

Heat Pump Awards 2026

Application submission

7 Multi-Family Residential Units

Panasonic Heating & Cooling | Innovation Award

1. Application overview

Award category	Innovation
Title of the project	7 Multi-Family Residential Units
Organisation Name	Panasonic Heating & Cooling
Exact address of the project	40 Rue du Capitaine Ferber, 75020 Paris
Funding	Private
Organisations involved in the project	Aeroclim (installer)
Project ending date	01/12/2025
Project website	No answer provided.
Sector of application	Residential

2. Applicant & EHPA contact details

Full name	Roxane Nicolas
Email address	roxane.nicolas@eu.panasonic.com
Phone number	33619482892
EHPA member involved	Panasonic Heating & Cooling
Role of EHPA member	Heat Pump Solutions provider

3. Project description and benefits

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

A collective heating solution consisting of two high-temperature air-to-water Big Aquarea T-CAP M Series R290 heat pumps installed in cascade to provide central heating for a condominium of seven apartments, replacing the existing oil boiler.

Expected or achieved benefits

This project demonstrates that it is easy to replace an old oil boiler with high-capacity heat pumps in a historic Parisian building, even in a protected heritage district (La Campagne à Paris).

Obstacles/barriers encountered during development

The main challenge of this project was to connect the hydraulic network of the 2 cascaded heat pumps, installed on the rooftop terrace, to the hydraulic distribution system located in a technical room in the building's basement, without requiring major construction work. The challenge was successfully overcome by routing all hydraulic connections through the existing chimney shaft. This approach was proposed by the installer, Aéroclim, primarily for aesthetic reasons.

Why should this project win an award?

This project is innovative because, for the first time in Paris, Panasonic successfully replaced an oil boiler with 2 BIG Aquarea T-CAP heat pumps installed in a cascade configuration. This solution has decarbonized the building's heating system while providing a more cost-effective heating solution. Thanks to the T-CAP technology (which maintains heating even with low temperatures outside), residents' comfort has also been significantly improved. The ageing hydraulic system meant that heating performance was less effective in the apartments located on the upper floors. Now, even tenants living on the fifth floor benefit from efficient and comfortable heating.

4. Technical specifications

Capacity of unit(s)	40 kW
Energy sources used	electricity
Coefficient of Performance (COP)	4,80
Service provided	Heating
Refrigerant type	R290

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

Big Aquarea T-CAP M Series: flexible, compact and energy-efficient solution

- Units from 20 to 30kW, up to 300kW in cascade
- Up to 75°C water outlet
- Quiet operation
- T-CAP technology: Maintains output at 55°C down to -15°C
- Operation down to -25°C outdoor temperatures
- Hot water production at 65°C with compressor only
- Easy replacement of other heating sources and integration into existing water systems
- Flexible control options and seamless Modbus integration
- Panasonic Inverter compressor

5. Renewable energy integration and grid response

Integration of renewable energy sources

No answer provided.

Response to energy demand / smart grid integration

There is no such system.

6. Innovation, monitoring and replicability

General (all awards)

Why the project is innovative *(all awards)*

This project is innovative because, for the first time in Paris, Panasonic successfully replaced an oil boiler with 2 BIG Aquarea T-CAP heat pumps installed in a cascade configuration. This solution has decarbonized the building's heating system while providing a more cost-effective heating solution. Thanks to the T-CAP technology (which maintain heating even with low temperatures outside), residents' comfort has also been significantly improved. The ageing hydraulic system meant that heating performance was less effective in the apartments located on the upper floors. Now, even tenants living on the fifth floor benefit from efficient and comfortable heating.

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

An Aquarea Smart Cloud has been installed, it allows to measure performance and cost.

For Large Heat Pump or Building Solutions Award

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

This project demonstrates that it is easy to replace an old oil boiler with high-capacity heat pumps in a historic Parisian building, even in a protected heritage district (La Campagne à Paris).

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

The project is fully replicable. There are many historic buildings in Paris and throughout France, particularly in historic city centers, that are still equipped with old oil boilers and will need to be retrofitted in the coming years.

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)*

According to INSEE, 2.6 million primary residences in France were still using oil heating systems in 2022. Around 3% of apartments are estimated to rely on oil boilers, representing an addressable market of approximately 200,000 to 300,000 dwellings.

Source : <https://www.insee.fr/fr/information/8722003>

For Innovation Award

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

No

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

In this project, the challenge was successfully overcome by routing all hydraulic connections through the existing chimney shaft. This approach was proposed by the installer, Aéroclim, primarily for aesthetic reasons. Adopting this approach on a large scale, in existing building already equipped by fuel heating solution could be interesting.

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

No answer provided.

Commercial potential *(Innovation Award only)*

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