

The EU Action Plan for Affordable Energy

The Right Toolset to Cut Energy Prices?

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With its Communication on an Action Plan for Affordable Energy, the new Commission aims to send a signal that it takes the issue of high energy prices seriously. The plan clearly identifies the existing challenges, but the proposals made lack sufficient focus on long-term solutions, in particular measures to support the system integration of volatile renewables and the diversification of energy imports. This cepAdhoc evaluates the most critical proposals from an economic point of view.

Key results:

- ▶ Market-based measures to manage the risks of volatile electricity supply, in particular the promotion of PPAs and flexibility markets, should be prioritized and uniformly implemented by Member States, to support the internal market for energy.
- ▶ Public credit guarantees can be an effective means of overcoming risk-related financing bottlenecks in the expansion of the electricity grid. It is important that EU and Member States define clear criteria for granting guarantees and create transparency on the extent of public risks taken.
- ▶ Cross-border grid expansion projects should be prioritized in the interests of market integration, for example via a specific IPCEI for European long-distance transmission grids.
- ▶ The Commission's approach to lower gas import prices are too interventionist. Price uncertainty in energy imports can be managed more effectively through a stable regulatory framework that facilitates new long-term supply contracts and new procurement solutions for natural gas and (future) renewable gases.

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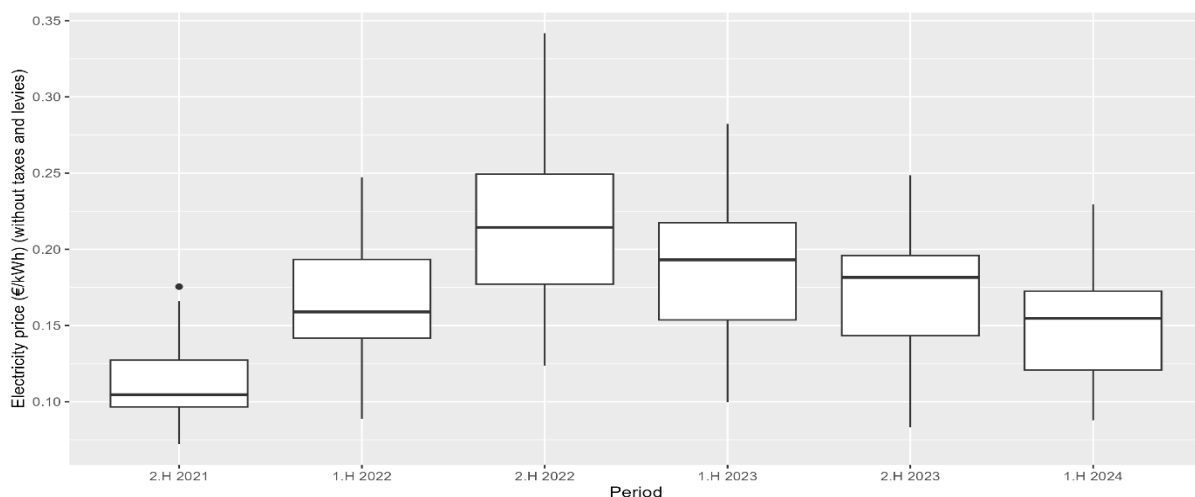
1 Background

In its recent Competitiveness Compass, the Commission identifies high energy costs as one of the main reasons for the declining global competitiveness of many European industries.¹ This is the Commission's response to complaints that have been voiced by energy-intensive manufacturing companies for some time. Energy prices have been a key risk factor in the public debate at least since the energy crisis accompanying the outbreak of the Ukraine war in 2022. The massive short-term increases in the prices of natural gas and electricity associated with the collapse in imports of Russian natural gas were contained by coordinated European action. Nevertheless, average prices for electricity in the EU27 are still significantly higher than pre-crisis levels. Price discrepancies between Member States have increased as well, distorting competition within the single market (see Figure 1).

With an EU Action Plan for Affordable Energy, the Commission proposes measures to bring energy costs in all EU countries back down to a globally competitive level. This is a Herculean task. After all, the current prices are no longer an expression of a temporary crisis situation, but of far-reaching structural challenges. The EU's means of tackling these challenges are limited due to its shared responsibility with the Member States. The disparities in energy mix and industrial structure across Member States further complicate the task. They give rise to divergent political perspectives on the prioritization of the energy cost issue and the most effective solutions. For Germany, a nation with a long-standing tradition of energy-intensive industries that rely on the European internal market and simultaneously aspires to ambitious renewable energy targets, this discord is particularly disadvantageous.

The EU Action Plan must be judged on whether it makes sensible use of the available European levers and is likely to generate sufficient consensus among Member States. Against this background, this article provides an initial economic assessment of the most critical proposals in the Action Plan. First, the existing fundamental challenges of the European energy system are explained in more detail.

Figure 1: Distribution of electricity prices for non-household consumers among the EU27



Source: Eurostat (2025a)²; own illustration.

¹ European Commission (2025). A Competitiveness Compass for the EU. Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions. COM(2025) 30 final.

² Eurostat (2025a). [Electricity prices for non-household consumers - bi-annual data](#):

2 Fundamental challenges

2.1 Increasing role of volatile energy carriers

In order to fulfil its ambitious climate targets, the EU wants to increase the share of renewable energies in final energy consumption to at least 42.5% by 2030³ (from 24.5% in 2023⁴). Fossil fuels previously used in industry, building heating and transport will primarily need to be replaced through the electrification of processes. This means that the use of renewable energy sources in electricity production will play a key role. The energy mix in electricity generation differs tremendously between Member States. While countries such as Austria, Sweden and Croatia can rely to a significant extent on easily controllable generation capacities based on hydro energy, other countries must draw heavily on naturally volatile electricity generation based on wind and solar energy (See Figure 2).

Integrating these volatile sources into the EU's energy system, which has traditionally been calibrated for constant baseload electricity production, is becoming an increasing challenge as they expand. This has several consequences for the cost of electricity. Firstly, the increasing natural variability of generation leads to an increasingly volatile supply on the electricity exchange in the short term and a weakening of the steering effect of price signals. The resulting high price volatility on the power exchange increases the overall market risk and thus the cost of hedging measures such as forward contracts. Second, the increased volatility is also accompanied by particularly high price peaks, as electricity demand has to be met, for example, by switching on expensive peaking power plants when there is no wind. In such situations, these take on the role of price setters in the existing marginal pricing system. Thirdly, fluctuations in generation lead to increased costs for grid operators to ensure grid stability. The EU agency ACER estimates the cost of congestion management in the EU at €4.26 billion in 2023.⁵ A study by the Joint Research Centre predicts that the expansion of renewable energy required to meet climate policy targets by 2040 would lead to an almost sixfold increase in the cost of redispatch measures.⁶ These costs will be passed on to electricity consumers through rising network tariffs.

The rate of expansion of volatile renewable energy sources differs significantly between Member States due to natural conditions and national energy policies. This is particularly true for the current and future use of nuclear power as a baseload source. These differences are not necessarily bad news from the point of view of system integration. With sufficient transmission capacity, wind and PV-related fluctuations in national generation can be balanced by importing and exporting electricity within the European grid. The more diversified the generation profiles between Member States, the stronger this smoothing effect tends to be. However, growing imports and exports also imply that countries with a high share of wind and PV transfer some of their price volatility to the electricity markets of neighboring countries. This 'export of volatility costs' can lead to significant disagreements at the political level between the member states concerned, as was recently seen in the situation of a

³ European Union (2023). Directive (EU) 2023/2413 of the European Parliament and of the Council of 18 October 2023 amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652.

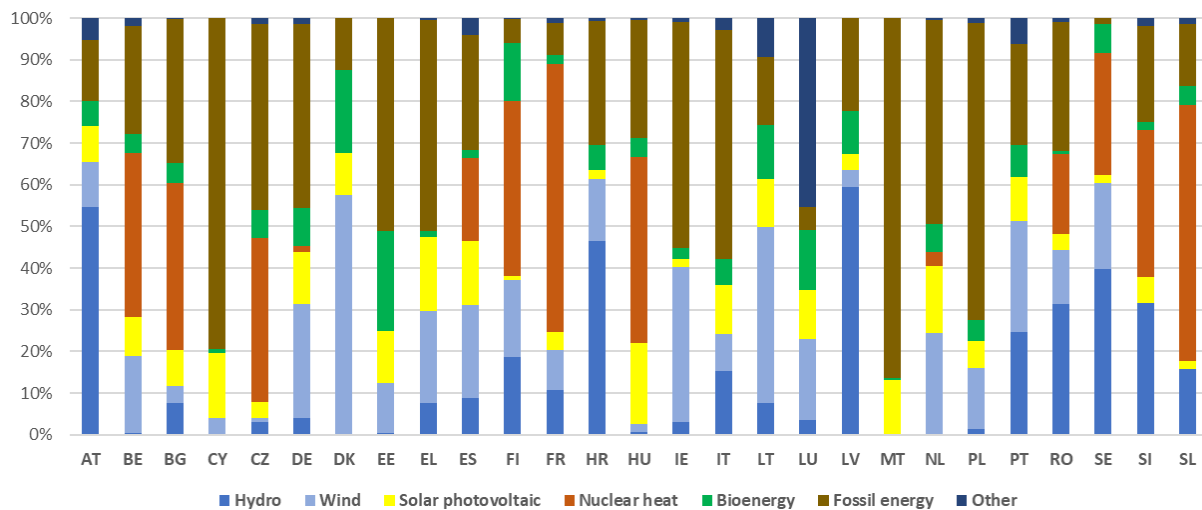
⁴ Eurostat (2025b). [Renewable Energy Statistics](#).

⁵ ACER (2024). Transmission capacities for cross-zonal trade of electricity and congestion management in the EU. 2024 Market Monitoring Report. European Union Agency for the Cooperation of Energy Regulators.

⁶ Thomassen, G., Fuhrmanek, A., Cadenovic, R., Pozo Camara, D. Vitiello, S. (2024). Redispatch and Congestion Management. Publications Office of the European Union, Luxembourg.

prolonged wind calm in Germany. This makes it more difficult for the EU to reach political agreement on the future support policy for renewable generation capacity.

Figure 2: EU27 electricity production by technology in 2023



Source: Eurostat (2025c)⁷; own illustration.

2.2 High import prices for natural gas

The historic peaks in natural gas prices in Europe observed during the 2022 energy crisis have vanished. However, the relevant reference price on the Dutch Title and Transfer Facility (TTF) is still well above the pre-crisis level.⁸ Price volatility is also still higher than in pre-crisis times. This is partly due to short-term demand-side factors such as a weather-related increase in heating consumption this winter.⁹ However, it is also partly a reflection of the changed supply situation. Due to the extensive cancellation of long-term import contracts for Russian pipeline gas, intercontinental imports of natural gas as Liquefied Natural Gas (LNG), particularly from the USA, have increased significantly (see Figure 3). The conversion and transport costs are increasing the EU's import prices. In addition, the growing role of LNG is accompanied by a decline in the importance of long-term supply contracts, which previously offered Europe a certain degree of price security. Flexible marketing on the short-term spot market is often more attractive, especially for LNG exporters whose capacity investments have already been largely amortized. Price differences between the European and Asian markets can thus be optimally utilized. As a result, Europe is increasingly exposed to volatile global market conditions in its natural gas procurement, particularly demand competition by East Asia.

High natural gas prices not only make heat consumption in industry and households more expensive, but also entail high electricity price peaks, due to the important role of gas-fired power plants as peak load generators. The long-term solution of replacing fossil natural gas with renewable hydrogen as an energy source in peak load power plants will take a long time. This is because the development of markets and infrastructure for renewable hydrogen is slow, and industrial customers in the chemical

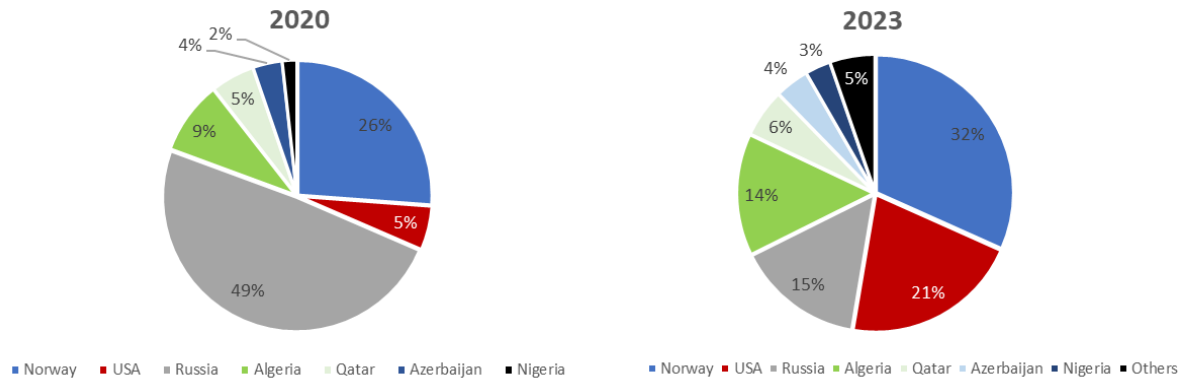
⁷ Eurostat (2025c). [Production of electricity and derived heat by type of fuel](#).

⁸ SFOE (2025). [Gas Price Spot Market "Day Ahead" TTF](#). Swiss Federal Office of Energy.

⁹ Molnar, G., Zeniewski, P. (2025). [European gas market volatility puts continued pressure on competitiveness and cost of living](#). IEA Commentary.

and steel production sectors will be the first to be served. Until then, natural gas will remain indispensable for ensuring the flexibility of power generation.

Figure 3: EU27 natural gas imports by source country



Source: Eurostat (2025d)¹⁰.

2.3 Strong investment pressure on grids

The European Commission considers additional investments in the electricity grid totalling EUR 584 billion to be necessary for the implementation of RePowerEU in this decade. This amount is in the same order of magnitude as the investment sums required for PV and wind power.¹¹ The aim is to equip the grid infrastructure for increasing electrification and the integration of ever larger quantities of renewable electricity. The expansion of the transmission capacities of cross-border power lines is a priority. This is the decisive prerequisite for being able to compensate for future imbalances caused by fluctuations in generation through electricity imports and exports. In its ten-year development plan, the European Network of Transmission System Operators for Electricity (ENTSO-E) envisages a doubling of this capacity by 2030.¹² Another focus is on the distribution networks. They need to be massively upgraded in order to fulfil their new dual role as electricity distributors and feed-in points for decentralized generators. At the same time, they need to be equipped for the future real-time monitoring of electricity flows and protected against cyber-attacks by investing in digitalization.¹³

The creation of sufficient grid capacities is not only the basis for the supra-regional synchronization of existing electricity supply and demand. It is also the prerequisite for the integration of additional renewable electricity capacities and the electrification of the industrial, building and transport consumption sectors. At the same time, the increasing cost-side competitive pressure on Europe's energy-intensive industries is placing high efficiency demands on future grid investments. The additional costs passed on to electricity consumers via grid charges must be limited. Instead of relying solely on flat-rate state subsidies, intelligent instruments are needed that reduce the capital costs of private investors by partially assuming risk.

¹⁰ Eurostat (2025d). [Imports of natural gas by partner country](#).

¹¹ European Commission (2022). Commission Staff Working Document Implementing the RePowerEU Action Plan: Investment Needs, Hydrogen Accelerator and Achieving the Bio-Methane Targets Accompanying the document Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions REPowerEU Plan.

¹² ENTSO-E (2020). Ten-Year Network Development Plan (TYNDP) 2020.

¹³ Politico (2023). [Europe's grid is under a cyberattack deluge, industry warns](#).

2.4 Limited flexibility of energy demand

A key factor in ensuring the cost-effectiveness of expanding the electricity grid is the effective management of demand, which is essential for grid stability. In the absence of a centralized control mechanism, this is typically achieved through economic signals. As part of its electricity market reform, the EU has mandated member states to incorporate the right to enter dynamic electricity price contracts for customers with smart meters into their national legislation. These refer to supply contracts in which the electricity prices are dynamic, i.e. dependent on the respective grid situation, and thus vary over time. The development of spot prices on the electricity exchange (e.g. the day-ahead market) generally serves as a reference for price adjustments.

However, the short-term effectiveness of these measures is limited. In order to preserve consumer sovereignty, only the right, but not the obligation, to sign up to dynamic tariffs was deliberately created. Consumers will only take up the offer if they are sufficiently informed about their individual economic benefits. And even if dynamic pricing were introduced across the board, there is no guarantee that the economic incentives would lead to grid-friendly behavior. Dynamic pricing based on short-term developments on the national power exchange may not reflect the regional grid situation.

There are also technical barriers to the wider uptake of dynamic electricity tariffs in Europe. For example, the roll-out of smart meters has made little progress in some large Member States such as Germany and Poland. In addition to a lack of consumer acceptance, market development has also been hampered by overly standardized technical requirements regarding factors such as data protection.

3 Proposals of the EU Plan for Affordable Energy

The Action Plan aims to stimulate coordinated action by EU, Member States and the private sector, to achieve four goals:

1. Lower energy costs for all
2. Complete the energy union
3. Attract investments
4. Be ready for potential energy crises

Most of the measures shall already be implemented in the course of the year 2025.

3.1 Pillar I: Lowering energy costs

The first set of actions comprises measures to be undertaken by Member States to immediately reduce electricity bills. This includes the call for **a more efficient design of network tariffs**. The Commission will prepare a plan for a tariff methodology that incentivises the flexible use of electricity, while maintaining incentives for grid operators to invest in the grid. Electricity consumers shall have sufficient economic incentives to shift their electricity consumption towards times and places where the cheapest energy sources are available and when it is the most cost efficient for the overall system. This is supposed to reduce the costs of grid management, and thus lower average network tariffs in the long-run. To reduce the tax component of the electricity bill, the Commission reminds Member States of the possibility to **reduce their national electricity taxes** to the EU-wide minimum levels specified by the Energy Taxation Directive. It also asks the Council to finally complete the reform of the Energy Taxation Directive, allowing for a more targeted promotion of clean technologies and the abolishment

of outdated exemptions. To boost competition on the electricity retail market, the Commission announces an **Energy Citizens Package**, which will propose measures to eliminate remaining barriers for consumers to switch electricity suppliers and contracts. It will also facilitate options for consumers to engage in energy sharing through investments in clean energy projects at the local level.

The second set of actions consists of measures to reduce electricity prices by lowering supply costs. To decouple end-user billing from volatile prices on the electricity exchange, the Commission announces a **pilot program to support the conclusion of Power Purchase Agreements (PPAs)**, i.e. direct long-term supply contracts between electricity producers and consumers. This is likely going to take the form of a public financial backing of contract guarantees typically provided by electricity buyers in such contracts. The Commission will also consult Member States on how to design their price support schemes for renewables in a way that incentivizes a combination of public support with the conclusion of PPAs. The Commission further aims to **reduce permitting time for investments in renewables, grids and storages** by providing guidance on efficient approval procedures and initiating a dialogue on best-practice solutions. To further **accelerate the expansion, modernization and digitalization of European grids**, several legislative and non-legislative proposals will be summarized in a European grid package. It aims to implement a top-down approach for an EU-wide planning of cross-border grid expansion and shall simplify the existing regulation on Trans-European energy networks. Manufacturers of grid components shall receive specific financial support through an own package that offers counter-guarantees for investment credits. To **increase system flexibility**, the Commission also asks Member States to eliminate national barriers to the roll-out of smart meters immediately and announces to adopt new rules on demand response.

The third set of actions addresses measures to ensure a well-functioning gas market. It refers to the work of a **Gas Market Task Force** that was set up in early February. It shall scrutinize market structure and competition on EU gas markets and present, if necessary, proposals to ensure the optimal functioning of markets and prevent practices that distort competition. To **harness the EU's purchasing power on international gas markets** for the goal of reducing import prices, it proposes EU importers to join forces through mechanisms of demand aggregation and joint purchase. It also proposes to explore options to follow the Japanese strategies of directly investing in LNG export infrastructure abroad, as part of a negotiation strategy for favorable long-term LNG supply contracts. It also suggests a flexibilization of the existing EU-wide rules for Member States for minimum filling levels of gas storages.

3.2 Pillar II: Completing the Energy Union

The Commission stresses the crucial role of interconnected European energy markets as a long-term solution to the energy cost issue. It aims to accelerate electrification and strives for a fully integrated single market for energy. To this end, it announces a range of forthcoming strategic plans, including an **Electrification Action Plan**, a revised **Heating and Cooling Strategy**, a **Strategic Roadmap for Digitalization and Artificial Intelligence (AI) for the Energy Sector** and a **Strategic Energy Technology Plan**. Speeding up electrification of energy-intensive industries shall lead to gains in energy efficiency and improve the system integration of wind and solar power. By making increased use of AI in areas like grid planning and management, options to lower system costs shall be exploited. At the same time, the energy use of data centers shall be subject to specific attention, to monitor their potentially critical future role as a large-scale electricity consumer for the energy system. Innovation in strategic technologies shall be fostered through coordination of support funds among Member States.

According to the Commission, implementing the Energy Union will require massive investments in renewables, energy efficiency and grid capacity. While funding shall primarily be raised by the private sector, the Commission sees a specific role for public support in de-risking strategic projects. To this end, it announces a **Clean Investment Strategy** designed to tackle existing investment gaps. As means to leverage private instruments, the Commission refers to public guarantees and equity instruments.

3.3 Pillar III: Attracting investment and ensuring delivery

The Commission identifies market uncertainty as one major barrier to long-term investments in the energy system. Producers of clean energy would particularly miss certainty on demand. Energy-intensive industries would require more certainty on supply and prices of energy for their long-term planning. It sees a strong political leadership and engagement by all relevant stakeholders as prerequisites for catching up on investment volumes. On the political side, this would require a **stable regulatory framework** both at EU and national level. Regulatory stability shall reduce regulation-induced risks for future cash flows of both energy producers and consumers and thus also lower capital costs of long-term investments. More specifically, for the field of renewable energy support auctions, the Commission sees a need for support tenders that provide long-term support security, while also considering the criteria of sustainability and resilience in grant decisions.

3.4 Pillar IV: Being ready for potential energy crises

To avoid the reoccurrence of an energy crisis situation, like in 2022, the Commission sees the need to maintain a safety net against external shocks to the European energy system. The current security of supply framework shall be strengthened, providing Member States with the necessary instruments for effective action. In this vein, the Commission announces the proposal of a revision of the current energy security framework with a **specific focus on price stability**. In particular, guaranteed availability of energy supplies at all time and better preparedness for supply stress periods shall reduce price volatility and lower average prices. Moreover, specifically to avoid price peaks during future energy crises, the Commission will consult Member States on development and implementation of **schemes to lower peak demand** based on economic incentive schemes. To lift severe network bottlenecks in crisis situations, the Commission will cooperate with grid operators on ways to enable a **temporary increase in cross-border electricity transmission capacities**.

4 Economic appraisal of selected measures

4.1 Specific proposals

4.1.1 Support of PPAs through contract guarantees

PPAs are an increasingly important instrument for reducing market risks for both electricity producers and consumers. For investors in renewable energy plants, they offer the prospect of a stable income stream beyond public subsidies. In contrast to marketing via the electricity exchange, the climate friendliness of renewable energy can be certified and directly rewarded via a price premium. Depending on the contract structure, PPAs can offer adequate prices even during periods of high generation, thereby avoiding a detrimental effect on revenues during these times. This enhances the financing conditions for capacity investments and reduces the reliance on state subsidies via price support schemes. For industrial electricity consumers, long-term contracts mitigate price risks. On-site PPAs

also help to reduce the burden on the public electricity grid, thereby contributing to the cost reduction of grid management for the general public. The flexibility of the pricing conditions facilitates adaptation to the risk preferences and business models of the contracting parties.

At the same time, the flexibility of PPAs entails specific costs and risks for both parties. For instance, high search and negotiation costs may be incurred in concluding a contract. The existence of default risks in the purchase of contractually agreed electricity volumes is another obstacle to the development of PPA markets, as it requires off-takers to provide financial assurance. Therefore, the approach proposed by the Commission to mitigate the economic consequences of such risks through public guarantees can make an effective contribution to market development. A justification for such support is, firstly, the positive impact of the PPA's hedging effect on renewable energy deployment, both concerning the supply side (electricity generation) and the demand side (electrification of industries). It thus contributes to the EU's overarching climate goals. Secondly, for on-site PPAs, cost savings arise on the side of grid operators due to simplified grid management, which are reflected in lower grid fees in the medium term. From the perspective of the energy system, growing PPA markets thus have a transformative impact that justifies government support. Moreover, providing support in the form of contract guarantees entails specific advantages; it does not immediately require additional public expenditures. From a political standpoint, this approach also reinforces broader incentives to support the green transformation of European industries, as it mitigates the default risks associated with PPAs.

4.1.2 Harmonization of electricity taxes to minimum level

The current tax burden on electricity consumption contributes to the cost pressure on electricity-intensive industries. Unlike the market components of the electricity price and network charges, tax revenues do not remunerate the relevant actors in the electricity system, but flow into the national budgets of Member States. Reducing this price component of the price is system-neutral. Efforts to reduce electricity prices should therefore focus on electricity taxes first. It brings the electricity price paid by consumers closer to the true social value of the electricity produced and thus to the existing scarcity costs. A general reduction of electricity taxes in the EU to the minimum rates defined in the Energy Taxation Directive would also contribute to strengthening the level playing field in the internal market, in particular on markets for electricity-intensive products. This will also reduce misallocations in the national distribution of electricity consumption, which, through cross-border electricity trading, affect electricity consumers in neighboring countries. However, the overall impact of this measure on this cost burden will remain limited. Member States like Germany have already exploited the option to reduce electricity taxes for their manufacturing companies to the minimum value. Moreover, without further measures targeting the system integration of renewables like PPA support (see above), any tax reduction is likely to be thwarted by rising network charges.

4.1.3 Support of grid investments through risk-absorbing measures

Grid operation is a service provided to participants in the electricity market. It is not a public good in the technical sense, but a heavily regulated natural monopoly. Nevertheless, an argument in favor of state support is the existence of positive externalities associated with the activities of network operators. The future speed of investments in renewable energy plants will depend crucially on the speed of demand-side investments in the electrification of industries, buildings and transport - and vice versa. Grid development plays a crucial role in overcoming this chicken-and-egg problem, as it integrates the electricity markets in Europe through additional transmission capacities and thus enables efficient

economic control of investments through electricity price signals. It thus makes a decisive contribution to reducing future CO₂ abatement costs. A legitimate role of additional state support is to reward network operators for this contribution.

A further argument in favor of public support is the need to address the adverse impact of regulatory uncertainty. This concerns the future regulation of network operator revenues, and, in a broader sense, the future of energy and climate policy as a whole. This policy-induced uncertainty impairs the financial viability of long-term investments in electricity networks. Government support in the form of risk-absorbing measures can be an effective way of neutralizing the market impact of these political risks.

Providing this support in the form of credit guarantees comes with several advantages. It effectively lowers the credit risk involved in debt-based grid financing. It thus improves credit access and crowds-in private capital without directly involving higher government expenditures. At the same time, such an instrument has a disciplining effect on future energy and climate policy. The need to avoid loan defaults caused by changes to the regulatory framework (e.g. reducing electrification incentives for industries) is a motivation to pursue a consistent long-term transformation policy.

4.1.4 Strengthening demand aggregation for natural gas

A collective procurement mechanism for natural gas on import markets would constitute an extension of the existing demand aggregation instrument AggregateEU. A collective procurement of significant volumes of natural gas would threaten the stability of the internal gas market. The existing EU aggregation system is already questionable from a competition policy point of view, especially if the procured gas is marketed in small retail markets.¹⁴ If a public agency were to become a direct market player, this could lead to the crowding out of private upstream trading and a loss of market liquidity in the medium term. Unlike in the case of hydrogen, this could not be justified by a low development of decentralized markets. Instead, the EU should focus on maintaining the current system of decentralized and diversified gas trade in the EU, by guaranteeing stable regulatory conditions for flexible supply arrangements and new long-term contracts.

4.1.5 Flexibilization of gas storage targets

Based on the situation over the last two winters, the requirements for minimum storage levels set out in the EU Gas Storage Regulation¹⁵ have generally proved their worth. The objectives of maintaining supply security through sufficient storage levels and preventing new massive price spikes have been achieved. From an economic point of view, the contribution of such rules to the overall security of gas supply can be considered a public good. However, the provision of this good is always associated with costs. Binding storage targets imply that storage levels are higher than those that market players would seek to achieve under purely decentralized coordination. The resulting additional costs are not limited to the physical costs of transport and storage, but also include the risk of price development. The current strong dynamics in the European gas markets are causing the latter form of costs to rise. The role of regulation should be to limit these costs as far as possible.

¹⁴ Barnes, A. (2023). EU joint purchasing of gas – an assessment. Oxford Institute for Energy Studies.

¹⁵ European Union (2022). Regulation (EU) 2022/1032 of the European Parliament and of the Council of 29 June 2022 amending Regulations (EU) 2017/1938 and (EC) No 715/2009 with regard to gas storage.

The current system of fixed and identical storage targets for Member States carries a risk of inefficiency in this respect. This is because, depending on factors related to the national supply situation, such as the conclusion of long-term supply contracts or the speed of electrification of the national economy, the level of storage required for security of supply may differ between Member States. The social benefit of meeting the requirements also varies with the market situation. From an economic point of view, these two factors argue in favor of greater flexibility in storage requirements, both in terms of time and space. Another disadvantage of fixed national targets is the risk of market turbulence that could arise if there are insufficient stocks just before the deadline. Member States could outbid each other in their willingness to pay to meet the necessary requirements, triggering sharp price increases in the short term.

In order to ensure security of supply at lower social cost, the EU should, in the medium term, transform the system of fixed national targets into an EU-wide market-based instrument. A purely EU-wide specification of the level of gas storage in the Union, while maintaining the solidarity mechanism in the event of a crisis, could achieve the objective of security of gas supply in the internal market at a lower cost. For example, in the event of a shortfall in EU-wide storage levels observed at any time before the deadline, a precautionary EU-wide tendering mechanism for storage capacities could be activated. In return, gas traders would receive a support premium for the obligation to store the tendered gas volumes. This could be financed by a levy, similar to the German model. The cost of good "security of supply" would thus be borne by all gas customers in the internal market.

4.1.6 Support of foreign direct investments in LNG export facilities

Europe's growing reliance on LNG in its energy imports exposes it to greater risk in the global gas market. Managing these risks requires a strategy to diversify existing supply sources and incentivize new long-term contracts. Public support for European investments in LNG liquification facilities or gas pipelines in third countries can be an element of such a strategy, provided it is embedded in new strategic energy partnerships, including long-term LNG offtake agreements. However, investments in LNG export infrastructure in third countries should be avoided, as they are unlikely to contribute significantly to European supply security. Under the tolling model, operators of liquification plants do not obtain ownership of the liquified gas, but merely receive a fee for their service. This means that control of export infrastructure does not entail control of the direction of future gas flows. This approach also risks entrenching European capital in fossil infrastructure, which is urgently needed elsewhere, especially for developing supply chains for renewable energy carriers such as hydrogen.

Furthermore, substantial LNG support may jeopardize the EU's global credibility in combatting climate change. In a context where the EU is seeking to forge new alliances for establishing international green lead markets, this approach is counterproductive. It hinders the EU's ability to establish new clean trade and investment partnerships. As such, public support for foreign LNG infrastructure investments should be granted only on the basis of a thorough, case-specific examination of their impact on future supply security. In any case, it should be limited to a small percentage of the overall EU or Member State support in the field of energy security. The majority of these funds should be allocated to developing supply chains for renewable energy carriers, as part of a long-term strategy for diversified energy sourcing in a climate-neutral economy.

4.2 Comparative evaluation

Our assessment of the main instruments listed in the Action Plan is summarized in Table 1.

Table 1: Summary of economic appraisal

Measure	Contribution to ..		
	<i>Energy system</i>		
	Efficiency energy markets	Development of renewables	Supply security
Support PPAs	Green	Green	Grey
Harmonization electricity taxes	Green	Grey	Grey
Guarantees for grid investments	Grey	Green	Grey
Demand aggregation natural gas	Red	Grey	Grey
Flexibilization gas storage targets	Green	Grey	Grey
Support FDI in LNG Export facilities	Grey	Red	Grey

Measure	<i>Societal sphere</i>	
	Industrial competitiveness	Social acceptance
Support PPAs	Green	Grey
Harmonization electricity taxes	Green	Green
Guarantees for grid investments	Green	Grey
Demand aggregation natural gas	Grey	Red
Flexibilization gas storage targets	Grey	Grey
Support FDI in LNG Export facilities	Grey	Red

Source: own illustration. **green**: positive contribution; **red**: negative contribution; **grey**: neutral/ambiguous.

5 Conclusion

High energy prices seriously affect the global competitiveness of Europe's energy-intensive industries. Tackling this problem requires coordinated action at European level within the framework of the Energy Union. At the same time, the EU's scope for immediate action is severely limited by the dominance of national legislation in energy policy. The EU Action Plan for Affordable Energy represents a new attempt to identify common approaches to reducing energy costs within these constraints. In general, it is welcome that the Commission seeks to reconcile the need to address the cost issue with the critical role of price signals and the integrity of the internal market. Contrary to some fears, it does not propose new price caps for gas and electricity or a restructuring of the wholesale electricity markets.

Yet, some proposals do constitute potential threats to the functioning of energy markets. The potential of future market interventions and new demand aggregation schemes increase uncertainty on the European gas markets and thus jeopardize security of supply in the long term. Instead, the key to solving the energy cost issue is economic incentives for better system integration of renewables. The market-based measures mentioned in the Action Plan - promotion of PPAs and flexibility incentives on the demand side - should be prioritized and uniformly implemented by Member States, to support the internal market for energy. Price uncertainty in energy imports can be managed most effectively through a stable regulatory framework that provides a reliable environment for long-term supply contracts and new procurement solutions for natural gas and (future) renewable gases.

Moreover, public credit guarantees can be an effective means of overcoming risk-related financing bottlenecks in the expansion of the electricity grid. However, it is important that EU and Member

States define clear criteria for granting credit guarantees for a grid project and create transparency on the extent of public risks taken. In addition, cross-border expansion projects should be prioritized in the interests of market integration, for example via a specific IPCEI for electricity grids.

In general, future EU communication on this issue should avoid raising expectations. The issue of high energy costs is a fundamental one, not the outcome of specific deficiencies of markets or regulatory frameworks that can be easily overcome through targeted action. Ultimately, it is rooted in the unequal distribution of energy resources. On a global scale, Europe must be prepared to remain a net importer of energy even under the conditions of a climate-neutral economy. Achieving lower prices and price volatility will require a long-term strategy for supply chain management, with a focus on diversifying energy sources and technologies.



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