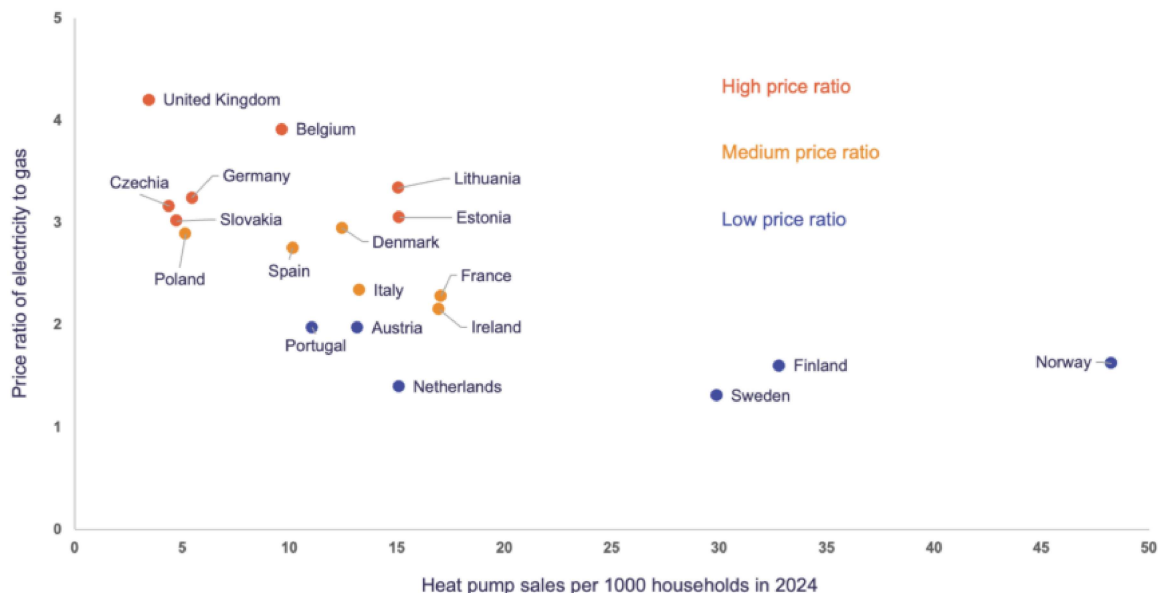


Taxation policy for heat pumps

The European Heat Pump Association has consistently highlighted the importance of energy price structures in driving the adoption of clean heating technologies. Specifically, we recommend that the price of **electricity should not be more than twice the price of gas**. This threshold is critical to making heat pumps economically attractive for households and industries.

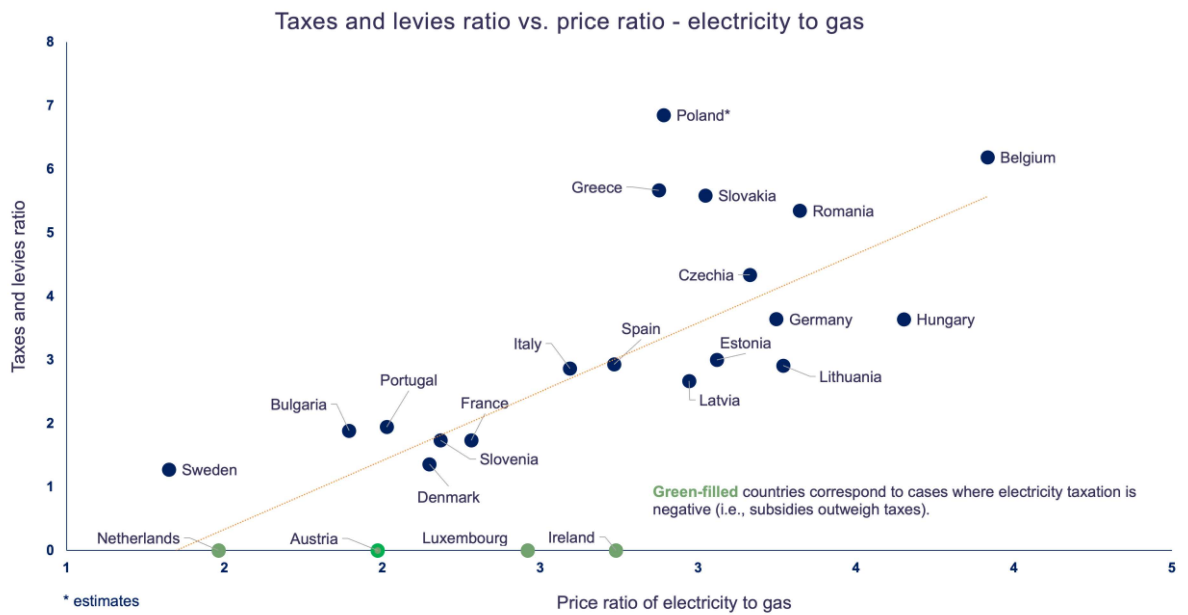
However, the electricity-to-gas price ratio varies significantly across Europe. In countries where this ratio is below two - only six European countries - heat pump markets are generally strong, contributing to energy independence and decarbonisation goals. Conversely, in countries where electricity is over three times more expensive than gas, heat pump uptake remains very low, and heating continues to rely heavily on fossil gas.

Lower electricity-to-gas price ratios lead to more heat pump sales per household



Governments and regulators play a key role in shaping the electricity-to-gas price ratio through fiscal policy, particularly via taxation, levies, and energy charges. These decisions **significantly influence the relative cost** of different energy sources.

To better understand this impact, the European Heat Pump Association analysed the structure of taxes, levies, and charges across all 27 EU Member States. From this a new metric has emerged: **the ratio of taxation and levies applied to electricity compared to those applied to gas**.



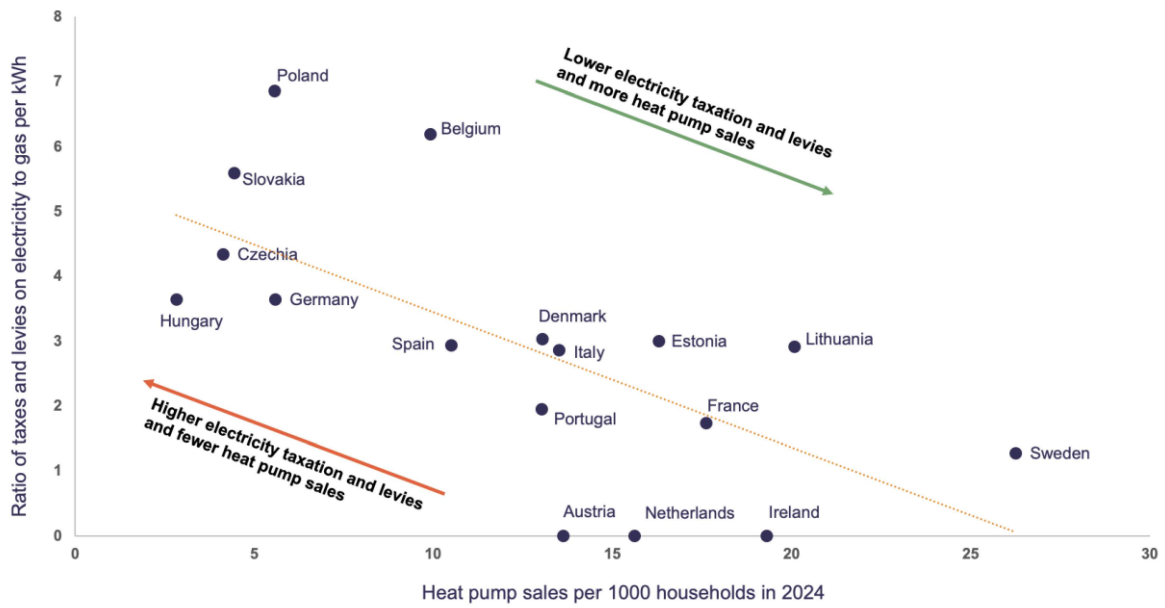
When this taxation ratio is plotted against the overall electricity-to-gas price ratio, a clear and strong correlation is revealed.

A clear pattern emerges when comparing countries based on how they tax electricity versus gas. Those that impose **higher taxes and levies on electricity** than on gas tend to see slower adoption of heat pumps and **continued reliance on fossil fuels**. In contrast, countries that prioritise energy independence, clean air, and decarbonisation actively encourage the switch to clean electricity. They do this **by ensuring that electricity is taxed less heavily than gas**, making heat pumps more affordable and attractive to consumers.

This analysis underscores the importance of **aligning energy taxation with energy independence, competitiveness and climate goals**. Adjusting fiscal frameworks to reduce the disproportionate burden on electricity can **accelerate the transition** to cleaner heating solutions.

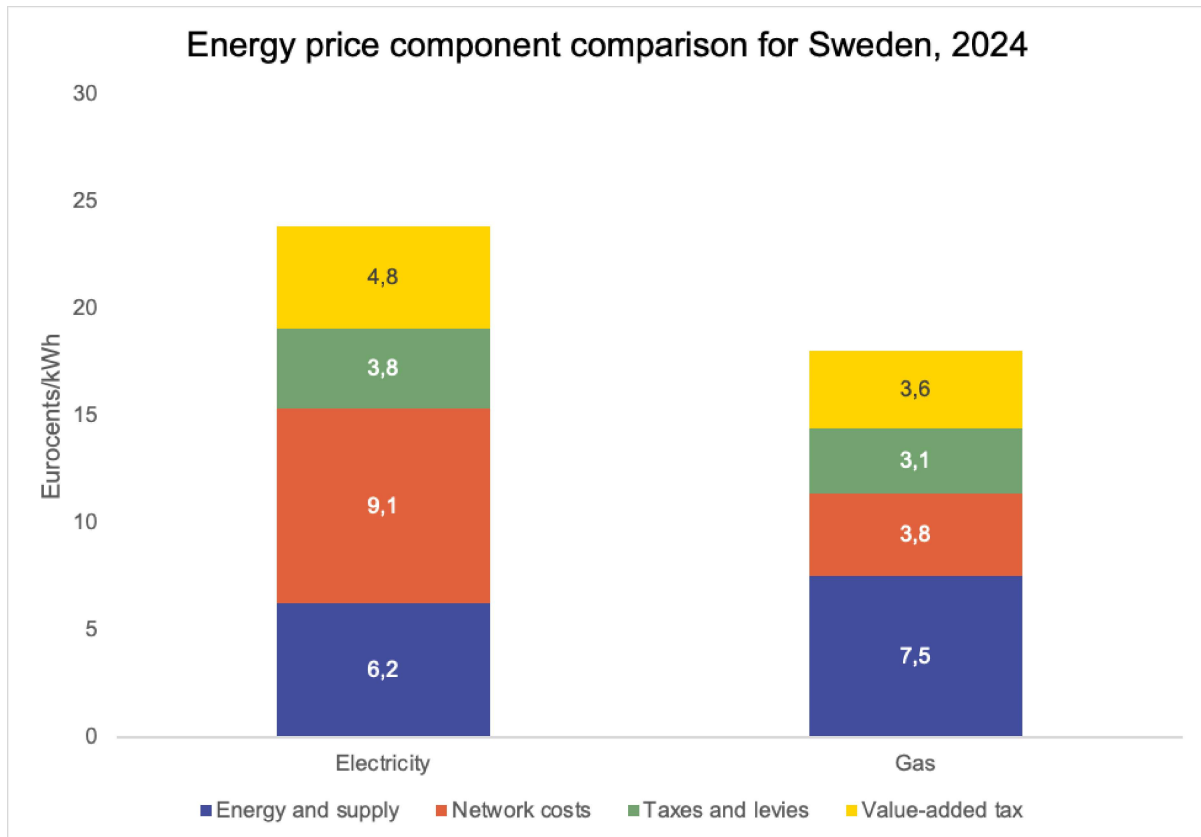
While many countries subsidise and regulate for clean heating systems, this paper specifically explores the potential of tax measures to promote the energy transition in clean heating.

Energy taxation compared to heat pump sales

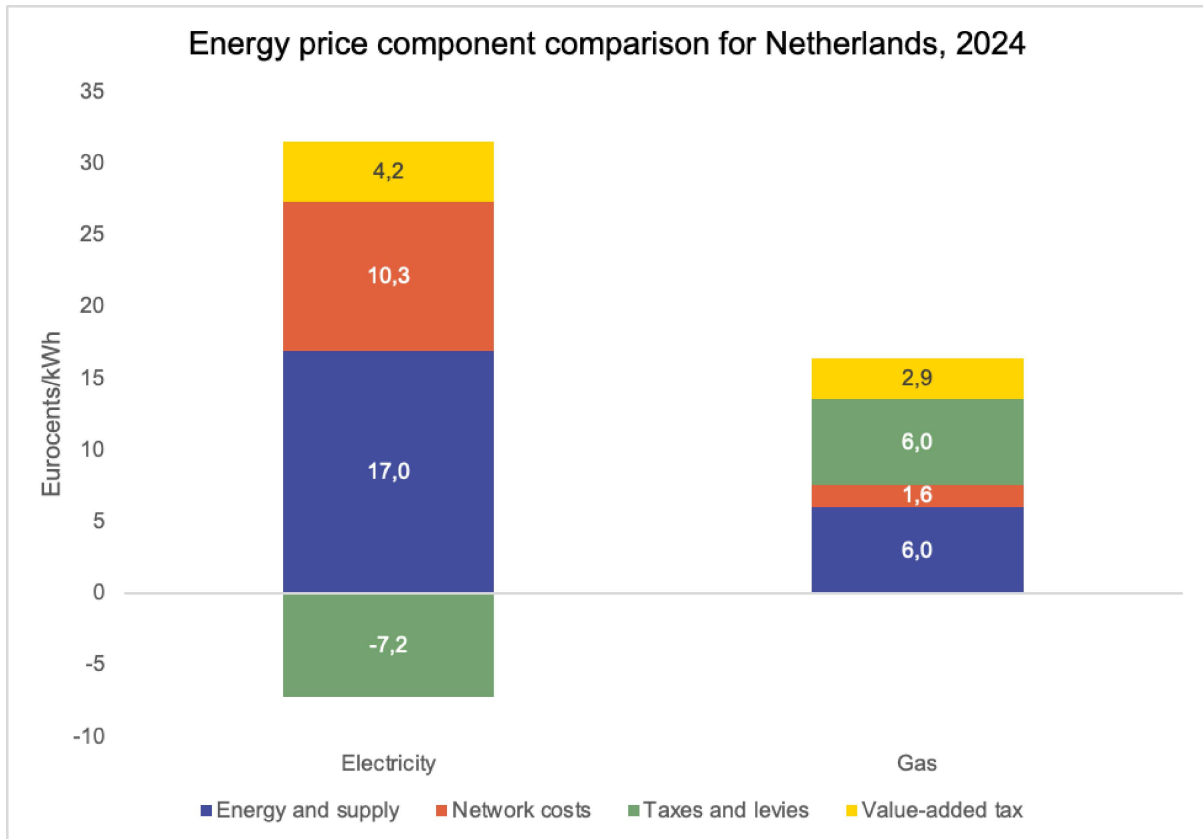


In-depth analysis for several Member States

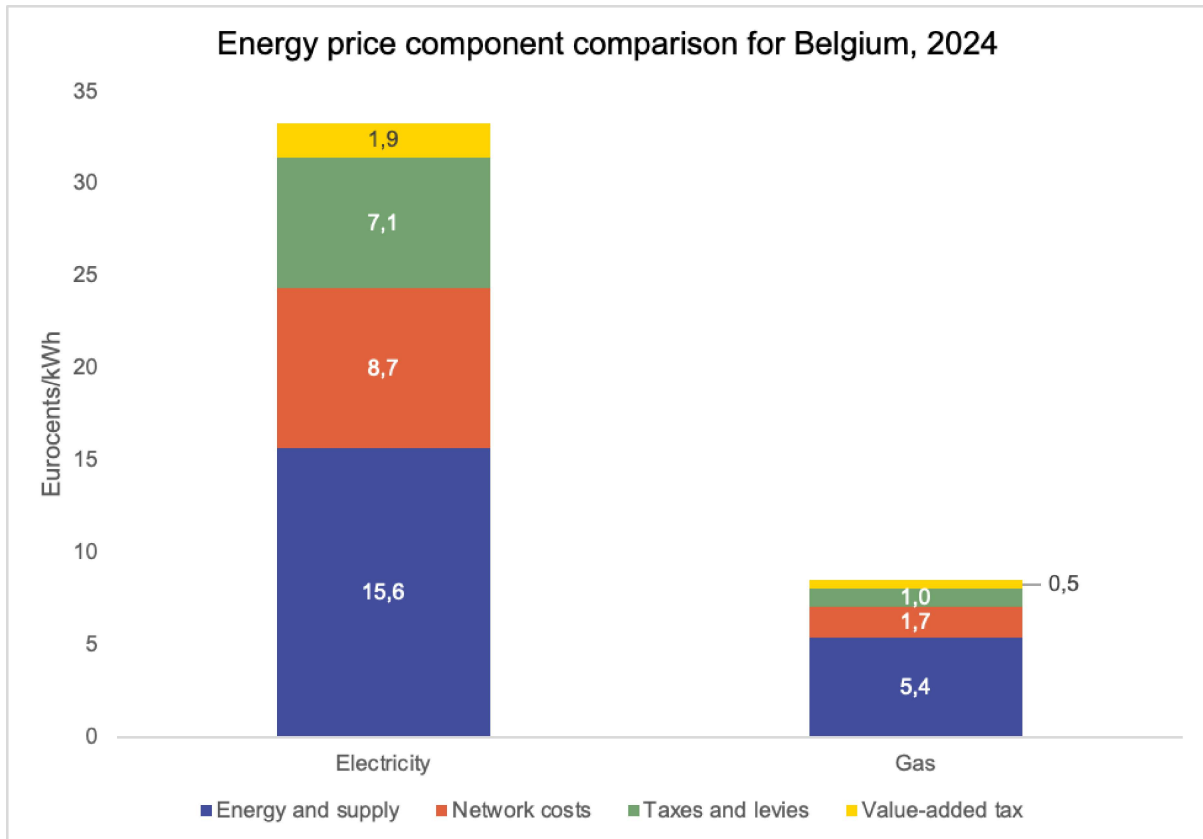
EU Member States have the authority to set their own energy tax policies, provided they respect minimum levels set by EU legislation. However, approaches vary widely: some countries, like Sweden, impose high taxes on gas to discourage fossil fuel use, while others, like Belgium, generate significant revenue by taxing electricity. A comparative analysis of national taxation regimes reveals a clear pattern—fiscal policy plays a decisive role in either supporting or hindering progress toward energy independence and the transition away from imported fossil fuels.



Sweden has long used taxation to support clean heating by heavily taxing fossil fuels and keeping electricity taxes low. In 2024, this approach continues, with one of the world's highest carbon taxes—around €122 per tonne of CO₂—applied to gas, while electricity remains lightly taxed, especially in colder regions. This consistent policy has made electricity competitive with gas, helping Sweden achieve one of the highest heat pump adoption rates in Europe. The country's long-term strategy shows how stable, climate-aligned taxation can drive electrification and reduce fossil fuel dependence.

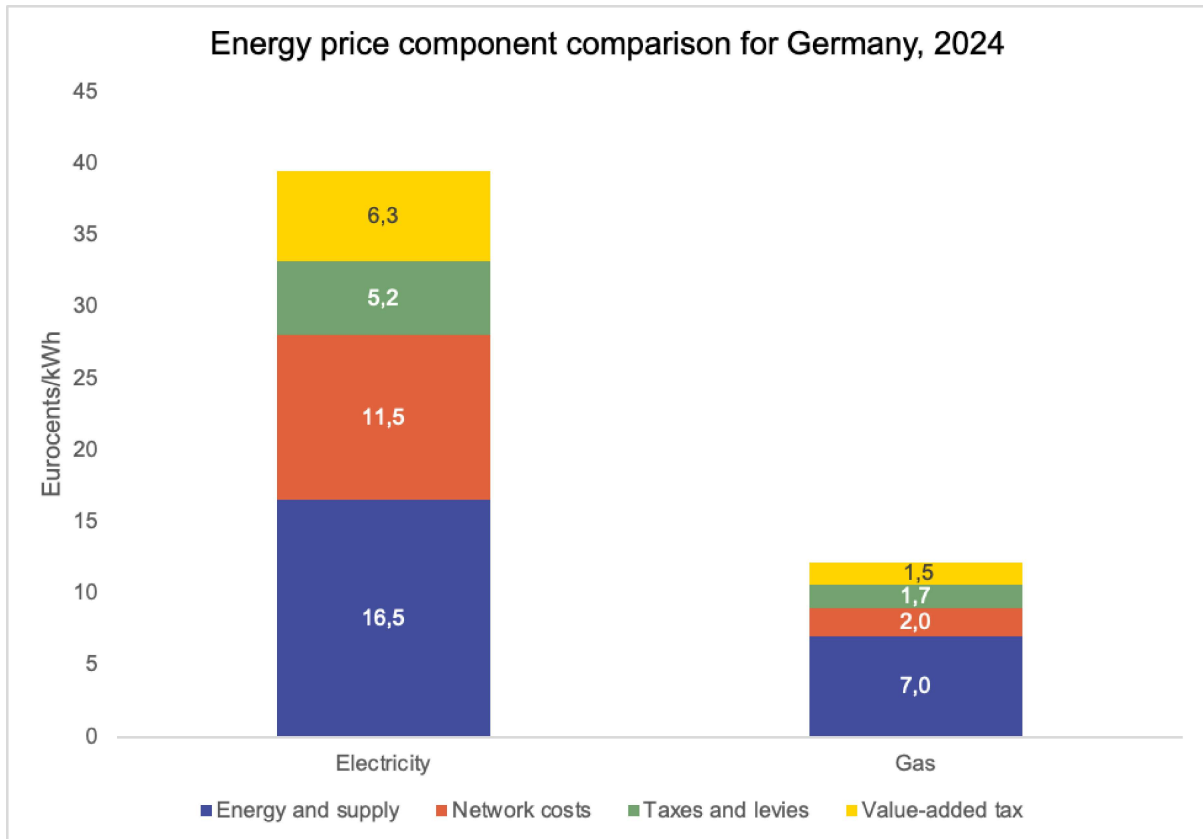


In 2024, the Netherlands took decisive steps to support the electrification of heating by rebalancing energy taxation. The government increased the energy tax on natural gas from €0.59 to €0.71 per m³, while reducing the electricity tax from €0.15 to €0.13 per kWh. Additionally, the annual electricity tax credit for households was raised to €631.39, further lowering the effective cost of electricity. These measures are designed to make clean electricity more affordable than fossil gas, thereby encouraging the adoption of heat pumps and advancing national climate and energy independence goals.



Belgium has one of the highest electricity-to-gas price ratios in Europe, with electricity costing nearly four times more than gas for households. This imbalance is largely due to higher taxes and levies on electricity, which significantly undermines the economic case for switching to electric heating. As a result, heat pump uptake remains low, with only around 342,000 units installed by 2024 and a market share of just 14.7% of new heating systems. Despite existing and continued regional subsidies, the high running costs of electricity continue to deter many households.

Recognising this, Belgium’s new government has committed in its National Energy and Climate Plan to research a reform of the energy taxation and rebalance the cost structure between electricity and gas, aiming to make clean heating technologies like heat pumps more accessible and attractive. The Flemish region has already written a proposal of this kind into its regional energy and climate plan, for implementation in 2028. Most recently of all, in November 2025 the Belgian federal government announced a taxation change for 2026 that will decrease electricity costs by 3% and increase gas costs by 3%. This is a good first step to rebalancing cost.



Germany continues to face challenges in aligning its energy taxation with electrification goals. In 2024, household electricity prices remained the highest in Europe at €0.395 per kWh, while gas prices averaged just €0.11 per kWh, resulting in a residential electricity-to-gas price ratio of 3.35. This imbalance has slowed the uptake of heat pumps, with sales dropping by 48% in 2024 despite generous subsidies. The government initially promised broad electricity tax relief in its coalition agreement, but in mid-2025 made a U-turn, scrapping plans to cut electricity taxes for households due to budget constraints. However, the coalition reaffirmed its commitment to reducing energy costs. It plans to use the Climate and Transformation Fund to cover transmission system costs and support grid expansion, aiming to lower electricity prices from 2026 onwards. These measures are part of a broader strategy outlined in the 2025 coalition agreement to rebalance energy pricing, support electrification, and meet Germany's 2045 climate neutrality target.

Key recommendations for national level taxation policies

Countries should adopt a range of fiscal (tax) measures to promote the electrification of heat, with the multiple benefits of improved energy security, decreased volatility of household energy costs, decreased air pollution, reduction in greenhouse gases amongst many others.

- 1. Reduce the Value Added Tax (VAT) rate on the supply and installation of heat pumps.** Many countries, as shown in the European Heat Pump Association's [recent report](#), already have a reduced VAT rate on the capital cost of heat pumps. The EU has changed the minimum VAT on solar PV to 0%, but has not yet done the same for heat pumps, a key ask of the European Heat Pump Association (EHPA).
- 2. Ensure electricity taxation is set to a minimum.** To make the running costs of heat pumps competitive versus fossil fuel-based alternatives, the cost of electricity should be at most twice the price of gas. Today, this is not the case in many countries, mainly due to the components of the electricity bill. Lowering taxes could apply to all electricity or phased in on just the heating component. Finland already exempts large electrical heating installations from paying VAT. Other countries are considering this or specific tax breaks on using electricity for heating.
- 3. Ensure that heating fuels pay their fair share of environmental taxation.** Today, [electricity is often taxed more heavily than fossil fuels](#). Governments should shift taxation away from electricity and put a price on the use of carbon to ensure that cleaner heating becomes not just the right choice, but also the most affordable one.
- 4. Differentiate VAT rates on electricity from those applied to gas and/or heating oil.** In general, excise duty rates have been used to raise differential revenues between fuels. Higher excise rates on fossil fuels drive heat pump adoption. However, another tool could be differential VAT rates. For example, a standard rate for oil/gas and a lower one for electricity. An overview of the current VAT rates on gas and electricity in Europe can be found in the latest [EHPA VAT report](#).
- 5. Allow businesses to write off tax paid on clean heating investments.** Accelerated capital allowances, or accelerated depreciation, allows companies to deduct the total or partial cost of the investment in clean heat from their profits faster than standard depreciation, increasing the financial attractiveness of heat pump investments. Belgium, The Netherlands, Greece, Italy and Ireland all have some form of tax deduction-based incentive scheme for supporting investments, as shown in the [EHPA report](#) on subsidies for industrial heat pumps in Europe.
- 6. Use central government exchequer revenues, or other government funds for funding grid expansion.** This approach has the potential to bring down electricity prices substantially and for the long term. It could be implemented in a debt-to-GDP neutral way, pausing repayments for several years until the assets of anticipatory grid investment are fully utilised. Germany has committed to using its national climate fund to decrease the cost of electricity transmission by 3 €/kWh, Ireland has committed €3.5bn exchequer equity into electricity grid companies in 2026. Sweden offers grid reinforcement loans that are repaid proportionate to utilisation, so the State bears the financial risk for the part of the asset that is not utilised in the initial stage.

- 7. Implement fiscal actions that increase the share of locally produced competitive clean electricity or that decrease the real cost of electricity to the system.** Measures could include favourable tax treatment for investments in renewable electricity, auction schemes, risk sharing schemes, exchequer supports of grid investment and tax treatment of investment. Agri-scheme eligibility and retirement/inheritance rights should be consistent with land for food production for farmers who wish to generate renewable electricity from their land. Any other fiscally positive treatment of renewable electricity or production type tax credit could also be beneficial to decrease the running costs of heat pump based heating systems.
- 8. Use property taxation to incentivise the installation of heat pumps.** Property-tax measures can be designed to allow households to offset part of the upfront investment cost of heat pumps. For example, the city of Antwerp in Belgium offers a reduction on the local portion of property taxes for six years following the installation of a heat pump. In North America, the PACE model (Property Assessed Clean Energy) allows local property taxes to finance energy-efficiency investments, with repayment incorporated into future property tax bills. Energy Performance Certificates can also be used as a basis for determining property tax levels.
- 9. Allow clean energy investments to be written off against income tax for the private owner occupied and private rented sector.** This should apply to both occupied and unoccupied properties prior to occupation or letting. This should be coupled with some form of regulation to drive upgrades in the private rented sector such as making the landlord pay the carbon tax (Germany's CO₂ Cost Sharing Act (CO₂KostAufG) or the banning of rent indexation for rental units using fossil fuels or the lowest energy performing units.

Note on methodology:

The definition of taxes and levies follows that of Eurostat methodology and comprises charges added to energy bills, sometimes referred to as "policy costs". They are charges that are not necessary for the functioning of the system (such as network charges) but are levied on bills to achieve certain policy outcomes.

"Taxes and levies" include renewable taxes, capacity taxes, environmental taxes, and any other taxes not included in the previous categories. We also add to this list the VAT component.

For more information, see "Statistical concepts and definitions - Annual prices" here.

The ratios here presented are household bands of consumption. Electricity is DC (2500-4999 kWh) and gas is D2 (20-199 GJ).

Electricity:

https://ec.europa.eu/eurostat/databrowser/view/nrg_pc_204_c/default/table?lang=en

Gas: https://ec.europa.eu/eurostat/databrowser/view/nrg_pc_202_c/default/table?lang=en

Consulted second half of 2025.

Poland energy prices are from the Polish Organisation of Heat Pump Technology Development (PORT PC).

Author:

Paul Kenny, Director General, European
heat pump association
paul.kenny@ehpa.org
+32 484541852

 **European Heat Pump Association (EHPA)**
Avenue de Cortenberg 120
1000 Brussels – Belgium

 info@ehpa.org

 www.ehpa.org



The European Heat Pump Association (EHPA) represents the European heat pump sector. Our over 170 members include heat pump and component manufacturers, research institutes, universities, testing labs and energy agencies.

EHPA advocates, communicates and provides policy, technical and economic expertise to European, national and local authorities, and to our members.

We organise high level events and manage or partner in multiple projects.

We work to shape EU policy that allows the heat pump sector to flourish, and to become the number one heating and cooling choice by 2030. Heat pumps will be a central part of a renewable, sustainable and smart energy system in a future decarbonised Europe.