EU Regulatory Observatory:

Unlocking the True Value of Our Energy Union

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Summary

- Energy costs in the EU have been rising since the past decade, making EU countries less competitive compared to other developed and developing economies, such as the US, Japan, and China. The risk of losing investments in energy-intensive industries increases with every year.

- Europe has the largest integrated grid in the world, but significant improvements are needed to enhance cross-border interconnections, smart grid infrastructure, and energy system integration and flexibility.

- According to the EU Commission's own estimates in the Action Plan for Affordable Energy (COM/2025/79), by 2030, around half of the EU's new cross-border electricity capacity requirements will remain unaddressed, holding back the complete integration of our energy market. However, Europe's energy and climate policies may result in higher energy costs for some groups of consumers, such as households (including energy-poor ones) and businesses (particularly energy-intensive, trade-exposed industries).

- The European Commission released the 2025 Action Plan for Affordable Energy to address the need to protect households and businesses from the unintended and potentially harmful consequences of these policies, as well as from other exogenous factors that may have an impact on energy prices (such as the war in Ukraine or US tariffs).

- The EU Regulatory Observatory expert panel's assessment characterised the Action Plan as a mix of liberal and non-liberal policies, with the majority of them falling in the middle of the spectrum (average score of 5.15/10, with 0 = complete regulation and 10 = complete deregulation).

- Some of the proposed actions appear to be liberal or very liberal, such as improving the ability to contrast monopolies and abuses that distort market prices, although it is unclear at this stage how monopolies are identified, and which instruments may be adopted to limit their alleged abuses. Other actions aim to influence individual consumer choice and foster collective grouping, which are less liberal. Finally, there are actions recommended that appear to be anti-liberal and could lead to increased and complex regulation of energy companies.

About the authors

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Introduction

The European Commission (EC) acknowledges that despite the advancements in renewable energy and interconnections, and efforts to open up and integrate the energy market, the EU still lacks a 'genuine energy union'. According to the EC, high energy prices, a dependency on fossil fuel imports, and grid inefficiencies threaten competitiveness, social cohesion, and industry survival. To address these issues, the EC put forward the 2025 Action Plan for Affordable Energy, framed under the Clean Industrial Deal and the Competitiveness Compass. The immediate goal is to reduce energy costs while pushing for long-term reforms and decarbonising the economy.

The EC has identified three root problems. The first is fossil fuel dependence. The EU still imports 90% of its natural gas, leaving households and industries vulnerable to global price volatility. The second is inefficient integration: despite the EU being the most interconnected grid in the world, delays in permitting, congestion, and a lack of cross-border capacity keep prices higher than they should be. Third, the structural costs of transitioning to clean energy – grid investments and re-dispatching and curtailment costs – are already in the billions and continue to rise.

To overcome these impediments, the EC has set three 'enablers':

1. **A fully integrated market**, with more interconnections, digitalisation, and regulatory simplification, to cut costs (with the potential to save €40–43 billion annually by 2030)
2. **A decarbonised system**, to scale up clean energy and electrification, reduce consumers' exposure to fossil fuels, and improve energy efficiency
3. **A fairer gas market**, keeping natural gas in the mix but under more transparent and collective rules, to allow for EU-wide demand aggregation

The Action Plan aims to achieve significant financial benefits. By reducing fossil fuel imports, the EU expects to save €130 billion annually by 2030 (0.65% of GDP), with annual savings anticipated to rise to €260 billion by 2040. These savings hinge on increased electrification and efficiency (25%), replacement of fossil fuels with renewables (50%), and smart grid expansion (25%).

The document, however, has some contradictions. The short-term relief expected from lowering energy bills is heavily dependent on long-term structural reforms, which cannot be implemented immediately. Furthermore, while the EC promises to streamline regulations and cut permitting times, it simultaneously foresees massive new governance and coordination needs at the EU level — hardly the recipe for a leaner bureaucracy. Moreover, one cannot presume that dependence on imported fuels, particularly natural gas, will cause high prices in the long run: gas prices may well fall in the future, as a result of new discoveries, better infrastructure, and reduced demand. Additionally, decarbonisation and the use of government-supported renewables may either increase or decrease prices, depending on several factors, including the cost of technologies for electricity generation and storage, the market price of gas, the specific characteristics of each country, and the cost of network infrastructure and flexibility services.

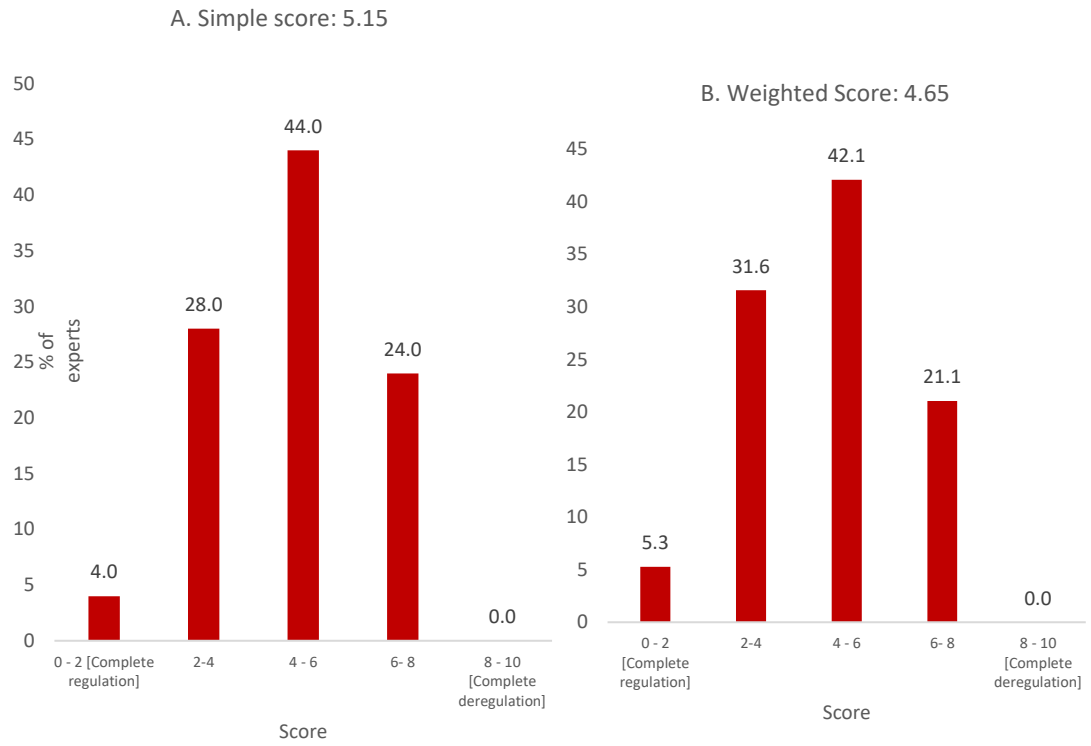
In essence, the Action Plan is ambitious. It aims to fight energy poverty, keep industries from collapsing, complete the energy union, and finance the transition to clean energy. Yet, its reliance on large-scale investments, centralised governance, an optimistic timeline, and some fideistic assumptions raises questions on whether the EU can deliver both *cheap energy now* and *systemic decarbonisation later* without tripping over its own contradictions.

The EU Regulatory Observatory's assessment of the Action Plan for Affordable Energy

The expert panel's assessment of the Action Plan for Affordable Energy and Clean Industrial Deal reveals heterogeneous views, with some experts considering the legislation to be liberal-leaning, while others perceive it as having anti-liberal components. The average score is 5.17 out of 10 (where 0 = complete regulation and 10 = complete deregulation; see Figure 1A). The weighted score[1] is 4.65/10, revealing a slightly anti-liberal sentiment overall (Figure 1B).

The standard deviation of the responses is quite large (more than 1.5 points). This is because the plan is composed of several individual actions. Some of the actions are clearly liberal, at least in principle, such as Action 3 from Pillar I, which aims to dissolve monopolies and promote competition. Other actions clearly lean towards the opposite end of the spectrum, such as Action 8, which tries to directly control prices in order to avoid price peaks. The analysis in this brief considers the package as a whole and balances the effects of each candidate action.

Figure 1. Percentages of scores and average scores in the EU Regulatory Observatory's assessment of the Clean Industrial Deal, in particular, for the EC's Action Plan for Affordable Energy



Source: Authors' analysis[2][3]

[1] The weighted average accounts for both the experts' confidence levels and the harmonisation of responses along the regulation–deregulation scale. For more details, see the methodological note at the end of this brief.

[2] The weighted average accounts for both the experts' confidence levels and the harmonisation of responses along the regulation–deregulation scale.

[3] The simple average does not account for the experts' confidence levels and the harmonisation of responses along the regulation–deregulation scale

The good, the bad, and the ugly of the energy action plan

The EC's Action Plan appears to be a miscellaneous collection of diverse policies.

First, *the good*. The EC appears to acknowledge that energy markets are over-regulated and over-taxed. To lower electricity bills for both consumers and producers (Pillar I), the EC recommends reducing electricity taxation (Action 1), reducing permitting times for new energy producers (Action 2), and tackling monopolies or cartels that are hampering competition (Action 3). Some liberal-leaning policies are evident in Pillar II and Pillar III, such as simplifying the governance regime to encourage investment (Action 5) and promoting transparency laws for consumers, industries, and energy producers (Action 6). There are no liberal policies in Pillar IV.

Let's follow with *the bad*. In many of the policies, the EC directs the EU to steer the market towards the best outcomes by either shaping it (with public investments) or directly influencing private actors to move in the desired direction. The EC appears to believe that manipulating the energy market, the results obtained will be those of maximum benefit for EU citizens and industry. Examples of these actions can be found in Pillar II, such as launching another task force and ramping up electrification in industries or decarbonisation (Action 5). Somehow, the push for decarbonising the EU is maintained despite the costly consequences, and the means to achieve this goal are not questioned, even if more cost-effective strategies could be devised (Ďurana et al. 2025). In Pillar I, some wishful thinking is seen in suggestions to 'Increase system flexibility through deployment of storage', which requires technology that is expensive or not ready, or to 'accelerate modernisation and digitalisation of grids', which seems to assume that innovation can be planned and that the planned innovation will come at no cost(Action 2). Finally, this plan advocates for price controls, as in Pillar IV, Action 8 – a policy that tends to backfire and that even recently has been severely critiqued not just by free-market experts (Friedman, 2007), (Stagnaro 2022) but also by independent regulators (see, for example, the statements that the European Central Bank[4] and the EU Agency for the Coordination of Energy Regulators[5] released about the transitional gas price caps during the energy crisis of 2022).

This hodgepodge of policies reveals an ugly truth, so let's finish with *the ugly*. When a plan has a mixture of liberal and anti-liberal policies, the results are not easily predictable. The problem with the current plan is that many of the policies are mutually exclusive; it is not possible to produce a satisfactory outcome on two policies if they serve contradictory incentives. See the following examples:

- The EU's goal of increasing energy efficiency goes directly against its desire to offer cheaper electricity to consumers and producers.

- The EU wants to increase competitiveness and lower energy prices, but it wants to do this by limiting energy consumption to carbon-free energy and by promoting specific carbon-free technologies (for example, by mandating a share of renewable energy but not considering nuclear power).

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[4] 'Opinion of the European Central Bank', Official Journal of the European Union, 2 December 2022 (https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52022AB0044).

[5] 'Market correction mechanism', European Union Agency for the Cooperation of Energy Regulators (https://www.acer.europa.eu/gas/market-correction-mechanism).

- The EU wants to invest in grid safety in order to be prepared for the next energy crisis, but it also wants to lower energy costs in the short term.

When you chase two rabbits at the same time (which is what the EU appears to be doing with this energy action plan), you will end up with no conclusive outcome – hungrier, more tired, and in a worse position than before – and you will have to start thinking and planning again. Implementing the actions proposed by this plan can result in delays and uncertainty. Table 1 provides a summary of this mashup.

Table 1. Individual scores of the actions in the EC's Action Plan for Affordable Energy

Action	Score (0 = complete regulation, 10 = complete deregulation)
Pillar I: Lowering energy costs	
Action 1: Making electricity bills more affordable	5.67 (average)
Achieving more efficient network charges to reduce energy system costs	3.00
Lowering taxation on electricity and removing non-energy cost components from bills	8.00
Enabling consumers to switch to cheaper energy suppliers while tackling energy poverty	6.00
Action 2: Bringing down the cost of electricity supply	4.40 (average)
Decoupling retail electricity bills from high and volatile gas prices	2.00
Reducing permitting times for an accelerated energy transition	7.00
Accelerating the expansion, modernisation, and digitalisation of grids	4.00
Increasing system flexibility through the deployment of storage and demand response	4.00
Providing guidance on promoting remuneration of flexibility in retail contracts	5.00
Action 3: Improving gas markets for achieving fair energy prices	5.00 (average)
Ensuring fair competition in gas markets	7.00
Harnessing the EU's purchasing power to get a better deal on imported natural gas	3.00
Action 4: Energy efficiency: delivering energy savings	3.50 (average)
Establishing an efficiency market of European dimension	4.00

Giving consumers access to more efficient appliances and products with longer lifetimes	3.00
Pillar II: Building a genuine energy union	
Action 5: Completing the energy union	4.43 (average)
Launching an energy union task force	3.00
Tackling the investment gap and mobilising private capital	6.00
Building a more integrated energy market	5.00
Providing investment certainty and a simplified governance regime for a robust energy union	7.00
Ramping up electrification	4.00
Increasing digitalisation and the use of AI in the energy sector	4.00
Decarbonising, integrating the heating and cooling sector, and enabling gas replacement	2.00
Pillar III: Attracting investment and ensuring delivery	
Action 6: Arranging a tripartite contract for affordable energy for Europe's industry	6.00 (average)
Arranging a tripartite contract for affordable energy	6.00
Pillar IV: Being ready for potential energy crises	
Action 7: Ensuring security of supply for price stability	2.00 (average)
Contributing to price stability through a fit-for-purpose energy security framework	2.00
Action 8: Ensuring preparedness for a price crisis	4.50 (average)
Avoiding price peaks during energy crises	2.00
Increasing cross-border access to affordable electricity	7.00

Source: Authors' analysis.

Conclusions and policy recommendations

The key to this Action Plan seems to lie in which set of policies — liberal or anti-liberal — is implemented first and with greater ease. Liberal measures are naturally faster to apply, since they

usually involve deregulation, or simply *not doing something*, rather than adding new rules. These actions may bring some short-term relief, but their effect risks being overshadowed once the more cumbersome, anti-liberal programmes inevitably follow.

If the EU truly wishes to secure cheap and abundant energy, a genuinely freedom-oriented reform should start with regulatory withdrawal not adding further layers of governance. Taxation on energy should be reduced without delay. Market-based solutions — such as reforming the Emissions Trading System (Stagnaro et al. 2025), encouraging voluntary adoption of energy efficiency and decarbonisation, and phasing out distortive subsidies — would serve the purpose better than another round of prescriptive mandates.

Methodological note

The results of the EU Regulatory Observatory's assessment are presented both as a simple and as a weighted average in order to (a) calibrate the different perceptions and biases of the experts on the regulation–deregulation scale, (b) take into account the experts' confidence in their area of expertise, and (c) take in to account the extent to which the rating is informed by the expert's knowledge of the sector.

This process involved three key steps:

1. Harmonising perceptions and reducing biases: The experts were asked to rate 40 hypothetical scenarios (vignettes) in each policy area (King et al. 2004; Pemstein et al. 2020) to evaluate whether the policy is moving towards more regulation (anti-liberal) or more deregulation (pro-liberal). To ensure comparability across respondents, we used a standardised scale of 0–10 where:

    - 0 = complete regulation (anti-liberal stance)
    - 5 = no change/status quo
    - 10 = complete deregulation (pro-liberal stance)

    To improve interpretive accuracy, vignettes were designed separately for eight distinct policy areas in which liberalisation may take different forms:

    1. Digital platforms
    2. Environment and emissions
    3. Trade policy
    4. Common fisheries policy
    5. Common commercial policy
    6. Agricultural policy
    7. Energy markets
    8. Consumer protection

    Each vignette set consisted of five imaginary policy scenarios ranging from strongly regulatory to strongly liberalising[6]. These served as scale anchors, allowing for the standardisation of experts' ratings across and within areas.

2. Experts' rating: The experts evaluated the EU regulations using the same scale.

[6] While the assignment of ideal scores is necessarily subjective to some extent, we aim to operate within the boundaries of mainstream policy consensus to ensure broad acceptability and analytical clarity. Ratings that deviate substantially from common interpretations are reviewed and revised accordingly, based on expert feedback.

3. Experts' confidence level: For each regulation, the experts reported their confidence regarding their topic-specific expertise and the extent to their rating was informed by their expertise (both on the 0–10 scale).

The final weighted average score is computed as follows.

Rescaling procedure

Let X_i denote the raw rating given by expert i to the vignette set, and let Y denote the pre-specified 'true' rating of the vignettes. For each expert, we estimated a simple linear regression model:

$$Y = a_i + b_i \bullet X_i$$

The resulting coefficients a_i (intercept) and b_i (slope) capture the expert's idiosyncratic use of the response scale.

Subsequently, all real directive ratings provided by expert i were adjusted as follows:

$$Y_{ij} = a_i + b_i \bullet X_{ij}$$

where Y_{ij} is the standardized liberalisation score assigned by expert i to directive j, and X_{ij} is the original raw score for that directive.

Confidence and expertise weighting

To incorporate experts' self-assessments of their confidence, we applied a calibrated confidence-weighted adjustment to each expert's rating, ensuring that the evaluations are not excessively distorted. Traditional linear weighting methods tend to disproportionately suppress scores with moderate confidence, pulling down the mean rating significantly. We followed this weighting method to preserve the core evaluative signal of the base rating – especially for moderately confident assessments – while still rewarding higher confidence and down-weighting uncertain responses in a controlled and proportional manner.

Let the base score provided by expert i be defined as

$$S_i = \text{Intercept}_i + \text{Slope}_i \bullet \text{Expertise}_i$$

where Intercept and Slope are derived from the vignette results of each participant to harmonise the regulation–deregulation scale, while Expertise is the self-rated domain knowledge on a scale of 0–10. The adjusted (final) score is then computed as

$$\hat{S}_i = S_i \bullet 1 + \alpha \bullet \frac{C_i - \bar{C}}{C_{\max}}$$

where $C_i = C_i^{\text{policy}} + C_i^{\text{content}}$ is the sum of the expert's two confidence ratings (each on a 0–10 scale). $\bar{C} = 10$ is the neutral midpoint of the total confidence score (used as the baseline), $C_{\max} = 20$ is the maximum possible combined confidence, and α is a gain parameter controlling the sensitivity of the adjustment to confidence (e.g., $\alpha = 0.25$).

This adjustment ensures that if $C_i = 10$, then $\hat{S}_i = S_i$ (no change); if $C_i > 10$, then $\hat{S}_i > S_i$ (slight upward adjustment), and if $C_i < 10$, then $\hat{S}_i < S_i$ (mild discounting).

The choice of α determines the extent to which confidence modifies the score. In our case, we set $\alpha = 0.25$, such that a fully confident response ($C_i = 20$) is scaled up by 12.5%, while a minimally confident one ($C_i = 0$) is scaled down by 12.5%. This creates a bounded influence window, avoiding extremes while maintaining relative differences.

This method draws on soft-threshold weighting methods described in the expert assessment literature (e.g., Belton and Stewart 2002; Cooke 1991) and achieves the goal of respecting expertise without allowing a few confident respondents to disproportionately skew the aggregate outcomes.

Our panel of experts

The EU Regulatory Observatory panel comprises 34 experts, representing more than 25% of the current EU member countries. Most of them (62%) hold a PhD in their area of expertise. The majority (66.7%) work as researchers or policy advisors in think tanks, government bodies, or non-governmental organisations, while one out of five (20.8%) hold tenure track or tenured academic positions, as lecturers, associate professors, or professors; the rest of the experts (12.5%) are researchers in academic institutions (including PhD candidates and postdoctoral fellows). Two-thirds of the panel (66%) have more than eight years of professional experience.

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