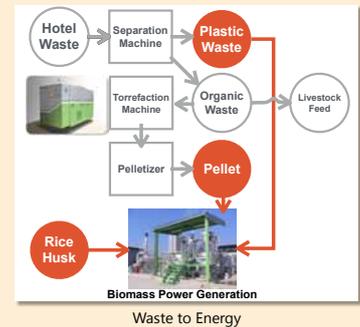
KANAGAWA × SIEM REAP

This is a feasibility study for the multi fuel biomass power plant with municipal waste in Siem Reap City and rice husk produced in Siem Reap Province. Waste disposal in Siem Reap is becoming a serious problem because of the bad quality of service due to the waste collection company GAEA running their business as a monopoly in this area. We consider this project would solve the municipal waste problem and manage rice husk distribution which is currently outflowing to Thailand. We also consider the possibility that electricity will be supplied to the no-electricity area in this project.



Project Outline

- ▶ Research the amount and quality of waste from the hotel
- ▶ Research the amount of rice husk produced in Siem Reap and surrounding area. Also, research the purchase price of rice husk by Thai companies.
- ▶ Consider the waste separation machine and reduce the cost for it
- ▶ Check the specification of biomass power generation
- ▶ Find and negotiate the location for biomass power plant



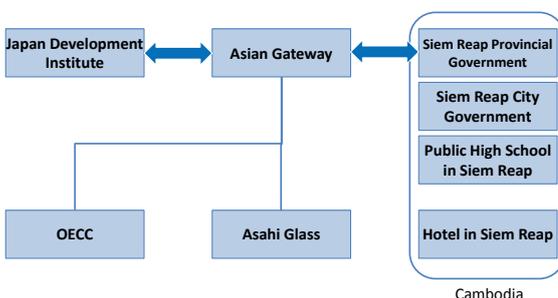
KINGDOM of CAMBODIA

JCM Feasibility Study for Community Solar by Using Public High Schools

Asian Gateway Corporation
Japan Development Institute Ltd.

KANAGAWA × SIEM REAP

Siem Reap is well known as the location of Angkor Wat. There are many five-star hotels in this city. Most of the hotels are trying to install solar panels to reduce the electricity costs. However, there are still many challenges such as landscape issues because most of the architects work in traditional Khmer style. Even if they install it, the self-consumption amount is very limited. We are researching the possibility of "Community Solar" which is a solar generation using public facilities such as public high schools and sending electricity to the surrounded buildings through the national grid.



Project Outline

- ▶ Install solar panels on the roof of five-stars hotels
- ▶ Consider the possibility of community solar using public high schools since there is limited space on the roof of hotels
- ▶ Make a business plan for IPP (Independent Power Provider) company
- ▶ Conduct MRV (Measurement, Reporting and Verification) methodology



Target rooftop community solar

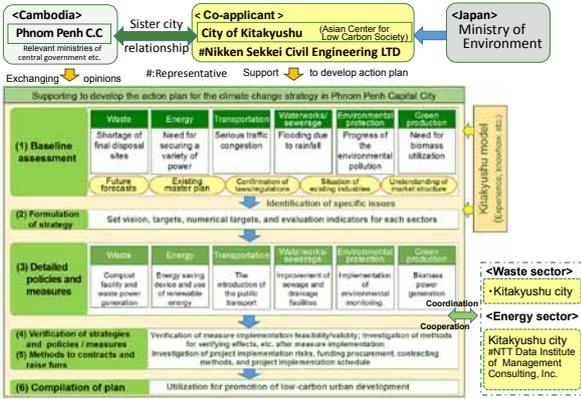


Phnom Penh City Climate Change Strategic Action Plan (PPCCSAP)

NIKKEN SEKKEI CIVIL ENGINEERING LTD.

KITAKYUSHU × PHNOM PENH

Cambodia has been identified as a country which will be strongly affected by climate change. The Cambodian government launched the Cambodia Climate Change Strategic Plan 2014-2023 and the action plans of each department (2015-2018). However, specific measures were not implemented and specific projects for the reduction of GHG are needed. Therefore, on the basis of the sister city accord between the City of Kitakyushu and Phnom Penh city, we will support the development of PPCCSAP and conduct feasibility studies for JCM projects to incorporate JCM projects into PPCCSAP.



Project Outline

- Support for the development of PPCCSAP directed at 6 fields, namely waste, energy, transportation, waterworks/sewerage, environmental conservation, and green production will be developed by using Kitakyushu Model which organizes their technologies and know-how systematically.
- Feasibility studies for JCM projects to incorporate them in PCCSAP



Workshop in Phnom Penh



Serious Traffic congestion

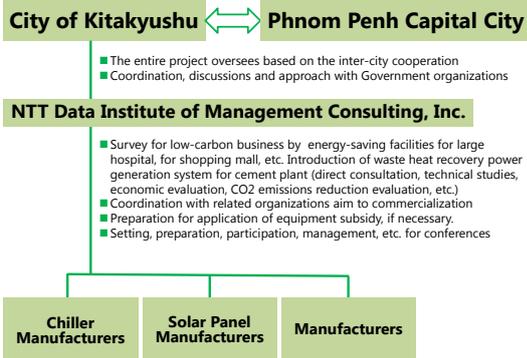


Project to Realize Low Carbonization in Phnom Penh Capital City, through Introduction of Saving Energy Technologies and Renewable Energy

NTT Data Institute of Management Consulting, Inc.

KITAKYUSHU × PHNOM PENH

Under the sister-city agreement between Phnom Penh Capital City and the City of Kitakyushu, this project aims to realize saving energy projects such as introduction of high-efficient chiller, or introduction of renewable energy projects such as solar power generation, etc. for large hospital, large shopping mall, cement plant, etc. in order to reduce GHG emissions.



Project Outline

- Survey for low-carbon business by energy-saving facilities for large hospital
- Survey for low-carbon business by energy-saving facilities for shopping mall, etc.
- Survey for introduction of waste heat recovery power generation system for cement plant



Large Shopping Mall



Large Hospital

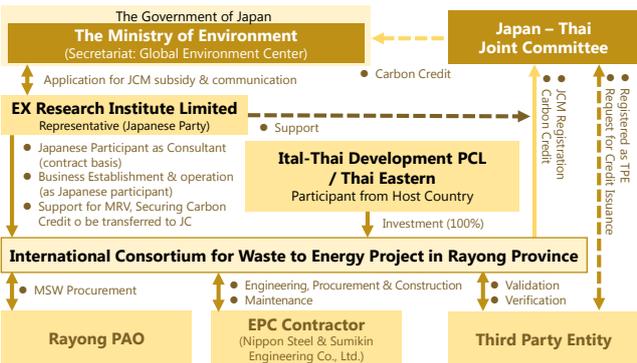


Waste to Energy by Utilizing Waste Heat from MSW Incineration at Rayong Integrated MSW Management Center

EX Research Institute Limited

KITAKYUSHU × RAYONG

The project is to support realization of low-carbon society, promoted by Rayong PAO through proper management and thermal recovery (power generation & sales) of municipal solid waste by utilizing incinerator with less environmental impact and high efficient heat recovery and power generation system owned by Japanese EPC companies. Amount of municipal solid waste to be processed will be 500tons/day and approximately 8.0MWh of power is planned to be generated by the project.



Project Outline

- Proper municipal solid waste management (500tons/day by combustion)
- Power generation by waste heat from combustion (6.5MWh)
- Reduction of approximately 22,000tCO₂/year of GHG is expected through the project implementation.



Shin Moji Incineration Plant (Printed with the agreement of City of Kitakyushu)



Waste-to-Energy-Plant in Kristiansand Norway (Source: Steinmüller Babcock Environment GmbH)



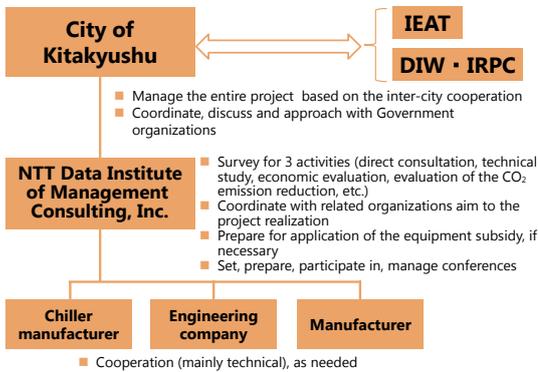
KINGDOM OF THAILAND

Low Carbonization Model Realization Project at Ecological Industrial Town in Rayong

KITAKYUSHU × RAYONG

NTT Data Institute of Management Consulting, Inc.

This project aims to save energy, to install renewable energy, and to install an electricity generation system in order to realize the great energy efficiency to reduce GHG emissions. This project is implemented with the cooperation of Department of Industrial Work (DIW), IRPC Public Company Limited, Industrial Estate Authority of Thailand (IEAT), and the City of Kitakyushu.



Project Outline

- ▶ Installation of high-efficiency chillers for the symbolic eco center
- ▶ Installation of cogeneration system for two industrial parks of Map Ta Phut and IRPC
- ▶ Installation of waste heat recovery power generation system for a cement plant in other industrial parks



Image of the Eco Center



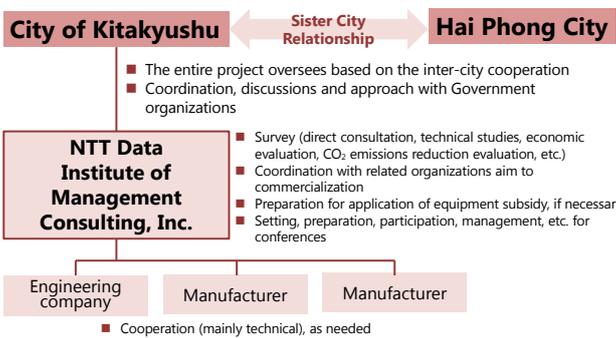
SOCIALIST REPUBLIC OF VIET NAM

Project to Accelerate Low Carbonization in Hai Phong City (Energy Field)

KITAKYUSHU × HAI PHONG

NTT Data Institute of Management Consulting, Inc.

In order to accelerate the implementation of Hai Phong's low carbonization projects under the framework of the sister city relationship between the City of Kitakyushu, Japan, and the City of Hai Phong, Viet Nam, this projects aims to conduct low-carbonization of factories mainly in the field of energy and establishment of new funding mechanism to introduce low-carbon vehicle in an isolated island.



Project Outline

- ▶ Introduction of co-generation system to the factory
- ▶ Fuel conversion in the factory
- ▶ Introduction of waste heat recovery system in cement plant.
- ▶ Introduction of high-efficiency electric furnace to foundry
- ▶ Funding scheme study for the EV bus introduced on the island



Façade of Cement Factory



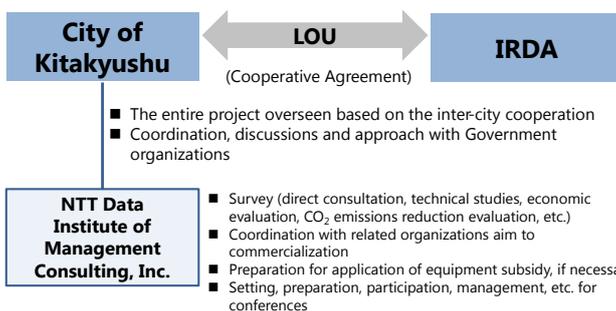
MALAYSIA

Project to Accelerate Low Carbonization Model Projects in Iskandar Development Area for Expansion of JCM

KITAKYUSHU × ISKANDAR

NTT Data Institute of Management Consulting, Inc.

Under the cooperation between Iskandar Regional Development Authority (IRDA) and the City of Kitakyushu, Japan, this project aims to conduct low-carbonization activity in factories to acquire an understanding of the merit of JCM and realize a substantial reduction in GHG emissions in accordance with "Low Carbon Society Blueprint" which IRDA is now implementing.



Project Outline

- ▶ Introduction of co-generation system to the factory
- ▶ Fuel conversion in the factory
- ▶ Introduction of solar panels in factories and office buildings



Façade of IRDA



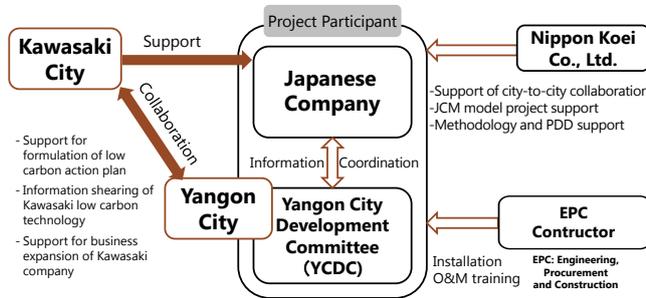
REPUBLIC of the UNION of MYANMAR

KAWASAKI X YANGON

JCM Project Formulation Study through City-to-City Collaboration in Yangon (PV generation project for YCDC facility)

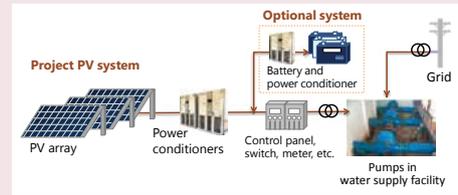
Nippon Koei Co., Ltd.

Yangon, the largest city of Myanmar, concluded an Memorandum of Understanding (MOU) with Kawasaki City to promote city-to-city collaboration for achievement of the low carbon society in March 2016. As the pilot project of the low-carbon action plan, solar PV generation project is planned to supply power to the water treatment facility managed by YCDC (Yangon City Development Committee) for the application of JCM model project.



Project Outline

- ▶ Installation of approx. 2MW PV generation system (PV module, power conditioner, transformer, etc).
- ▶ 2.85 GWh/yr generation, 1,125ton-CO₂/yr reduction is planned.



Proposed PV System Figure



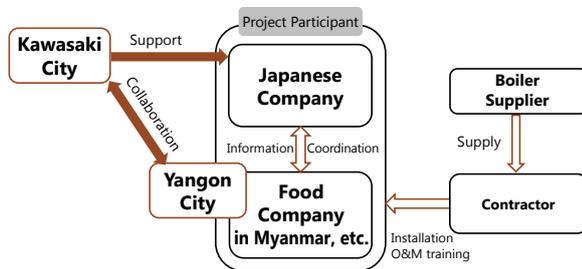
REPUBLIC of the UNION of MYANMAR

KAWASAKI X YANGON

JCM Project Formulation Study through City-to-City Collaboration in Yangon (High efficiency one-through boiler project)

Nippon Koei Co., Ltd.

Yangon, the largest city of Myanmar, concluded MOU with Kawasaki City to promote city-to-city collaboration for achievement of the low-carbon society in March 2016. As the pilot project of the low-carbon action plan, once-through boiler project is planned for installation into a food factory in Yangon.



Project Outline

- ▶ Installation of one-through boiler, 2 t/h x 6
- ▶ On the top of saving energy, this project has co-benefits such as low NOx and reducing air pollution
- ▶ It is planned to install IBD monitoring system aiming for energy saving and automatic operation



Proposed technology



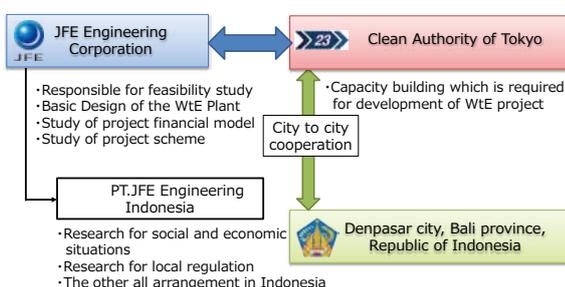
REPUBLIC of INDONESIA

TOKYO X BALI

Waste to Energy Power Plant Project for Bali Province in Indonesia

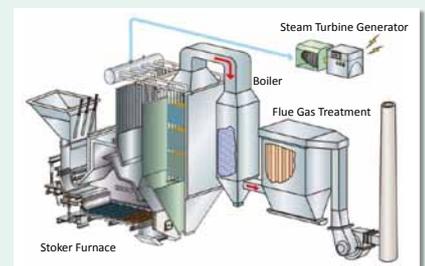
JFE Engineering Corporation

Bali province is now facing a serious problem with their landfill site where Sarbagita Solid Waste Management Agency is now operating. The capacity of the landfill site will reach its limit within a few years. In order to resolve this problem, JFE Engineering Corporation and Clean Authority of Tokyo are jointly cooperating with Bali province and aim to realize a sustainable society by introducing the technology of Waste to Energy Power plants developed in Japan which contributes to reducing GHG emissions.



Project Outline

- ▶ Research for social and economic situations and legal systems
- ▶ Planning of Waste to Energy plant
- ▶ Planning of financial scheme
- ▶ Planning of business scheme
- ▶ To develop MRV methodology





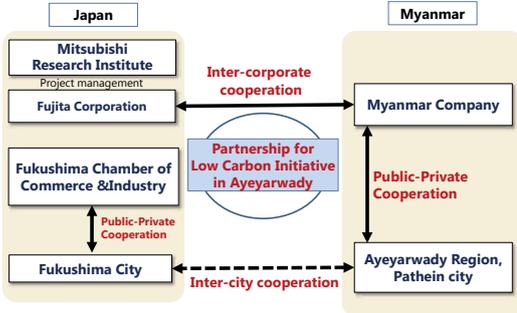
REPUBLIC of the UNION of MYANMAR

FUKUSHIMA × PATHEIN

Study of a Low-Carbon Water and Sewerage Treatment System in Pathein Industrial City

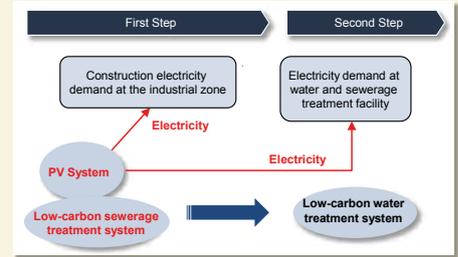
Mitsubishi Research Institute, Inc.

The objective of this project is a JCM feasibility study in the water treatment sector for low-carbon city in Ayeyarwady Region. To achieve a low-carbon, resilient and sustainable city through city-to-city collaboration under the "Partnership for Low-Carbon Initiative in Ayeyarwady," the feasibility of a low-carbon water and sewerage treatment system will be studied.



Project Outline

- ▶ Identification of local needs, Japanese experiences, know-how, and technologies for utilization
- ▶ Consideration of JCM project formulation (identifying project site and installed technology, and analysis of GHG reduction etc.)
- ▶ Proposing project scheme and promotion measures



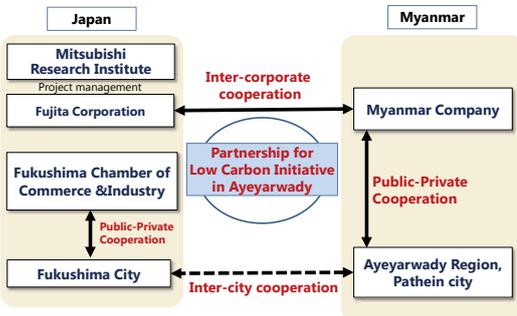
REPUBLIC of the UNION of MYANMAR

FUKUSHIMA × PATHEIN

Study of a Low-Carbon Waste Treatment System in Pathein Industrial City

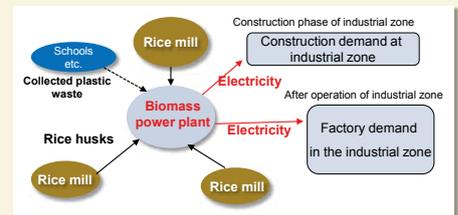
Mitsubishi Research Institute, Inc.

The objective of this project is a JCM feasibility study in the waste management sector for low-carbon city in Ayeyarwady Region. To achieve a low-carbon, resilient and sustainable city through city-to-city collaboration under the "Partnership for Low-Carbon Initiative in Ayeyarwady," the feasibility of a low-carbon waste treatment system (e.g. power plant projects using fuels such as rice husks) and measures for energy use of waste in the local area will be studied.



Project Outline

- ▶ Identification of local needs, Japanese experiences, know-how, and technologies for utilization
- ▶ Consideration of JCM project formulation (identifying project site and installed technology, and analysis of GHG reduction etc.)
- ▶ Proposing project scheme and promotion measures



Relevant Website



The Joint Crediting Mechanism

<https://www.jcm.go.jp/>

This official platform provides essential information and updates for the JCM to the public.



Web Portal for Low Carbon Development in Asia

<http://www.env.go.jp/earth/coop/lowcarbon-asia/english/>

This Portal provides those who are interested in achieving low carbon development in Asia with consolidated information regarding international negotiations and related policy trends, policies, and support systems.



New Mechanism Information Platform

<http://www.mmechanisms.org/e/>

This platform provides essential information for the JCM and periodical updates on the ongoing development of the JCM projects.



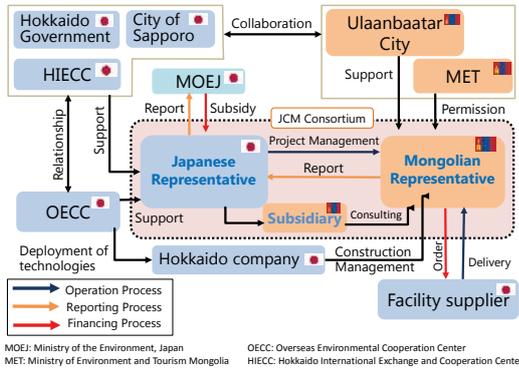
MONGOLIA

JCM Project Feasibility Study on Energy Saving Sector through City-to-City Cooperation in Ulaanbaatar

Overseas Environmental Cooperation Center

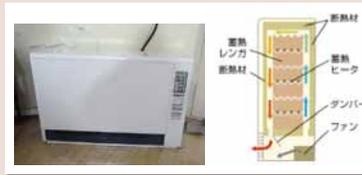
HOKKAIDO,SAPPORO X ULAANBAATAR

According to the memorandum / declaration agreed between the City of Ulaanbaatar, Hokkaido Government and City of Sapporo, the mutual activities are promoted as low-carbon technology transfer suitable for the cold latitudes and economic / technological exchange. Energy-saving project of mining, industry and heat supply facilities are proceeded contributing to the reduction of GHG and severe air pollution.

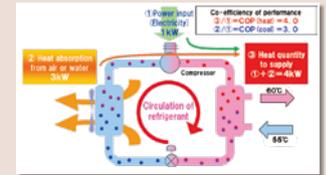


Project Outline

- ▶ Introduction of solar power system
- ▶ Introduction of large capacity storage battery to the existing renewable energy farm



Thermal storage heater



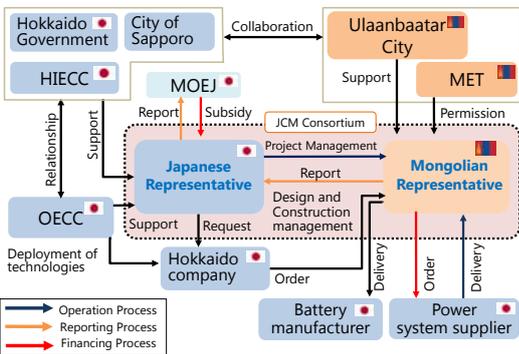
MONGOLIA

JCM Project Feasibility Study on Renewable Energy Sector through City-to-City Cooperation in Ulaanbaatar

Overseas Environmental Cooperation Center

HOKKAIDO,SAPPORO X ULAANBAATAR

According to the memorandum / declaration agreed between the City of Ulaanbaatar, Hokkaido Government and City of Sapporo, the mutual activities are promoted as low-carbon technology transfer suitable for the cold latitudes and economic / technological exchange. Effective utilization of renewable energy (solar and wind power) is proceeded in order to contribute to GHG reduction.



Project Outline

- ▶ Introduction of heat pumps to beverage factory
- ▶ Introduction of thermal storage heater by using cheap electric power overnight



Large storage battery



Existing wind farm



Solar power system



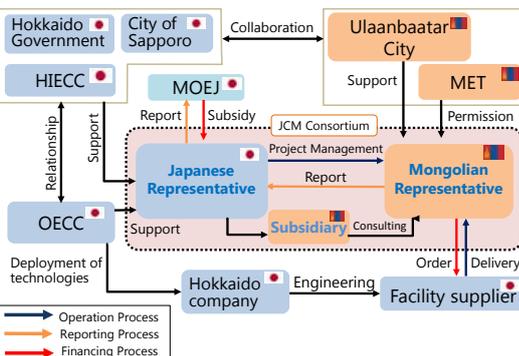
MONGOLIA

JCM Project Feasibility Study on Waste Treatment Sector through City-to-City Cooperation in Ulaanbaatar

Overseas Environmental Cooperation Center

HOKKAIDO,SAPPORO X ULAANBAATAR

According to the memorandum / declaration agreed between the City of Ulaanbaatar, Hokkaido Government and City of Sapporo, the mutual activities are promoted as low carbon technology transfer suitable for the cold latitudes and economic / technological exchange. Waste-to-energy project is proceeded utilizing waste materials produced from the surrounding city.



Project Outline

- ▶ Biogas plant by using chicken manure



Biogas plant



Egg factory

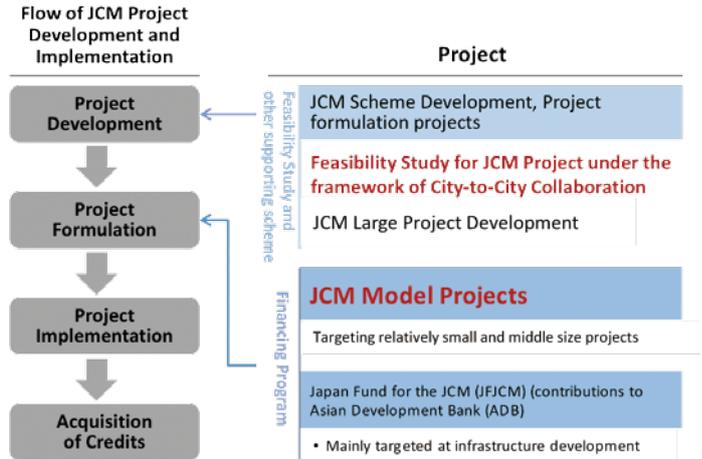
Cases: from JCM F/S through City-to-City Collaboration to JCM Model Project

• What is “JCM Model Projects”?

“JCM Model Projects” is a financing program to financially support the implementation of projects which reduce CO₂ emissions by introducing leading low-carbon technologies and evaluate contribution from Japan to GHG emissions reduction and removals through appropriate MRV* methodologies. In return, this program seeks to acquire JCM credits for achieving Japan’s greenhouse gas emissions reduction target. Projects approved by the program will receive support for the cost of installing low-carbon facilities, equipment, and services (up to half of the cost).

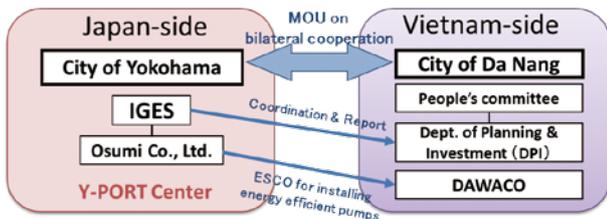
Implementing bodies of the JCM F/S through City-to-City Collaboration Projects should aim to apply for the JCM Model Project after completion of the F/S.

*MRV: Measuring, Reporting and Verification



City of Yokohama × City of Da Nang

Introduction of High Efficiency Water Pumps



• Result of F/S Study

Based on the MOU for the technical cooperation between the City of Yokohama and City of Da Nang, the following were implemented with the support from DPI: inspection of the current operation status of existing pumps in DAWACO; identification of high efficiency pumps based on the system requirement and its estimated CO₂ emissions reductions; and clarification of the processes including tender for procuring new equipment.

• Outline of GHG Mitigation Activity

This project aims at replacing the existing water pumps in Ca Do Water Treatment Plant with highly efficient ones so as to achieve energy efficiency and GHG emissions reductions.

• Expected GHG Emissions Reductions: 1,145 tCO₂/year

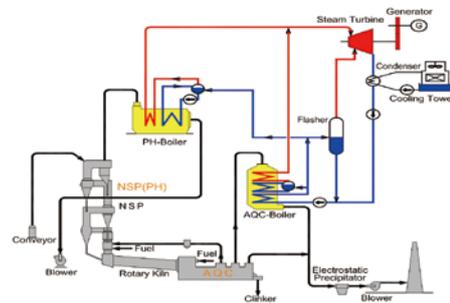
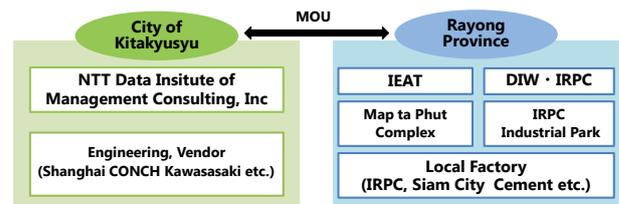
GHG emissions reductions are calculated conservatively taking into consideration power consumption differences between existing and new pumps.

• Project Implementer

Japan: Yokohama Water Co., Ltd.
Viet Nam: Danang Water Supply Company (DAWACO)

City of Kitakyushu × Rayong Province

Introduction of 12MW Power Generation System by Waste Heat Recovery for Cement Plant



• Result of F/S Study

This project is implemented with the cooperation of DIW, IRPC, IEAT, and Kitakyushu City. In this F/S, we checked particular specifications of the waste heat recovery power generation equipment in the factory of Siam City Cement and estimate CO₂ emissions reduction effects.

• Outline of GHG Mitigation Activity

By introducing a Waste Heat Recovery Power Generation plant, the Cement Plant’s dependence on the electric power supply from grid was reduced.

• Expected GHG Emissions Reductions: 31,180 tCO₂/year

This was calculated by multiplying the grid emission factor by the amount of generated electric power from WHR plant. Approved methodology in Indonesia (ID_AM001) was used as reference.

• Project Implementer

Japan: NTT Data Institute of Management Consulting, Inc.
Thailand: Siam City Power Company Limited



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