

# SAVING ENERGY: THE CORNERSTONE OF EUROPE'S ENERGY INDEPENDENCE

The European Commission published the [REPowerEU communication](#) with the objective of phasing out fossil fuel imports from Russia well before 2030 in response to the war in Ukraine. The REPowerEU communication will be followed-up by a package, which is also expected to include an EU wide Energy Savings Plan, as a key pillar to improve EU energy security.

The upcoming Union-wide energy savings plan:

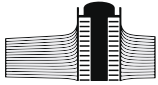
**1) is a crucial test for the application of the Energy Efficiency First principle.** The Commission must demonstrate that it takes seriously its own principle; measures to reduce energy consumption must be systematically assessed and prioritized over supply-side ones, specifically over those that create lock-in effects and undermine the achievement of climate neutrality and EU's energy independence. **The vicious cycle of responding to a supply-side crisis with measures that perpetuate dependence on fossil fuels imports must be broken and demand-side measures should be prioritised, including for strategic geopolitical reasons.**

**2) must embed measures that deliver short-term savings into a clear longer-term strategy to structurally reduce energy demand in the EU.** Short-term energy savings measures, including behavioural changes and sufficiency measures, are essential to rapidly address the emergency and increase the EU energy security, but they must be **integrated into a comprehensive approach to structurally reduce Europe's energy demand.** Behavioural change holds a large potential to reduce energy consumption. It requires a dedicated enabling framework, which includes educational efforts, supportive technical solutions and change in price incentives to ensure that the new behaviours become permanent. Measures that deliver short-term savings have to be complemented with strategies to cut energy use in the medium and longer run.

**3) must reconfirm that regulatory measures are at the core of EU action to improve energy efficiency.** The implementation of the existing EU energy efficiency legislative framework and **an ambitious revision of the Energy Efficiency Directive (EED) and the Energy Performance of Buildings Directive (EPBD) under the Fit for 55 package are the starting point for strong immediate and longer-term actions.** For example, the full implementation of the Fit for 55 Package as proposed by the European Commission could already lead to a cut of the EU's gas consumption by approximately 30%, half of which would come directly from the EED.<sup>1</sup>

The current crisis reveals the cost of weak energy efficiency actions in the past decades. The EU and the Member States will need to speed actions to compensate the slow progress and adopt ambitious measures to reduce energy demand, the cornerstone to achieve EU energy independence. To start with, the [Coalition for Energy Savings](#) advises the rapid adoption of the following measures.

1. [Recordings of ITRE committee - consideration of amendments on EED recast.](#)



## Governance and legislation

- The Fit for 55 package as proposed by the European Commission must be upgraded to provide a meaningful answer to the high energy prices and the EU energy security challenge. The REPowerEU package and the EU Energy Savings Plan should support an increase of the 2030 energy efficiency target beyond the proposed 9%, backed by sound analysis taking into account high energy prices and the multiple benefits of energy savings, including import reductions.<sup>2</sup> This would substantiate the call from the Commission towards co-legislators to consider a higher energy efficiency target given the changing geopolitical circumstances.<sup>3</sup> Notably, recent analysis shows that the cost-effective energy savings potential for 2030 has increased to at least 19% given the surge of energy prices.<sup>4</sup>

- The Commission should establish an Energy Savings Task force within the European Commission to rapidly upscale energy efficiency improvements with a specific, initial focus on how the systematic application of the energy efficiency first principle can lead to a reduction of fossil fuel imports, in line with the REPowerEU objectives. The task force should have a clear and time bound mandate, to define milestones for the frontloading of energy savings, including by devising ways to accelerate existing programmes and investments using existing EU funds. This approach would require coordinated action across the Commission, therefore should involve at least DG Ener, DG Clima, DG Trade, DG Regio, DG Grow, DG Empl, DG Just, and EEAS to ensure all synergies are exploited. To ensure accountability and political involvement, the task force should report regularly to the European Parliament and the Council.

2. The ITRE Committee Rapporteur and Shadows have already requested the European Commission to update the EED Recast Impact Assessment with scenarios for a higher 2030 energy efficiency target.

3. The REPowerEU communication suggests that "Given the circumstances, the co-legislators might also want to consider to boost the Fit for 55 proposals with higher or earlier targets for renewable energy and energy efficiency".

4. The cost-effective energy savings potential captures all the energy efficiency improvements where the energy bill savings are higher than the investment costs; depending to the energy price assumed this economic potential range between 19% and 23% in 2030. See [Fraunhofer ISI & Stefan Scheuer \(2022\): Assessing the impacts of high energy prices on the economic potentials for energy savings in the EU.](#)



## Industry and Tertiary sector

The industry sector has still untapped energy savings potential that can be grasped with quickly implementable measures:

- The uptake of energy management solutions, namely energy management systems (EMS), should be accelerated even before the entry into force of the EED recast<sup>5</sup> to guarantee systematic delivery of energy savings. For companies that have already carried out an energy audit in line with the current EED, **a requirement to implement the feasible recommendations stemming from those audits should be put in place**, with a focus on those that can deliver energy savings immediately and have a short payback time.

- Scaling up thermal insulation in industrial boilers, ovens, pipes, going beyond the level required for safety reasons and process control, can save up to 14 Million Tonnes of Oil Equivalent (Mtoes).<sup>6</sup> More importantly, **industrial insulation measures have generally a very short payback time, often less than 2 years.**

- Electric motors represent around 70% of the electricity consumption in industry and over 40% in the tertiary sector. There is a significant percentage of operating motors with poor efficiency levels and the **potential savings of accelerating replacement rate is estimated at 25 TWh/yr.**<sup>7</sup>

- Optimising water management in industrial cycles (i.e., cooling tower, steam leak prevention, maintenance of condensers) can also yield significant energy savings that reach on average 2% to 8% energy reduction for individual operation units.<sup>8</sup>

5. The Commission's proposal to [recast the Energy Efficiency Directive](#) suggests that companies with energy consumption above 100 TJ shall implement an Energy Management System and companies above 10 TJ shall undergo an energy audit.

6. [EiiF Study 2021: The insulation contribution to decarbonise industry](#)

7. Fong, J., de Almeida, A., Nuno F. Promoting the accelerated replacement of old electric motors in the European Union, EEMODS conference 2022 - Paper 59

8. [EU-ASE: Energy efficiency to address the energy & climate crisis: short-term to mid-term measures to reduce gas consumption in Europe.](#)

- Apart from being a consumer, the industry is also a significant source of excess heat, estimated at 300-350 TWh/year (source below). Only a fraction of that heat is recovered and used for heating buildings. Yet, the exploitation of the excess heat potential both can help EU Member States reduce their gas consumption in a cost-effective way, while supporting the financial sustainability of the companies. EU Member States therefore should start collaborating with the industry to tap that potential.



## Buildings

In the building sector, many actions can be carried out in the next few months which could lead to substantial energy savings:

- Support the insulation of roofs and attics, which could **cut gas consumption in the residential sector by around 12%**.<sup>9</sup>
- Install temperature room controls in buildings, such as thermostatic radiator valves that maintain indoor comfort constant without overheating, which **would cut heating energy use in homes by about 18%**.<sup>10</sup>
- 60% of heaters installed today in EU homes are old and inefficient and are mainly based on gas and oil.<sup>11</sup> Those must be **replaced by efficient and renewable-based heating and cooling systems**; modern heating is also a pre-requisite to installing advanced temperature control features.
- Install waste water heat recovery on new showers. If all new constructions and renovations triggered by the Renovation Wave are implementing this solution (6.25 million units per year), **the energy saving potential by 2030 would be 17.9TWh savings per year**. If the whole housing stock is equipped with waste water heat recovery, the saving would be 100 TWh/year.<sup>12</sup>

9. [BPIE: Solidarity and Resilience: An Action plan to save energy now!](#)

10. Many buildings in the EU still use manual radiator valves, if those were replaced with Thermostatic Radiator Valves would result in an or 20 years old thermostats. If heating systems would be upgraded with modern or digital Therma Radiator Valves, 160 TWh could be saved, according to [data from eu.bac](#).

11. [EHI's position on the legislative proposal to review the Energy Performance of Buildings Directive](#).

12. [UNI Innsbruck study 2022 : the potential of Waste Water Heat Recovery Systems](#).



## Transport

As shown [by the IEA](#), modal shift to less energy-intensive transport modes can rapidly decrease transport's energy consumption, in particular in urban areas.

- As developed during the Covid-19 crisis as an emergency measure, and then made permanent, **Member States must support local urban and rural authorities to develop additional cycling infrastructure** (lanes, bicycle parking...) as soon as possible.
- An **accelerated shift to electric mobility will also improve the energy efficiency of the transport sector**. [Scrappage mechanisms](#) to replace polluting cars with electric bikes can for example be a complementary measure to encourage soft and clean mobility.



## Financing and technical assistance

- The Commission can support Member States in the allocation of available funding capacities, by **frontloading, and if possible upscaling, investments for energy efficiency in the National Recovery and Resilience Plans**. Financing from cohesion policy could also be better targeted to the emergency; for example in the ongoing negotiations of the national Partnership Agreements and upcoming Operational Programmes, precedence should be given to projects supporting demand side measures, including the upskilling of workers.
- The Commission should work with Member States and financial institutions to ensure that **all EU citizens have access to 0% government-backed loans for renovating their homes**, and to ensure that all vulnerable households have access to grants covering the vast majority of their renovation costs.

- The Commission should urge Member States to **design their fiscal frameworks in a way that rewards saving energy**. For example, Member States could lower VAT for products and services delivering energy efficiency improvements, in line with the energy efficiency first principle.

- Financial incentives have to be **complemented by adequate technical support**, through, for example, the rapid roll-out of Building Renovation Passports and well-staffed One-Stop-Shops, to ensure that citizens are helped to access financing and can get tailored advice for their renovation projects.



### Citizens

- **Energy communities must be mobilised to deliver energy savings in the residential sector**. Households that join an energy community also implement energy efficiency and energy sobriety measures to ensure their renewable energy production is maximised; research has shown that their energy use can be cut by up to 28%.<sup>13</sup>

- In the short-term, local actors such as energy communities, energy agencies, social housing energy experts, consumers' associations and municipalities can appoint **"energy coaches", providing accessible advice to neighbours on quick-win energy savings measures**. This includes e.g. awareness on energy saving behaviour, lowering boiler temperature to ensure proper condensation and optimising boiler settings, hydraulic balancing of the heating system, improving window and door airtightness, LED switching, energy saving showerhead, radiator foil, etc. For example, in the Netherlands over 5000 energy coaches have already been trained and are providing advice to citizens. The European Commission should therefore help local actors with financial and technical support for the training of Energy coaches.

13. REScoop PLUS project - Regulatory factsheet & REScoop PLUS project - Behavioural factsheet.





The **Coalition for Energy Savings** strives to make energy efficiency and savings the first consideration of energy policies and the driving force towards a secure, sustainable and competitive European Union. Its membership unites businesses, local authorities, energy agencies, energy communities and civil society organisations in pursuit of this goal.

Coalition members represent:

- more than 500 associations, 200 companies, 1,500 cooperatives
- 15 million supporters and 1 million citizens as members of cooperatives
- 2,500 cities and towns in 30 countries in Europe

[www.energycoalition.eu](http://www.energycoalition.eu)

 [The coalition for energy savings](https://www.linkedin.com/company/the-coalition-for-energy-savings)  
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