Efficient Buildings Europe

Setting the way to decarbonised, efficient, and affordable buildings beyond 2030

Executive Summary

The current geopolitical context is causing spikes in energy prices (100 days after the outbreak of the war in Iran, Europe's bill for fossil fuel imports increased by over EUR 62 billion[1]) and underlines once again Europe's energy dependence. A **structural reduction of energy demand through efficiency -** particularly in buildings, which account for 40% of the EU's energy use and over half of EU gas consumption - is the most effective way to reduce EU dependency on fossil fuel imports.

To incentivise industry players and building owners to invest, the European Commission should propose a **coherent post-2030 energy efficiency framework, backed by adequate financing.** This framework must build on the proven success of the EU energy efficiency framework and the stability provided by the current Energy Efficiency Directive (EED). It should strengthen key provisions and unlock the full potential of buildings as a cornerstone of a secure, affordable and decarbonised energy system.

Beyond savings, the framework must set the way towards a **competitive and resilient energy system**, while delivering multiple benefits, including lower bills, improved comfort, health and wellbeing, reduced energy poverty and job creation. Its implementation should be supported by stronger governance, adequate financing, effective monitoring and digital tools that enable continuous energy efficiency improvement in buildings.

Efficient Buildings Europe calls for the post-2030 framework to:

- Adopt a **dedicated EU energy efficiency target for 2040**, expressed in energy consumption.
- Use KPIs as delivery indicators, not as substitutes for the headline target.
- Strengthen implementation and enforcement, including better monitoring, corrective mechanisms, technical assistance and stronger application of the **Energy Efficiency First principle.**
- Support public authorities to reach their savings obligations through the Public Procurement Act, project-development assistance, aggregation of smaller public-building projects, and access to blended finance.
- Include a **digital pathway for energy efficiency in buildings the post-2030 planning** and strengthen the follow-up obligations to energy audits.
- Align NECPs with **National Building Renovation Plans**, **Social Climate Plans** and **local Heating and Cooling Plans**.

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A clear target architecture for 2040

The post-2030 architecture should maintain a **dedicated EU energy efficiency target expressed in final energy consumption,** supported by transparent national contributions and delivery trajectories.

This should be built on the Governance Regulation and the Energy Efficiency Directive, which demonstrate the value of a clear target architecture. Clarity and commitment in a post-2030 energy efficiency target are essential to **give industry, financial institutions and building owners the confidence to plan long-term investments in renovation, efficient technologies and energy services.**

Metrics matter: how to measure energy efficiency?

The post-2030 target should continue to be expressed in energy consumption, with final energy consumption remaining the central metric, complemented where relevant by primary energy consumption to reflect system-wide efficiency.

EU energy consumption remains a highly relevant metric in the current geopolitical context. In terms of energy security, it allows the EU to decrease fossil fuel dependence by reducing energy use. In the context of the Affordable Energy Action Plan and the Affordable Housing Plan, this metric helps cut energy costs by reducing the investments needed to build additional energy infrastructure (better energy management and reduced peak demand lower total system costs). An energy consumption target also supports the electrification rate and enables its monitoring (percentage of the total EU final energy consumption). Monitoring of the EU's energy consumption also supports greenhouse gas emissions reduction, essential to achieve the EU 2040 climate target.

- Evidence shows that energy savings have the potential to both help achieve ambitious climate and energy-security objectives, and to reduce feasibility concerns and environmental risks[2]. A recent NégaWatt report[3] finds that credible 2040 pathways require substantial reductions in final energy consumption (at least 31% compared with 2019).
- The cost-effective deployment of electrification relies on energy efficiency and renewable energy sources, as energy savings determine electrification system costs. **Recent scenario analyses suggest that energy savings can reduce total energy-system investments by 8-22% compared with pathways that do not prioritise demand reduction[4].**
- Energy savings can **create growth opportunities for the industry**. Data suggest[5] that energy efficiency improvements are safe investments for industry: cutting their operating expenses, making them resilient to future price shocks, and reinforcing their competitiveness over time. Firms that implement energy efficiency measures outperform those without them.
  - Over the past 20 years, the EU has decreased its final energy consumption by 12.1%[6] while the economy grew by 25%.[7]
  - To maintain this reinforcing relationship between energy efficiency and growth, the Commission could include **limited exemptions for energy-intensive industries with a decarbonisation roadmap** and for **energy efficient data centres**.

A target expressed in energy intensity would maintain political visibility, but it would undermine the market predictability provided by the current energy efficiency framework. Energy intensity cannot be automatically translated into concrete energy savings, limiting its impact on energy security and affordability. It is also ill-

[1] War in Iran: 100 days in, €60 billion out - Institut Jacques Delors
[2] 2040_scenario_comparison_-_ambition_and_feasibility.pdf
[3] 2040_scenario_comparison_-_ambition_and_feasibility.pdf
[4] 2026_01_electrification_eu_2040.pdf
[5] Investment Report 2025/26: Capitalising on Europe's strengths
[6] Eurostat, "Energy efficiency statistics"
[7] Data between 2005 and 2025, Eurostat, "National accounts and GDP"

fitted to measure and drive action in end-use sectors such as residential buildings, where the correlation between energy use and economic growth is less direct. Moving to an intensity metric would also delink the measurement of electrification progress from the existing energy efficiency target and risk deprioritising the achievement of the 2030 objective.

The EED after 2030: building on what works

The 2023 EED offered predictability and stability for stakeholders and investors, while encouraging more ambitious national energy efficiency policies and investment in energy efficiency technologies and solutions.

This regulatory clarity is essential for the building sector, where long investment cycles, high upfront costs and fragmented national programmes can slow down renovation and create a "stop and go" effect.

The 2026 EED review should build on core articles of the current Directive and deliver greater harmonisation in requirements and incentives among Member States.

Leading by example

Public bodies own a significant and socially important portfolio of buildings, including schools, hospitals, social housing and administrative facilities. They also have substantial capacity to shape market demand: more than 250,000 public authorities account for public procurement equivalent to around 14% of EU GDP. Their renovation decisions can therefore create **predictable demand for energy-efficient products, technologies and services, develop replicable delivery models and demonstrate benefits directly to citizens**.

Ireland's example shows how a public-sector energy-efficiency objective can deliver measurable results when supported by statutory reporting, common performance indicators and technical assistance. Ireland combined a 33% public-sector efficiency target for 2020 with mandatory annual reporting, allowing the use of alternative approach to deliver equivalent savings through renovation, energy management and other measures. **The public sector ultimately achieved the national 2020 target and had improved its energy efficiency by 32.5% by 2022, avoiding an estimated €2.5 billion in energy expenditure since 2009**[8].

Efficient Buildings Europe calls on the Commission to the complementary public-sector obligations under the EED while improving their implementation, by:

- Assisting Member States and other public bodies in **mapping their building stock**, including energy consumption and performance data. The data should feed into the EU Building Stock Observatory and the National Building Renovation Plans.
- Providing public authorities with the right tools to meet their obligations, for instance through the **Public Procurement Act and EED Article 7**, by including energy and water efficiency in the contract award criteria.
- Limited resources often restrain public bodies from energy efficiency improvements, especially municipalities and smaller public bodies. The European Commission, with the EIB, must support them through project-development assistance, aggregation of smaller public-building projects, and access to blended finance.

Energy Savings Obligation

Measures implemented under the Energy Savings Obligation (Article 7 of 2012 EED) delivered 197.4 Mtoe of cumulative end-use savings across 24 Member States between 2014 and 2020[9]. By lowering the EU's

[8] Public Sector avoided an estimated €2.5 billion in energy spend since 2009
[9] eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022DC0641&utm.com

underlying energy needs before the crisis, energy efficiency measures helped cushion its impact, while contributing to the structural reduction in EU gas demand. According to the IEA[10], EU gas demand fell by around 50–55 bcm in 2022. Efficiency improvements in buildings (including heat pumps, thermal insulation, building-envelope measures, technical building systems, controls and other demand-side solutions), together with lower electricity demand were among the factors behind this historic decline.

Existing EED provisions already show how a clear EU framework can be translated into national policies, public investment, market uptake and concrete energy savings. The Energy Savings Obligation has been used effectively in some Member States. Poland's[11] Clean Air Programme[12] could provide 11,000–12,000 ktoe of cumulative savings by 2030, around 25% of its obligation. France's Energy Savings Certificates delivered 2,038 TWhc in 2022–2024.[13] Italy's White Certificates generated about 0.43 Mtoe of primary energy savings in 2025.[14]

While these schemes deliver savings at scale, their integrity depends **on robust independent verification.** Recent fraud cases[15] underline the need for stronger audit and anti-fraud safeguards as a condition of continued reliance on tradable-certificate mechanisms.

- Implementation remains uneven across Member States and could be better harmonised by limiting the number of alternative methods available to achieve energy savings.
- Stronger audit and anti-fraud safeguards are essential to maintaining confidence in tradable-certificate mechanisms.

Energy Audits, energy management systems and digital tools

Energy audits and energy management systems demonstrate the value of the EED as a delivery framework. Audits identify savings potential, including cost-effective building envelope measures, while energy management systems convert it into continuous, measurable and verifiable energy performance improvements. In buildings, they can optimise heating, cooling, ventilation and lighting in real time, cut bills, and prepare buildings for electrified heating, demand response and flexibility.

- These provisions could be made more impactful **by strengthening the follow-up obligations**, such as requiring the implementation of cost-effective recommendations. Article 11 implementation is most effective when it combines mandatory audits and energy management systems with practical support for companies, especially SMEs, to implement the identified measures.
- Energy management systems certified to **ISO 50001 should be recognised as the reference standard** for Article 11 compliance, given their track record of converting audit findings into continuous, verifiable performance improvements.
- Energy audits should systematically assess **cost-effective system-optimisation measures**, including hydronic balancing and effective commissioning. Such measures can reduce distribution losses, improve comfort and enable heat pumps to operate more efficiently as buildings electrify.
- For instance, in the Netherlands, the Energy Saving Investigation Obligation requires enterprises to execute all cost-effective energy-saving measures identified in the audit that have a **payback period of five years or less[16]**.

When combined with **digital tools**, energy management systems can optimise heating, cooling, ventilation and lighting in real time. They can also cut bills and prepare buildings for electrified heating, demand response and flexibility. Smart meters, building automation and control systems, indoor environmental

[10] Europe's energy crisis: What factors drove the record fall in natural gas demand in 2022? – Analysis - IEA
[11] Ensmov Plus
[12] Poland's Clean Air Programme – Policies - IEA
[13] 5ème période des CEE 2022-2025 « Rapport annuel – Année 2024 »
[14] Rapporto annuale Executive Summary CB 2025.pdf
[15] See the €27M certificate fraud dismantled by Eurojust and Europol in Italy (2021)
[16] EED Audit Obligation | RVO.nl

quality monitoring and digital EPC/building databases can turn audits from static reports into continuous optimisation tools.

Smart meters and sub-metering make energy use visible at building and equipment level. **Building automation and control systems** can detect faults, avoid energy waste and optimise technical building systems. Indoor environmental quality monitoring can ensure that energy savings are delivered while maintaining comfort, health and productivity. These benefits can be further strengthened when digital solutions are combined with building envelope improvements that reduce the overall energy demand.

Digital EPC databases, building logbooks and renovation passports can also support public authorities. They can help identify worst-performing buildings, target financial support, track renovation progress and verify savings. This moves audits from static compliance reports to continuous performance improvement.

- The post-2030 framework should make digital tools a practical enabler of implementation, monitoring and continuous energy efficiency improvements in buildings by:
  - Requiring Member States to include a **digital pathway for building energy efficiency in their post-2030 planning**, setting out how digital tools will support audits, energy management systems, renovation targeting, savings verification and demand-side flexibility.
  - Linking energy audits and energy management systems to **digital monitoring**, measurement and verification tools where relevant.
  - Promoting **interoperability** and access to building energy data for building owners, occupants, public authorities and qualified energy service providers.

Energy Efficiency First

The Energy Efficiency First principle should also remain central to planning, policy and major investment decisions. In practice, this means ensuring that demand-side solutions are assessed before supply-side investments are approved, wherever they can deliver the same objective at lower cost.

The post-2030 framework should **strengthen the implementation and enforcement of the EE1st Principle in national energy and infrastructure planning**. This should include NECPs, network development plans, heating and cooling plans, public procurement and the use of EU funds.

Financing the renovation pipeline

Regulatory certainty must be matched by an **enabling financing framework**. Energy efficiency solutions, technologies and products for buildings are already available and need to be scaled up. High upfront costs, split incentives, limited technical capacity and complex funding rules continue to slow down renovation and energy efficiency uptake.

Efficient Buildings Europe calls for:

- Member States should be required to develop **energy efficiency investment pipelines in their NECPs,** aligned with the trajectory established in the National Building Renovation Plans. This must be done prioritising worst-performing buildings, establishing expected investment needs, available public support and the private capital to be mobilised.
- Mechanisms to **aggregate renovation projects across homes, SMEs and public buildings** would allow energy efficiency investments to reach the scale needed to attract private finance.
- Following the example of the de-risking financing initiative for SMEs[17], the European Commission should launch a mechanism for households – such as a **European Renovation Loan**.
- **Public funding should be used more strategically** to de-risk performance and unlock private investment. This means expanding guarantees, first-loss instruments, standardised energy performance

[17] More than 350,000 European companies to get energy efficiency support under major EU financing initiative - European Commission

contracts and pay-as-you-save models, while linking public support more closely to measured energy savings.

A stronger governance framework for energy efficiency

The EED should remain the dedicated legal framework setting the EU energy-efficiency target and core delivery obligations, while the Governance Regulation should provide the strategic architecture to translate them into national action.

Efficient Buildings Europe recommends:

- NECPs must be aligned with **National Building Renovation Plans**, **Social Climate Plans** and **local Heating and Cooling Plans.** A coherent pathway for the building stock will allow Member States to avoid fragmented objectives and financing while lowering the reporting burden.
- The Governance Regulation should require Member States to **demonstrate how the Energy Efficiency First principle** has been applied in NECPs and infrastructure planning, including through a transparent assessment of demand-side alternatives and their contribution to affordability, energy security and cost-effective electrification.
- Where progress reports show persistent gaps against national energy-efficiency trajectories, the Governance Regulation should require a time-bound corrective action plan. This would quantify the additional savings expected from each measure, identifying possible funding sources, and setting delivery milestones. This should be accompanied by guidance, technical assistance and access to EU support. This would make the Governance Regulation the bridge between the EED's ambition and its implementation, while strengthening investment certainty and national ownership.

ENDS

For further information

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About Efficient Buildings Europe

Efficient Buildings Europe represents Europe's leading companies involved with the manufacture, distribution and installation of energy efficient products, equipment, and services for buildings.
The members of Efficient Buildings Europe employ more than 280,000 people in these activities in Europe and have over 1,200 production facilities and office locations in the EU. The mission of Efficient Buildings Europe is to work together with the EU institutions to help the EU to move towards a more efficient use of energy in buildings, thereby creating an efficient, decarbonised, and flexible building stock that actively contributes to the achievement of Europe's commitments on climate change, energy security, and economic growth.

Efficient Buildings Europe Members (2026)