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COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

Action Plan for Affordable Energy

Unlocking the true value of our Energy Union to secure affordable, efficient and clean energy for all Europeans

1. INTRODUCTION

Our energy market fuels our economy, supports our society and connects our communities. Together, we have built resilient grids, decoupled our economic growth from our greenhouse gas emissions, reduced our dependencies and shown leadership in the global energy transition. The EU managed the recent energy crisis thanks to the rapid deployment of clean energy, the diversification of supply, the availability of energy interconnections critical to its security and the solidarity demonstrated across Member States.

However, there is a **clear and urgent need to strengthen our Energy Union**. High energy costs are hurting our **citizens**: energy poverty affects more than 46 million Europeans, with a disproportionate impact on vulnerable groups.[1] For **industries**, retail electricity prices have almost doubled: for a medium-sized industrial consumer, prices in 2023 remained 97% above their 2014-2020 average.[2] The **gap in energy prices** between the EU and our main competitors is growing,[3] with the risk that new investments favour countries outside Europe and that existing industries relocate, leading to a potential drain of critical industries that drive the EU's economy and resilience and create quality jobs.[4] The current situation undermines the EU's **global standing** and international **competitiveness**.[5]

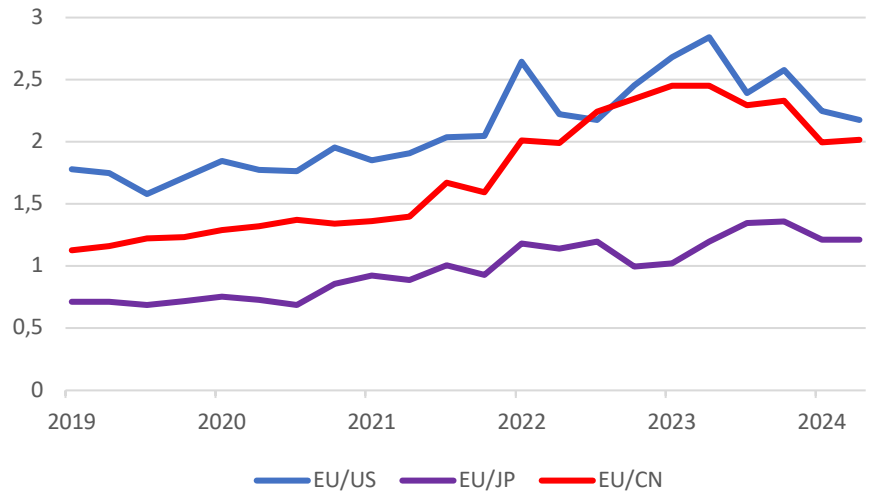

Figure 1. Ratios of industrial retail electricity prices in global markets (*European Commission estimations*)
(A ratio of more than 1 means that EU prices are higher than those of the corresponding non-EU country)

Therefore, the Commission is launching an ambitious programme to support our citizens, businesses and industry by driving growth and investment and promoting decarbonisation efforts.

[1] Eurostat data base (*Online data code: ilc_mdes01*)
[2] Study on energy prices and costs – Evaluating impacts on households and industry – 2024 edition; Trinomics, 2025
[3] See Figure 1. EU electricity retail prices for industry were in Q2 2024 2.2 times those in the US, twice those in China and 1.2 times higher than in Japan (historically lower).
[4] Employment in the renewable energy sector reached about 1.8 million in the EU in 2023. Renewable energy and jobs: Annual review 2024; IRENA in collaboration with ILO, 2024
[5] The future of European competitiveness, part B, Figure 2; Mario Draghi, September 2024. Widening divergence of retail prices across the EU, from less than EUR 100/MWh (PT, FI, SE) to over EUR 250/MWh (CY, HU, NL).

The **Competitiveness Compass for the EU**[6] will guide the work in the coming five years to reignite economic dynamism in Europe. The **Clean Industrial Deal, our growth and prosperity strategy bringing together climate and competitiveness,** is a central component of this work. Supporting the Clean Industrial Deal, the **Action Plan for Affordable Energy** will focus on decreasing energy costs for citizens, businesses, industry and communities across the EU, considering the needs of all people, including vulnerable groups.

This action plan presents measures to **lower energy bills in the short term**, while **accelerating the implementation of much-needed cost-saving structural reforms** and **strengthening our energy systems to mitigate future price shocks**. With the full engagement of Member States and all relevant stakeholders, these **eight actions** for affordable energy will reduce energy costs and help build a genuine **Energy Union** that delivers competitiveness, security, decarbonisation and a just transition, passing on to end users the benefits of cheaper energy.

2. WHAT IS DRIVING UP ENERGY COSTS IN THE EU

Energy bills are determined by a **combination of factors**: energy supply costs linked to the overall level of consumption, network costs, and excise levies and taxation. In turn, energy supply costs depend on wholesale prices, driven by diverse factors like supply and demand conditions, energy mix, interconnections, competition, weather and geopolitical realities as well as retail competition among suppliers. These factors explain the **structural challenges** of the EU energy system.

First, Europe's reliance on **imported fossil fuels** causes energy price volatility and higher supply costs, while making the EU more vulnerable to external pressure and global market uncertainty. While demand for natural gas declined by 18% between August 2022 and May 2024,[7] the EU remains exposed to global fossil-fuel price fluctuations, with 90% of its natural gas demand covered by imports.[8] The consequences of excessive supply dependence were evident during the recent energy crisis. Russia's weaponisation of its gas exports led to supply uncertainties and sharp price spikes. In 2022, the **EU's fossil-fuel energy import bill reached EUR 604 billion**, after a historic low of EUR 163 billion in 2020.[9] With a substantial share (28.9%) of the EU's average electricity generation mix still based on fossil fuels,[10] and transport largely fuelled by oil products, fossil-fuel import costs have **a significant impact on consumers' energy bills** (see Figure 2).

[6] A Competitiveness Compass for the EU (*COM(2025) 30 final*)
[7] Impact Assessment Report for Europe's 2040 climate target (*SWD(2024) 63 final*, Annex 8 (part 3/5), section 1.2.3)
[8] Eurostat natural gas statistics. Europe imported 273 bcm in 2024, compared to 334 bcm in 2022.
[9] Report on energy prices and costs in Europe (*COM(2024) 136 final*); European Commission, March 2024
[10] European electricity review 2025; EMBER, January 2025

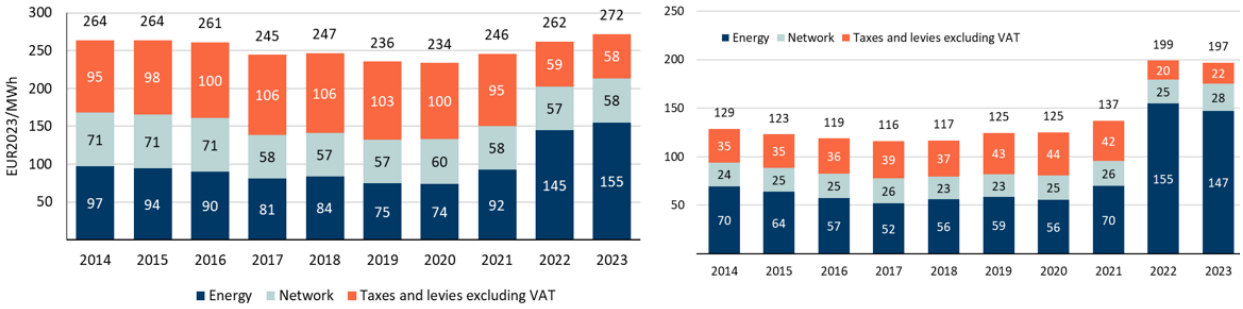

Figure 2. EU electricity bills for households (DD band, left) and industry (ID band, right) in real 2023 prices[11]

Second, **inefficiencies and lack of full integration in the electricity system** also impact energy bills. Europe has the most integrated grid globally, but more needs to be achieved as regards **interconnections, grid infrastructure, energy system integration and system flexibility** to boost the integration of cheaper and cleaner energy sources. **Lengthy permitting procedures** for clean energy and grid projects further hinder progress. Current estimates are that by 2030, around half of the EU's cross-border electricity new capacity needs will not be addressed,[12] holding back the complete integration of our energy market.

Finally, **increasing system costs** covered by network charges and taxes and levies further drive up electricity prices and constitute a substantial part of the bill, which may further increase as our networks will need considerable investments in the coming years.

3. BUILDING A GENUINE ENERGY UNION TO DELIVER MORE AFFORDABLE ENERGY

EU energy policy at a crossroads

Energy is a building block and a driving force of our Union. However, although we have built a strongly interconnected energy market, we do not yet have a **genuine Energy Union**. We are at a critical turning point for the European Union. The **challenges facing us are clear and urgent**. Our energy costs remain comparatively high, **putting Europe** at **a real risk of deindustrialisation** and posing a critical threat on our economy.

The cost of inaction is higher than the cost of action. Stalling halfway on the path to decarbonisation places a burden on our economies and our industrial capacity. For example, in 2023, the curtailment of renewable energy in Germany alone cost over EUR 3 billion, with the benefits of the production of this cheap energy being lost for consumers and businesses. Furthermore, as the electricity system grows in complexity, so do the costs: costs for managing grid congestion, mainly from re-dispatching, reached a peak of EUR 5.2 billion in 2022[13] and could rise to EUR 26 billion by 2030.[14] The most effective way to manage these costs is through shared and strategic European investment while ensuring technological neutrality.

The cost of failing to complete the transition is compounded by the **cost of not taking full advantage of our single market** and its potential to reduce prices. For example, Southeast

[11] Eurostat, *nrg_pc_204_c* and *nrg_pc_205_c*, 17 February 2025
[12] Electricity Infrastructure Monitoring Report 2024; ACER, December 2024
[13] Network tariffs may significantly increase overtime by 60% by 2050 compared to 2022; Transmission capacities for cross-zonal trade of electricity and congestion management; ACER, July 2024
[14] Redispatch and Congestion Management; Joint Research Centre, May 2024

Europe experienced price spikes during evening hours last summer averaging at over EUR 250/MWh, among others driven by lack of cross-border capacity and insufficient flexibility that could have been eased by a more interconnected energy system.

Powering the Clean Industrial Deal through a robust Energy Union

If the challenges are clear, so is the role of our Energy Union to address them. The energy crisis revealed where **we need to continue strengthening our infrastructure and deepening EU energy market integration.**

We have already taken major steps. With the REPowerEU Plan, we have made our energy system more resilient by boosting energy efficiency, rolling out clean generation and diversifying our supplies. Progress has been evident. Newly installed wind and solar capacities reached record levels of 78 GW in 2024 and heat pump sales hit 3 million units both in 2022 and 2023. In 2024, renewables generated a new all-time high of 48% of electricity in the EU, increasing from 45% in 2023 and 41% in 2022. **Our efforts have paid off**: since the spring of 2023, gas prices have come down considerably. In the coming weeks, the Commission will also give an additional push towards the full implementation of REPowerEU to completely end Russian energy imports. Still, to deliver lasting long-term solutions, we must not roll back but continue moving forward. We need to finally achieve a genuine Energy Union through **three main enablers**.

First, we need **a fully integrated energy market**, supported by an **interconnected and digitalised network** and a cohesive **regulatory and governance** regime. The Internal Energy Market and the integration of European electricity markets already benefit consumers by around EUR 34 billion every year.[15] **Further integration could increase these benefits to up to EUR 40-43 billion per year** by 2030.[16] We will need massive grid upgrades, and this should be done in the most cost-efficient way: wider use of grid enhancing technologies, and flexible use of the system could save up to 35% in conventional grid expansion costs. Regional cooperation across Europe, underpinned by better interconnectivity and closer coordination,[17] can reduce the need for flexibility investments by up to 20%.[18]

Second, we need a **decarbonised energy system**, driven by a substantial scale-up of **clean energy and electrification**, with **energy efficiency** at its centre. The world is moving faster than ever towards clean energy. Global spending on clean energy hit a record of EUR 1.9 trillion last year. For every euro invested in fossil fuels, two euros are invested in renewable energy. We will deliver decarbonisation, because decarbonisation delivers not only clean energy, but also quality jobs, growth and energy security. In addition, reducing the share of fossil fuels in the European energy system would further shield consumers from market volatility.

Third, with natural gas still remaining a part of Europe's energy consumption, we need a **more transparent and competitive well-functioning gas market,** while continuing diversification and demand reduction efforts. The EU remains exposed to volatile movements of international gas prices. We need to make sure that gas is traded on fair terms, and we need

[15] ACER's final assessment of the EU wholesale electricity market design; ACER, April 2022
[16] Integrating the EU energy market to foster growth and resilience; IMF, January 2025. Realising the benefits of European market integration; Baker et al., 2018; Benefits of an integrated European energy market; Booz et al., 2013
[17] Redispatch and Congestion Management; Joint Research Centre, May 2024
[18] Power system flexibility in the Penta region; Trinomics and Artelys, March 2023

to leverage our collective strength. As an example, the demand aggregation mechanism has matched 42 billion cubic metres since 2023, which is 13% of the EU gas consumption during that period.

In short, **only by accelerating investments** in clean energy and infrastructure, ensuring rapid acceleration of electrification, increasing energy efficiency and bringing transparency and fairness to gas markets **can we make energy affordable**. That is why **Europe needs this Action Plan:** to deliver a fast and firm response that lowers energy costs in the immediate term, to future-proof the energy system, to attract investments and to ensure delivery. In this respect, streamlining our regulatory framework and reducing administrative burdens can help businesses by providing visibility and simplicity for the deployment of clean technologies. Concerted action and engagement of European leaders at the highest political level is essential to deliver on this transformative Action Plan.

Without the energy transition, the EU's fossil fuel import bill in 2025 would be EUR 45 billion higher than in 2019, representing an estimated **0.25% of the EU's GDP**.

The implementation of this Action Plan will enable the **EU to fast track the benefits of the clean transition. This will translate into a drop in the EU's fossil fuel import bill year after year towards EUR 130 billion of savings per year by 2030**, representing an estimated **0.65% of the GDP by 2030**.[19] Such savings from reducing fossil fuel use can be roughly broken down **along three lines**: (i) increasing **electrification** and **energy efficiency**, which in turn decreases total fossil fuel demand (25%), and (ii) **replacing persistent fossil-fuel demand** in electricity generation with clean energy (50%), supported by (iii) **sufficient grid capacity**, **smart grid infrastructure** and **energy system flexibility** (25%). The **savings** in the EU's fossil fuel import bill **will increase** annually **up to EUR 260 billion by 2040**.[20]

4. AN ACTION PLAN FOR AFFORDABLE ENERGY FOR ALL EUROPEANS

This Action Plan suggests **immediate concerted action** by the European Commission, the European Parliament, Member States and industry to: (i) lower energy costs for all; (ii) complete the Energy Union; (iii) attract investments; and (iv) be ready for potential energy crises. Most actions will **be delivered in the course of 2025**, focusing on the actions that bring **immediate relief for energy consumers.**

[19] 2025 savings compared to import volumes in 2019, with estimations based on assumptions of 2024 fossil fuel spot prices. With an assumption of 2022 (higher) prices, the annual savings would grow from EUR 140 bn in 2025 (about 0.75% of GDP) to EUR 340 bn in 2030 (1.75% of projected GDP) and up to 600 bn in 2040 (2.7% of projected GDP).

[20] 1.2% of the estimated EU GDP. The 2040 savings are calculated under the assumption of a 90% GHG reduction ambition in 2040.

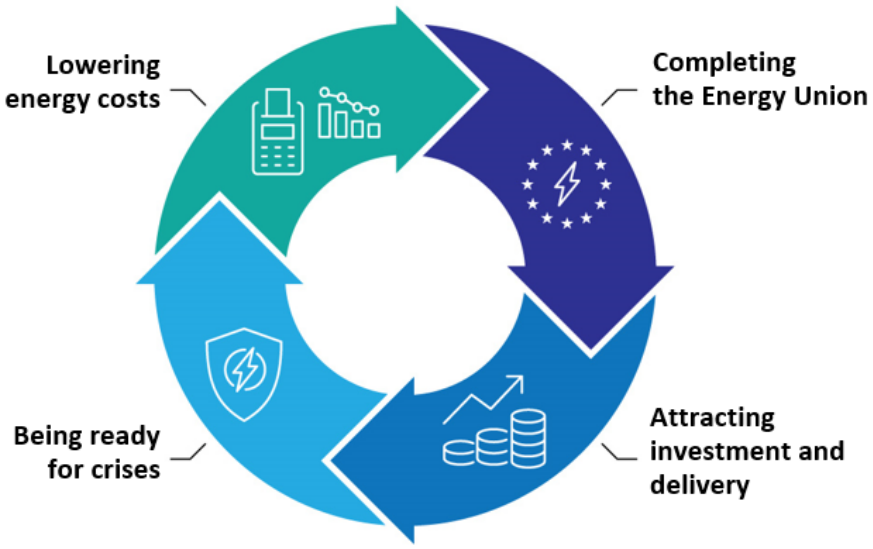

Figure 3. The four pillars of the Action Plan for Affordable Energy

Pillar I: Lowering energy costs

Lowering the bill requires addressing its **three cost components: network and system costs, taxation, and supply costs**. Moreover, with natural gas being a significant part of the electricity mix, ensuring well-functioning gas markets that deliver market-based prices will also help lower both the gas and the electricity bills. Further, energy efficiency and savings will reduce the amount of electricity that consumers need to buy.

Action 1: Making electricity bills more affordable

Member States can lower electricity bills already today. This requires immediate action as well as greater ambition, particularly in the areas of network charges and taxation.

a) Network charges

Network charges finance the physical upgrade of grids and the operation of the system. Significant capital is required for investments in modernising and expanding the electricity network. This is essential to facilitate the deployment of renewables, electrification and new industrial and business demand. At the same time, **the costs of operating the power system are growing**.[21] Network charges that incentivise system efficiencies and use of lower cost clean electricity could rapidly reduce the costs of operating the overall system, for example by decreasing re-dispatching needs and costs, lower peak demand and thereby grid investment needs and, ultimately, reduce the network charges component of the energy bill compared to no action taken.

In addition, given the magnitude of investments needed, spreading these investments over time can help ensure that costs remain contained for consumers. This is particularly relevant

[21] From 2020 to 2022, re-dispatching costs almost doubled to EUR 4.2 bn, countertrading doubled to EUR 0.8 bn and other costs decreased to EUR 0.2 bn Congestion management costs are driven by the efficiency in system operations and the cost of electricity supply, which was particularly high in 2022 driven by the energy crisis. Electricity infrastructure development to support a competitive and sustainable energy system; ACER, Dec. 2024

when investments anticipate uncertain future electricity demand growth due to electrification, where charging all such investments on current users may unfairly burden early adopters, slowing down electrification.[22]

What	**More efficient network charges to reduce energy system costs**
How	The Commission will: - put forward a **design of tariff methodologies for network charges** to incentivise the use of flexibility and investments in electrification, while maintaining the incentive to invest in the grid and ensuring a level playing field. This will enable users of the grids to adjust their energy use or shift it towards times and places where the cheapest energy sources are available and when it is the most cost efficient for the overall system; - **if necessary, put forward a legislative proposal** to make it legally binding; - put forward **guidance** to explain how, where relevant in targeted cases, Member States could make use of their **public budget to lower network charges** to cover the additional costs resulting from measures to accelerate decarbonisation and market integration, notably such as interconnectors, major network upgrades or offshore grid connection infrastructure, in compliance with State aid rules and competition law. For example, State budget can thereby enable faster depreciation for grid investors while avoiding price spikes for consumers; - put forward **guidance on anticipatory investments for electricity grids** while ensuring affordability for consumers to further support system operators, regulatory authorities and Member States.
When	Q2 2025
Impact	Flexibility will decrease peak demand and **lower energy system costs and total new grid investment needs**. By avoiding an uncontrolled increase of grid management costs otherwise going up to EUR 26 billion by 2030, it will lower the network charges that consumers will pay as part of the electricity bill.

b) Taxes and levies

High taxes on electricity increase bills and the current structure of taxation does not disincentivise the use of fossil fuels over the use of electricity, therefore slowing down electrification and demand for cheap homegrown electricity. Two main taxes are levied on electricity: VAT and energy taxation – complemented by other national taxes. The Energy Taxation Directive[23] provides for a minimum taxation (excise duties) of electricity and enables Member States to lower the tax rate down to zero where legally possible for energy-intensive industries and households and for all industries in case of electricity from renewable sources.

[22] Such measures, applied to natural or legal monopolies, are unlikely to constitute State aid and can align with cost-reflectiveness network tariff principles. See points 188 and 211 of the Commission Notice on the Notion of State aid, as well as points 373-375 CEEAG. For the case of the German Hydrogen Backbone, the Commission found such a measure to be compatible State aid (*Commission Decision C(2024) 4366 final in case SA.113565*).

[23] Council Directive 2003/96/EC on the Community framework for the taxation of energy products and electricity

Lowering taxation has **proven very effective in containing energy bills** during the energy crisis, when Member States implemented reductions in VAT and energy taxes, and income transfers to vulnerable groups.[24] In France, for example, the electricity consumption tax was reduced from EUR 22.5/MWh to EUR 0.6/MWh.[25] Such support should be particularly targeted to effectively achieve the objective while minimising fiscal costs.[26]

What	**Lower taxation of electricity and removal of non-energy cost components from bills**
How	The Council should **complete the revision of the Energy Taxation Directive** ('ETD'), proposed in 2021, which aims to: (i) align the taxation of energy products with EU energy and climate policies; (ii) promote clean technologies; and (iii) remove outdated exemptions and reduced rates that currently encourage the use of fossil fuels. The Commission stands ready to continue supporting the adoption. The Commission recalls that Member States may (i) lower national taxes and levies in the electricity bill towards the **minimum excise duty rates** provided for in the Energy Taxation Directive of **EUR 0.5/MWh for businesses**;[27] (ii) apply the **reduced VAT rate** allowed by the VAT Directive and its amending Council Directive **of minimum 5%**;[28] (iii) eliminate levies that are not energy-related;[29] and (iv) shift levies that finance energy policies to the general budget.[30] In line with the Energy Taxation Directive, which **allows decreasing taxes down to zero for energy consumed by households and energy intensive industries**, the Commission will **issue a recommendation to Member States** on how to use such flexibilities and ensure across all sectors that electricity is taxed less than other energy sources while pursuing our long-term decarbonisation objectives.
When	From adoption of the revised Energy Taxation Directive. Additional Commission recommendations in Q4 2025.
Impact	Immediate reduction of energy bills, with the **potential to at least halve the tax component** (in EUR/MWh), drawing on the experience of the taxation reductions in 2022-2023 (see Figure 2). Accelerate electrification through fiscal incentives and reduce dependence on fossil fuels.

[24] State of the Energy Union Report, 'EU guidance on energy poverty and Commission Staff Working document Accompanying the 2023 Recommendation on energy poverty; European Commission, 2023. National fiscal policy responses to the energy crisis; Bruegel, June 2023

[25] Recommendations for future-proof electricity market design in light of the 2021-23 energy crisis; Pollitt et al., 2024

[26] The Commission Communication on Fiscal policy guidance for 2024 (*COM(2023) 141 final*), recommends that Member States should target their measures much better than in the past, refraining from generalised support and only protecting those who need it, namely vulnerable households and firms.

[27] The Energy Taxation Directive (ETD) 2003/96/EC sets minimum excise duty rates that Member States must apply to energy products, including electricity.

[28] The EU VAT Directive 2006/112/EC sets a minimum standard VAT rate of 15% that applies to electricity, natural gas and district heating and allows for a reduced VAT rate of minimum 5%. Council Directive (EU) 2022/542 confirms a reduced VAT rate applicable for electricity at 5%. The application of the reduced rates is decided by Member States. Most businesses can deduct the VAT paid on electricity, provided that the electricity is used for taxable activities.

[29] Included directly in the bill or within the network charges.

[30] This refers especially to renewable support scheme levies. Other energy levies (e.g. nuclear decommissioning) are also sometimes introduced. Some Member States may opt to retain some energy-policy costs within the bill where State budgets are very strained and to minimise the risk of substantial national policy swifts. Costs associated with security of supply measures cannot be moved to the budget as this could lead to removing demand response incentives and increasing overall system cost.

c) Lower supply costs by increasing retail competition

Currently, 73% of EU households as well as a significant proportion of small to medium-sized enterprises are on fixed electricity contracts[31]. Many could lower their electricity bills by switching to a more competitive supplier or shifting consumption to times of lower prices but are still facing market barriers. Vulnerable consumers require specific attention. Affordability measures should consider the specific needs of lower-income households, including flexible billing options that prevent disconnections for economically disadvantaged groups. Energy communities must also be strengthened to allow local communities, citizens and companies to join forces and invest in clean energy projects at local level; thereby allowing them to produce, sell and consume their renewable energy. It is essential that the EU continues to provide sufficient dedicated funding to support the completion of the Energy Union.

What	**Enabling consumers to switch to cheaper energy suppliers, and to benefit from affordable renewable energy, while tackling energy poverty**
How	The Commission will propose a **Citizens' Energy Package** to increase citizens' participation in the energy transition and strengthen the social dimension of the Energy Union including in particular: - provide **guidance to Member States to bring down existing barriers** so consumers can save on their energy bills by **switching supplier and changing contract**. This would include ensuring consumers' understanding of the bill through clear information and data on the energy consumption, prices to enable consumers to shift to hours of lower prices;[32] - set out **measures to reduce energy poverty**, including through energy efficiency, **and allow consumers and communities to produce, use and sell renewable energy** on their own terms, including via energy communities.
When	Q3 2025 (Citizens Energy Package)
Impact	Switching to the electricity supplier that offers the lowest prices can save households **EUR 150-200 per year**.[33] Households can **save EUR 500-1,100 per year by participating in energy communities**.[34]

Action 2: Bring down the cost of electricity supply

Swift and full implementation of existing EU electricity legislation is crucial to reduce the cost of electricity supply: recently adopted rules on permitting, contracts, flexibility, consumer empowerment and market surveillance can deliver lower costs. This should be complemented with the following immediate actions.

[31] 2024 Market monitoring report on energy retail and consumer protection; ACER-CEER, September 2024
[32] *Ibid*. Switching rate of electricity household consumers is 7.15%
[33] Annual report on the results of monitoring the internal electricity and gas markets in 2021; ACER, October 2022
[34] Collective energy sharing: CBA and survey evidence of the willingness to invest; Ovaere, 2023; benefits of 50-50% solar & wind collective self-consumption and surplus energy sold between circa EUR 500-1,100/year (2020-2022).

a) Long-term electricity supply contracts

High and volatile gas prices drive up electricity prices. **Power purchase agreements** (PPAs) **and long-term contracts** between clean energy developers and industrial consumers and companies allow the latter to benefit from stable and cheap electricity prices for a long duration. PPAs can play a role in de-risking projects by enabling renewable energy developers to secure a long-term price for their output, which supports investment decisions. They can also provide long-term price stability for industrial consumers. While demand for PPAs is increasing,[35] these contracts need to be further encouraged and mainstreamed, including to energy-intensive businesses that do not have wide access to them and may still face barriers. The Commission will step up efforts under the electricity market rules to **decouple electricity bills from price volatility** by boosting the uptake of long-term electricity supply contracts.

What	**Decoupling retail electricity bills from high and volatile gas prices**
How	Reduce barriers for new actors,[36] in particular energy-intensive industries, to conclude long-term energy contracts by supporting national regimes and introducing de-risking tools. The Commission will: - launch, with the **European Investment Bank (EIB)**, a **pilot programme** to counter-party part of the Power Purchase Agreements undertaken by companies for the long-term purchase of electricity generation for an indicative amount of EUR 500 million. In line with the approach in the Electricity Market Design the Commission will engage with the EIB to promote PPAs, including cross-border PPAs, in a technologically neutral way; - provide **guidance** to Member States on the **design of effective contracts for difference**, including their combination with PPAs; - adopt **new rules** to support the further development of European **forward markets** and increase hedging opportunities.
When	Removal of regulatory barriers to start immediately. **Q2 2025**: Coordination with the EIB **By Q4 2025**: Guidance to Member States on the design of contracts for difference
Impact	Greater price stability for buyers by helping European companies to manage volatility in energy costs and to get access to better cross-border hedging opportunities. Long-term contracts will also give renewable energy producers the guaranteed income required to reduce cost of capital, helping relieve pressure on consumers and taxpayers.[37]

b) Reduce permitting times for new clean power supply and energy infrastructure

Renewable power generation has become the default source of **least-cost** new power generation.[38, 39] However, the lead times for new projects can be up to 7-10 years for wind

[35] By 2024, a cumulative contracted capacity of 48.4 GW had been signed in the EU (Source: RE-Source)
[36] Such as credit worthiness, contract complexity and hedging availability. Commercial PPAs; Baringa for EIB, 2022
[37] Phased European Union electricity market reform; Bruegel, March 2023
[38] Renewable power generation costs in 2023; IRENA, September 2024
[39] Beyond streamlining permitting, other factors support the drive down of energy project costs, such as ensuring access to competitive financing conditions, a resilient supply chain with sufficient domestic manufacturing capacity and a skilled workforce, and technological developments.

projects, up to 8-10 years for distribution grid projects[40] and at times even up to 17 years for transmission grid projects.[41] This is severely hampering the massive roll-out of renewable energy and can impact the economic model of projects.

At all levels – the EU, national, regional and local **– authorities must make a major effort to accelerate the permitting procedures** for grid, storage and clean energy projects, as outlined in the Draghi report. This includes permitting for infrastructure that can provide flexibility to the electricity system, for example electric vehicle recharging points. The Commission calls on **Member States to rapidly implement** the recently adopted legislative framework for permitting of clean energy projects.[42] The **impact of recent permitting reforms is already visible** in Member States that have made extensive use of the emergency regulation. For example, as a consequence of the application of swifter permitting during the energy crisis in Germany, **permits for new onshore wind projects** have more than **tripled** since 2022, **ramping up the number of installations by 48% in one year** (2023)[43] and about **3,300 km of transmission grids have been approved** since Q2 2023, **saving 12 months to three years** in permitting time.

In addition, a large part of the time taken by the permitting processes for clean energy investments, storage and grids is dedicated to environmental assessments. **Targeted updates to the legislative framework on environmental assessments** are necessary to significantly simplify and shorten the permitting procedures for such projects, while **maintaining environmental safeguards and protecting human health. Shorter deadlines for permitting energy infrastructure at national level** are also key to lower energy costs. This can be eased by measures such as tacit approvals for certain administrative decisions in the permitting process, where this principle exists in the national legal system, and one-stop shops for developers.

The Draghi report also concludes that greater focus is needed on digitalising national permitting processes across the EU and addressing permitting authorities' lack of resources. The permitting **process**, and the environmental and geological data needed for the clean energy investments, will need to be **digitalised**. **Moreover, more granular data** on the resource potential for wind and solar across the EU will help Member States in mapping the areas needed to achieve their national targets, as well as in designating of **renewable acceleration areas**, as envisaged under the Renewable Energy Directive. **Streamlined permitting will cover hybrid energy projects** with several technologies, such as a renewable generation and storage, using the same grid connection. Finally, the Commission will assess the possibility of streamlining current permitting and licensing practices for the deployment of new nuclear energy technologies such as **Small Modular Reactors** (SMRs).

[40] Guidance on EU permitting-related provisions on grid and renewable energy projects; EU DSO Entity, Jan. 2025

[41] Uckermark 115-km 380 kV overhead line project (see S&P)

[42] Renewable Energy Directive; TEN-E Regulation; Renewable gas, Natural gas and Hydrogen Market Directive

[43] 15.2 GW in 2024 (EE-Statistik Auswertung Januar 2025). See also Reuters.

What	**Reduce permitting times for an accelerated energy transition**
How	Member States should: - **accelerate permitting and regulatory procedures** by rapid legislation transposition and implementation; - **strengthen national permitting authorities**, including through public funds and with sufficient human capital, and explore unified digitalisation approaches for permitting and for environmental assessments reports . The Commission will support Member States by: - producing dedicated **guidance** on **innovative forms of renewables** deployment[44] and on **dedicated grid and storage areas**; - deploying dedicated implementation support by **expanding the Accele-RES** implementation plan and, inter alia, fully exploiting the potential of the **Expert group on permitting** and of the Concerted Action (**CA-RES**);[45] this will be supplemented by an **implementation dialogue** to identify remaining obstacles to permitting and possible way forward; - reinforcing the exchange of **best practices** and the **identification of barriers** and solutions via networks and expert groups of **national authorities competent for permitting** and dialogue with regional, national and local stakeholders; - upgrading an **online guiding tool** on permitting for Member States; [46] - providing **Technical Support Instrument** (TSI)[47] support, raising awareness among Member States of the 2025 call and launching a new TSI flagship in 2026. The Commission will: - **put forward legislative proposals** to accelerate permitting for grids, storage and renewables, including streamlining environmental assessments and shortening deadlines for permits as part of the European Grid Package; - assess the streamlining of licencing practices for **new nuclear energy technologies** and publish a **SMR Communication**.
When	**As soon as possible**: Adaptation of national permitting regimes. **Mid-2025**: - publication of new, more granular data on potentials for offshore wind and for solar PV on the Energy and Industry Geography Lab (April 2025); - guidance on innovative forms of renewables deployment, and on grid and storage acceleration areas; - implementation support. **Together with the Grid Package**: legislative proposals for acceleration of permitting processes for grid, storage and renewable energy projects. **2026**: New TSI flagship call; SMR Communication

[44] Such as agri-PV, building-integrated PV (BIPV) and balcony solar systems.
[45] Concerted Action on the Renewable Energy Sources Directive (https://www.ca-res.eu/)
[46] Renewable Energy Directive Q&A tool
[47] Regulation (EU) 2021/240 establishing a Technical Support Instrument

Impact	Implementation of existing EU legislation by Member States and the new measures can reduce the **length of permitting procedures to less than six months for simpler projects** such as repowering in renewable acceleration areas and 12 months outside of these; **less than 12 months or two years for renewable projects** (in or outside acceleration areas) and; **for complex ones like offshore wind**, **less than two years** in renewable acceleration areas and **three years** outside those. Furthermore, the strengthened legislative framework will address existing gaps.

c) Grids and interconnectors as enablers of the energy transition and industrial decarbonisation

An efficient network ensures that energy flows from where it is produced to where it is needed. It mitigates price-peak episodes and ensures that everyone benefits from energy at the best cost. It is thus important to interconnect areas with vast available clean energy potential with European regions with high energy demand, so that affordable energy can be delivered to where it is needed most.

EUR 584 billion is necessary for investments in the electricity grids this decade.[48,49] **Cross-border infrastructure needs are often not matched by concrete projects**, leading to undue price disparities between some regions, such as recently observed in southeast Europe. The Agency for the Cooperation of Energy Regulators (ACER) finds that **32 GW of cross-border capacity needed by 2030 remains unaddressed**[50] Major infrastructure projects of regional or EU-wide significance face challenges in relation to increasing project costs[51] and an equitable sharing of costs and benefits.[52] Four examples of such missing flagship links include:

- Creation of an integrated offshore network in the Northern Seas;
- Further reinforcing physical integration of the Baltic States with Central and Northern Europe following the Baltic synchronisation and ensuring security of cross-border infrastructure in the Baltic Sea region;
- Increasing the interconnection level of the Iberian Peninsula with the rest of Europe;
- Increasing interconnectivity and market integration between Southeast and Central Europe.

The benefits of these **flagship projects** will expand beyond the Member States hosting projects. Therefore, only through the design of new projects and the acceleration and completion of existing ones, can the Energy Union materialise. Given the scale and impact of these projects, it **is essential that the EU continues to provide sufficient funding** to support the completion of the Energy Union's interconnectors at both cross-border and national levels. Investing to achieve the EU's decarbonisation goals and removing barriers to our Energy Union offers the opportunity for Europe to lower energy prices, increase its energy security and take the lead in clean rtechnologies.[53] Furthemore, the Communication on the

[48] EU Action Plan for Grids (*COM(2023) 757 final*)
[49] Redispatch and Congestion Management; Joint Research Centre, May 2024.
[50] Electricity infrastructure development to support a competitive and sustainable energy system; ACER, Dec. 2024
[51] Celtic Interconnector from EUR 930M to 1,482M (CRE), Biscay Bay from EUR 1,750M to 2,600M (CRE). Princess Elisabeth costs are reported to have grown from est. EUR 2.2 bn to EUR 7-8 bn (Brussels Times: 1 and 2).
[52] In 2024, a SE-DE interconnector was cancelled (see FT) due to discrepancy on consumer surplus distribution.
[53] The road to the next multiannual financial framework (*COM(2025) 46 final*, pages 5 and 8)

road to the next Multiannual Financial Framework[54] acknowledged that we need to ensure that the EU budget supports European public goods, notably cross-border projects.

At the same time, existing infrastructure needs to be used efficiently. For example, at least 70% of the capacity of interconnectors should be made available for cross-border electricity trading, but most Member States are still far off this target.[55]

At national level, **grid connection requests to distribution networks are growing exponentially** across Europe and create long queues, slowing down renewables, electrification and the establishment of industrial clusters, and hampering investments. Beyond electricity, new **hydrogen, carbon and local heat networks** are necessary.

What	**Accelerating the expansion, modernisation and digitalisation of grids**
How	Building on the actions of the Grid Action Plan adopted in 2023, the Commission will put forward a **European Grid Package** consisting of legislative proposals and non-legislative measures to, among others, simplify the trans-European energy networks (TEN-E Regulation), ensure cross-border integrated planning and delivery of projects, especially on interconnectors, streamline permitting, enhance distribution grid planning, boost digitalisation and innovation as well as increase visibility of manufacturing supply needs. It will follow a top-down planning approach, integrating regional and EU interests and develop effective cost sharing mechanism (e.g. for cross-border projects), for an optimised energy system. The **EIB** will also introduce a '**grids manufacturing package**' for the European supply chain, modelled on the Wind Package, to provide **counter-guarantees** to manufacturers of grid components, with an indicative amount of at least **EUR 1.5 billion**.
When	European Grid Package to be put forward by Q1 2026.
Impact	**Investing EUR 2 billion per year in cross-border networks provide EUR 5 bn in benefits** for citizens yearly.[56] Anticipatory investments, asset performance excellence and grid-friendly flexibility, could **reduce investment needs related to distribution grids by EUR 12 bn annually**,[57] representing 18% of the total investment needs.[58] Prioritising regional or EU benefits in national plans limits inefficiencies and unnecessary costs to be borne by consumers. The deployment of **grid enhancing technologies** is not widespread, while they **could expand network capacity by 20-40% by 2040** and save up to 35% in conventional grid expansion costs.[59]

d) Boosting flexibility

More flexibility in the system, for example with **storage and demand response,** helps manage demand and supply imbalances by encouraging customers to shift electricity consumption to times when electricity is more plentiful or demand is lower, and therefore when electricity is cheaper. This reduces **price spikes and negative price episodes**, reducing

[54] Register of Commission Documents (*COM(2025)46*)
[55] Many TSOs in highly meshed areas of the EU power grid made available, on average, between 20% and 50% of the physical capacity of certain network elements in 2023. Thus, far from reaching 70%. Cross-zonal capacities and the 70% margin available for cross-zonal electricity trade; ACER, July 2023
[56] System needs study; ENTSO-E, May 2023. 64 GW include non-EU peripheric countries.
[57] The role of electricity distribution systems in assessing flexibility needs; Joint Research Centre, 2024
[58] Grids for Speed; Eurelectric, May 2024
[59] Moreover, technologies like weather sensors can help improve electricity system operation.

volatility and contributing overall to lower and more stable electricity prices. Electrified demand such as new electromobility fleets can play a role in providing flexibility services.

In many Member States, demand response and storage face barriers[60] to accessing wholesale markets, or to participating in ancillary and congestion management services. In 10 Member States, aggregators do not have a properly defined legal framework, which prevents them from participating in those services that can help provide benefits to consumers. In 10 Member States, fewer than 30% households have access to **smart metering systems** (providing real-time information about energy consumption). Roll-out needs to be accelerated.[61] Some industrial consumers can significantly contribute to grid flexibility by shifting their energy use to times of low demand, reducing costs and improving system stability.

What	**Increasing system flexibility by deploying storage and demand response**
How	Member States need to: - quickly **implement the EU rules on market access** for storage and demand response **and remove national barriers**. The Commission will: - **clarify the State aid requirements for non-fossil flexibility schemes** in the new State aid framework, making it easier for Member States to design their support mechanisms to give consumers the incentive to provide flexibility to the system; - **adopt new rules on demand response** to make sure consumers can take full financial advantage of flexibility These rules will address the remaining barriers that hamper demand response and storage services in the internal electricity market; - **seek Member States' views on a clean flexibility instrument** based on PPAs and industry committing to consume clean electricity, while designing it in a way that sufficiently limits the risks of competition distortions and subsidy races in the Single Market, as required by State aid rules.
When	Member States to remove national barriers immediately. Commission revised framework under State aid rules by Q2 2025; new rules on demand response by Q1 2026.
Impact	The complete delivery of an electricity system underpinned by market integration, renewable generation and flexible capacity could result in **40% lower wholesale electricity prices on average in the EU**.[62] More flexibility can provide tangible cost savings, with industry estimates showing **EUR 2.7 billion per year in avoided peak generation capacity by 2030**.[63]

[60] Demand response and other DER: what barriers are holding them back; ACER, February 2024
[61] 2024 Market Monitoring Report on Energy Retail and Consumer Protection; ACER and CEER, September 2024
[62] Energy and climate transition: How to strengthen the EU's competitiveness; Business Europe, July 2024
[63] Demand-side flexibility: Quantification of benefits in the EU; DNV for smartEn, September 2022

Demand flexibility should also be promoted on the retail market as a deal offering lower prices for voluntary industries and consumers willing to participate in energy system integration.

What	**Guidance on promoting remuneration of flexibility in retail contracts**
How	The Commission will: - develop **guidance on promoting remuneration of flexibility in retail** contracts; - put forward a variety of **standardised market-based conform systems** tailored to different industrial and other consumer needs, building on systems already in place in some Member States.
When	Q4 2025
Impact	Fair **remuneration in retail contracts of flexibility provided by consumers can reduce their electricity costs by up to 12-42%**[64,65] and bring flexibility and system integration **benefits of EUR 10-29 billion**.[66,67]

Action 3: Ensuring well-functioning gas markets

The price of imported natural gas has a direct impact on electricity prices and increases market volatility. EU gas wholesale prices have not fully reverted to pre-crisis levels and are on average nearly five times those in the US, as compared to double to triple before the crisis.[68] This price differential affects the competitiveness of the European industry.

The importance of gas markets for our economy makes it essential to ensure an optimal functioning of those markets. Full regulatory oversight and close cooperation between energy and financial regulators is required to prevent market manipulation and to close any possible loopholes related to any lack of transparency, asymmetry of information and risk of market concentration. Earlier this month, therefore, the Commission set up a Gas Market Task Force to comprehensively scrutinise the EU natural gas markets and, where necessary, take action to ensure their optimal functioning and prevent commercial practices distorting market-based pricing, learning from the lessons of the energy crisis.

To be able to address unlawful behaviour in gas markets in a swift manner, energy and financial regulators should be effectively equipped to monitor market developments, detect and pursue any potential cases of market abuse (i.e. market manipulation and insider trading). Cooperation on enforcement and data sharing between national energy and financial regulators and between ACER and ESMA needs to be enhanced and taken to the next level. Member States have to ensure that regulatory authorities have all the necessary powers to

[64] 2024 Market monitoring report on energy retail and consumer protection; ACER-CEER, Sept. 2024 (SE case study)

[65] Most households investing annual ranges of EUR 50-145 into home energy management systems (HEMS) that make use of flexible energy systems (such as heat pumps with PVs, PVs with battery storage or electric vehicles), would achieve cost savings. Dodging the electricity price hike: Can demand-side flexibility compensate for spot price increases for households in Germany?; Stute et al (Fraunhofer Research Institute), February 2024

[66] Energy efficiency 2.0 – Engineering the future energy system; Danfoss Impact Issue no. 4, 2023

[67] Demand-side flexibility: Quantification of benefits in the EU; DNV for smartEn, September 2022

[68] Decarbonising for competitiveness: four ways to reduce European energy prices; Bruegel, December 2024. It should be noted that the US counts with significant domestic natural gas extraction and therefore it is expected that it has partially lower gas wholesale prices than the EU.

pursue and sanction market abuse, and to equip them with the resources to prioritise investigations in this field. Moreover, ACER should use to the full extent its new cross-border investigatory powers to support national energy regulators.

What	**Ensuring well-functioning gas markets**
How	Earlier this month, the Commission set up a **Gas Market Task Force** to comprehensively scrutinise the EU natural gas markets and, where necessary, take action to ensure their optimal market functioning and prevent commercial practices distorting market-based pricing, learning from the lessons of the energy crisis. The Commission will launch a **broad stakeholder consultation** to assess the need for **further legislative changes** to ensure full and seamless regulatory oversight, align and strengthen energy and financial market rules (MiFID/REMIT), and reduce the administrative burden on companies trading on financial markets for energy (single reporting). It will cover various aspects of the regulatory setup[69], the joint supervisory approach by energy and financial regulators and the creation of a joint harmonised database of all relevant market-data with full access to all regulators. It will also cover certain aspects of the functioning of spot markets, such as the application of requirements similar to those of the financial rulebook to spot energy exchanges.
When	The work of the Gas Market Task Force will conclude by Q4 2025
Impact	The evolution of gas import contracts from oil-indexation **to gas-on-gas market pricing has already saved the EU around EUR 67 billion over the past decade**.[70] EU gas market integration creates net benefits in price convergence and transparency.[71] The Gas Market Task Force will focus on ensuring well-functioning gas markets and market-based price formation in these markets.

Alternatives to natural gas imports should be explored when possible, notably via electrification or boosting the production of biogas and biomethane in line with REPowerEU. Demand aggregation and joint purchasing can play a strong role in accelerating market creation for energy sources and materials needed for clean energy production. By aggregating their demand and adopting joint purchasing strategies in accordance with EU competition rules, EU buyers can leverage their collective economic weight, strengthen their negotiation position and negotiate better terms with suppliers. This approach was also adopted by Japan, which has a longstanding policy of supporting investments in export infrastructure in countries producing liquefied natural gas (LNG). EU joint purchasing power should be harnessed by exploring the option of longer-term contractual engagements to make prices more stable, for example by securing gas liquefaction rights or purchase options. With the EU's competitiveness, geopolitical considerations and climate goals in mind, the EU and/or Member States could also accompany EU importers in investing directly in export infrastructure abroad, providing preferential loans to private investors.

In addition, better coordination among Member States and more flexible filling trajectories, with the support of the Commission, can help reduce system stress and avoid market distortions linked to gas storage refilling, supporting refilling at better purchasing conditions and security of supply.

[69] Including the parameters governing the application of the so-called ancillary activity exemption, the rules on circuit breakers and position limits, the requirements applying to trading venues and market participants, as well as certain aspects of the functioning of spot markets (e.g. the application of requirements similar to those of the financial rulebook to spot energy exchanges).
[70] Despite short-term pain, the EU's liberalised gas markets have brought long-term financial gains; IEA, 2021
[71] European natural gas markets: taking stock and looking forward; Chyong, March 2019

What	**Harnessing EU purchasing power to get a better deal for imported natural gas**
How	The Commission will: - immediately **engage with reliable LNG suppliers to identify additional cost-competitive imports** from existing and future LNG export projects; - propose, among others, **demand aggregation for EU companies** entering into tolling contracts at LNG plants worldwide and LNG supply option contracts with trusted LNG producers; - **explore options going beyond demand aggregation** and will look into other approaches (e.g. the Japanese model).
When	Q1-Q2 2025
Impact	Better opportunities for EU buyers to secure LNG volumes under long-term contracts can protect against price volatility and provide access to lower prices, bringing EU prices closer to world market prices. Protecting EU buyers against price volatility of fossil fuels could lead to a significant **short-term reduction in retail prices**.

Action 4: Energy efficiency – delivering energy savings

Energy efficiency is a key contributor for affordable energy in industry and households, and for industrial competitiveness. It limits the impact of high, volatile energy prices on consumer bills. EU industry has reduced its energy consumption by approximately 20% since 2000, all while increasing industrial output. To address the challenges the EU faces, energy efficiency solutions must be leveraged. Fostering a single market for energy efficiency services will help Europeans to benefit from services that can help them reduce their energy bills at the best cost, in particular those that have a high upfront cost.[72] An enhanced market for energy efficiency providers can help more companies to get advice on efficient solutions, for example, for re-using their process heat.

What	**An energy efficiency market of European dimension**
How	Through the **European Energy Efficiency Financing Coalition**, the Commission will improve access to capital and provide financial incentives to support market actors who provide energy efficiency solutions for businesses. The Commission will **explore further supporting the EIB Group programme for energy efficiency in SMEs**, which has the objective to increase the competitiveness of European SMEs, promoting the adoption of energy efficient and renewable solutions and building climate resilience. The Commission will, in cooperation with the EIB Group, **explore setting up an EU guarantee scheme** with the objective to double the energy efficiency services. A **pilot**, potentially part of the InvestEU blending operation with LIFE CET for technical assistance, is envisaged in 2026. This will require additional InvestEU resources, to be obtained by optimising the use of the EU guarantee currently available in various EU mandates, including mandates from the previous programming period.
When	First blueprint for a guarantee scheme in Q4 2025. Launch of the partnership in Q3 2025. Assessment of an EU-wide market for an energy savings certification scheme by Q4 2025.

[72] EU funding for energy efficiency measures in housing, enterprises and public infrastructure through the European Regional Development Fund (ERDF) and Cohesion Policy (the allocation under the current MFF) amounted EUR 4.9 billion for smart energy systems, EUR 8.9 billion for renewable energy and EUR 21.8 billion for energy.

Impact	Increasing the offer of financing solutions for energy efficiency products. This will happen through energy service company (ESCO)[73] services, with the aim of **doubling the ESCO market to up to EUR 4-6 billion per year**, possibly allowing consumers to generate savings in the range of 25-30% for building renovations and up to 70-80%[74] in public lighting cutting energy bills.

Secondly, **energy efficient products lower energy bills immediately**. However, the many non-compliant products imported from non-EU countries damage the competitiveness of EU suppliers and reduce the benefits for citizens and businesses.

What	**Give consumers access to more efficient appliances and products with longer lifetimes**
How	Member States, national market-surveillance and customs authorities should strengthen **national market surveillance and enforcement**, including for customs and online marketplaces. In line with the e-commerce Communication, the EU supports their actions and further engagement with online marketplaces. The Commission will **update EU energy labelling and ecodesign rules**, sharing best practices, improving IT tools[75] and facilitating compliance by operators through clearer information and guidance. Member States should consider using incentives for consumers to replace their old home appliances with energy-efficient alternatives.
When	Immediately
Impact	EU single market rules for energy efficient appliances and products are estimated to have brought **savings of around EUR 120 billion on energy bills in 2023**, estimated to rise to about **EUR 162 billion in 2030**.[76] However, an estimated 10% (i.e. over **EUR 10 billion**) are still lost each year because of the sale of products that are non-compliant.[77]

Pillar II: Completing the Energy Union

Despite our success in building an interconnected energy market, a true Energy Union remains a work in progress. As the EU faces rising energy costs that place a burden on households and impede industrial competitiveness –particularly impacting energy-intensive sectors– the need for a transformative approach is evident. This is why we need to continue working on longer-term, structural measures that will bring about the cleaner and cheaper energy that we need, and that will further bring us in a genuine Energy Union, including increasing investments in research and innovation for clean energy solutions. The EU must advance towards electrification and a fully integrated single market for energy, achieving interconnection goals and leveraging complementarities among Member States to create a genuine Energy Union that benefits all.

This Action Plan is the first stepping stone towards more interconnection and more integration. This is why in the coming months, the Commission will launch a series of

[73] An Energy Service Company (ESCO) is an organisation that offers energy services including implementing energy-efficiency projects or renewable energy projects, frequently on a turn-key basis.
[74] Energy Performance Contracting in the EU – 2020-2021; JRC, 2021
[75] https://eprel.ec.europa.eu/screen/home; https://webgate.ec.europa.eu/single-market-compliance-space/market-surveillance
[76] Ecodesign Impact Accounting Status Report 2024, https://circabc.europa.eu/ui/group/418195ae-4919-45fa-a959-3b695c9aab28/library/b29b3be3-8085-4e2f-8095-74ad98d9166c/details, table 2 and figure 2.
[77] Commission Communication on Ecodesign and Energy Labelling Working Plan 2022-24 (2022/C 182/01)

initiatives aiming at strengthening the governance of the Energy Union, roll out clean energy, improve our security of supply, and reduce the bills of citizens and businesses.

Action 5: Completing the Energy Union

Building upon the success of the REPowerEU Plan, which boosted clean power generation and diversified energy supplies, a new **Electrification Action Plan** (Q1 2026) and a **Heating and Cooling Strategy** (Q1 2026) will further support these objectives. Ambitious **electrification** of the energy system and expanding clean generation sources **will increase energy efficiency of the energy sector** as a whole, **help decarbonise** industrial, mobility and heating and cooling **sectors and support the uptake of clean and domestic energy production**. By 2030, these initiatives will reduce our reliance on fossil fuels, potentially saving billions annually. Tax credits for industrial electrification can promote electrification and help EU industry become more competitive by supporting the affordability of such equipment, increasing sales and encouraging consumer adoption.

Digitalisation is another source of savings for consumers, but also a potential vulnerability. The Commission will adopt a **Strategic Roadmap for Digitalisation and Artificial Intelligence** (AI) **for the Energy Sector** in 2026 to accelerate the rollout of European AI solutions in areas such as electricity grid optimisation, energy efficiency in buildings and industry, and demand-side flexibility. Additionally, it will foster AI-driven research and innovation by connecting start-ups with energy companies while ensuring robust safeguards for cybersecurity, data privacy and safety, The Commission will also **examine the increasing energy consumption of data centres**[78,79] and promote their sustainable integration into the energy system. Data centres could increase strain on the energy system and drive upenergy prices , especially considering data centres' capacity to outbid other energy consumers for access to energy.

At the same time, the EU's **Strategic Energy Technology Plan** (SET Plan) helps addressing the current fragmentation in the EU's Research & Innovation portfolios for clean energy and electrification. Efforts still need to be intensified to reach the EU public and private expenditure target of 3% of GDP.[80,81] The Commission will foster innovation, notably through coordination with Member States via the SET Plan Steering Group established by the Net-Zero Industry Act.[82] In addition, to support fusion as an innovative, decarbonised energy source for the future, a **Fusion Strategy** will be proposed, including the creation of a Public-Private Partnership (PPP) to accelerate commercialisation.

To meet its energy and climate targets, the EU needs over EUR 570 billion annually between 2021 and 2030 and EUR 690 billion annually from 2031to 2040 for investments in renewable energy, including solar, wind and biomass, energy efficiency and grid capacity. The Commission will also assess investment needs in nuclear energy[83] and foster investment in next-generation clean energy technologies, like nuclear fusion, enhanced geothermal and solid-state batteries, as well as into existing capacities such as for refurbishment. While the bulk of investments needs to come from private capital – public funding needs to be better

[78] Digital infrastructure accounts for around 3.5% of electricity use in the EU, with data centres responsible for about 70%. Energy consumption in data centres and broadband communication networks in the EU; JRC, 2024
[79] Why European data centres are set for major growth; Morgan Stanley & Co., July 2024
[80] European Council conclusions of 23 March 2023 (*EUCO 4/23*)
[81] Commission communication on SET Plan revision (*COM(2023) 634 final*)
[82] Net-Zero Industry Act Regulation (EU) 2024/1735
[83] https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/green.html

targeted to leverage private investments by de-risking strategic projects notably through guarantee and equity instruments. The Commission will tackle the investment gap and mobilise private capital for the energy transition with a **Clean Energy Investment Strategy** and will present an **updated Nuclear Illustrative Programme** (PINC).

Above all, the completion of a genuine Energy Union requires a **fully integrated energy market**, with a **cohesive governance framework** that aligns national and EU-level objectives and ensures that decisions of cross-border and EU relevance are taken at the right level. To this end, the Commission will issue a **White Paper on deeper electricity market integration** by early 2026.

In addition, the **National Energy and Climate Plans** (NECP) must evolve into strategic investment plans that foster investment predictability, consumer confidence, innovation and market growth for clean technologies. The Commission will propose a revision of the Governance Regulation to simplify, strengthen and modernise the **Governance of the Energy Union and Climate Action**[84] to prepare Europe for the post-2030 energy and climate policy framework. In addition, regional initiatives like the Trans-Mediterranean Energy and Clean Tech Cooperation Initiative could play a role in supporting clean tech manufacturing.

Energy prices can differ considerably between Member States. To enhance coordination across the Energy Union and strengthen governance of the electricity system, the Commission will set up an **Energy Union Task Force**. The Task Force, which will consist of high-level representatives from the Commission, relevant EU bodies, Member States and stakeholders as needed, will examine and identify technical or regulatory adjustments, and will regularly report to the President of the Commission, the European Council, the Energy Council and the European Parliament.

To support this work, the Commission will enhance its **focus on assessing the implications of relevant initiatives on the affordability of energy for households and businesses**. The outcome of the relevant analyses –involving whenever possible external experts– will be appropriately reflected in impact assessments on new legislative initiatives and reviews of existing legislation. It will complement the information the Commission regularly publishes on the impact of its initiatives through various reports as the State of the Energy Union Report[85] and the reports on energy prices and costs.[86]

What	**A complete Energy Union**
How	The Commission will: - launch an Energy Union Task Force; - publish a **White Paper on deeper electricity market integration**; - revise the **Governance Regulation of the Energy Union**; - present a **Clean Energy Investment Strategy**, an updated **Nuclear Illustrative Programme** (PINC) and a **Fusion Strategy**; - put forward an **Electrification Action Plan**, a **Strategic Roadmap for Digitalisation and AI for the Energy Sector**, and a **Heating & Cooling Strategy**.

[84] Governance of the Energy Union and Climate Action Regulation (EU) 2018/1999
[85] For example, the State of the Energy Union Report 2024 (*COM(2024) 404 final*)
[86] Energy prices and costs in Europe - European Commission

When	**2025**: Energy Union Task Force, Clean Energy Investment Strategy and PINC. **Until mid-2027** for the other initiatives.
Impact	Deeper electricity market integration through the launch of a dialogue on the future evolution of the market and **creation of an Energy Union Task Force**. **Prevent sharp increases of system costs up to EUR 103 billion** by 2040 if no action is taken.[87] **Boost investment and reduce costs** by derisking capital, i.e. reducing the potential risks associated with investments, easing administrative burden for planning and reporting, and improving Member State coordination in policy setting, ensuring investment certainty for 2040 **making the NECPs true investment plans**. **Accelerate electrification** by 40% in 2030[88] leveraging flexibility from the electrification of heat, transport and hydrogen sectors can bring annual **energy system cost savings of EUR 32 billion** in 2030.[89] EV bidirectional charging alone could save **EUR 9.7 billion**.[90] **Enhance heating and cooling** efficiency by scaling up heat recovery, reuse, and heat pump deployment. Expanding waste heat recovery in industrial processes and energy services can improve system efficiency and cut costs. Wider **heat pump adoption and** better **home efficiency could reduce fossil fuel import spending by EUR 60 billion** by 2030, while easing demand on other energy carriers and stabilise prices. **Leverage digitalisation** to cut power sector costs,[91] boosting efficiency with estimated savings of 5% in operations and maintenance, 5% in electricity output and 5% in network losses.[92]

Pillar III: Attracting investment and ensuring delivery

A genuine Energy Union based on homegrown clean and affordable energy for all European consumers requires substantial investment over the next decade and a robust governance. A strong political leadership and commitment and an inclusive engagement of all the actors of the energy value chain are necessary to swiftly deliver together on this Action Plan.

Action 6: Establishing a tripartite contract for affordable energy for Europe's industry

Growing market uncertainty can create significant challenges for project developers and can delay or deter investments. To counteract this, governments, energy producers, and energy-consuming industries can create together a favourable investment climate for an affordable and sustainable energy system and a competitive industrial sector, while ensuring the retention and creation of quality jobs, as emphasised in the Antwerp Declaration.

[87] Redispatch and Congestion Management; Joint Research Centre, May 2024

[88] As of 2024, electricity accounts for approximately 23% of the European Union's final energy consumption. 32-33% by 2030 is based on energy system modelling using PRIMES and POTEnCIA. The final energy consumption used to derive the range corresponds to Eurostat definitions (*nrg_ind_fecf*), i.e. incl. industry, transport, households, services, agriculture and ambient heat from heat pumps, and excluding international aviation and maritime bunkers.

[89] Mission Solar 2040: Europe's Flexibility Revolution; SolarPower Europe, June 2024

[90] Potential of a full EV-power-system-integration in Europe; T&E conducted by Fraunhofer ISE & ISI, October 2024

[91] Implications of digitalisation on future electricity market design; Oxford Institute for Energy Studies, April 2023

[92] Strategic analysis and development plan design on digital transformation in the energy industry; Liu & Lu, 2021

- **Clean-energy producers need scale and certainty of demand** to ensure long-term planning, which helps reduce risks for investors and project costs. This certainty would benefit also **manufacturers in the supply chain**, for example producers of substations or cables for grid projects, allowing them to invest into new manufacturing capacities in Europe and offer lower prices. That would enable, for example, large-scale solar or offshore wind project developers to secure supply chains and buy at lower costs.
- **Energy-consuming industry**, and in particular **energy-intensive industry**, **needs certainty on energy supply and prices** to plan their production and take investment decisions that will determine their transformation. For example, the steel industry needs long-term certainty on electricity supply and prices to invest in electrification of production processes. In return, the energy-intensive industry can provide offtake certainty to energy producers by engaging in long-term contracts.
- The **EU and Member States**' governments **can lower risks** through **stable regulatory frameworks and measures to facilitate investments**. Bringing this **predictability** for project developers and supply chains contributes to derisking investments and lowering costs for businesses and households. This could be done, for example, **by committing to a longer-term, reliable and granular timeline of auctions** for clean energy projects and relying on **supportive tender designs** that reflect the Net-Zero Industry Act's **principles for resilience, security and sustainability**.

In that regard, the experience of the Wind Charter[93] and the Solar Charter[94] have demonstrated the added value of bringing together institutional and economic actors to make decisive steps in building a competitive value chain in key sectors of the clean transition.

Building on these experiences, **a broader Tripartite Contract for Affordable Energy can bring together these commitments** and create an investment climate that supports cost-effective energy production, reliable energy supply, and long-term economic growth for all stakeholders.

[93] European Wind Charter
[94] European Solar Charter

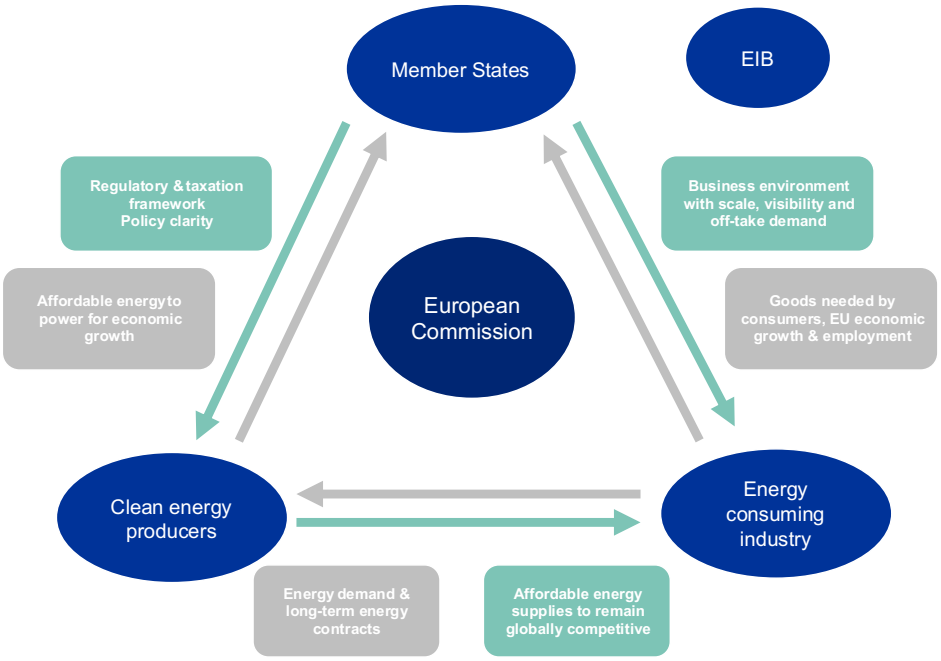

Figure 4. A Tripartite Contract for affordable energy for Europe's industry

What	**A tripartite contract for affordable energy** between public sector, including financial institutions, clean energy developers and energy-consuming industry.
How	A broad tripartite contract will: - **bring predictability** and scaling for energy generators, who will have a secure off-taker for their production, and for energy purchasers, who can benefit from affordable and stable energy supply; - **support for the business models** of the sector, thanks to the support brought by the Commission, the EIB and the Member States that will enable them to derisk investment and grow. This would include sectoral contracts for certain sectors (e.g. hydrogen, synthetic fuels, batteries, offshore wind, solar, grids).
When	2025
Impact	Increase transparency, visibility and certainty for producers and energy-consuming industry, supporting investment decisions and lowering costs and energy prices

Pillar IV: Being ready for potential energy crises

The recent energy crisis, the most severe Europe has seen yet, underscored the importance of EU-level coordination in managing price spikes in the internal market. To increase resilience in the face of any possible future energy crisis, Member States need tools for effective action and the security of supply framework needs to be strengthened, incorporating the lessons learned from recent developments.

Action 7: Ensuring security of supply for price stability

Stable energy supplies are critical for economic resilience, continued access to affordable energy and avoiding extreme price volatility. Disruptions to energy supplies caused by geopolitical tensions, cyberattacks, deliberate attacks or extreme weather events threaten

affordability. A new regulatory framework is necessary to increase the resilience of the EU's energy system and contain energy prices volatility.

What	**Contributing to price stability through an energy security framework that takes into account what we learned during the energy crisis**
How	The Commission will put forward a legislative proposal for a revision of the current EU energy security regulatory framework
When	Early 2026
Impact	Better availability of energy supplies at all time and better preparedness for supply stress periods can help **reduce price volatility** and lower prices

Action 8: Price crises preparedness

The Electricity Directive and the Gas Directive contain provisions allowing the Council to declare a price crisis following a proposal by the Commission when certain excptional crisis conditions are met. In these situations, demand reduction in certain hours plays a central role in mitigating the effects of energy crises. Also outside of crisis periods, **schemes to lower peak demand whereby consumers are paid by their supplier to reduce consumption in certain hours** can be designed and activated already today. Experience in several Member States shows that during exceptional periods of system stress and high prices, consumers are willing to voluntarily reduce demand.

What	**Avoiding price peaks during energy crises**
How	Commission **guidance** to Member States on the **development and implementation of schemes to lower peak demand** by introducing remuneration incentives for consumers. Transmission system operators (TSOs) to introduce and activate **measures to lower energy demand at peak demand hours** and shift demand to a later point.
When	Ongoing and to be deployed during price spikes/periods of system stress
Impact	Lower prices during periods of peak energy demand, lowering price volatility and keeping final energy bills in check

Second, for cases where **network bottlenecks** or congestion severely hinder energy flows, close cooperation with TSOs and national regulatory authorities is necessary to **temporarily increase available cross-border interconnection capacities in certain situations** (e.g. regional price crisis as seen in 2024 in Southeast Europe), ensuring that energy reaches areas most affected. **Maintenance outages need to be properly coordinated** within the internal energy market so that unnecessary impacts of such outages on neighbouring Member States are avoided**.**

What	**Increased cross-border access to cheap electricity**
How	Work with TSOs and national regulatory authorities to ensure **temporary increases of available cross-border capacities** in certain situations and proper coordination and planning of maintenance outages across borders to avoid restrictions in the flow of electricity
When	When necessary, e.g. in certain regional price crises
Impact	Ensuring that cross-border trade of electricity is maximised in crisis situations to mitigate local price spikes in particular markets

Finally, as natural gas is overall expected to remain the main price-setter for electricity in the next years in the EU, the Commission stands ready to support Member States when designing State aid measures, to empower them to address extreme price spikes and exceptional price

environments to decouple the translation of high gas prices into electricity prices, based on proven models in emergency situations.

5. CONCLUSIONS AND WAY FORWARD

The Action Plan for Affordable Energy sets out eight concrete short-term measures to **deliver a genuine Energy Union for competitiveness, affordability, security and sustainability**. Delivering in this transformative Action Plan will require the involvement of all actors: (i) the coordination of the EU with the instrumental support of the European Parliament and Council, to ensure an effective and pragmatic legislative framework; (ii) the firm cooperation of Member States to implement the actions on the ground and ensure the full potential of the plan is delivered for citizens; (iii) the active inclusion of stakeholders: our industry and businesses, our workers, our innovators and our citizens; and (iv) the involvement at the highest political level through an Energy Union Task Force.

The **Commission will implement, monitor and report** on the progress towards delivering the Action Plan in future **State of the Energy Union** reports. The Commission will regularly inform the European Parliament and the Energy Council of ministers of the progress and discuss impacts.

The challenges we face are significant. But so are our strengths. Together, we have built resilient grids and the most integrated energy network in the world. We have nurtured a strong manufacturing base, a highly skilled workforce, advanced technologies and a strong regulatory framework. We have held firm and stepped forward on our path to decarbonisation, decoupling our economic growth from our CO_2 emissions and showing leadership in the global energy transition. **These strengths make it possible to address the challenges that Europe currently faces.**

The reasons why we take on these challenges are clear. Energy is at the foundation of our economy and of our society. It represents a small fraction of our GDP expenditure,[95,96] but it drives the entire economy. It moves the trains that transport us, it warms the houses we live in, and it activates the machines that make the goods we use every day. It is also one of the foundations of our EU, from a time when coal and steel were the pillars of the reconstruction of Europe – it has supported the growth of our economy and improved the daily lives of Europeans ever since.

The **generation of energy** and the **integration of our energy markets** has always been fundamental for **European unity**. From the European Coal and Steel Community to the development of the Energy Union, energy has been a **key to our economic stability** and **a driver of EU integration**. Guided by the **Competitiveness Compass,** and supporting the **Clean Industrial Deal,** this **Action Plan for Affordable Energy** will enable us to build on our strengths, allowing us to unlock the **true value of our Energy Union** and to reaffirm the EU's commitment to an inclusive energy transition **where no individual or community is left behind.**

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[95] EU governments' expenditute on energy represents only 1.1% of our GDP expenditure (https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Government_expenditure_on_economic_affairs)

[96] On average in 2000-2021, gross imports of fossil fuels represented about 20% of total merchandise imports, equivalent to 2.8% of the EU's GDP (based on Eurostat's trade data for CN code 27). Impact Assessment report accompanying the Commission Communication on Europe's 2040 climate target (*SWD(2024) 63 final*, part 3/5)

ANNEX I: SUMMARY OF ACTIONS AND TIMELINE

What	When	By whom
Pillar I: Lowering energy costs		
Action 1: Making electricity bills more affordable		
More efficient network charges to reduce energy system costsMore efficient network charges to reduce energy system costs	Q2 2025	EC, MSs, NRAs
Lower taxation of electricity and removal of non-energy cost components from bills	From adoption Q4 2025 (Rec.)	MSs, with EC support
Enable consumers to swich to cheaper energy suppliers while tackling energy poverty	Q3 2025	EC, MSs, NRAs
Action 2: Bring down the cost of electricity supply		
Decouple retail electricity bills from high and volatile gas prices	Q2 2025 (EIB) and Q4 2025 (CfD Guidance)	EC, EIB, MSs
Reduce permitting times for an accelerated energy transition	From adoption and throughout 2025-2026	EC, MSs, national competent authorities
Accelerate the expansion, modernisation and digitalisation of grids	Q1 2026	EC, MSs, TSOs
Increase system flexibility through deployment of storage and demand response	From adoption Q2 2025 (State aid fwk) Q1 2026 (NC DR)	EC, MSs
Guidance on promoting remuneration of flexibility in retail contracts	Q4 2025	EC, MSs
Action 3: Improve gas markets for fair energy prices		
Ensure fair competition in gas markets	Q4 2025	EC, MSs, ACER, ESMA, NRAs
Harness EU purchasing power to get a better deal from imported natural gas	Q1-Q2 2025	EC with international partners
Action 4: Energy efficiency: delivering energy savings		
An efficiency market of European dimension	Q3-Q4 2025	EC, EIB, financial institutions, EE industries
Give consumers access to more efficient appliances and products with longer lifetimes	From adoption	EC, MSs, national market surveillance and customs authorities

Pillar II: Building a genuine Energy Union		
Action 5: Completing the Energy Union		
Launch an Energy Union Task Force	2025	EC, MSs, relevant EU bodies, experts
Tackle the investment gap and mobilise private capital	Q2 2025	EC, EIB, InvestEU
Building a more integrated energy market	2026 to mid-2027	EC, MSs, EP and stakeholder
Providing investment certainty and a simplified governance regime for a robust Energy Union		EC
Ramping up electrification		EC, MS
Increase digitalisation and use of AI in the energy sector		EC
Decarbonisation and integrating the H&C sector enabling gas replacement		EC, MS
Pillar III: Attracting investment and ensuring delivery		
Action 6: A tripartite contract for affordable energy for Europe's industry		
A tripartite contract for affordable energy	2025	EC, MSs, EIB, energy producers & industry
Pillar IV: Being ready for potential energy crises		
Action 7: Security of supply for price stability		
Contributing to price stability through a fit-for-purpose energy security framework	Early 2026	EC
Action 8: Price crisis preparedness		
Avoiding price peaks during energy crises	During energy crises	EC, MSs, TSOs
Increased cross-border access to affordable electricity	During energy crises	EC, NRAs, TSOs