

Heat Pump Awards 2026

Application submission

Ventura Verde Residential Development

Panasonic | Building Solutions Award

1. Application overview

Award category	Building Solutions
Title of the project	Ventura Verde Residential Development
Organisation Name	Panasonic
Exact address of the project	Nadarzyn, Stara Wieś, ul. Grodziska - Ventura Verde
Funding	Private
Organisations involved in the project	CIEPŁE INSTALACJE Sp. z o.o. Adam Kwiatkowski
Project ending date	01/06/2025
Project website	No answer provided.
Sector of application	Residential

2. Applicant & EHPA contact details

Full name	Weronika Woch
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Phone number	48538816199
EHPA member involved	None
Role of EHPA member	None

3. Project description and benefits

Project description (goal, problem addressed, and solution provided by the heat pump)

Ventura Verde is a modern residential development of semi-detached and terraced houses in Stara Wieś near Warsaw. The project combines energy-efficient construction with photovoltaic systems, Panasonic heat pumps, smart-home technologies, monitoring, recreational areas and EV charging facilities. The current phase includes approximately 160 homes equipped with heat pumps.

Expected or achieved benefits

The project provides an energy-efficient and space-saving heating and domestic hot water solution for a large residential development. Panasonic Aquarea heat pumps combine heating and hot water production in a compact All-in-One system, while their high efficiency helps reduce the electricity required for daily operation. The solution also supports the development's broader low-energy concept, which includes photovoltaic systems, smart-home technologies and energy monitoring.

Obstacles/barriers encountered during development

None

Why should this project win an award?

The project demonstrates how Panasonic Aquarea heat pumps can be successfully implemented on a large residential scale, combining energy-efficient heating and domestic hot water production with compact, space-saving technology. With approximately 160 homes already equipped and plans for further expansion, Ventura Verde shows the potential for scalable low-carbon heating solutions in modern residential developments.

4. Technical specifications

Capacity of unit(s)	5 kW 7 kw 9 kW
Energy sources used	Air to air
Coefficient of Performance (COP)	For 5 kW - COP 5,1 For 7 kW - COP 4,86 For 9 kw - COP 4,55
Service provided	Heating and domestic hot water
Refrigerant type	R32

Heat pump details (compressor technology, heat exchanger, system configuration)

The project uses Panasonic Aquarea High Performance Generation K All-in-One heat pumps in 5 kW, 7 kW and 9 kW variants (KIT-ADC05K3E5, KIT-ADC07K3E5 and KIT-ADC09K3E5). Each system consists of a single outdoor unit and a single indoor All-in-One unit with an integrated 185-litre stainless-steel domestic hot water tank. The systems use inverter compressor technology and R32 refrigerant. Heat is transferred through a plate heat exchanger on the water side. The systems operate as individual single-unit systems; no series or parallel connection between multiple heat pumps is used.

5. Renewable energy integration and grid response

Integration of renewable energy sources

Photovoltaic systems were not included as standard but could be purchased individually by homeowners.

Response to energy demand / smart grid integration

The system responds to heating and domestic hot water demand through the inverter-controlled Aquarea heat pumps, adjusting operation to the building's current requirements. The development also includes smart-home technologies and energy monitoring, supporting more efficient management of energy use. Photovoltaic systems are available as an optional addition for individual homeowners. No specific smart-grid or demand-response strategy was reported as part of the standard installation.

6. Innovation, monitoring and replicability

General (all awards)

Why the project is innovative *(all awards)*

The scale of the project is innovative, with plans for approximately 500 terraced and semi-detached homes equipped with heat pumps.

Monitoring approach (performance, cost, and carbon targets) *(all awards)*

No answer provided.

For Large Heat Pump or Building Solutions Award

Why the project serves as a model for others *(Large Heat Pump or Building Solutions Award)*

No answer provided.

Potential for expansion to other locations/industries *(Large Heat Pump or Building Solutions Award)*

The concept is applicable to large residential developments of detached, semi-detached and terraced homes.

Barriers to replication elsewhere *(Large Heat Pump or Building Solutions Award)*

No answer provided.

Business opportunities for expansion, licensing, or commercial production *(Large Heat Pump or Building Solutions Award)*

No answer provided.

For Innovation Award

Technology/technique developed solely for this project *(Innovation Award only)*

No answer provided. (Innovation Award section — not applicable to this application.)

Differentiation from state-of-the-art solutions & market maturity *(Innovation Award only)*

No answer provided. (Innovation Award section — not applicable to this application.)

Regional benefits (energy savings, emissions, jobs, infrastructure) *(Innovation Award only)*

No answer provided. (Innovation Award section — not applicable to this application.)

Commercial potential *(Innovation Award only)*

No answer provided. (Innovation Award section — not applicable to this application.)