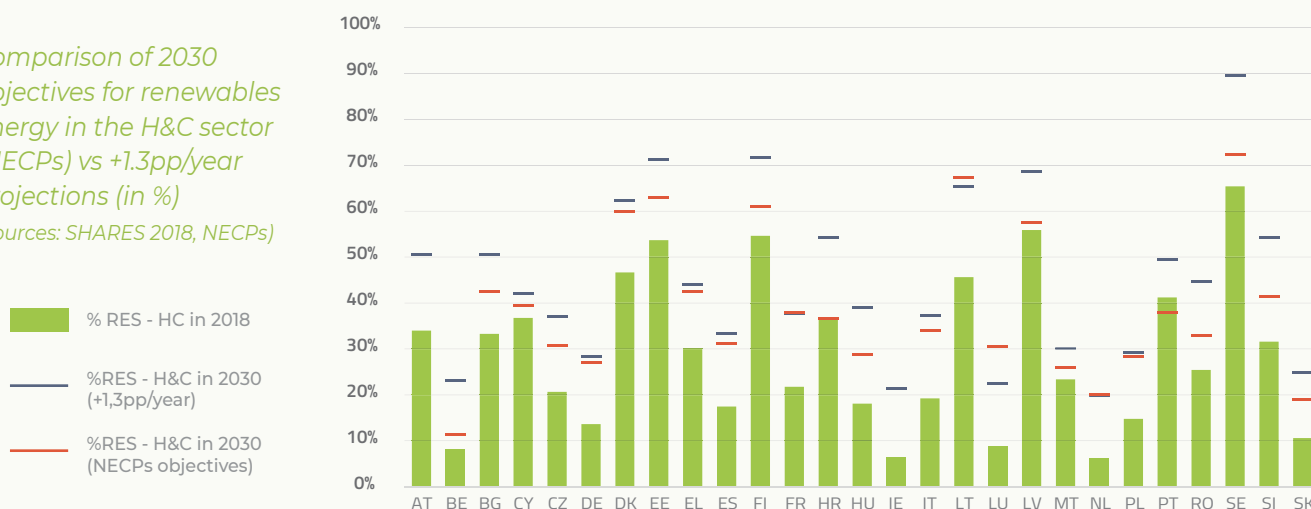


BIOMASS FOR HEAT

The heating and cooling (H&C) sector has been neglected for a long time. Inefficient and old heating systems, alongside a high dependency on fossil fuels, have made it one of the most difficult sectors to decarbonise. However, under the European Green Deal heating has become one of the top priorities in the fight against climate change. It is essential that higher RES penetration and increased energy efficiency are the key drivers behind this process. If correctly addressed, bioenergy offers the EU a reliable vehicle to achieve carbon neutrality by 2050. Readily available, affordable, and efficient solutions such as bioheat must be at the core of this transition.

Comparison of 2030 objectives for renewables energy in the H&C sector (NECPs) vs +1.3pp/year projections (in %)
(Sources: SHARES 2018, NECPs)



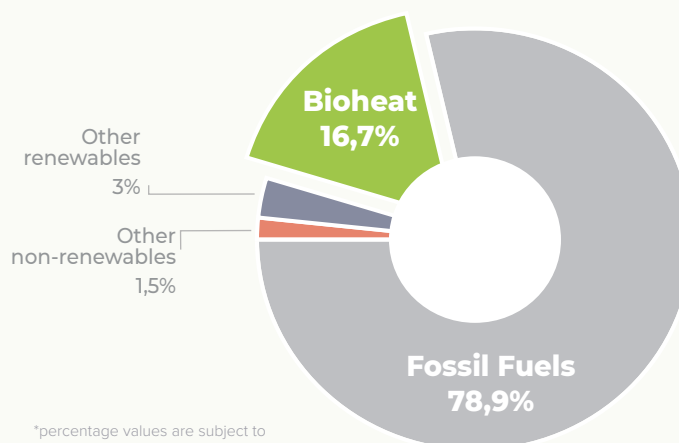
Analyzing the National Energy and Climate Plans of European Member States, the average target for the RES share in H&C sector for 2030 is 40%. While this indicates a significant increase in comparison with the current share of 19,7%, without making considerable efforts to increase the share of renewable heat, Member States will fail to meet their climate commitments in the long term. Several Members states have overachieved their 2020 objective for H&C. This is not due to a fast growth of renewables in H&C but rather to an initial low ambition. Learning from past mistakes, energy policy should identify an adequate objective to encourage the growth of renewable solutions, and disincentivize those of fossil fuels. The recast Renewable Energy Directive includes a soft target to drive the penetration of renewables in H&C. Yet, almost no Member States seem to take the required 1,3 pp yearly increment when calculating their 2030 objectives.

Fully untap bioheat potential

In 2018, a shocking 79% of energy sources used in H&C continued to come from fossil fuels. While the phasing out of fossil fuels appears to be a daunting task, it is EU and Member States' responsibility to implement concrete measures that foster the transition. Europe needs to commit to a fast and unprecedented deployment of renewable solutions. Such a move would represent an immense potential for bioheat, which has already proven itself as an effective solution.

The market for biomass has been growing by an average of 3% every year since 2000. In 2018 bioenergy accounted for 85% of renewable heat in the total heat consumption. Bioheat is providing decarbonised heat and enabling Member States to meet their long-term climate objectives.

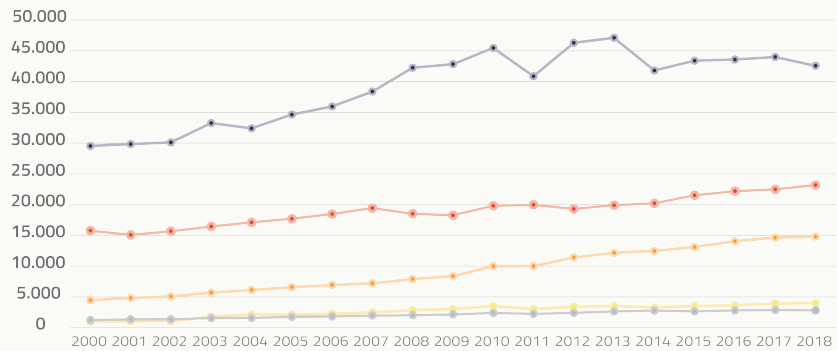
Contribution of the different energy sources in heating and cooling in EU28 in 2018 (in %)*
(Source: Eurostat, SHARES 2018, Bioenergy Europe's calculation)



*percentage values are subject to rounding precision of 0.1%

Evolution of the final consumption of bioheat by sector in EU28 (in ktoe)

(Source: Eurostat)



Bioenergy: a reliable and a flexible solution for residential heating, derived heat, and industrial processes.

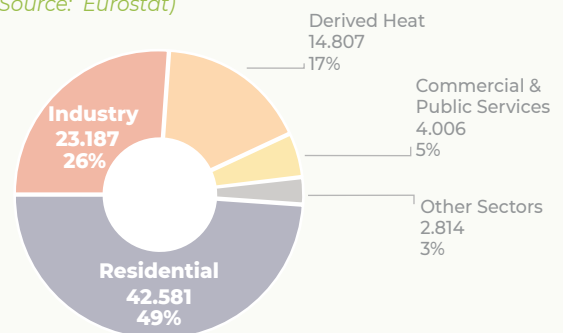
In 2018, 49% of the bioheat in the EU was used by the residential sector, followed by industry (26%) and district heating (17%). In the residential sector small and medium size appliances are predominant, their modernisation (when necessary) and correct maintenance and installation are key to the abatement of air emissions. District heating networks are essential to smart sector integration - they increase energy efficiency and enable to increase the share of renewables at local level. Yet, in the EU they remain largely reliant on fossil fuels, with renewables already greening 27% of their heat production. Nevertheless, this once again presents the potential for the decarbonisation of the industry and derived heat sectors, through the provision of an adequate policy framework and incentive schemes.

District heating and individual biomass heating systems are an important part of the solution. Alongside energy efficiency, they offer an affordable and renewable source of heat. Now, more than ever, long-term strategies to decarbonise the building sector are needed to advance the switch from fossil to renewable solutions.

In 2018, industry represented 16% of the final energy consumption of heat in the EU, with only 13% of this from renewables, and almost entirely bioenergy (99%).

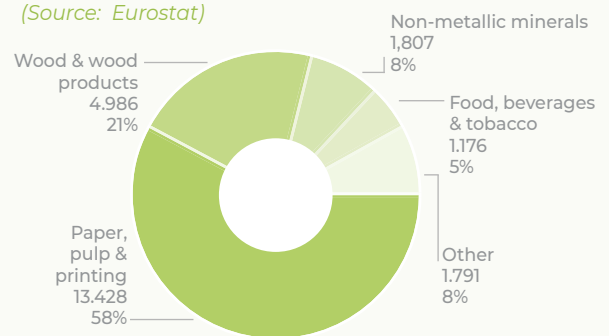
Final energy consumption of bioheat in the different sectors in EU28 in 2018 (in ktoe, %)

(Source: Eurostat)



Share of biomass usage in the different industries in 2018 – EU28 (in ktoe, %)

(Source: Eurostat)



RECOMMENDATIONS

- 1. Decarbonisation of the H&C sector should be a priority for EU!** Bioheat represents a mature and effective solution for decarbonising the buildings and industrial sectors. A possible review of the Renewable Energy Directive should include higher ambitions for the heating and cooling sectors by 2030.
- 2. Fossil fuel subsidies should finally become history.** Member States should be supported in phasing out fossil fuels for heating (i.e. by a holistic carbon price covering also for non-ETS sectors).
- 3. Biomass district heating should be promoted, as well as a fuel switch in existing district heating.** Biomass district heating provide one of the best examples of sector integration.
- 4. The Renovation Wave should support and promote the replacement and modernisation of old and inefficient residential installations with modern, high-quality biomass appliances.** Not only does the switch increase energy efficiency, but it also improves air quality.