

# Kitakyushu City's Challenge toward a Low-carbon Society

## 北九州市の低炭素社会へのチャレンジ

### — Kitakyushu Smart Community Creation Project —



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Energy Visualization  
Smart management by citizen

エネルギーを見える化し、  
まち全体で賢くマネジメント。

KITAKYUSHU  
SMART  
COMMUNITY



Optimization of supply and demand of regional electric power by CT (City Energy Management System (CEMS))

Smart community center in the Kyushu Human Media Creation Center

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コジェネ・水素・太陽光・風力etc.  
多様なエネルギーを上手につかひこなす。

Cogeneration, hydrogen, sunlight, wind power, etc.  
Make smart use of a variety of energy

KITAKYUSHU  
SMART  
COMMUNITY



Backbone power of Higashida Area using natural gas



Fuel cell of the hydrogen demonstration house (Higashida H2)



Kitakyushu hydrogen station



Wind-power generation of Kitakyushu Environment Museum



Photovoltaic generation panels installed on roofs of museum, company dormitory and condo in the Higashida street

## スマート スポット SMART SPOT



Smart icons

- Community Energy Management System
- Home Energy Management System
- Building Energy Management System
- Factory Energy Management System
- Hydrogen Utilization Facilities
- Solar Power
- Solar Thermal Utilization
- Earth Thermal Utilization
- Wind Power Generation
- Personal Storage Battery
- Community Stationary type of Storage Battery
- Electric Car
- Car Sharing
- Bike Sharing
- Tree Planting
- Water Utilization
- Place for sharing Knowledge and experiences

# International Environmental Cooperation (Indonesia)

## 国際環境協力(インドネシア)

A joint statement was made in March 2011 on a strategic environmental partnership between **Surabaya** and Kitakyushu.



(Left: The Honorable Tri Rismaharini, Mayor, City of Surabaya)

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# Export Of Green City (Case: Surabaya City)

## グリーンシティの輸出(スラバヤ市)

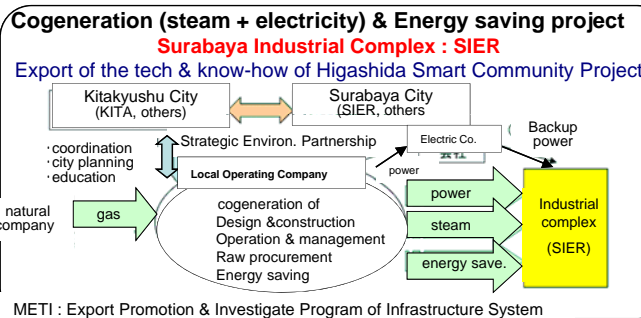
### Waste Treatment

Request of support from Surabaya to design a waste treatment project, and study feasibility of resource recovery from waste to make better living of scavenger (JICA · OP Project)



### Effluent Treatment (Riverine Purification)

Draw up a master plan on the effluent management of tributaries of Karimasu River focusing around Gundy area. Promote and expand distributed effluent treatment systems controlled by citizen in the model community. Construction and administrative operation of medium sized treatment facilities now in operation (JICA Grassroots Cooperation Project)



### Study of qualification method of CO2 reduction

Study of qualification method of potential CO2 reduction in projects done by Surabaya City (IEGS)

### Purification of tap water

Study of a secure and safe water supply business by installing water filtering systems in the community for unsuited tap water (JICA · BOP Project)



### Drinking water supply business by PV and compact sized desalination system

Supply weak infrastructure area of electricity & water with low-cost clean drinking water by water purification system equipped with PV and desalination capability of TORAY and Suidokiko. Build a manufacturing & maintenance center of the drinking water supply system. (JICA · BOP Project)



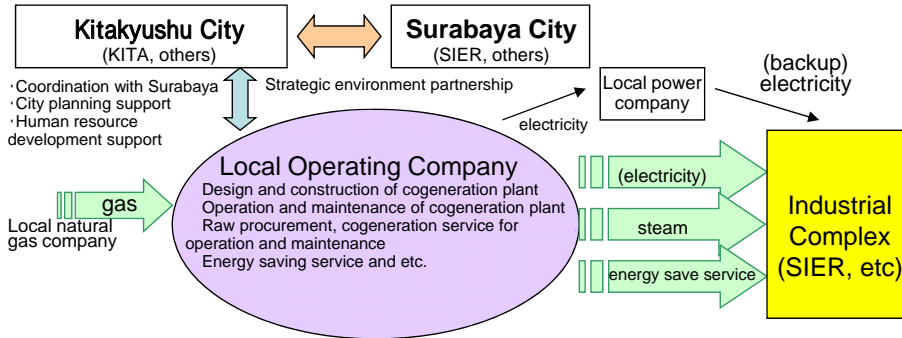
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# Indonesia Surabaya Industrial Complex Cogeneration & Energy Save Project

インドネシア・スラバヤ工場団地  
コジェネとエネルギー-保全プロジェクト

**Nippon Steel Engineering, Fuji Electric, NTT Data institute of Management Consulting**  
 Adopted by METI “Infrastructure System Export Promotion Study Project”  
 (Feasibility Study of Smart Community Business in Global Market) (3/2012 ~)

Master planning on sophisticated environment & energy (Surabaya Industrial Complex: SIER)  
 Then, export the technology & know-how of Yahata Higashida Smart Community Project  
 Feasibility study on formation of a local operating company servicing energy supply and saving;  
 · High quality and high efficiency electricity & heat supply (cogeneration business)  
 · Combined energy management service in combination with electricity & heat supply service and energy saving service to each factory in the industrial complex  
 · Deployment of advanced treatment service on the discharged water and waste from around the industrial complex



**Surabaya Industrial Complex**  
 \* Investment: Indonesia Govt.=50%, East Jawa =25%, Surabaya City=25%  
 \* About 300 companies in the industrial complex (about 300ha) run by SIER operating company.



**Aim to be the first overseas export of the Kitakyushu Smart Community Project.** A success model of the Project in Surabaya City to disseminate and expand to Asian countries troubled with the similar problems (supply deficiency and low quality electricity)