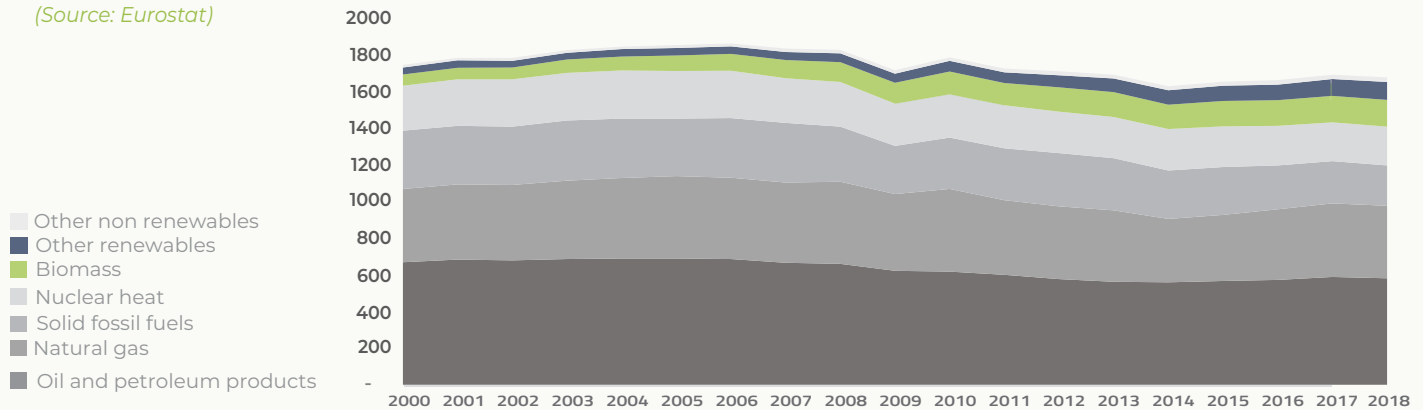


Bioenergy - the biggest source of renewable energy in the EU

Sustainable bioenergy is an indispensable element of the EU's energy mix, supporting EU's ambitious targets to reduce GHG emission targets education and increase the share of renewable energy. It is a climate neutral source of energy which will remain a bedrock for the fully decarbonized energy system of the future. Bioenergy has more than doubled since 2000, and accounts for 56.6% of the EU total renewable energy consumption while import dependency remained at 5% level (3,7% when considering the EU27). Our energy system is still dependent on imported fossil fuels and while renewables consumption grew significantly in the last decade, their penetration in the market needs to accelerate.

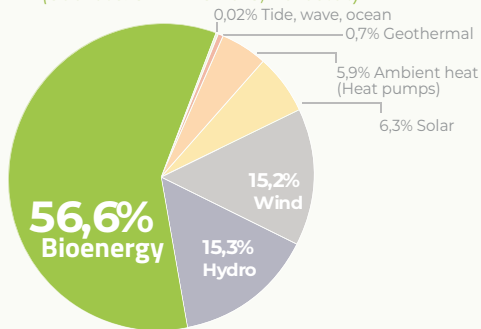
Evolution of the gross inland consumption by main fuel type in EU28 (Mtoe)

(Source: Eurostat)



Distribution of renewable gross final energy consumption in the EU28 in 2018 (%)

(Sources: SHARES 2018, Eurostat)

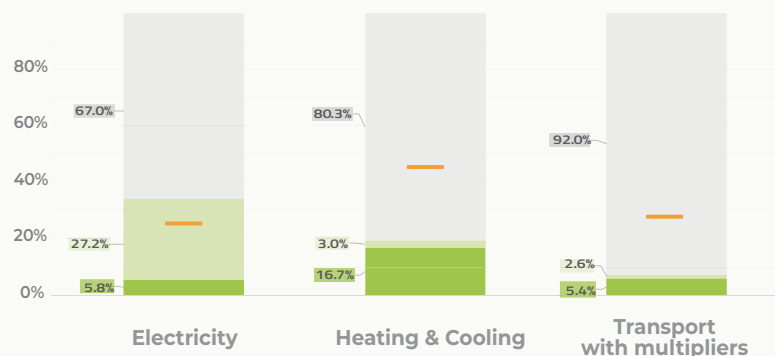
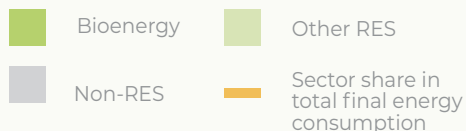


Unique versatility of Bioenergy

To reach climate neutrality by 2050, more efforts are needed to deploy further renewable energy, especially in the heating and transport sectors that are lagging behind in terms of decarbonisation. Bioenergy can provide secure and affordable renewable heat to the residential and industrial sectors and sustainable biofuels use in road, maritime and aviation. Political support and fair market conditions are needed to support bioenergy development. A carbon price should be introduced in the H&C and transport sectors, and subsidies to fossil fuels should be phased out, aligning fuel taxation to climate objectives. Moreover, thanks to application of bioenergy with carbon capture and storage - which is already a mature technology with number of existing projects in the EU - we can produce energy and decrease the amount of CO₂ in the atmosphere, achieving carbon negative emissions.

Repartition by energy source for the different final usages in the EU28 in 2018 and their relative importance in the total final energy consumption (%)

(Source: SHARES 2018, Eurostat)

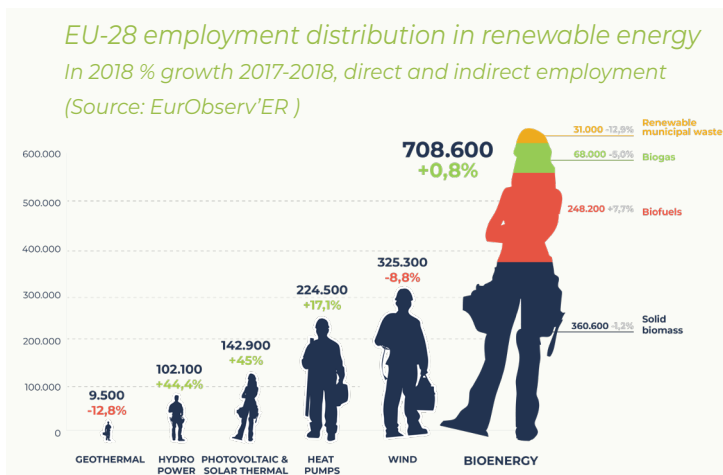


Note: Calculated in accordance to the methodology established in Directive 2009/28/EC and Regulation (EC) No 1099/2008.

For the energy source repartition in transport 'Other renewables' represents RES electricity used in transport which also counts towards the RES for electricity (not for the sector share in total final energy consumption). Multipliers included.

Bioenergy: creating jobs and facilitating green recovery...

Bioenergy is mainly utilising local biomass and its manufacturing value chain is solidly based in the EU. This results in abundant job creation and could contribute to rebound of the economy and green recovery. Bioenergy is the largest renewable energy source in terms of direct and indirect employment, accounting for 708,600 jobs in the solid biomass, biofuels, biogas and renewable municipal waste sectors. Its turnover represented €57.6 bn in the EU-28 in 2018.

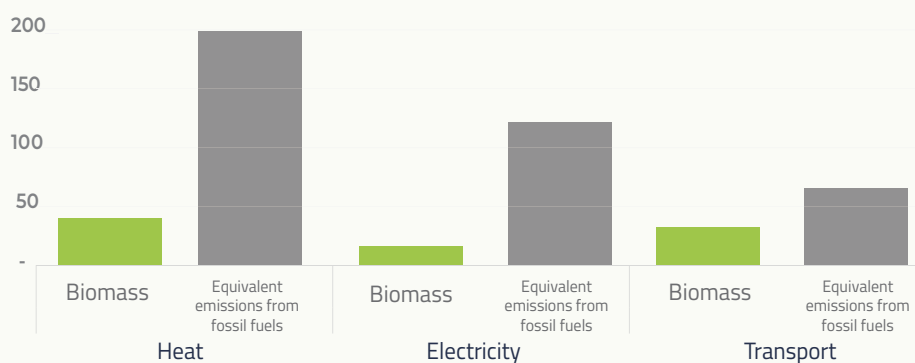


... supporting strategic autonomy of the EU

In addition, the European bioenergy industry is globally competitive, holding an undisputed leadership in terms of technological development, manufacturing and fuel production processes. The EU is the largest exporter of advanced equipment and is largely resilient to the disruptions of global value chains. Bioenergy also enables other sectors to pursue decarbonisation - such as commercial and industrial energy consumption. For these reasons, it is essential to establish a European industrial strategy recognizing the decarbonisation potential of bioenergy as well as its potential for economic growth and job creation.

...and saving great amounts of emissions

*Comparison of the GHG emissions from bioenergy and fossil fuel equivalent in the different sector in EU28 in 2018 (MtCO₂eq)
(Source: Bioenergy Europe calculations; RED II - biomass default values and fossil fuel comparator).*



Bioenergy in EU28 allowed to save 310 MtCO₂eq, equivalent to around 7% of the EU28 GHG emissions in 2018, more than 2,5-fold the annual emissions of Belgium. It is clear that bioenergy helps to reach the climate target, but it should be further promoted and used in efficient ways.

RECOMMENDATIONS

- The development of bioenergy is essential for the attainment of the EU's climate ambitions.** Bioenergy is today the main renewable energy in the EU, accounting for 56,6% of the European gross final renewable energy consumption. It is also the only fuel that has mandatory sustainability requirements by law, making it a truly sustainable solution for a decarbonised 2050 energy system.
- The EU, national, and local authorities should prioritise the phasing out of subsidies to fossil fuels and the introduction of carbon pricing to foster a switch to renewables.** Decarbonisation of the H&C sector is lagging behind. A carbon price should be introduced in the H&C and transport sector - today falling outside of the EU Emissions Trading Scheme (ETS) - and subsidies to fossil fuels should be phased out by aligning fuel taxation to climate objectives, for example.
- The European industrial strategy should recognize the importance of bioenergy** for the strategic autonomy of the EU, its decarbonisation potential as well as its potential for green economic recovery and support further development of the European value chain.