

# *JCM City-to-city collaboration between Ho Chi Minh City and Osaka city*

## *Seminar on the JCM implementation in Vietnam*

*- Accelerating promotion of environmental infrastructure through JCM scheme -*

### *[Contents]*

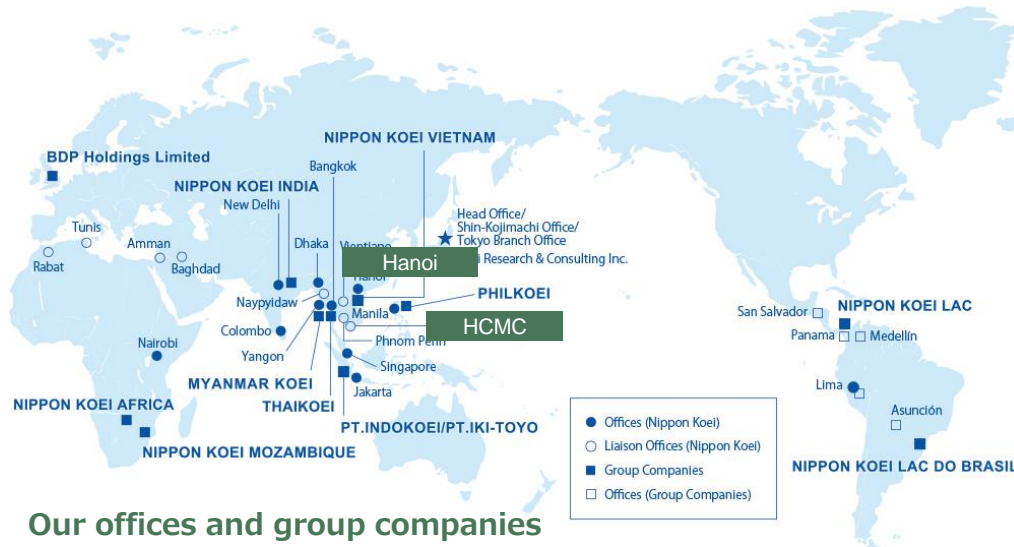
- 01 : Introduction of Nippon Koei*
- 02 : Our JCM CtC experience*
- 03 : Chronology of CtC collaboration*
- 04 : Survey items and goal of CtC collaboration*
- 05 : Implementation structure in FY2019*
- 06 : Overview of the CtC collaboration in FY2019*
- 07 : Positioning of the this year's activities*
- 08 : Further activities in three fiscal years*

*10 October, 2019*

**NIPPON KOEI**

# 01 Introduction of Nippon Koei Co., Ltd.

- ▶ Japan's No.1 international engineering consultants plays a role in nation building around the world through our consulting.



**No.1**  
Sales among  
civil consulting  
firm in Japan

**160**  
Countries  
where we  
operate

over  
**5,500**  
Number of  
orders per year

- ▶ Environmental Dept. conducts projects on many environmental aspects.

Air/Water

Solid waste

Renewable  
energy

Forestry/  
Biodiversity

Environmental  
impact  
assessment

Climate  
change

**Mitigation**

- ▶ GHG emission reduction, JCM

**Adaptation**

- ▶ Taking appropriate action to prevent or minimize the damage

## 02 Our JCM city-to-city experience

- ▶ Nippon Koei have a lots of experiences on the city-to-city collaboration projects. (The followings are the current projects by NK's support.)

Yangon – Kawasaki  
(2015~)



Ho Chi Minh - Osaka  
(2011~)



Semarang - Toyama  
(2018~)



EEC – Osaka  
(2019~)



Jakarta – Kawasaki  
(2017~)



Bali - Toyama  
(2018~)



- ▶ The goal is to realize a low-carbon society by utilizing each Japanese city's experiences/knowledge and formulating JCM model projects .

## 03 Chronology of city-to-city collaboration

- ▶ Since October 2013, Osaka city and Ho Chi Minh city have commenced a policy dialogue to aiming for realization of low carbon society. So far two cities has discussed and collaborated various theme, not only low carbon development concerned but also water management etc. In addition, Japanese advanced technologies are currently considered to utilize in HCMC projects to tackle with the issue of global warming with JCM scheme.

#	Time	Overview
1	Dec. 2009	<i>Sign of the memorandum concerning technical exchange with HCMC water supply corporation (SAWACO)</i>
2	Apr. 2013	Start of JCM city-to-city collaboration
3	Oct. 2013	Sign of the memorandum for a low-carbon city formulation between Osaka & HCMC.
4	Nov. 2015	<i>Update of memorandum concerning technical exchange with SAWACO.</i>
5	Sep. 2016	Update of memorandum for Osaka & HCMC low-carbon city formulation.
6	Sep. 2016	Formulation of the “HCMC CCAP (2017-2020), prospect to 2030”.
7	Sep. 2019	Policy dialogue in Ho Chi Minh city
8	Nov. 2019	Policy dialogue in Osaka city

# 04 Survey items and goal of city-to-city collaboration

## 1. Survey items related to city to city collaboration

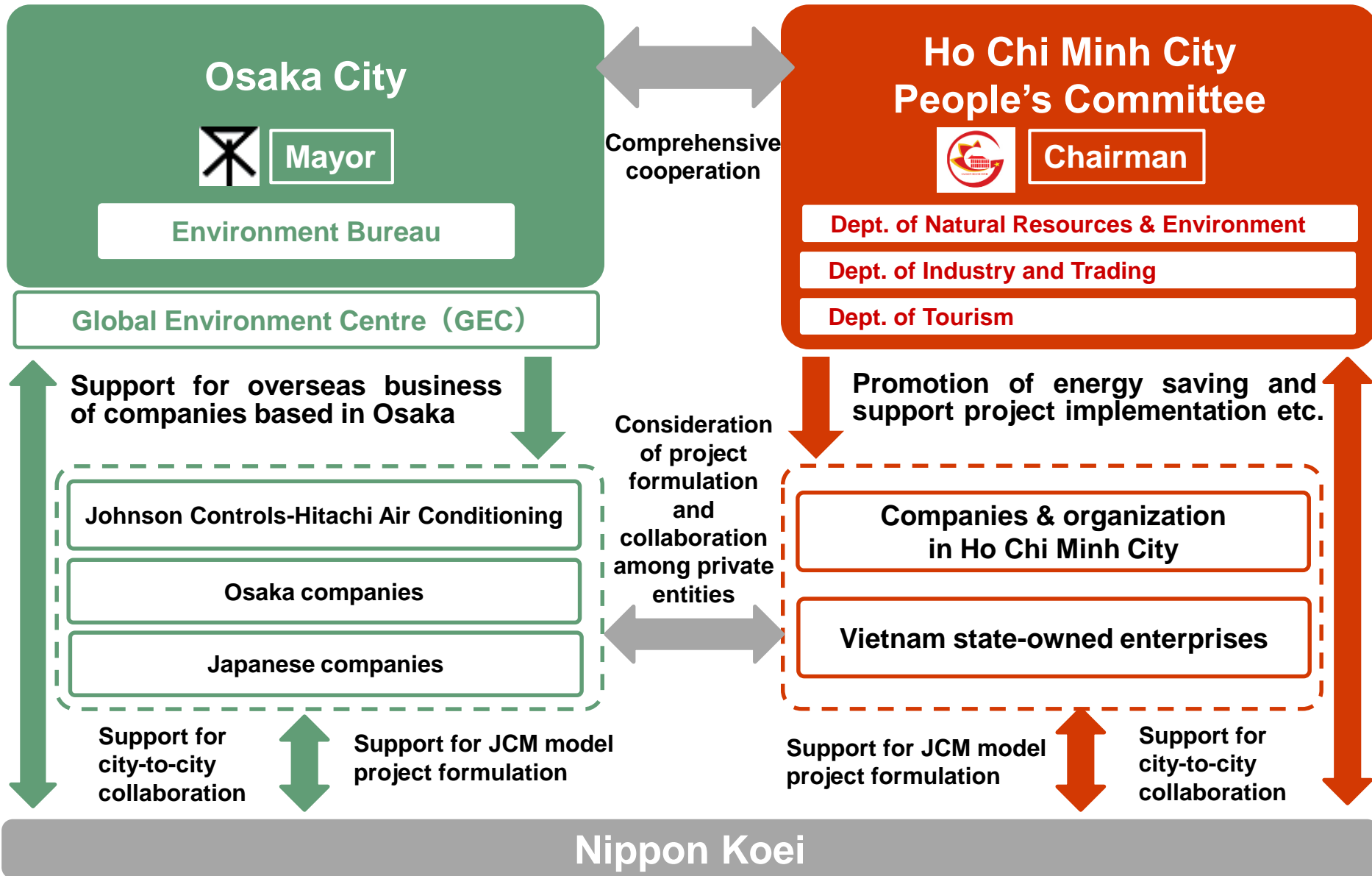
- ▶ The technical cooperation agreement between Osaka and HCMC for low-carbon society
- ▶ To support discussion/coordination between Osaka and HCMC related to city-to-city collaboration
- ▶ To support the spreading of energy saving technologies or renewable system in HCMC
- ▶ To support various city-to-city collaborations between Osaka and HCMC

## 2. Goal of the city-to-city collaboration

### GOAL

- ▶ Spread of energy saving / renewable energy project in HCMC with JCM model project development
- ▶ Support for business expansion of the companies in Osaka city having energy saving technologies under the city-to-city collaboration
- ▶ Achievement of low carbon society in HCMC
- ▶ Formulated with the support of Osaka city, the “Climate Change Action Plan (CCAP) of HCMC (2017–2020), prospect to 2030” would be further promoted.

## 05 Implementation structure, FY2019





# 06 Overview of the city-to-city collaboration in FY2019 (1/3)

## 1. Study for JCM model project formulation

Conduct a Study to formulate JCM model project in HCMC.

- Consideration of installing high efficiency air conditioning system (made by Johnson Controls-Hitachi Air Conditioning)
- Consideration of installing high efficiency gas once-through boiler (made by MIURA)
- Consideration of solar PV system on the rooftop (made by Sharp)
- Preparatory study for large-scale JCM model project formulation, such as cement industry.

Air-conditioning system



Gas Boiler

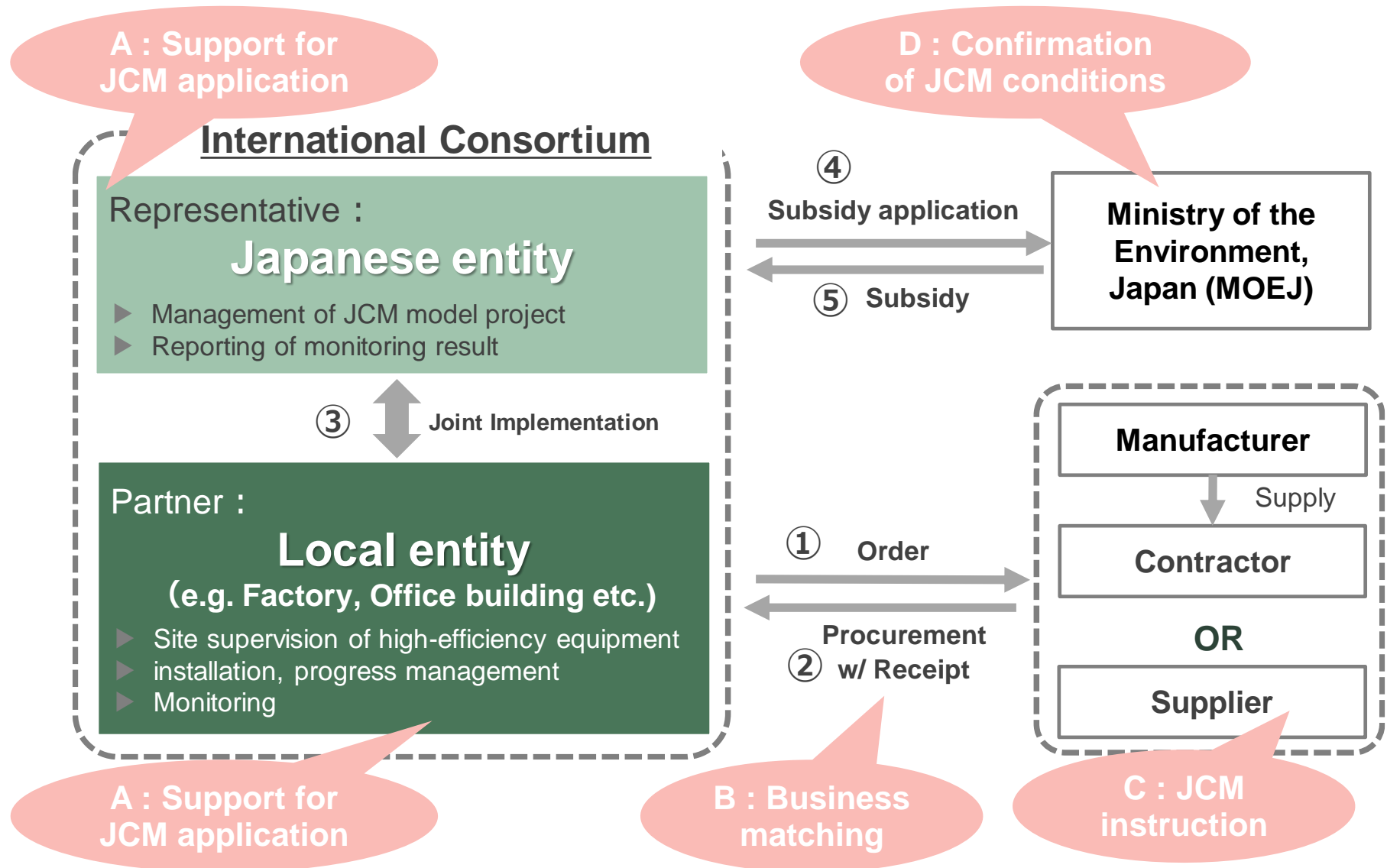


Solar PV



# 06 Overview of the city-to-city collaboration in FY2019 (2/3)

## How to support by Nippon Koei



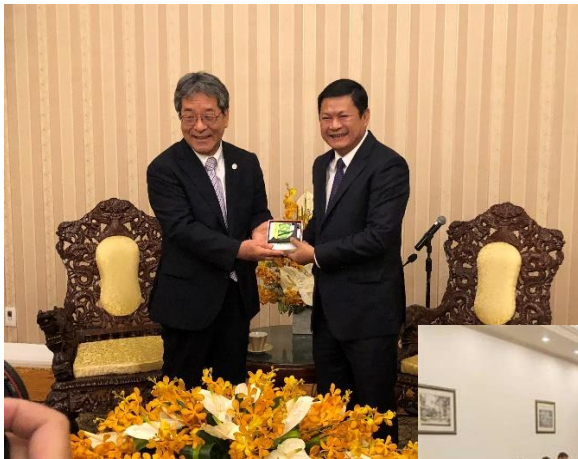


# 06 Overview of the city-to-city collaboration in FY2019 (3/3)

## 2. City-to-City collaboration activities

To materialize a mature relationship of two cities, the followings are implemented.

- Holding a policy dialogue on low carbon society development.
- Sharing experiences of utilization of rainfall prediction and disaster prevention smart-phone application.
- Support for upgrading of the Climate Change Action Plan CCAP.
- Participation of JCM seminar in Japan.



# 07 Positioning of this years' activities



## Formulatoin of low carbon city in HCMC

### 10 targeted area of CCAP

- Urban planning
- **Energy**
- Transportation
- **Industry**
- Water management
- Waste management
- Construction
- Health
- Agriculture & food security
- **Tourism** & raising awareness

### Agenda of Mayor-level policy dialogue in 2018

- Reconsideration of tendering system
- **Consideration of energy saving in buildings**
- Installation of PV
- **JCM project formulation in industrial parks**
- **Sharing information regarding climate change adaptation**

### Program of MOEJ

#### FY 2019 JCM city-to-city collaboration project

##### ◆ Activities

- 1) Consideration of JCM model project formulation by installing high efficiency equipment
- 2) Pre-study for JCM model project formulation in cement factory
- 3) Consideration of JCM model project formulation by other technologies
- 4) Review of CCAP (2017-2020)

JCM model project

Additional activities by  
JCM city-to-city  
collaboration project  
(FY2020~)



# 08 Further activities in three fiscal years

## FY2018

### City-to-city collaboration

- 1) Policy dialogue
- 2) Support for "HCMC Climate Change Action Plan 2017-2020 and Prospects until 2030" (CCAP2017-2020)

### JCM prj formulation

#### Consideration of JCM model project formulation by:

- 1) installing heat exchanger and once-through boiler
- 2) installing high-efficiency inverter in water treatment system

## FY2019

### City-to-city collaboration

- 1) Policy dialogue (1 Nov)
- 2) Making plan for reviewing CCAP2017-2020
- 3) Discussion of schedule for formulating CCAP2021-2025

### JCM prj formulation

#### Consideration of installing of:

- 1) high-efficiency A/C system
- 2) high-efficiency boiler

Preliminary study on cement industry

## FY2020

### City-to-city collaboration

- 1) Policy dialogue
- 2) Reviewing CCAP2017-2020
- 3) Support on drafting CCAP2021-2025

### JCM prj formulation

#### Consideration of horizontal expansion of:

- 1) high-efficiency A/C system
- 2) high-efficiency boiler by BtoB or BtoG

JCM project formulation in cement industry

## FY2021

### City-to-city collaboration

- 1) Policy dialogue
- 2) Support on finalizing CCAP2021-2025

### JCM prj formulation

#### Consideration of horizontal expansion of:

- 1) high-efficiency air conditioning system
- 2) high-efficiency boiler by BtoB or BtoG

Implementation of JCM model project in cement industry

#	Candidate JCM model prj	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> Year
1	Installation of high-efficiency inverter in water treatment system	Continued support under city-to-city collaboration	Applying for JCM model project/ Consideration of horizontal expansion	Implementation/ Consideration of horizontal expansion
2	Installation of high-efficiency air conditioning system	Feasibility study	Applying for JCM model project	Implementation/ Consideration of horizontal expansion
3	Installation of high-efficiency boiler	Feasibility study	Applying for JCM model project	Implementation / Consideration of horizontal expansion
4	Installation of high-efficiency equipment into cement factory	Preliminary Study	Feasibility Study	Applying for JCM model Project

***Thank you for your kind attention!***

**Contact :**

**Masaru ISHIKAWA (Mr.)**

**Manager, Environmental Science & Engineering Dept.**

**NIPPON KOEI CO., LTD.**

**[ishikawa-ms@n-koei.jp](mailto:ishikawa-ms@n-koei.jp)**