Technology Collaboration Programme
by iea

Heat Pumping Technologies
MAGAZINE
Heat Pumps for All: How to Extend the Working Envelope of Heat Pumps
Vol.42 Issue 2/2024
A HEAT PUMP CENTER PRODUCT

National Market

France: Heat Pump Market Report

DOI: 10.23697/x102-cy46

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In recent years, the thermodynamical systems market in France has been influenced by economic challenges and technological advancements, and sales have increased in the last decade. The economic situation, international context, and evolving government policies have resulted in heat pump sales slowing down in 2023, especially in new buildings. However, government objectives and a focus on energy efficiency provide support. Technological innovations in these systems continue, and future growth is anticipated.

Introduction

The market for thermodynamical systems in France has experienced significant shifts due to various economic, political, and technological factors. Over a long period of time, the Heat Pump (HP) market in France saw an important evolution, specially in 2008, 2013-2014, and 2021, due to the global energy crisis, energy performance of building regulation (RT2012), and post-Covid boom. The reader is advised to refer to the issue No.2/2018 of the HPT Magazine, pages 18-21, for interesting insight on the Heat Pump Market in France from 2008 to 2018 [1].

This document explores the current state of the market, the impact of recent economic conditions, technological advancements, and the outlook for future growth.

Market Overview and Trends

The French market for thermodynamical systems has been notably impacted by economic challenges. High inflation rates, decreased purchasing power, and rising loan rates have led to a slowdown in the new building sector, consequently reducing the demand for new HPs and other thermodynamical systems. Despite these challenges, the market is driven by a strong focus on energy efficiency and sustainability.

On the one hand, inflation and high interest rates have significantly impacted the market for new constructions, leading to a reduction in the installation of new thermodynamical systems. This phenomenon is also fueled by the implementation of energy performance and environmental regulation RE2020, a strict regulatory framework that leads to increases in construction costs. In 2023, the construction of new housing in France fell by 22% compared to the previous year, while building permits granted dropped by 24% during the same period. On top of this, according to the forecasts, construction starts should decline by 16% year-on-year in 2024, while building permits issued would decrease by 12% [2].

Commented [FD1]: En + le neuf est impacté par l'application de la RE2020. Ce cadre réglementaire strict entraine des hausses des couts constructifs qui freinent les primo accédant à la propriété.

On the other hand, the renovation market is facing challenges due to evolutions in support schemes.

Some of the French Government Incentives and Support Schemes are:

- MaPrimeRénov'
- Eco-PTZ (Eco-Loan at Zero Interest)
- Local and Regional Grants
- Heating Boost (*"Coup de pouce chauffage"):* Boost to replace old fossil boilers, frame of Energy Savings Certificates (CEE)
- The energy check for low-income families
- VAT Reduction: Reduced VAT rates for energy renovation works

In 2023, evolutions on MaPrimeRénov have had a negative impact on the heat pump market: the scheme that aims at existing buildings used to target comprehensive as well as single upgrades. But in 2023 it has shifted focus towards comprehensive energy renovation projects, leaving small room for the sole replacement of the heating and hot water production system. Additionally, higher-income households have seen reduced or eliminated eligibility for certain grants, further shrinking the market base.

This market report shows in numbers the actual situation of HP sales in France. The information has been compiled from Uniclima's Press Release of 2016, 2019, 2021 and 2023 [3].

Air-to-water heat pumps

Air-to-water heat pumps have seen significant advancements aimed at improving efficiency and reducing environmental impact. They are favoured for their easier installation, especially in France, where hydronic heating is widespread.

As seen in Figure 1, the air-to-water heat pumps market has seen an important evolution in recent years, with a peak of 355,000 units sold in 2022. The important increase of AWHP sales observed in 2019 was notably the consequence of financial incentives from the government and energy suppliers as part of the renovation of old heating systems with a more efficient system and/or using renewable energy (Heating Boost scheme).

After the market stability observed between 2019 and 2020 linked to the Covid health crisis, the market was strongly boosted by financial aids in energy renovation (Heating Boost and MaPrimeRenov') and the promotion of HPs in the new residential market, mainly in individual housing. Indeed, 2020 marked the beginning of the MaPrimRenov' scheme, subsiding up to 90% of the total operation cost for lower-income families.

In 2023, sales of air-to-water heat pumps are 14% down compared to 2022. However, they remain at a higher level than 2021.

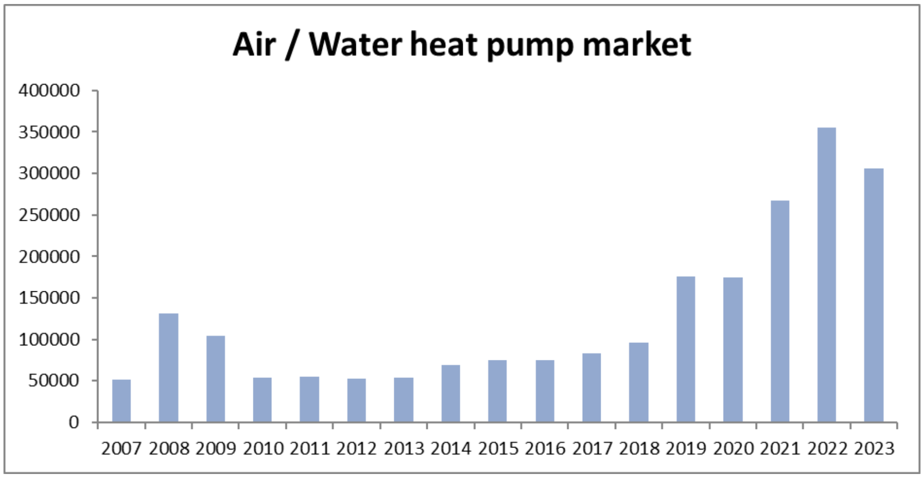

Figure 1: Sales of air to water heat pumps (in number of units).

Ground source heat pumps

Figure 2 depicts how this segment has been slowing down since 2008 due to alternatives with a lower initial investment. However, in 2019 a shift was observed in the tendency, probably due to the promotion of this technology by the government, professional unions, associations, and manufacturers.

In 2023, with 3,500 units sold (+18% compared to 2022), water/water-type heat pumps remain a small market in France. However, this market has not seen such a level since 2013. It benefits from recalibrated public aid like the evolutions on the Heating Boost scheme ("*Coup de pouce chauffage*"). Manufacturers note that all power segments are progressing, specially ground source HP of 20 to 30 kW (+47%).

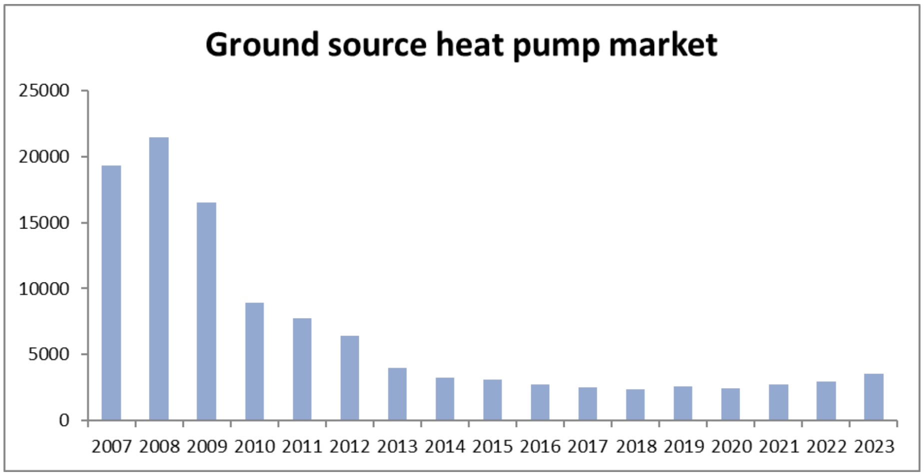

Figure 2: sales of ground source heat pumps (in number of units).

Air-to-air heat pumps

Air/air heat pumps confirm their relevance in terms of energy efficiency and decarbonization.[1] In new buildings and renovations, particularly in replacing Joule heating systems, the requirements of French building regulation RE2020 must be met. Although a stabilization in recent years is observed, as shown in Figure 3, the outlook remains good for this equipment as distribution stock seems to correspond to trends in the installation market, and public aid has a relatively small impact on sales.

[1] In France, electricity production is 92% decarbonized [4].

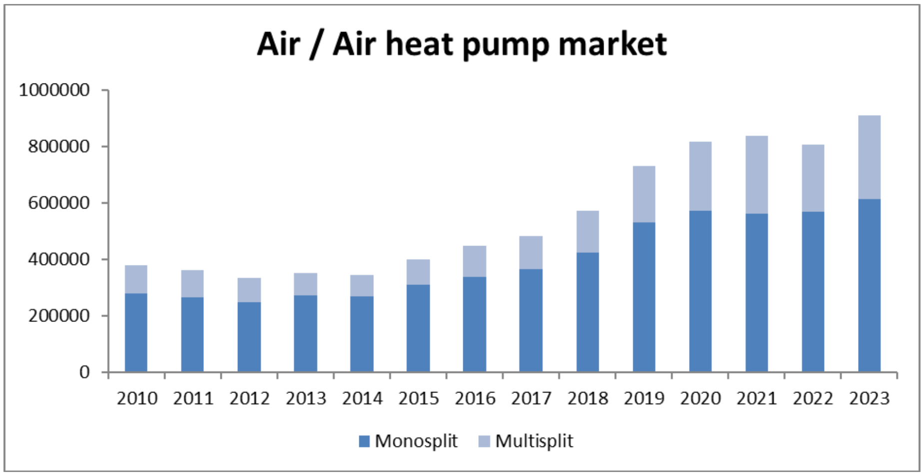

Figure 3: Sales of air-to-air heat pumps (in number of units).

Heat Pump Domestic Water Heaters

Heat pump water heaters are increasingly preferred due to their high efficiency and reduced environmental impact. They offer substantial energy savings over traditional electric water heaters.

Figure 4 shows that in 2021, the market grew 29% compared to 2019, which is the consequence of a catch-up effect in deliveries of individual houses (a consequence of delays accumulated in 2019 and 2020 during lockdown periods).

Recent growth in this market segment is supported by government incentives promoting renewable energy in residential settings.

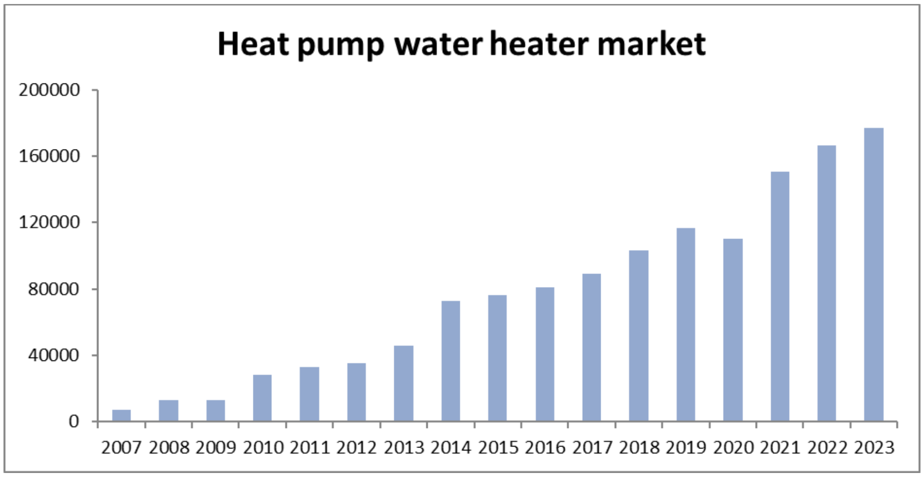

Figure 4: Sales of heat pump water heaters (in number of units).

Perspectives

Manufacturers estimate that the decline in new construction is only starting to be felt in 2023 but is expected to increase in 2024. It is, therefore, the renovation market that has decreased in 2023 due to the economic situation and the vagueness and complexity of public aid for renovation.

The scheme MaPrimeRenov' is going through additional evolutions: the government recently re-accepted single upgrades as well as comprehensive projects, at least until the end of 2024. Moreover, in April this year, the government has announced that the scheme will be reserved to European heat pump systems from 2025 [5].

Although political instability could change in the near future, the French government is committed to its energy transition goals. For instance, on April 15, 2024, the French Government unveiled the action plan aimed at producing 1 million heat pumps by 2027 in order to reduce France's dependency on fossil fuels.

Conclusions

While the Heat Pump market in new buildings will face slow progression or maybe even stagnation in the following years, the priority must be given to the renovation market. But this market requires simplicity and stability regarding the renovation support systems and schemes which hasn't been the case in France.

In conclusion, the French thermodynamical systems market is navigating a complex landscape shaped by economic challenges, regulation requirements, technological innovations, and ever-evolving government policies. By leveraging government incentives and promoting the benefits of these systems, stakeholders can foster greater adoption and contribute to France's environmental and energy efficiency goals.

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