

Japan: Panahome-city Seishin-Minami

BIODATA

PV community name:	Panahome-city Seishin-Minami
Kind of urban area:	Residential – urban
Main building type in community:	Houses - single houses
New/Retrofit/Added:	New district/community – building integration
Type of project:	Commercial project
Start of operation:	Year 2004
City, state, etc.:	Nishi, Kobe, Hyogo
Country:	Japan
Latitude:	N34 42' 22"
Longitude:	E135 1' 41"

PV SYSTEM CHATACTERISTICS

Total PV power:	299 kW
Number of houses/buildings:	100 houses
PV power per unit:	3 kW/house
Energy yield per year:	-
Main PV system type:	Grid-connected - demand side
Main PV application type:	Inclined roof – mounted (31 houses), integrated: PV roof tiles (69 houses)
Main PV module type:	Framed regular module (31 houses), PV roof tile (69 houses)
Main PV cell type:	Crystalline silicon – multi
PV module manufacturer/brand:	Kyocera corporation
Inverter manufacturer/brand:	Kyocera corporation
Investment for PV systems:	-

OWNERSHIP

Building owner:	Inhabitant
PV owner:	Inhabitant
PV energy user:	Inhabitant



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PV COMMUNITY DESCRIPTION

PV Community Brief

Panahome-city Seishin-Minami is a community located in the Seishin-Minami new-town developed by Kobe city and about 30 minutes from center of Kobe-city. The area is 18 000 m² in total and consists of 100 house compartments.

PanaHome corporation, which is one of the biggest housing companies in Japan and is a main constituent of the PV community, is dealing with a eco-life house, named 'El Solana', pursuing the concept of 'Energy creation', 'Energy conservation' and 'Safety'. The El Solana is equipped with a PV system and 'SAMURAI' developed by Kyocera corporation is on the roof as PV modules.

A concept for developing the area was 'A human- and environment- friendly town' and this was realized by developing the eco-life houses' area.

Grid issue

The electricity distribution line in the area was designed and constructed by the utility company (the Kansai Electric Power Company).

As a countermeasure of electric power failure caused by the earthquake, a power-conditioner having a function of autonomy-operation mode was adopted for the PV system.

Urban planning and architectural issues

Seishin-Minami new-town is developed as a new urban development project of Kobe city. For a development of a residential area by the private sector, a competition was conducted and PanaHome corporation was one of the developers that the plan proposed was approved.

To create a well-designed appearance of the houses and a harmonized streetscape as a community, the houses were designed with a variety of color tones and configurations. The PV roofs were required to harmonize with the design. The shape of the roof was designed for 3kW a PV system.

Economic / financial issues

A governmental subsidized program for residential PV systems was available for PV system installation. After starting operation, a net-metering scheme was applied so that surplus PV is traded between the inhabitant and the utility company, at the same price of the residential electric tariff.

Other remarks

Based on the concept, 'Ecology & Safety', all housed are equipped with a rain water storage tank and a home security system in addition to the PV system.

Some houses are all-electric and equipped with a high-efficiency electric water heater, called "Eco-Cute", and others were equipped a gas co-generation system, called "Eco-Will".

COMMUNITY INFORMATION

Project leader company: PanaHome corporation

Other project company: Kyocera corporation

Project's www: -

Contact address: Kyocera Solar corporation

<http://global.kyocera.com/prdct/solar/index.html>