



ISH presents solutions for decarbonising the heating sector: heat pumps an important component in the heating revolution

Frankfurt am Main, 14 December 2022. The heart of the heating industry is set to beat once again in Frankfurt am Main when the whole sector gets together again at Frankfurt Fair and Exhibition Centre next March. The top themes of ISH Energy have shifted into the spotlight of social debate with the focus on products and solutions for achieving the climate targets in the building sector, decarbonising the heating sector and supply-side security. To this end, heat pumps have an important role to play. The ISH Technology and Energy Forum offers wide-ranging insights into themes of topical interest.

With the enactment of the Climate Change Act (KSG) in May 2021, the German government, inter alia, raised the CO₂ reduction target for all sectors by 2030. The overall aim is to have cut CO₂ emissions in 2030 by 65 percent compared to 1990. Furthermore, the government's plans call for Germany to have reached carbon neutrality by 2045. For the building sector, the new reduction target is a good 44 percent for 2030 compared to 2020, which represents a cut of around 53 million tonnes of CO₂. These ambitious climate-protection goals mean it is essential that all existing options for emissions reductions must be used to the full. Basically, this means four things:

- Increasing the pace of heating modernisation
- Integration of renewable energies
- Decarbonisation of the sources of energy
- Increasing the pace of building-envelope modernisation

More heat-pump installations is an important aspect of the heating revolution. The German government plans to increase the number of heat pumps from 1.1 million at present to 6 million by 2030. At the Heat Pump Summit, the German heating industry stated clearly that it supports the German government in its efforts to give new impetus to the heat-pump market. The targets on the electricity-generation side are also ambitious. According to the German Association of the Energy and Water Industries (BDEW), renewable sources of energy covered around 49 percent of gross domestic electricity consumption in the first half of 2022. To achieve the climate-protection targets and to become independent of fossil fuel imports, the share of renewables in gross electricity consumption should rise to at least 80 percent by 2030. Currently, the German government is preparing the ground for faster expansion of wind and solar energy and for greater energy efficiency.

Against this background, heat pumps have an important role to play for climate protection in the building sector because they use renewable energies to produce heat. Air-water

heat pumps and brine-water heat pumps extract heat from the local environment, i.e., the air, groundwater or earth, via a coolant circuit. Air-air heat pumps use fans to suck in air from the immediate vicinity. A heat exchanger then transfers the heat energy to the individual heating system.



ISH: Solutions for the heating revolution. Source: Messe Frankfurt Exhibition

Heat pumps have been leading the market in the new-building segment for many years and, today, manufacturers also offer technical solutions for existing buildings. High-temperature heat pumps raise the temperature of environmental sources to a level high enough for conventional radiators. Whereas conventional installations operate with a forward flow temperature of approx. 50° C, high-temperature systems reach a level of approx. 70° C. The German government promotes the installation of heat pumps for both old and new buildings with a subsidy of up to 35 percent of the eligible costs.

Despite the increasing importance of heat-pump technology, the heterogenous nature of the existing building stock means a broad technological portfolio is crucial for the success of the heating revolution. This includes hybrid solutions that combine a heat pump with other sources of heat, hydrogen-compatible installations, home-ventilation systems with heat recovery, wood-fired heating and solar thermal energy.

ISH Technology and Energy Forum presents solutions for climate protection and supply-side security

Together with its partner associations, the Federation of the German Heating Industry (BDH) is organising the Technology and Energy Forum at the Hotspot Energy special area in the west foyer of Hall 12. The Forum offers a compact overview of the political framework in Germany and Europe and presents potential solutions for achieving the climate goals in the heating sector. Moreover, the Forum looks at sources of energy that are used in the heating sector and also contribute to CO₂ reduction, i.e., biomethane and hydrogen, e-fuels, green electricity and wood energy. Last but not least, the Forum provides manufacturer-neutral information about all technologies currently available on the market, which include condensation boilers (also H₂-ready), heat pumps, hybrid heating systems, cogeneration, fuel-cell heating, wood-based installations, such as pellet-burning heating systems, digital solutions and home-ventilation systems with heat recovery. Visitors can look forward to a daily lecture forum and a multi-media show revolving around the topics mentioned above.

Further information about the programme of events at ISH 2023:

www.ish.messefrankfurt.com/events

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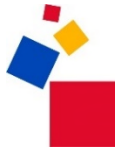
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Background information on Messe Frankfurt

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