

Vienna

A big city phasing out of gas
to become climate neutral in 2040



Vienna's pledge to be climate neutral in 2040

Vienna is an attractive city that encounters continuous growth of its population. So far, fossil fuels, and especially natural gas, are used for the energy supply. The energy demand for heating and cooling of buildings has the highest share of total energy consumption in Vienna: the necessity for decarbonisation of the building sector is not questioned!

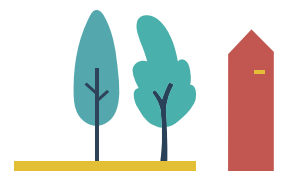
The capital city of Austria has a long track record of climate policy. In the late 1990s, the city adopted the Climate Protection Programmes. Today's ambitions have leveled up, with Vienna aiming to be climate neutral in 2040. They have also committed to an intermediate target of reducing GHG emissions by 55% by 2030 compared to 2005. These pledges are enshrined in the government agreement of 2020 and were adopted in the updated Smart City Wien Strategy by the City Council in 2022.



Energy stakeholders drafting the heating and cooling plan


A local working group in Vienna gathered relevant energy stakeholders of the city (administration, municipal departments, utility, grid operators...), of the building and housing sector and engaged with energy experts. The group has worked on the city heating and cooling plan with topic-specific working groups since 2020. The first subgroup drafted the picture for heating and cooling supply and demand in 2040. The second explored energy supply options for new buildings and spatial energy planning. The third subgroup dealt with spatial requirements of energy infrastructures specifically.

A 100% renewable energy mix for heating and cooling



For Vienna, the main solution is central district heating for densely built-up areas. District heating and electricity grid will be extended, as well as storage facilities. In sparser areas, renewable low-temperature heat networks and other, diverse, renewable solutions like heat pumps and biomass will be used. Energy efficiency is also part of the plan with thermal and energetic refurbishment of

the building stock and improvements of heating systems. Green gases are not considered as part of the relevant solutions for the building sector, because their availability will be limited and thus will be used in priorities in hard-to-abate sectors where there are no solutions than green gas to stop GHG emissions.



A various range of tools to reach Vienna's objectives

Vienna is using several tools to implement its heating and cooling strategies. Planning is of course one of the first ones, with integrated spatial and energy planning being a priority. But planning tools must be supported by a legal framework and essential databases. Financial tools are expected to be created to ensure affordable housing and subsidies for the heat transition. Information and counseling are also key elements of Vienna's transition roadmap. A central advice center will deal with building concerns and a Renewable Energy Competence Center will deal with energy communities' ones. The City of Vienna will also strategically communicate its plans, to increase public acceptance of the measures. Training will be developed for sufficient skilled workers and to adapt the labor market to the transition. Finally, effective monitoring will help document the progress of the heat transition.

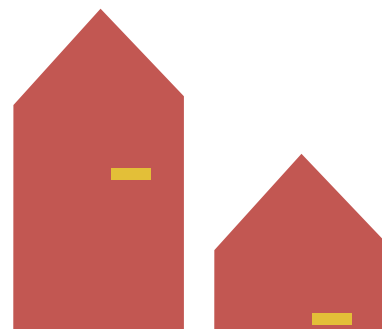
Removing legislative barriers to the transition

Vienna's transition highly depends on federal and national laws to be implemented.

For instance, the city would like to see the abolishment of the connection obligation to the gas grid mentioned in the Gas Act. Many financial issues also need to be properly answered, such as the distribution of costs for decommissioning the gas network and for the future network. The city also recommends the adaptation of several housing laws like the Tenants Act or the Condominium Act, to facilitate the switch to renewable energy systems and ensure a just repartition of costs. Vienna also claims an EU definition of waste heat. Connected to this, obligations for companies to use their own waste heat or to offer it to district heating systems would be great achievements.

Gaining legitimacy and inspiration from Decarb City Pipes 2050

For Vienna, the project has helped to scale up the work that already started 8 years ago. Today the heating and cooling strategy is at the top of the agenda and the city is even more capable of answering all requests in the building sector, thanks to the energy mapping. With Decarb City Pipes 2050, Vienna has gained legitimacy in discussions with the city council or energy experts, especially thanks to the peer-to-peer learning with other cities from the project. The legal instruments developed in Winterthur have been a basis to work on improving the Viennese framework. Munich energy choices have also inspired Vienna, and Rotterdam and Bilbao were interesting study cases for their implementation of the neighborhood approach.



A simple message to other cities: take the lead and start now!

For Vienna, if a city wants to decarbonize their heating and cooling system, and if they have not started yet, they need to start now! Indeed, it takes a lot of time to build an energy data model and to change the energy system in the building stock. Vienna reminds us that cities are the leaders in phasing out gas, and are responsible for on-boarding other players, such as energy suppliers, in the development of the solutions. In developing a new vision, the city considered heating and cooling strategies together to avoid double infrastructure.

Finally, the city advises against focusing too much on green gas, as it will not be sufficiently available for heating, especially for space heating and hot water production.

Want to know more about Vienna?

➡ [Vienna Transition Roadmap](#)

➡ [Vienna Heating and cooling strategy 2040](#)



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