Okinawa's efforts towards a Smart Energy Island

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The targets of Okinawa's energy policy

- 1. Decreasing dependency on fossil fuels
- 2. <u>Diversifying sources of energy supply</u>
- 3. Improving energy self-sufficiency rate



Deployment of the strategic energy projects for achieving the aforementioned targets

- (1)Constructing large-scale mega-solar generation facilities on each island of Okinawa
- (2) Promoting micro-grids
- (3) Introducing natural energy suited to remote islands
- (4) Promoting electric vehicles
- (5) Promoting biofuels
- (6) Promoting the utilization of natural gas
- (7) Supporting research for the utilization of unused energy



Overview of Okinawa Smart Energy Island Projects

- Electricity industry (renewable energy)
- Construction industry (eco-house)
- Automobile industry (EV)
 Industrial Promotion

- Information and communication industry (Energy management)
- Manufacturing industry

(Photovoltaic, Wind-power)

Transportation industry

(EV bus & tax)

Smart Energy Island Projects (2012-2015)

Urban Planning

Regional Diplomacy

- Urban development consisting of energy saving houses, apartments and buildings
- New transportation system with EV bus,
 EV car-sharing

- Deployment in the Pacific region,
 e.g. parts supply & personnel training
- Deployment of businesses in China and South-east Asia



<u>Demonstration of</u> <u>deploying photovoltaic and wind-power generation</u>

In the northern part of the main island of Okinawa

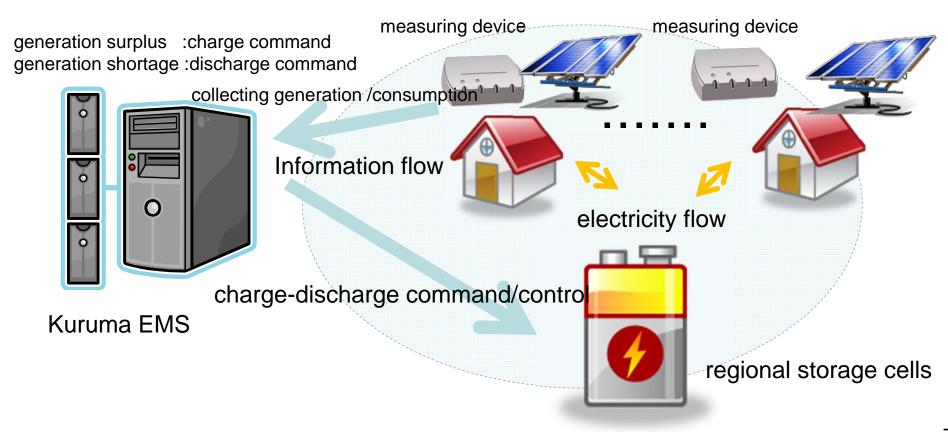
- 1. Installing the 1MW photovoltaic plant and the 4MW wind-power plant
- 2. Testing the electric power stabilities of renewable energy in connection with power grids by using storage batteries
- 3. Establishing necessary technologies that enable to connect an expanded 25MW wind-power plant with power grids.





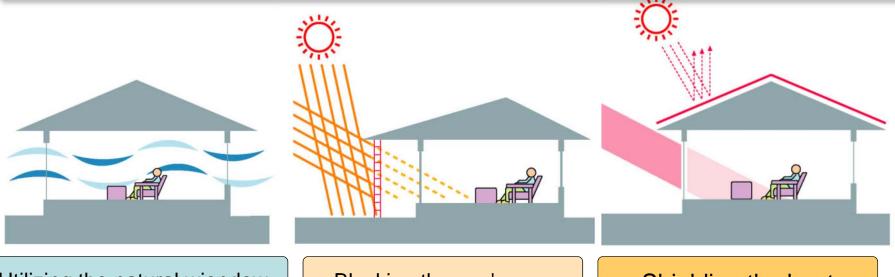
Overview of the Micro grid system in Miyako island

Local production for local consumption: 100% self-sufficient



Demonstration of energy-saving houses suited to a subtropical region

- 1. Review of the concepts and guidelines regarding energy-saving houses suited to a subtropical region
- 2. Demonstration test on energy-saving houses suited to a subtropical region
- 3. Promotion and personnel training regarding energy-saving houses suited to a subtropical region



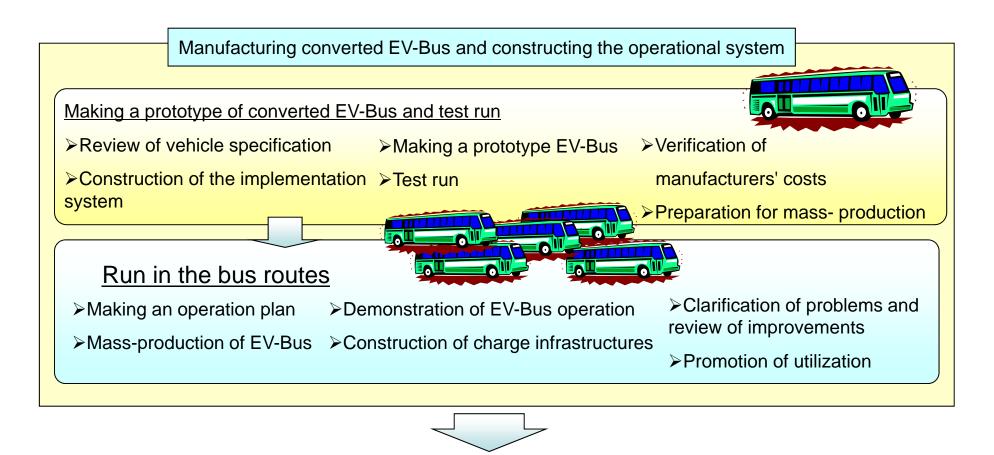
Utilizing the natural wiondow

Blocking the sun's rays

Shielding the heat



Demonstration projects of manufacturing converted EV-Bus and constructing the operational system



Expansion of EV-convert projects by local companies and access to the EV- market, Reduction of pollution in Bus-transportation and Increase in the number of EV users