

# WHY BUILDINGS MATTER FOR THE 2040 CLIMATE TARGETS

The 2030s will need to see a substantial ramp up of energy renovations as most of the building stock should reach a high energy efficiency performance level to achieve a fully decarbonised building sector by 2050 with improved living conditions. A 2040 climate target should provide long term visibility and front load the effort in the beginning of the decade.



## A clear trajectory is needed for the buildings sector post 2030

Responsible for 36% of the EU's GHGs emissions, the building sector should become a core focus the European Commission's 2040 climate action plan. The measures necessary to decarbonise the sector are already well known:

The energy **renovation rate of building stocks needs to increase significantly to 3%** from 2030 to 2040. Most of these renovations should be energy+ or ZEB<sup>7</sup>.

**All buildings should be decarbonised by 2040** according to the IEA Net Zero Emissions 2022 scenario<sup>8</sup>. In practice this means:

- No new sales of fossil fuel boilers by 2025.
- Most appliances and cooling systems sold are best in class by 2035.
- 50% of existing buildings retrofitted to zero carbon-ready levels by 2040.

## The Commission should adopt a 2040 target in line with its 2050 objectives and frontload action in the buildings sector

Strategic Perspectives, Negawatt and Agora Energiewende consider the -90% GHGs scenario a feasible pathway. It would require the EU to slightly increase the pace of decarbonisation after 2030 compared to the trajectory to reach the 2030 target<sup>1 2 3</sup> - allowing enough time and resources to address the emissions of harder-to-abate sectors post 2040.

These studies show that some sectors should already be fully decarbonised by 2040 to achieve a net-zero economy by 2050. The EU climate target must reflect these findings and focus on sectors with readily achievable emissions reductions, such as the building sector. Most of the technologies needed in this sector are already mature. Enabling a significant production ramp up and the development of a skilled workforce will be key to ensure their availability.

This also means that efforts need to be ramped up before 2030 so deliver the full potential during the next decade.



## An ambitious sectoral target for energy efficiency

Global<sup>4</sup>, European<sup>5</sup> and national<sup>6</sup> energy transition scenario highlight the crucial role played by energy efficiency to achieve a fully decarbonised system by 2050. These studies all present energy consumption reduction figures in the range of - 40 to - 50% by mid-century.

From an industry perspective, sectoral targets signal governments' commitment to achieving their objectives, and are the basis for policy measures, monitoring schemes and financing. A binding 2040 energy efficiency target will provide energy efficiency solutions manufacturers with market visibility and the opportunity to plan investments and training programs.

## The Commission's modelling work should take the multiple benefits and system value of energy efficiency into account

The 2040 climate target should be based on an updated PRIMES model which:

1. Lowers the discount rate used to model future cost and return on investment of energy efficiency improvements.
2. Quantifies the positive effect of energy efficiency policies on peak demand management - allowing for a more comprehensive evaluation of the infrastructure and investments required to meet electricity demand. (See [here](#) for US example).
3. Accounts for energy renovation's multiple benefits.

## The revision of the 2040 target should not take away the focus on 2030

While making sure that climate action is ramped up during the 2030s, the European Commission should maintain its focus on the implementation of Green Deal files in the coming months and years. To avoid unnecessary delays, Member States should reflect the updated energy efficiency objectives adopted in the Energy Efficiency Directive.

### References

1. Negawatt, 2023, CLEVER report, Executive summary
2. Strategic Perspectives, 2023, [The post-2030 climate target debate starts now \(strategicperspectives.eu\)](#)
3. Agora Energiewende, 2023, Breaking free from fossil fuels
4. IEA, 2022, [Net Zero by 2050 – Analysis - IEA](#)
5. Negawatt, 2023, CLEVER report, Executive summary
6. For example: RTE, 2022, [Futurs énergétiques 2050 : les chemins vers la neutralité carbone à horizon 2050 | RTE \(rte-france.com\)](#)
7. Strategic Perspectives, 2023, [The post-2030 climate target debate starts now \(strategicperspectives.eu\)](#)
8. IEA, World Energy Outlook 2022

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### For further information

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