Demonstration Projects with the Aim of Developing
Joint Crediting Mechanism FY2013

JCM Demonstration and Verification Project

Promotion Of Green Hospitals By Improving Efficiency / Environment In National Hospitals In Vietnam

New Energy and Industrial Technology Development Organization (NEDO)
Mitsubishi Electric Corporation, Ltd., Mitsubishi Corporation,
Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.

JCM Demonstration Project Promotion of "Green Hospitals" by improving efficiency/environment in national hospitals in Vietnam (2013～2015)

Outline of the Project

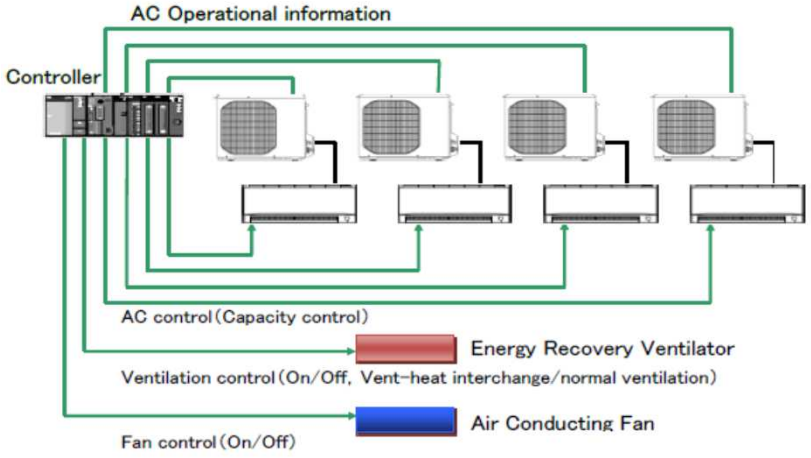
In this demonstration project, high efficiency performance inverter ACs, in compliance with the energy efficiency rating standard in Vietnam, will be introduced in two state-owned hospitals, one located in Hanoi and another in Ho Chi Minh City. Not only will the inverter ACs be installed, but the energy management system (EMS) will be developed and installed to enhance the energy efficiency of the entire hospital. Together with EMS, improving the ventilation will lead to a better indoor air quality, thus contributing to changing these hospitals into environmental friendly "green hospitals". As a JCM Project, one year monitoring will be performed and the amount of CO2 emission reduction as well as energy efficiency effect will be verified.

Implementing Company (JAPAN)	Mitsubishi Electric Corporation Mitsubishi Corporation Mitsubishii UFJ Morgan Stanley Securities
Project Site	TVCI/IEMM(Hanoi) People's Hospital 115(Ho Chi Minh City) Viet Doc Hospital(Hanoi)
Counterpart Ministry	MOIT
Targeted GHG Emission Reduction	574t-CO_2/Y

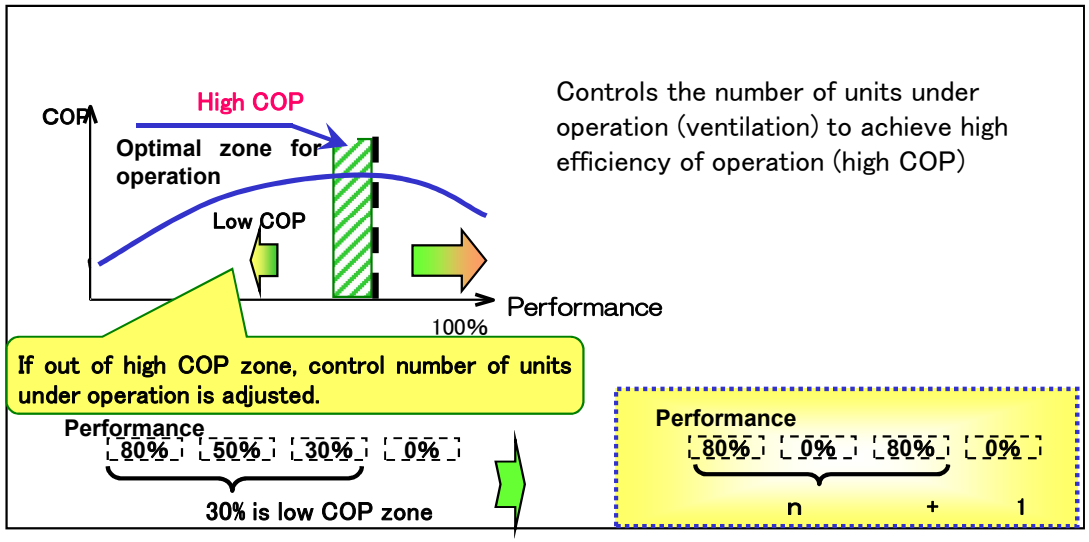
Summary of Introduced Technologies

EMS for RAC

In the multiple AC system commonly used in Japan, each indoor unit is optimally controlled in tune with its operation conditions. However, in most hospitals in Vietnam where individual RACs are still used, EMS is yet to be introduced. By collecting data on operation condition (frequency, current, piping temperature, air speed, etc.), performance is assessed and optimal operation control of each unit is realized.



Development of EMS for RAC



Controls the number of units under operation (ventilation) to achieve high efficiency of operation (high COP)

Effectiveness assessment using balanced room type ambient calorimeter

Accurate and transparent effectiveness assessment of the performance is to be realized by using balanced room-type ambient calorimeters.