Webinar on the Joint Crediting Mechanism (JCM) Implementation for Sri Lanka
– Contribution to GHG Emission Reductions in Sri Lanka through the JCM –

Installation of Energy Saving Equipment and Solar Power System to Complex Building in Jakarta

Ryosuke MORITA

Project Coordinator

International Projects Department, Yuko-Keiso Co., Ltd.

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1. Introduction of Yuko-Keiso
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1. Company Profile

Company Name	Yuko-Keiso Co., Ltd.
Established	December 1963
Head Office	Tokyo, Japan
Overseas Subsidiary	Hanoi, Vietnam
Business	• Designing, Installation and Maintenance of Building Automation System • **Consulting support for JCM projects**

Air Conditioning Control System

Monitoring of the internal environment and air-conditioning system condition of buildings to ensure comfortable air-conditioning

Security System

Ensures security through monitoring room entry and exit, the presence of people in a room, and detection of trespassing

Central Monitoring System

Provides efficient and comprehensive monitoring systems by collecting information throughout the building

Energy Efficiency

Proposes adding value to buildings, such as improving comfort and energy efficiency through building surveys

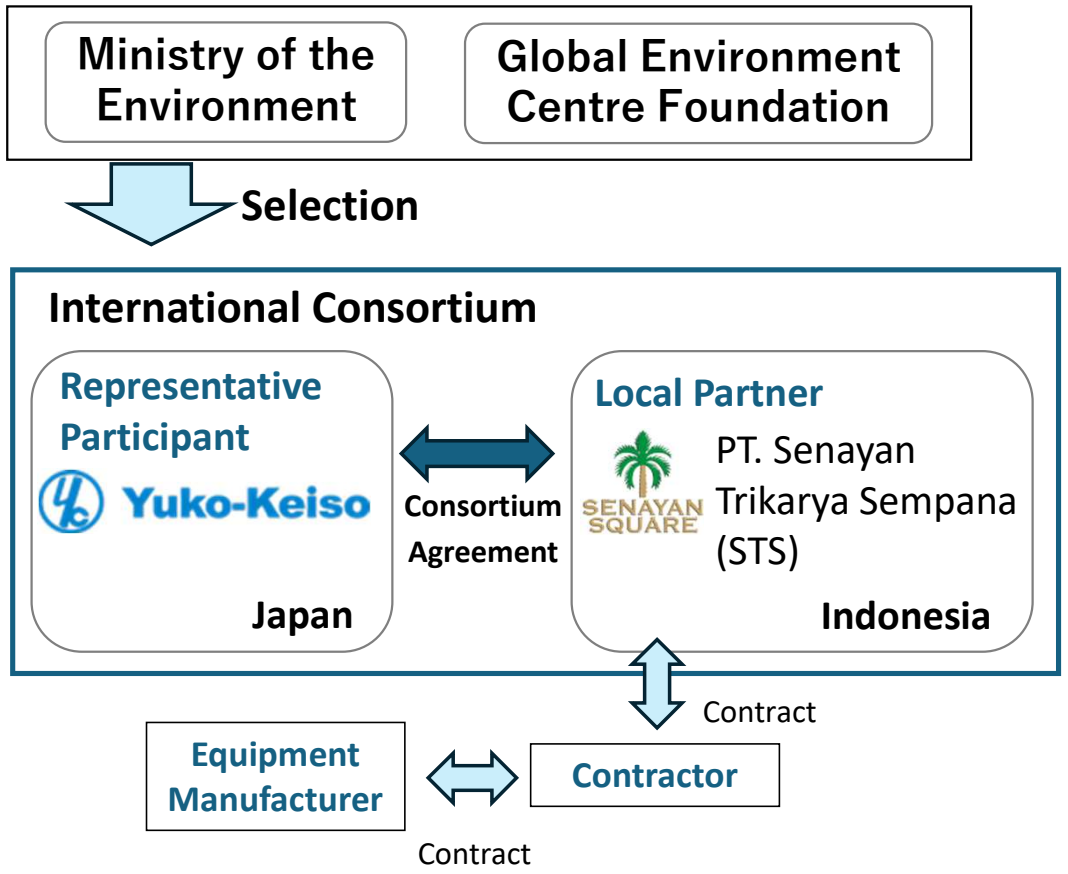
Consulting Support for JCM Model Projects

Providing comprehensive consulting services as a representative participant in the JCM project.

2-1. Overview of the Project

Project Name	Installation of Energy Saving Equipment and Solar Power System to Complex Building in Jakarta
Project Site	The Senayan Square Complex (Jakarta, Indonesia)
Installation Equipment	<u>Renewal</u> • High-efficiency Chiller • High-efficiency Air Conditioner <u>New installation</u> • Solar Power System
Period	<u>Installation Work</u> • Feb 2023 – Dec 2023 <u>Monitoring</u> • 2024 – 2038 (Chiller & Air-con) • 2024 – 2040 (Solar Power System)

Implementation Structure

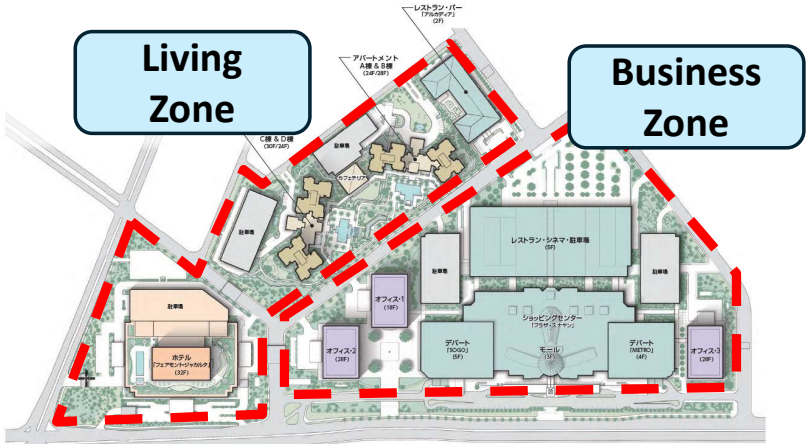


2-2. Partner Company Profile

Partner Company Name	PT. Senayan Trikarya Sempana
Established	1991
Business	**Development and operation of the Senayan Square Complex** (2 shopping centers, 3 office towers, 4 apartments, 1 hotel)
Affiliated Company Name	Kajima Corporation in Japan

- The Senayan Square Complex is supported by Kajima Corporation, which has skilled professionals in the area of architectural design, building construction and real estate development.

The Senayan Square Complex



2-3. Installation Site & Equipment

Equipment	Installation Site	Q'ty	Expected GHG Emission Reductions
Chiller	Shopping Center	2 units	**844** tCO_2/year
	Office Tower I	2 units	
Air Conditioner	Shopping center	Outdoor unit: 2 units Indoor unit: 21 units	**432** tCO_2/year
	Shopping Center Annex	Outdoor unit: 2 units Indoor unit: 20 units	
Solar Power System	Building roof top	Size: 0.3MW	**217** tCO_2/year
			Total: 1,493 tCO_2/year

2-4. Before/After

	Chiller	Air Conditioner	Solar Power System
Before			
After			

2-5. Project Features

✓ **Installed both high-efficiency equipment and renewable energy system**

✓ **Selected the most suitable equipment**

- Selecting the highest-end equipment by catalog specifications is not always the best choice.
- Since this was a project to replace existing equipment, we were able to select and install the most suitable type and capacity of equipment, considering the past operation results.

Main differences between Renewal vs Existing

Equipment	Installation Site	Existing	Renewal
Chiller	Shopping Center	Cooling capacity: 900RT/unit	Cooling capacity: 720RT/unit
	Office Tower I	Non-Inverter type	Inverter type
Air Conditioner	Shopping center	Non-Inverter type Single-split air-con	Inverter type Multi-split air-con
	Shopping Center Annex		

3-1. Achievements

✓ Subsidy through JCM Model Projects allows for large-scale renewal

- STS has been installing energy-saving equipment that is highly profitable with a quick return on investment expected.

  E.g. LED lights, Inverters for ventilation fans

- This project is large-scale equipment renewal and requires significant investment costs, but **subsidy promoted the realization of project implementation**.

✓ Contribution to sustainable urban development in Indonesia

- Introducing advanced equipment with low environmental impact and maintaining them for 15 or 17 years will **contribute to reducing the frequency of construction work** with high environmental impact.
- Senayan Square is the landmark of Jakarta, and it is expected to have a **spread effect to other cities and buildings in Indonesia by becoming a "Long-Life Model Project"** for urban development that reduces environmental impact in the building lifecycle.

3-2. What is Important to Succeed as JCM Model Projects

✓ **Close and constant communications between Representative Participant and Local Partner**

- Since JCM Model Projects have a fixed project period, the project needs to be implemented smoothly.
  - ➢ Discuss and develop a detailed plan in the consortium at the launch phase of the project.
  - ➢ Share information about problems and manage risks together during project implementation phase.

- JCM Model Projects require long-term monitoring.
  - ➢ Chillers and air conditioners need to be monitored for 15 years and Solar Power System need to be monitored for 17 years (based on Japanese legal durable years).
  - ➢ Build sustainable monitoring systems and continuous cooperation between Representative Participant and Local Partner