

1. Roles of the nine Japanese companies participating in the Project

Shimizu Corporation:

Design and establishment of overall micro grid system, building energy management system (BEMS) and heat storage air-conditioning system; management and verification of entire system

Toshiba Corporation:

Design, establishment and performance verification of smart grid's energy management system (utility side)

Sharp Corporation

Design, procurement and performance verification of photovoltaic power generation system

Meidensha Corporation

Design, procurement and performance verification of power control system (PCS) for photovoltaic power generation

Tokyo Gas Co., Ltd.

Design, establishment and performance verification of distributed power source management method

Mitsubishi Heavy Industries, Ltd.

Design, manufacture and performance verification of gas-engine power generator and its control system

Fuji Electric Co., Ltd.

Design, procurement and performance verification of fuel cells

Furukawa Electric Co., Ltd.

Design, procurement and performance verification of battery management system

The Furukawa Battery Co., Ltd.

Design, procurement and performance verification of battery

2. Outline of commercial building used for the Project

Name: Mesa del Sol Aperture Center
Location: Albuquerque, New Mexico, USA
Owner: Mesa del Sol (master-planned community)
Scale: Site area: 15,000m², building area: 2,500m², total floor area: 7,000m²
(three stories)

3. Configuration of micro grid power system:

Photovoltaic power generation system: 50kW
Gas-engine generator: 240kW
Fuel cells: 80kW
Battery: 90kW (160kWh)