

Press Release



New Energy and Industrial Technology
Development Organization

[http://www.nedo.go.jp/english
/index.html.jp](http://www.nedo.go.jp/english/index.html.jp)

July 4, 2011

Demonstration Project for Energy-efficiency in a Commercial Building in Thailand —The Project Aims to Promote the Dissemination of Energy-efficiency Technologies in Commercial Buildings—

The New Energy and Industrial Technology Development Organization (NEDO) has agreed to carry out a commercial building energy-efficiency demonstration project at the Amari Watergate Bangkok, a hotel situated in Bangkok, the Kingdom of Thailand. NEDO and Department of Alternative Energy Development and Efficiency (DEDE), Ministry of Energy of Thailand, signed a Memorandum of Understanding concerning this demonstration project on June 22. NEDO has entrusted the implementation of this demonstration project to Chugoku Electric Power Co., Inc. The project is expected to improve the building's energy-efficiency by about 15% by replacing existing facilities, such as air-conditioning systems with technologically advanced Japanese equipment and facilities. The project will commence this year and is scheduled to last two years. The budget for this project is approximately 340 million yen.

Using this project to establish a foothold, NEDO aims to promote the dissemination of commercial building energy-efficiency technologies throughout Southeast Asia.

1. Project Overview

In order to reduce energy consumption at the Amari Watergate Bangkok, located in the heart of Bangkok, advanced Japanese energy-efficiency technologies will be installed in the hotel. The goal is to promote the dissemination of the project's technologies by attaining tangible energy-efficiency results and quantifying such results through the project.

By identifying the energy-efficiency impact of each specific technology, it will be possible for building owners to select appropriate equipment and facilities by analyzing cost-effectiveness, thus the project is expected to significantly contribute to reducing energy consumption in commercial buildings.

(1) Technology

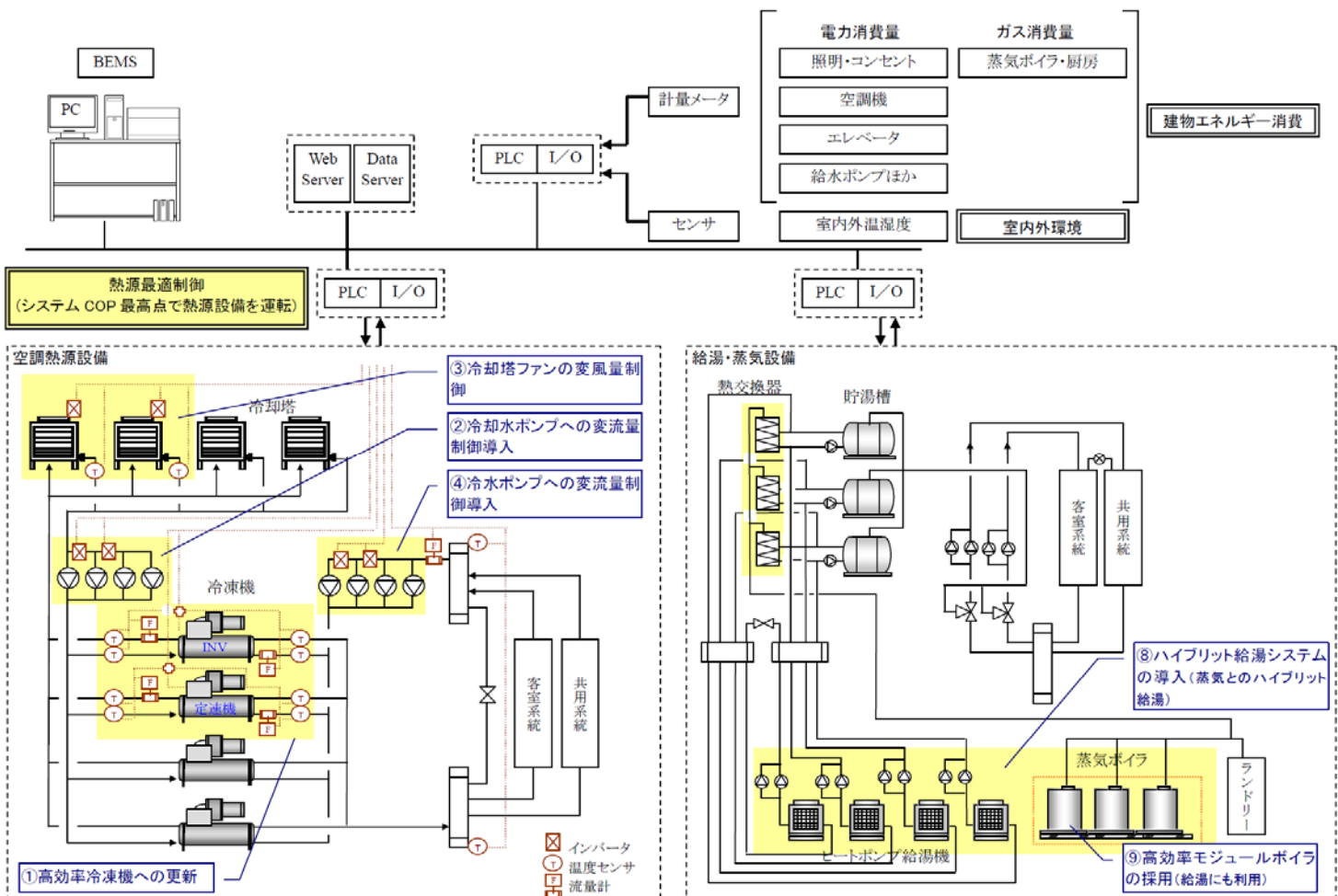
The following are the main technologies and equipment that will be introduced in the project:

- Upgrade current turbo-refrigerator with a high-efficiency inverter-driven turbo-refrigerator
- Introduce inverters into cold water and cooling water pumps and implement variable flow controls
- Introduce cold air intake optimization controls via CO₂ concentration sensors
- Adopt a hybrid water heater system that includes a heat pump water heater and a vapor heat exchanger
- Introduce vapor waste heat recovery equipment
- Upgrade steam boiler with a more efficient model
- Install LED downlights
- Promote optimal energy management and operations through the introduction of BEMS

(2) Project duration and budget

Project period: FY2011 – FY2012 (2 years)

Project budget: Approx. 340 million yen (NEDO's portion: Approx. 300 million yen)



Conceptual diagram of energy-efficiency measures at a commercial building

2. Contact Persons:

Mr. Hayashi, Energy and Environment Policy Department, NEDO

Tel: +81-44-520-5284

Mr. Yamashita, International Affairs Department, NEDO

Tel: +81-44-520-5190