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National Market

Italy: Heat Pump Market Report

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An updated overview of the Italian heat pump market is described in this article, ranging over the last 15 years, during which its position in the European context was maintained among the highest. Despite the recent slowdown, the heat pump sector is very lively, since familiarity with these machines is spreading even among the non-specialist public. Looking to the future, it is crucial that the reliability of investments in heat pumps, both on the manufacturers' and final user sides, is guaranteed. This can be achieved by a more stable framework of incentives aimed at the renewal of domestic heating and cooling systems. Additionally, economic support tools are needed to contain the effects of price fluctuations in electricity prices on international markets.

Introduction

During the presentation of the annual review regarding statistical data on space heating and cooling equipment at Mostra Convegno Expocomfort held in Milan last spring, [1] the president of Assoclima, Maurizio Marchesini, commented on the results, noting that 2023 was a year contrasted and characterized by a series of challenges. The market was, in fact, characterized by two very distinct trends: the residential sector, after the sensational growth in 2022 induced by the incentive called "Superbonus 110" and by concerns related to the availability of gas due to the conflict between Russia and Ukraine, suffered heavily over the unexpected and confusing cut of incentives in 2023, which affected the sales of residential heat pumps, also generating difficulties in related systems, such as terminal units. According to Assoclima, despite the challenges encountered, the future prospects for heat pumps remain positive. The residential sector will have to face the problem of high levels of product stock present in the distribution route, but this does not compromise the enthusiasm for the future of technology. Indeed, at all levels, especially those governing the policies of the coming decades, the primary role of heat pump technology for the decarbonization of residential space heating and cooling and beyond is now undisputed.

The Italian heat pump market

Looking at the national market during the past 15 years and beyond, all the space heating and cooling equipment sales, including cooling-only units, DHW, and hybrid systems, show the trend in Figure 1 [2, 3].

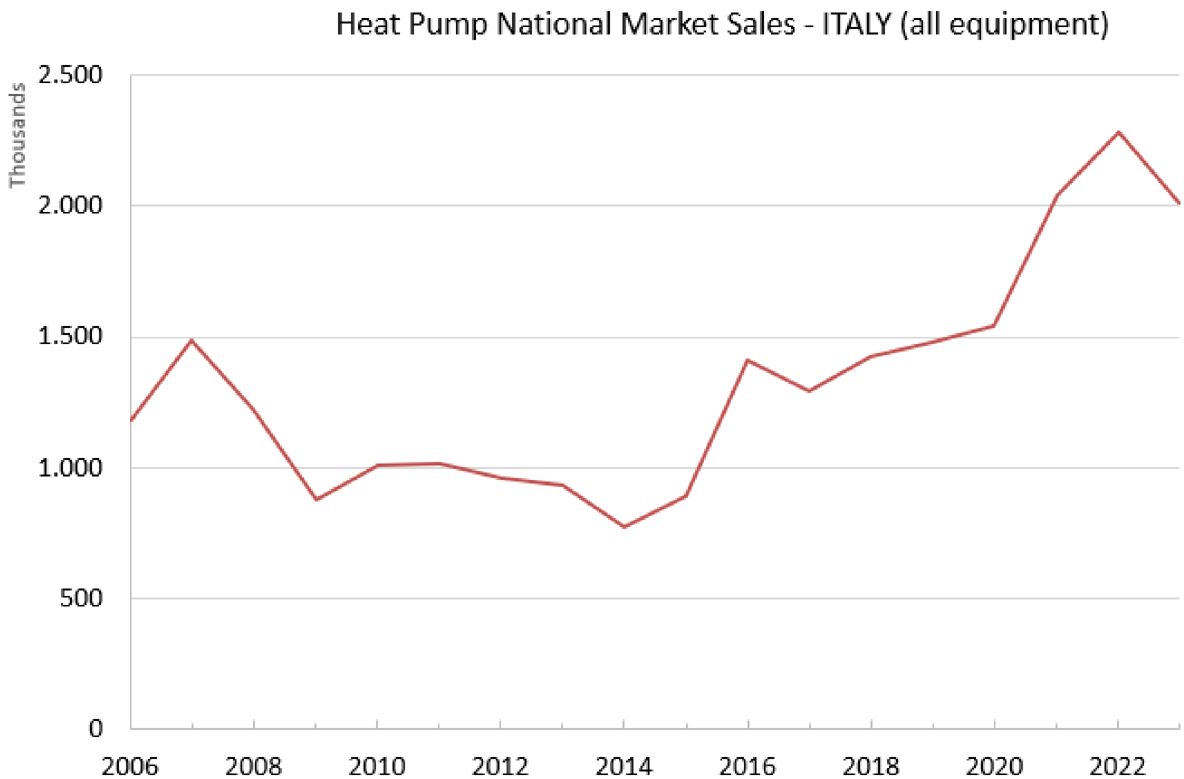

Figure. 1: Annual sales of air conditioning components, including reversible and cooling-only equipment

As detailed in a previous report on the Italian market [4], when considering the heat pumps used as the main system for space heating, the contribution of the air-to-air heat pumps share is considerably reduced since a percentage of only about 10% is taken into account.

After such a statistical correction, the Italian HP (primary heating only) market appears as Figure 2 shows [2, 3, 5].

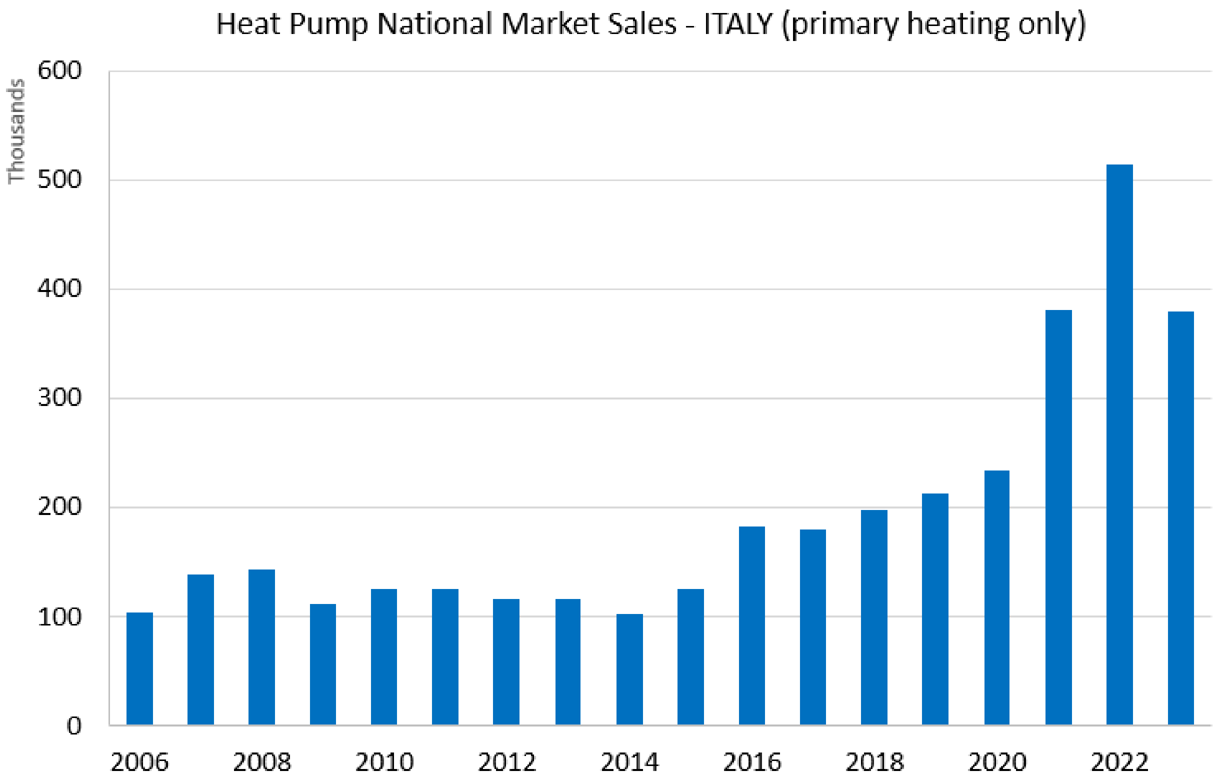

Figure 2: Annual sales of heat pumps for heating service in Italy – 2006-2023

Over the last ten years, the average annual sales of heat pumps have been around 250,000, peaking in 2022 at about 513,000. The first relevant boost came in 2014, when a special tariff was introduced, available only to residential users adopting a heat pump as the main heating system. A progressive sales growth until 2020 is probably also attributable to increasingly hotter summers, which drove sales of air-to-air machines, almost all usable in heat pump mode as well. After that, aiming at responding to the economic crisis due to pandemics, a measure named Super Ecobonus (or Superbonus 110) was introduced, regarding all-round building renovations, including space heating equipment [6]. This measure caused the sales of heating systems to soar and, proportionally, heat pumps even more. Naturally, this surge was followed by a rebound the following year, when the incentive measures were progressively reduced and then cancelled. The share of heat pumps considered as a whole, over the total space heating equipment sales, passed from an average value of about 12% during the first half of the 2010s up to more than 26% in the last 5 years.

Not only air-to-air machines

In addition to air-air, which represents the majority of sales on the market, it is interesting to observe the trend of other types in recent years. Figure 3 [2, 3, 5] compares the shares of

2016 vs 2023, from which the main relevant result is the increasing percentage of non-air-to-air equipment.

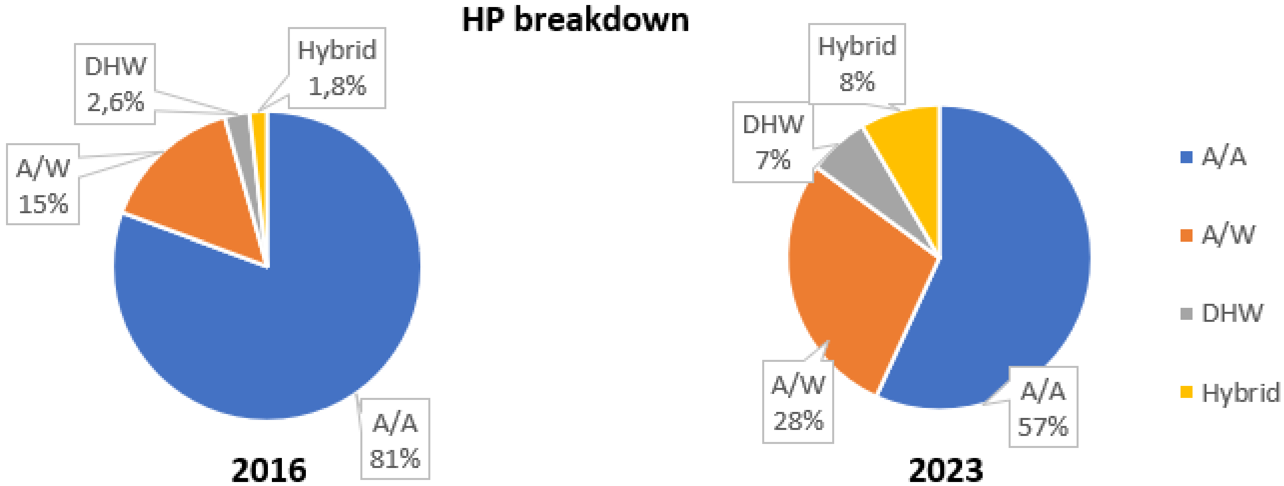

Figure 3: Breakdown of heat pump sales for space heating and DHW production in 2016 and 2023

Figure 4 [2, 3] shows a more detailed breakdown of such machines, i.e., air-to-water, domestic hot water production, and hybrid heat pumps. Sales of the latter were driven both by the incentives of recent years and, above all, by greater confidence among installers and designers with machines similar to boilers. Moreover, they were easier to accept for end users who came from an old system with a gas boiler.

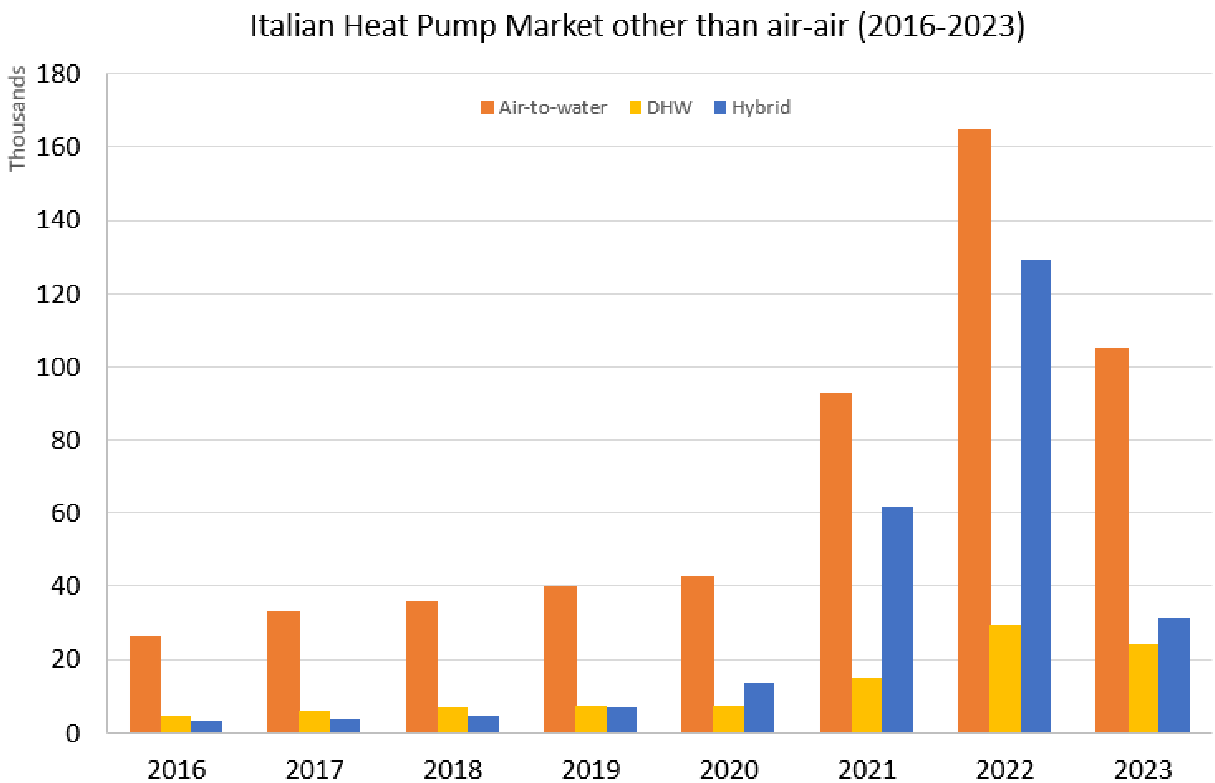

Figure 4: Italian heat pump market for air-to-water, DHW, and hybrid heat pumps

At the European level, for several years, the Italian heat pump market has been firmly placed among the highest positions: in the last 15 years, it has been almost always the second largest market, with a share between 13% and 18%. In 2023, Italy lost a position due to the drastic reduction in sales, better explained before after an impressive peak in 2022; in 2023, sales returned to levels very close to 2021. The most recent composition by country in the EU and by type, according to EHPA [5], is shown in Figure 5.

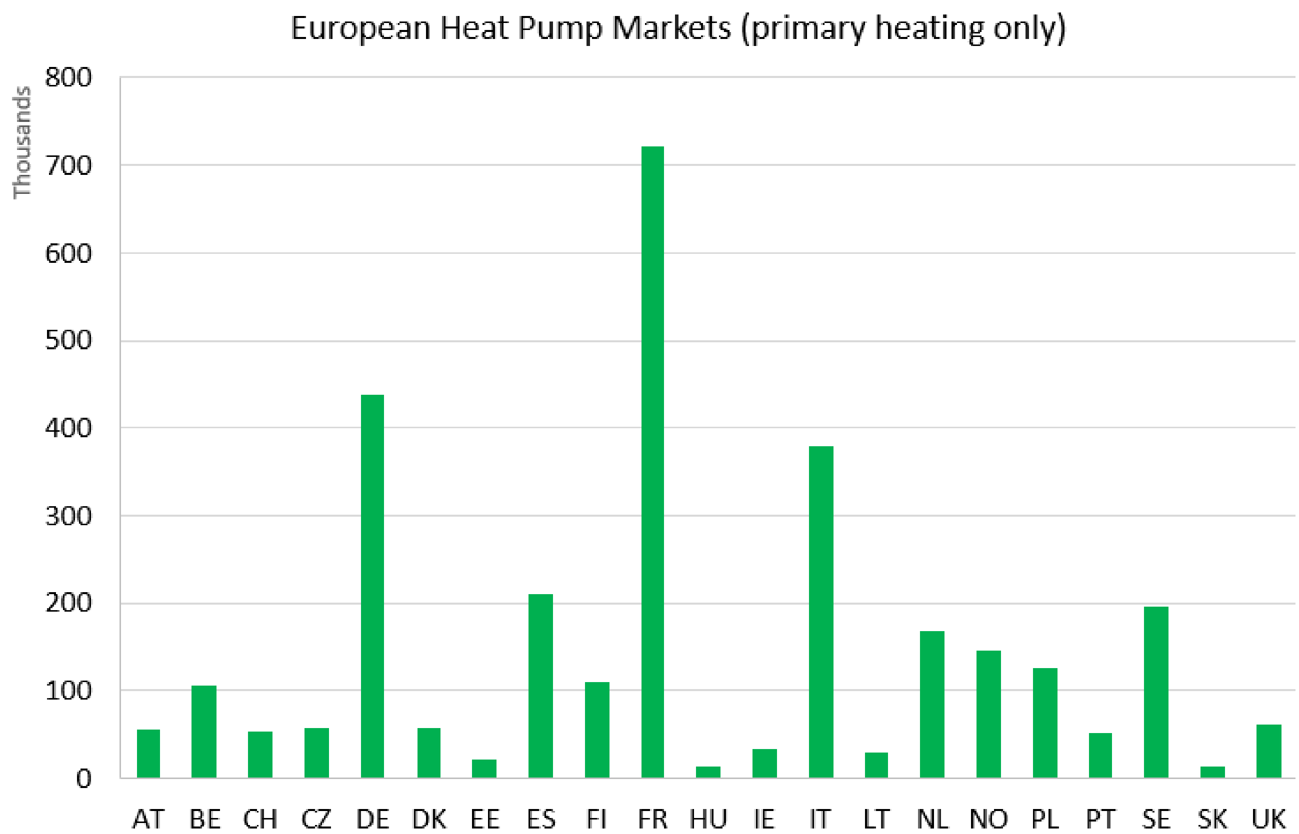

Figure 5: Heat pump market in Europe in 2023 according to EHPA statistics

Incentives and barriers

For some years now, heat pumps have benefited from the main tax incentives reserved by the legislation for high-efficiency systems to achieve energy savings. This means heat pumps have been recognized as a strategic technology in the energy requalification of buildings, and for this reason, they are encouraged, alternatively, through the following tools:

- Ecobonus, i.e., the tax deduction equal to 65% of the expenses incurred for replacing existing space heating systems with heat pumps; between 2021 and 2023, this particular incentive had been strengthened, reaching up to a deduction rate of 110%, under particular conditions regarding the overall renovation of the building. Currently, the percentage of the tax credit has been decreased to 70% for 2024 and 65% for 2025. For low-income households, a mechanism is set up to integrate the sums not covered by the incentives.
- "Conto Termico 2.0" (Thermal Account 2.0), introduced in 2016 for interventions aiming at producing thermal energy from renewable sources and for increasing energy efficiency; the incentive is calculated based on the thermal energy produced.

- "White certificates" incentive, one of the oldest, provides a grant proportional to the energy saving arising from an efficiency improvement, differentiated depending on the final use and sector.

In a previous heat pump report [4], one of the main bottlenecks in the flow of steps necessary to increase the diffusion of heat pumps on the market had been identified in installers, still largely anchored to the world of boilers and reluctant to renew their culture towards more complex machines. Currently, this is still a crucial point, combined with the lack of stability of incentives: the recent experience of the Superbonus 110, which left as an important consequence a great uncertainty even among final users, has taught that it is essential to guarantee continuity, stability, and coherence of the incentives in relation to the energy efficiency that entails the use of a heat pump compared to existing alternatives.

Conclusions

The Italian heat pump market is lively, despite the trend of last year, which marked a setback following the drastic reduction of incentives and turned out to be perhaps too generous. In a country that boasts a very strong tradition of production and export of this technology, the trends of the last decade give rise to hope, with an average of about 250,000 units sold annually, even if much remains to be done, especially in the diffusion of culture in a broader sense, in overcoming old patterns linked to fossil fuels, and in giving stability of incentives.

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