

A Post-2030 Framework Fit for the Electric Age

Eurelectric discussion paper

March 2026

EURELECTRIC is the voice of the electricity industry in Europe.

We speak for more than 3,500 companies in power generation, distribution, and supply.

We Stand For:

Carbon-neutral electricity in Europe well before mid-century

We have committed to making Europe's electricity cleaner. To deliver, we need to make use of **all low-carbon technologies**: more renewables, but also clean coal and gas, and nuclear. Efficient electric technologies in **transport and buildings**, combined with the development of smart grids and a major push in **energy efficiency** play a key role in reducing fossil fuel consumption and making our electricity more sustainable.

Competitive electricity for our customers

We support well-functioning, distortion-free **energy and carbon markets** as the best way to produce electricity and reduce emissions cost-efficiently. Integrated EU-wide electricity and gas markets are also crucial to offer our customers the **full benefits of liberalisation**: they ensure the best use of generation resources, improve **security of supply**, allow full EU-wide competition, and increase **customer choice**.

Continent-wide electricity through a coherent European approach

Europe's energy and climate challenges can only be solved by **European – or even global – policies**, not incoherent national measures. Such policies should complement, not contradict each other: coherent and integrated approaches reduce costs. This will encourage **effective investment** to ensure a sustainable and reliable electricity supply for Europe's businesses and consumers.

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EXECUTIVE SUMMARY

The EU's competitiveness, energy security and decarbonisation goals go hand in hand and require a near-total decarbonisation of our energy system by 2050. The Union's energy and climate architecture must keep up accordingly. This paper presents Eurelectric's initial perspective on the post-2030 enabling framework, without hindering implementation of the current rules to reach our 2030 targets.

5 Core Elements of the Post-2030 Energy and Climate Architecture

- 1. Greenhouse gas reduction: support the 2040 target & carbon pricing** – The EU's -90% GHG reduction target backed by strong governance and a predictable EU ETS is essential to drive clean investment and maintain Europe's climate and industrial leadership.
- 2. Competitiveness: balance climate efforts and cost efficiency & ensure effective price signals** – Europe's geoeconomic and reindustrialisation priorities require climate policy that drives cost-effective decarbonisation while safeguarding effective price signals through marginal pricing and the EU ETS. Short-term measures such as reduced taxes and levies and targeted State aid, alongside long-term solutions including more clean domestic electricity, long-term contracts, flexibility, storage and interconnectors can all help bring down energy bills.
- 3. Security of supply: enable security of supply with grids, storage & firm capacity** – Europe must modernise grids and scale storage, flexibility and (increasingly clean) firm capacity to ensure reliable system operation as renewables expand.
- 4. Powering demand through electrification** – Clean electrification must become a core driver of Europe's economic growth and energy system, anchored by an indicative electrification KPI (~35% by 2030, ~50% by 2040) to guide investment in grids, clean generation and flexibility. Delivering this requires an ambitious enabling framework and robust funding, with electrified end-uses also bringing major energy-efficiency gains that strengthen competitiveness and security.
- 5. Technology inclusivity: ensure predictability for investors of all technologies in scope** – Eurelectric proposes a clean power target at EU level. As a preliminary comment, Eurelectric proposes to define this target as follows: Member States shall collectively ensure that the share of energy from clean power sources in the Union's gross final consumption of energy in 2040 is at least X%. Clean power generation should be defined with a CO₂/MWh threshold.¹

¹ Eurelectric members from AT, DE, DK, IT, NO and PT consider that a renewable energy target for 2040 would be preferable.

An Enabling Policy Framework Fit for the Electric Age

Europe's clean power goals cannot be met by targets alone – they require a coherent, fully implemented policy framework that accelerates clean investment, modernises infrastructure and strengthens system resilience. The electricity sector is ready to deliver, but only if three essential enabling conditions are in place:

1. **More stability: a predictable framework to drive clean investment** – Unlocking the sector's trillions in clean investment hinges on a stable, predictable framework that reduces risks and speeds up deployment. This means climate credibility, a predictable ETS, a stable market design, rapid permitting, electrification incentives and flexible, predictable State aid.
2. **More system integration: building a smart, integrated and flexible energy system** – Rapid grid expansion, digitalisation, interconnectors, flexibility and better planning, all with increased focus on the distribution level, are essential as electricity becomes a dominant energy carrier.
3. **More security: powering Europe with resilience, sovereignty and reliability** – An updated approach to energy security by reinforcing essential grid services, strengthening cyber-, climate- and physical resilience, and building diversified supply chains.

An Updated Governance Framework

The post-2030 Governance framework must anchor the EU's climate and energy architecture in **simple, robust planning, transparent monitoring and credible delivery**, ensuring the Union can collectively meet its 2040 climate and energy ambitions and remain on track for climate neutrality by 2050.

To this end, NECPs should become **actionable plans that give clear, long-term indications of expected investment needs** and public and private funding opportunities. They should **embed electrification as a core driver** of decarbonisation and competitiveness and **strengthen the grid perspective** by aligning with transmission and distribution planning and anticipatory investment requirements. To ensure clarity and trust, NECPs must also adopt a harmonised, streamlined structure with **a standardised set of non-binding indicators** and accessible, digital reporting. **Enhanced participation, transparency and accountability** with stronger monitoring and regular updates will be essential to deliver Europe's post-2030 energy and climate objectives.

A Post-2030 Framework Fit for the Electric Age

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Introduction

The EU aims to become the first climate-neutral continent by 2050, with a 55% GHG reduction target by 2030 and 90% by 2040. Achieving this requires **near-total decarbonisation of our energy, driven mainly by clean electrification** (with electricity in the EU already decarbonised at around 72%²). All credible power system studies forecast that renewables will continue to lead this growth, supported by all other zero-carbon technologies³. To deliver, the EU and Member States must design a post-2030 framework that accelerates electrification and unlocks the full value of a decarbonised energy system.

With the Commission's first proposals expected in Q3 2026, this paper presents Eurelectric's initial perspective on the post-2030 enabling framework – without hindering implementation of the current rules for 2030. We first outline **five core elements of our views on the post-2030 architecture**, after which we set out our views on the **enabling policy framework** required for the electricity sector to deliver the clean, competitive and reliable electricity needed to meet our climate, competitiveness and energy security goals. We conclude with a set of recommendations on the **governance of the energy and climate architecture**.

Core Elements of the Post-2030 Energy and Climate Architecture

1. Greenhouse gas reduction: support the 2040 target & carbon pricing

- **The binding net -90% GHG reduction target by 2040 is a vital chance to boost Europe's climate leadership, energy security and industrial competitiveness** by signalling investors to pursue the clean energy transition. International high-quality cooperation mechanisms can be used as limited, transparent flexibilities to keep overall system costs down, address residual emissions and protect competitiveness while maintaining an ambitious target and ensuring robust domestic action.
- **Delivering the 2040 target requires a credible governance backbone.** Robust National Energy and Climate Plans (NECPs), comparable Key Performance Indicators (KPIs) and stronger accountability and delivery tools are needed to convert policy ambition into timely investments in grids, generation, flexibility and end-use electrification.
- **Keep the EU ETS as the central decarbonisation instrument for the power sector and heavy industry** to accelerate fuel-switching and clean electrification where it is most cost-effective. A targeted update of selected ETS parameters can enhance predictability and address emerging competitiveness concerns, while preserving the system's integrity and long-term investment signal.

² Eurelectric (2026): [Electricity Data](#)

³ See, for example, the European Commission (2024): [2040 Impact Assessment](#); Eurelectric (2023): [Decarbonisation Speedways](#) study.

- **The ETS should be supported by an adequate enabling framework**, including the continuation of the Modernisation Fund beyond 2030, measures to improve predictability, and an efficient and geographically balanced Innovation Fund. ETS revenues should be used in an efficient manner and prioritise meaningful decarbonisation projects, with more transparency and accountability needed on Member States' use of collected revenues.
- **Implement ETS2 to expand carbon pricing coverage across additional sectors**, accompanied by targeted social instruments and smart regulation to address the system's social impact and ensure its feasibility. Carbon pricing is a cost-effective driver of decarbonisation and electrification at a time when the electricity sector needs clear demand signals to drive investment.

2. Competitiveness: balance climate efforts and cost efficiency & ensure effective price signals

- **Europe's geoeconomic concerns and reindustrialisation imperative must be taken seriously**, and the European electricity sector stands ready to engage constructively to ensure affordable energy prices in Europe while preserving the sector's ability to attract and sustain investment⁴. Climate policy should ensure decarbonisation happens in a cost-effective manner.
- **Marginal pricing, which underpins most commodity markets beyond electricity, remains the most efficient and robust mechanism** to ensure cost-effective dispatch, transparent price signals and efficient investment incentives and must be preserved. Reopening the fundamental principles of market design risks increasing uncertainty, delaying investment decisions and ultimately raising system costs at a time when over €5 trillion of generation and infrastructure investment are needed to deliver a decarbonised energy system across the Union.
- **Targeted and structurally sound measures can be deployed immediately to alleviate energy price pressures**, including a reduction in taxes and levies (which represent about a fifth of EU electricity bills on average) and targeted State Aid for internationally exposed sectors.
- **In the long run, a range of structural solutions must be deployed to bring down bills**, including the increased deployment of clean domestic electricity⁵ supported by streamlined permitting; long-term contracts that extend the benefits of renewable and clean energy to consumers and help hedge against price volatility; flexibility and

⁴ See also Antwerp Dialogue on Industrial Electrification & Competitiveness (2024): [Recommendations](#)

⁵ Where European regions are less exposed to imports of fossil fuels, industrial electricity prices have remained competitive on average with the US and China even after the crisis. IEA found that [EU electricity consumers saved €100 billion from 2021-2023](#) thanks to the additional 150 GW of solar PV and wind capacity.

storage⁶; and interconnectors and networks to deepen the internal electricity market and allow the benefits of a clean electricity system to be felt across Europe⁷.

3. Security of supply: enable security of supply with grids, storage & firm capacity

- **Build a resilient backbone for security of supply by developing modern, digitalised electricity grids** – supported by anticipatory grid investments, grid-enhancing technologies and streamlined permitting – alongside (increasingly clean) firm back-up generation, flexibility and storage.
- **Guarantee system adequacy and safety by securing sufficient controllable, dispatchable back-up generation, which progressively shifts to cleaner technologies.** These firm dispatchable assets, alongside nuclear capacity, long- and short-duration storage and flexibility solutions are needed to reliably cover periods of low renewable output and maintain stable system operation.
- **The EU's post-2030 energy and climate policy requires the careful consideration of solutions that guarantee the safe operation of power and energy systems** – particularly regarding its security of supply – in a technology-neutral manner.

4. Powering demand through electrification

- **Clean electrification is a key lever to reach our competitiveness, energy security and decarbonisation ambitions.** Accordingly, the EU should adopt an indicative EU-wide electrification KPI of ~35% by 2030 and ~50% by 2040⁸, tracked through the NECPs. This provides a demand-side anchor for investment in grids, renewable and nuclear generation, and flexibility, aligns planning across sectors and supports re-industrialisation through access to clean, competitive power.
- **EU initiatives like the Electrification Action Plan, Industrial Accelerator Act and Grids Package should implement these headline goals, backed by robust funding** through the Industrial Decarbonisation Bank, Social Climate Fund, Modernisation Fund and other financing streams. Revenue streams from the ETS should be steered towards decarbonisation to an even larger and more efficient degree.
- **Such specific attention to electrification is necessary, as electrification rates in Europe have stagnated around 23% over the past decade and progress across Member States is uneven⁹.** If the EU is to achieve its Energy Union objectives – decarbonisation, energy

⁶ Increasing flexible demand could enable a [one-third reduction in wholesale electricity prices](#) between 2030 and 2040.

⁷ Electricity market integration has proven to deliver substantial cost savings for consumers, including industrial users, estimated at around [€34 billion a year](#).

⁸ Eurelectric (2023): [Decarbonisation Speedways](#) for 2030; European Commission (2024): [2040 Impact Assessment](#) for 2040

⁹ Eurelectric (2024): [EU Electrification rates are not on track for 2050](#)

efficiency, energy security, internal energy market, and research, innovation and competitiveness – these rates must pick up drastically. A dedicated indicative target is essential to improve visibility, measure progress and provide timely opportunities for corrective action. Electrification requires investments in grids, charging infrastructure and flexibility that will not be incentivised by a CO₂-price alone.

- **Electrification and energy efficiency reinforce each other:** clean electricity end-uses are much more energy efficient than their fossil-based counterparts. The post-2030 framework should therefore recognise an energy efficiency architecture centred around electrification, that is ambitious yet compatible with industrial and broader economic growth and energy system flexibility, avoids rigid rules that deter electrified processes and focuses on cost-effective savings and productivity gains.

5. Technology inclusivity: ensure predictability for investors of all technologies in scope

- **The post-2030 energy and climate architecture must create predictability for investors of all clean power technologies. Eurelectric therefore proposes a clean power target at EU level.** As a preliminary comment, Eurelectric proposes to define this target as follows: Member States shall collectively ensure that the share of energy from clean power sources in the Union's gross final consumption of energy in 2040 is at least X%. Clean power generation should be defined with a CO₂/MWh threshold.¹⁰
- **Such a target recognises the crucial contributions made by the various clean power technologies.** While renewable energy sources are expected to constitute the bulk of capacity additions going forward, nuclear energy and other clean power technologies that can provide decarbonised energy must be recognised equally. A clean power target defined this way also recognises the contributions made by e.g. nuclear heat and clean power-to-heat.
- **Sub-targets beyond this headline clean power target should be avoided and, if and where introduced, be non-binding and indicative.**
- **Ensure this target is supported by a strong enabling policy framework and monitoring, reporting and implementation discipline** to track developments across the various energy sources, sectors and related infrastructure, utilising the NECPs to provide the bankable visibility needed for supply chains and grid development.

¹⁰ Eurelectric members from AT, DE, DK, IT, NO and PT consider that a renewable energy target for 2040 would be preferable.

An Enabling Policy Framework Fit for the Electric Age

Regardless of targets, **a coherent supportive policy framework must underpin our clean power ambitions**. Targets alone won't build more clean power plants, storage or grids, and challenges persist in everything from permitting and energy taxation to grid connections and climate resilience. In addition, swift and full implementation of existing EU legislation across Member States ahead of 2030 is key.

The European electricity sector stands ready to deliver the clean, competitive and reliable energy needed to meet Europe's climate, competitiveness and security goals – but we can only do so if the right enabling conditions are in place. We call on the EU and its Member States to deliver on **three essential conditions**:

1. More stability – a predictable framework to drive clean investment
2. More system integration – building a smart, integrated and flexible energy system
3. More security – powering Europe with resilience, sovereignty and reliability

1. More stability – a predictable framework to drive clean investment

Need to know: Over the next 25 years, the electricity sector is ready to **invest trillions of euros** in low-carbon assets, grids, storage and flexibility. But this requires **a clear, consistent and bankable investment framework** that drives investor confidence, with swift and full **implementation** of existing EU rules in all Member States.

Summary: Stable policy that ensures long-term revenue visibility will reduce risks, lower capital costs and accelerate clean energy deployment. **We call for:**

1. **Climate credibility:** predictable ETS and strong net-zero commitment
2. **Stable market design:** implement, keep marginal pricing, avoid interventions
3. **Increased electrification:** Electrification Action Plan, tax reform, incentives
4. **Streamlined permitting:** implement REDIII, speed up grids & storage permits
5. **State Aid:** flexible rules, predictable and investor-friendly auction design

A credible climate framework

- The EU's **commitment to net zero and the Paris Agreement** must remain the cornerstone of its climate policy, providing long-term certainty for investors.
- The EU **Emissions Trading System (ETS)** should continue to drive cost-effective EU-wide decarbonisation through predictable, robust and transparent price signals, supported by an adequate enabling framework, including the continuation of the Modernisation Fund, an efficient, geographically balanced Innovation Fund, and an expanded Industrial Decarbonisation Bank.
- At a time of geopolitical instability and industrial transformation, concerns about energy prices and competitiveness are legitimate and must be addressed. This is where

[the upcoming EU ETS review can provide a way forward](#): a targeted update of selected ETS parameters can enhance predictability and address emerging competitiveness concerns, while preserving the system's integrity and long-term investment signal.

- With approximately €260 billion generated since 2005¹¹, the ETS also offers a powerful opportunity to further reinforce competitiveness through **strategic revenue recycling into industrial decarbonisation**. Strengthened by the Carbon Border Adjustment Mechanism (CBAM), the EU ETS is a powerful tool for Member States to strategically invest in Europe's long-term competitiveness, as highlighted by Mario Draghi in his European Competitiveness Report.
- **ETS2 must be implemented** and can accelerate electrification and the phase out of fossil fuels in transport and buildings, with the EU and Member States supporting consumers in the transition, including through the Social Climate Fund and the European Investment Bank's ETS2 frontloading facility.

A stable market design

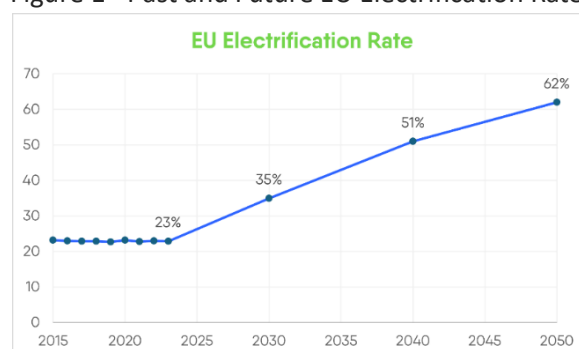
- The electricity [market design, including the principle of marginal pricing, must be preserved](#) to ensure transparency, competition and cost-effective operations. Market design must ensure that **market signals accurately reflect the system value of flexibility and dispatchability** to ensure cost-effective system balancing, safeguard renewables' business case, secure system services and encourage demand-side flexibility from all economic sectors including industry.
- The **revised Electricity Market Design must be swiftly and fully implemented** across all Member States to ensure long-term revenue visibility and regulatory certainty.
- [Any future changes to the market design](#), including those explored in the upcoming White Paper on Deeper Market Integration, **should focus on incremental, evidence-based improvements** – such as carefully calibrated locational investment signals – while avoiding wholesale redesigns that would undermine investment confidence or market liquidity.
- Member States must [avoid ad hoc market interventions](#) such as revenue caps or inframarginal taxes, which distort price signals, undermine investor trust and increase uncertainty.
- Facilitating merchant contracts such as market-based power purchase agreements (PPAs) by offering guarantee schemes, eliminating regulatory obstacles and maintaining a stable, market-driven framework is key. When necessary investments cannot materialise on a merchant basis alone, and the removal of regulatory and market barriers proves inadequate to incentivise them, governments should provide **long-term revenue certainty through public or market-based tools**. These include two-way contracts for difference (CfDs) or technology-neutral capacity markets.

¹¹ European Commission (2026): [Opening keynote speech by President von der Leyen at the Antwerp European Industry Summit](#)

Increased electrification

- **The solutions to electrify exist, are cost- and energy-efficient and must now be adopted¹².** Electrification of transport, heating, industry and new demand in emerging sectors like data centres must accelerate, taking into account cost-effectiveness and social impact concerns. This, in turn, will further support the clean energy business case.
- **Reform Energy taxation** to favour clean electrification, including by

Figure 1 - Past and Future EU Electrification Rate



Source: Eurelectric (2025): Electricity Data; Eurelectric (2023): Decarbonisation Speedways

- removing non-electricity taxes from bills and phasing out fossil fuel subsidies.
- The EU should adopt an ambitious [Electrification Action Plan](#) with indicative EU-wide electrification KPIs, incentives for both residential and industrial consumers to bridge the remaining electrification competitiveness gap and measures to address skills and awareness issues.
- **Electrification support mechanisms** like the [Industrial Decarbonisation Bank](#) and social leasing schemes for heat pumps and electric vehicles need sufficient, long-term funding to drive electrification across the economy. Support for electrified end-uses should be targeted to drive the scale-up of applications that are not yet fully commercial (see, for example, the Electrification Alliance's [Electrification Staircase 2040](#)).
- Establish [Electrification Acceleration Areas](#) to simplify permitting, improve planning, and enable rapid deployment of new industrial loads supported by onsite generation, storage and streamlined, cluster-based grid-connection processes.
- Establish **Electrification One-Stop Shops**, similar to Germany's *Verbraucherzentralen* and Flanders' *Energiehuizen*, that provide clear and accessible information on electrification solutions and available funding to raise awareness and help consumers adopt clean, electrified technologies.
- Importantly, **faster electrification can help offset grid expansion costs** by increasing overall electricity consumption, minimising per-unit network tariff increases¹³.

Streamlined permitting

- Member States must **fully implement REDIII permitting reforms**, including deadlines, one-stop shops, digital tools and effective renewables acceleration areas, while avoiding “no-go” areas. The Governance Regulation should ensure accountability in this regard.
- Permitting rules for **grids, standalone storage and hybrid assets** must be simplified, as advanced in the Grids Package. The “overriding public interest” rule should be more

¹² See, for example, Ember (2025): [The Electrotech Revolution](#); Agora Industry, Energy Innovation & Fraunhofer Institute for Systems and Innovation (2024): [Direct Electrification of Industrial Process Heat](#); Agora Industry, Agora Energiewende, Fraunhofer ISI, ECCO Think Tank and Reform Institut (2026): [The business case for electrifying industrial heat. Evidence from selected EU Member States](#)

¹³ Eurelectric (2024): [Grids for Speed](#)

flexible (and include e.g. energy security considerations) for key investments like energy storage.

- The EU and Member States must **allocate sufficient funding** to support permitting reform, digitalisation and local authority capacity-building – potentially through the next Multiannual Financial Framework (MFF) to support Member States and sub-national authorities with limited administrative capacity.

Providing certainty and flexibility through well-designed investment frameworks

- **State Aid rules should remain streamlined and aligned with Union priorities**, such as the need to ensure a clean transition, while continuing to meet the criteria of necessity and proportionality.
- **Increase the availability and diversity of derisking instruments** to reduce barriers to clean energy investments, including guarantees and financial tools tailored to electrification and transition technologies. This helps lower financing costs and strengthen investor confidence in capital-intensive clean energy and electrification projects.
- If and where introduced, **non-price criteria in renewable energy auctions should be applied proportionately** and be technology-specific to avoid complexity and cost increases, ensuring the energy transition remains affordable.
- CfDs must **offer long-term revenue stability and create a reliable de-risking framework** via inflation-indexed strike prices and protection against retroactive changes to support investor confidence. They must be designed to avoid unintended effects on dispatch and market operations in general.
- Promote transparency and information exchange among Member States on **offshore wind auctions and project commissioning** on a sea basin basis to ensure a predictable, robust project pipeline and grid development, without increasing administrative burden. Such enhanced cross-border cooperation will facilitate network planning and investment along the entire offshore supply chain and ultimately drive down costs.
- When applying **non-price criteria as mandated by the Net Zero Industry Act**, Member States should strive to harmonise auction criteria, avoid adding new documentation requirements by relying on existing regulations, minimise administrative burden, and ensure that these criteria do not create competitive distortions between public and private procurers.

2. More system integration – Building a smart, integrated and flexible energy system

Need to know: Electricity grids are the backbone of the energy transition, and achieving Europe's climate ambitions is conditional on the speed and scale of grid expansion, modernisation and digitalisation. With peak electricity demand expected to rise by 60% by 2050, grid expansion is essential. To handle the growing volume and complexity of electricity flows, we must not only invest in physical infrastructure and cross-border interconnections, but also improve planning, flexibility and digitalisation. **Distribution networks are of particular importance**, connecting most renewables, storage and distributed energy resources like EVs, heat pumps and other power-to-heat solutions.

Summary: As electricity becomes the dominant energy carrier, the societal value of reliable, resilient grids will only grow, making grid expansion and reinforcement a strategic investment, not just a cost. **We call for:**

1. **Anticipatory grid investment:** enable DSOs to invest now for future needs
2. **Flexibility & storage:** value all flex services, remove regulatory barriers
3. **Integrated planning:** improve collaboration, integrate long-term risks
4. **Interconnectors:** expand cross-border capacity for a true Energy Union
5. **Connection queue reform:** improve or replace 'first-come, first-served'

Smart and anticipatory grid investments

- New grid responsibilities require significant investment: [annual distribution investment must rise from €40 billion today to €67 billion until 2050](#) (Figure 3)¹⁴. With smart strategies and innovation, this could be reduced to €55 billion.
- **No-regret anticipatory investment**, where DSOs and TSOs proactively oversize grid capacity in anticipation of expected future load, is the most cost-effective approach and should be enabled and incentivised by regulators.
- **Innovations** such as grid optimisation, automation and digital meshing can lower costs and enhance resilience.
- **A supportive regulatory framework**

Figure 2 - Annual DSO investment in EU27+NO



provides investment certainty, fair returns and reduced risk, including **appropriate remuneration for DSOs and TSOs** and the removal of investment caps.

- Member States and National Regulatory Authorities should explicitly grant **DSOs and TSOs the mandates, resources and legal certainty they need to respond to grid development needs** and the exponential growth in connection requests.

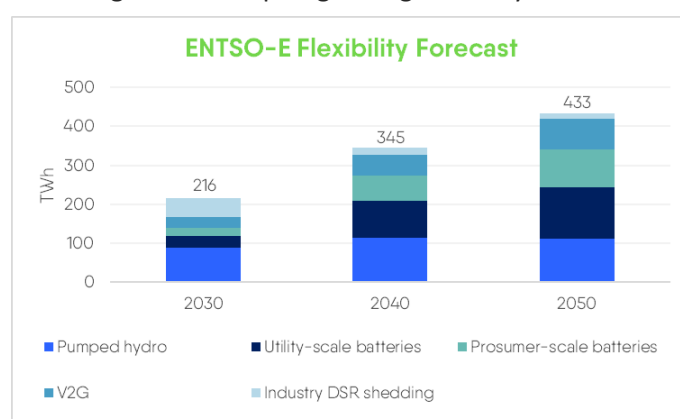
¹⁴ Eurelectric (2024): [Grids for Speed](#)

- **DSOs and TSOs should retain final decision-making authority** over investments, as they are best placed to respond to local grid needs.

Incentivise flexibility and storage

- **All forms of decarbonised flexibility** – such as storage (including pumped storage hydropower (PSH)), demand-side response, low-carbon firm capacity and other innovations – must be **incentivised across all timeframes** (daily, weekly, seasonally) and duly reflected in Member States' indicative flexibility and storage objectives, as mandated by the Electricity Regulation.
- **All flexibility and system services must be properly valued and rewarded** across energy and ancillary services markets, with full market access and the ability to stack value across services.
- **Storage must not face unfair regulatory treatment** compared to generation, transmission, distribution or consumption. **Network charges should be cost reflective and double taxes and levies on storage assets should be eliminated.**

Figure 3 - Europe's growing flexibility needs



Note: excludes gas power plants & hydrogen
Source: ENTSO-E (2024): TYNDP 2024 Scenarios Report

- Member States should **enable consumers and prosumers to participate in demand-side response**, helping reduce bills and improve competitiveness.
- **Where gaps in flexibility needs are identified, Member States should take measures to incentivise necessary investments**, such as through technology-neutral capacity mechanisms. Where necessary, other public support mechanisms could be implemented, such as for immature, innovative, or long- lifetime technologies.

Improved and integrated planning

- **Network development plans (NDPs)** must take a strategic long-term view across energy vectors to 2040 and go beyond adequacy to include flexibility, cross-border coordination and long-term risks.
- **Stronger collaboration** is needed between System Operators (DSOs, TSOs), local authorities, utilities, industry and consumers to address planning, permitting and congestion challenges.
- **Grid and renewables development should be better aligned** to reduce system costs, including through hybrid projects that combine generation and/or storage.
- **Adequacy assessments must reflect real-world conditions that go beyond NECP inputs**, including actual interconnection availability, investor behaviour, demand patterns and weather-dependent generation risks.

- System Operators must adopt **an integrated planning approach** combining both top-down inputs (NECPs, TYNDPs, ERAAs) and bottom-up data (smart meters and grid simulation tools) to ensure robust, locally informed planning that both favours market integration and takes into account local circumstances.

Interconnectors for a true Energy Union

- **Strengthening and expanding interconnectors** is essential to enable higher renewable energy penetration and make full use of regional RES potential across the EU. Saturation or a lack of interconnectors continues to hinder progress toward Energy Union objectives and hamper security of supply.
- Member States must **implement the 70% requirement for cross-zonal capacity and the 15% interconnection target**.
- **Fair and improved cost-sharing mechanisms** are needed to accelerate cross-border infrastructure projects that benefit multiple Member States.

Figure 4 – Interconnection expansion needs
Saturation of selected NTCs in FF55-inspired in 2030



NTC = net transfer capacity; Source: Eurelectric (2023):
Decarbonisation Speedways

Improved connection procedures

- To alleviate grid connection queues, Member States and NRAs should **allow grid operators to move beyond the default ‘first-come, first-served’ approach** where more efficient alternatives exist, guided by clear technology-neutral and transparent prioritisation criteria, after having “cleaned” the queues. Speculative capacity reservations should be disincentivised through milestones-based monitoring.
- **Streamlined permitting, flexible connection agreements, hybrid projects and clustered connection requests in electrification acceleration areas** can further help optimise grid use and accelerate deployment.

3. More security – Powering Europe with resilience, sovereignty and reliability

Need to know: The European energy system is undergoing rapid **decentralisation, digitalisation and decarbonisation**, powered by clean electricity. At the same time, **external threats**, from cyberattacks and sabotage to supply chain dependencies, are exposing vulnerabilities in our infrastructure and energy security. These developments show that our notion of energy security must be updated and relying on past approaches is no longer fit for purpose.

Summary: Clean electrification offers a strategic solution: it strengthens autonomy through homegrown energy, reduces exposure to volatile fossil fuel prices and redirects spending from fossil imports to future-oriented investments. **We call for:**

1. **Essential grid services:** inertia, voltage control, black start and others
2. **Cyber & physical security:** harmonised implementation, integrated planning
3. **Supply chain resilience:** diversified partnerships, nuanced “Made in Europe”

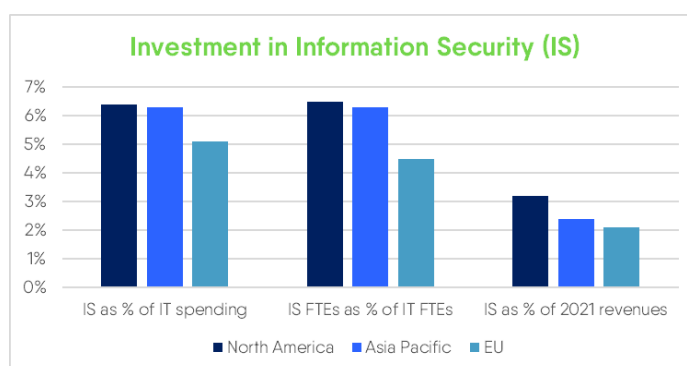
Securing essential system services

- As the role of fossil-based synchronous plants changes to providing back-up capacity, **essential grid services like inertia, voltage control and black start must now be actively secured** through storage (including PSH), renewables, dispatchable energy sources and other innovations equipped with the right technology.
- These services must be **supported by markets and competitive procurement mechanisms**. Both frequency and non-frequency services need a viable business case, enabled by efficient price signals and full value stacking.

Cyber and physical security

- The EU must **strengthen defences against cyberattacks**. Harmonised implementation of key cybersecurity legislation such as the NIS2 Directive and the Network Code on Cybersecurity is essential.
- **Physical security must be enhanced** through cooperation with NATO and national security services, especially given the increased incidence of hybrid threats to critical infrastructure, including physical sabotage and cyberattacks. Clean energy and grid infrastructure must be included in strategic defence

Figure 5 - EU lags on cybersecurity spending



Source: Enisa (2023): NIS Investments Report 2023

planning and the 1.5% NATO infrastructure spending target.

- Europe is warming twice as fast as the global average¹⁵, making extreme weather a core risk. [Energy infrastructure must be climate-proofed](#) to ensure reliable operations and market stability.
- **Resilience must be built into infrastructure planning across the entire energy value chain** and across energy carriers, with long-term threat scenarios and proper incentives from Member States and regulators.

Supply chain resilience with a nuanced Made in Europe approach

- The EU must pursue **strategic partnerships** with reliable third countries to secure access to clean technologies, components, fuels and raw materials, while promoting open strategic autonomy and avoiding overconcentration.
- **Adopt a balanced, evidence-based “Made in Europe” approach** by conducting thorough supply-chain impact assessments and introducing requirements gradually, starting first with the segments of the value chain where Europe is at risk of losing pre-existing capacities or nascent industries. The approach should prioritise voluntary, rewards-based incentives over mandates, enable collaboration and trusted-partner sourcing (“Made with Europe”) and ensure long-term regulatory certainty without overlapping or duplicative rules. “Made in Europe” requirements must be introduced in a balanced way to not unintentionally lead to a slowdown of the energy transition.
- **Shifting energy imports from fossil fuels toward clean technologies** will reduce dependence on volatile fossil fuel markets and redirect spending from fossil imports to durable energy assets.
- To avoid carbon leakage and create an international level playing field, the **Carbon Border Adjustment Mechanism (CBAM)** and the EU ETS should be linked with similar schemes in neighbouring countries. The Commission should progress on electricity market coupling with neighbouring countries, starting with the UK.

¹⁵ Copernicus Climate Change Service (2024): [European State of the Climate Report 2024](#)

A Governance Framework Fit for the Electric Age

The post-2030 energy and climate architecture should be firmly anchored in a **robust overarching governance framework that ensures Member State accountability and fosters investor trust**. We advance the following considerations for the review of the Governance Regulation:

1. Transform NECPs into actionable plans that highlight investment needs

- The post-2030 Governance framework must anchor the EU's climate and energy architecture in **simple, robust planning, transparent monitoring and credible delivery**, ensuring the Union can collectively meet its 2040 climate and energy ambitions and remain on track for climate neutrality by 2050.
- The Governance Regulation should **ensure NECPs are reflected in EU and national budgets** – including the MFF and National & Regional Partnership Plans – and vice versa, in a non-binding manner.
- NECPs must include long-term, sector-specific investment indications of the **expected public and private funding needs**, along with indications of the specific funding that is available for these needs.
- Investment planning must be supported by **clear and predictable auction schedules and other support schemes** in the NECPs, with visibility on volumes, timelines and technology scope.
- Promote transparency and information exchange among Member States on **offshore wind auctions and project commissioning** on a sea basin basis to ensure a predictable, robust project pipeline and grid development, without increasing administrative burden.
- **Integrate Long-Term Strategies directly into NECPs** (instead of having them as two separate documents, as is currently mandated by the Governance Regulation) to give investors long-term visibility, while ERAA-style conditional pathways ensure planning flexibility by showing how plans adjust when key assumptions – such as RES deployment, auction outcomes or cost developments – do not materialise, with each NECP built around a central scenario complemented by a clear chapter on uncertainties and alternative trajectories to avoid lock-in.

2. Embed electrification as a core driver of decarbonisation

- **The NECPs must recognise electrification as a core driver of decarbonisation, competitiveness and energy security**. Tracking electrification progress is essential to anticipate infrastructure needs, guide investment and support Member States in sectoral transitions.
- Such specific attention to electrification in Member States' NECPs is important, as **electrification has a direct positive effect on all five dimensions of the Energy Union, yet Europe's electrification rate has stagnated at around 23% for the last decade** and progress has been uneven across Member States:

- **Energy security:** electrification directly reduces Europe’s dependence on fossil fuels – potentially halving it by 2040 – by substituting foreign fossil fuels for clean homegrown energy¹⁶.
- **Energy efficiency:** electrification is more efficient than fossil-based applications. Heat pumps, for example, are up to five times more efficient than conventional gas boilers, while electric vehicles are around three times as efficient as internal combustion engine vehicles¹⁷. Electrification is therefore crucial for energy efficiency.
- **Decarbonisation:** clean electrification will be the primary driver of global GHG emissions reduction, by swapping fossil fuels for equivalent electrified technologies¹⁸.
- **Internal energy market:** end-use electrification enhances energy system integration and improves the business case for cross-border interconnection. This allows the EU/EEA to more efficiently balance supply and demand across borders and ensures that low-cost clean electricity flows freely to where it is needed most, ultimately driving down wholesale prices across Europe.
- **Research, innovation and competitiveness:** electrification is driven by key emerging technologies such as batteries, e-mobility, power electronics, digital grids, renewable generation and other clean tech value chains. By investing in these innovations, the EU strengthens its industrial leadership, creates high-value jobs and enhances its competitiveness in the global economy of the future.
- To improve visibility, ensure sufficient policy attention and provide a strong basis for infrastructure planning, each plan should integrate a **national indicative electrification indicator to support a European electrification KPI of 35% by 2030 and 50% by 2040**, sending a strong investment signal to policymakers, grid operators and investors.
- These electrification indicators must be supported by **sectoral transition pathways** to anticipate energy system needs and infrastructure requirements.

3. Strengthen the grid perspective in the NECPs

- **Achieving Europe’s climate goals depends on the speed and scale of grid expansion, modernisation and digitalisation. NECPs must reflect this reality**, including the growing role of distribution grids in integrating new distributed energy resources.
- Align NECPs with **TYNDPs, DNDPs and anticipatory grid investment needs**, ensuring that infrastructure planning matches electrification and decarbonisation trajectories. Particular attention should be given to distribution grids, as these are focused on less in EU-wide planning and policy.
- Better integrate **physical, cyber and climate resilience** considerations in NECPs.

¹⁶ Eurelectric (2025): [Redefining Energy Security](#); Ember (2025): [Shockproof: how electrification can strengthen EU energy security](#); and Strategic Perspectives (2026): [Endgame for gas dependence: electrification and regional partnerships](#)

¹⁷ European Commission (2023): [BUILD UP: How much energy efficient are heat pumps compared to fossil fuel heating?](#); Platform for electromobility (2024): [Prioritising energy efficiency in EU’s transport ecosystem](#)

¹⁸ European Commission (2024): [2040 Impact Assessment](#); Eurelectric (2023) [Decarbonisation Speedways](#) study.

4. Improve NECP scope, structure and comparability

- **A coherent governance system requires harmonised reporting, transparent monitoring and comparable data.** The current NECP structure must evolve to support clarity and trust. The relevant information must be updated regularly.
- As discussions on the post-2030 framework develop, policymakers should **ensure continued focus on delivery of the 2030 objectives and implementation of the 2030 framework.**
- Adopt a harmonised EU-wide NECP structure with **a standardised set of non-binding indicators** covering a range of variables, including
 - **Electrification KPIs**, such as
 - A national indicative electrification indicator to support a European electrification KPI of 35% by 2030 and 50% by 2040, expressed as the share of final energy demand met by electricity
 - Electrification shares by sector
 - Deployment rates of key electrification technologies
 - Ratio of gas taxes and levies vs electricity
 - **Security of supply KPIs**, such as
 - Avoided fossil fuel imports
 - Diversified fossil fuel imports
 - Flexibility KPIs (following national flexibility needs assessments) should not go beyond those mandated by Article 19f of the Electricity Regulation (Regulation (EU) 2019/943)
 - Indicators related to back-up capacity and transition fuels
 - Loss of Load Expectation (LOLE), to assess the need for dispatchable energy sources
 - **Implementation KPIs**, such as
 - Share of EU energy and climate directives transposed on time
 - Detailed list of pending transpositions, with reasoning for delays in transposition
 - **Permitting KPIs**, such as
 - Total length of permitting processes for RES, storage, grids and other low-carbon assets
 - Rate of projects approved over total number of permit applications correctly submitted per technology
 - Total length of acknowledgment of the validity of the application, both in and outside of renewables acceleration areas
 - Proportion of permits that are not overturned when there is a legal challenge
 - Number of total steps needed to complete the whole approval process per technology
 - **Grid connection KPIs**, such as
 - Average time to secure a grid connection, per voltage level
 - Available connection capacity vs requested connection capacity (aggregated)

- The data needed to measure many of the KPIs above are already available. To ensure streamlined, effective reporting and reduce democratic burden, **Member States and the Commission should ensure that existing data flows can easily be reused in the NECPs.**
- NECPs and progress reports should follow a **streamlined, digitalised, accessible format**, improving comparability and reducing administrative burden.
- All core NECP data should be available through a **transparent, user-friendly online dashboard** that is easily accessible for all stakeholders.

5. Enhance participation, transparency and accountability

- Delivery of the post-2030 framework requires **stronger accountability mechanisms and systematic engagement** across the EU, Member States and stakeholders, to ensure Member States effectively transpose and implement agreed EU policy on time.
- NECPs must ensure **strong, consistent monitoring of Member States' climate and energy trajectories**, updated at regular intervals.
- Strengthen stakeholder-engagement rules through **transparent, timely consultation processes**, with clear requirements for integrating feedback.
- The European Commission should **support voluntary regional coordination and cooperation mechanisms** through the revised Governance Regulation, such as the North Sea Energy Cooperation (NSEC), to foster the development of cross-border cooperation, joint projects, meshed offshore grids and other key cross-border energy infrastructure.

6. An integrated energy architecture

In addition to the Governance Regulation, the following files contain important provisions to shape the post-2030 framework:

EU legislation	Relevance
<i>Climate files</i>	
EU Climate Law	2040 climate target and flexibilities. Ratified in Q1 2026. Secondary legislation on use of international carbon credits to be developed in 2026.
EU ETS Directive	EU ETS caps emissions for power and heavy-industry sectors; ETS2 extends carbon pricing to buildings and road transport, incentivising electrification of those sectors. Revision of ETS1 expected in Q3 2026.
CBAM Regulation	Ensures imported goods face carbon costs aligned with EU ETS, including electricity; possible linking of EU & UK ETS systems. CBAM Omnibus adopted and published in the OJEU on 17 October 2025. Discussions ongoing on further strengthening of CBAM including extension to downstream products, establishment of temporary Decarbonisation Fund, etc.

Effort Sharing Regulation	Sets binding emission reduction targets for sectors outside EU ETS (e.g., buildings, transport, agriculture). Revision expected in Q4 2026.
LULUCF Regulation	Strengthens the EU's carbon sink by increasing removals from land and forests, which is essential for balancing hard-to-abate emissions. Revision expected in Q4 2026.
<i>Energy files</i>	
Governance Regulation	Updated NECPs and monitoring for 2040 planning; ensure Member State accountability in reaching energy and climate objectives; could set electrification and renewable/clean energy targets, ensuring coordination of post-2030 energy policies; provide national regulatory authorities with a growth mandate and steer necessary grid investments. Revision expected in Q4 2026.
Renewable Energy Directive	Can establish post-2030 clean power target, as well as the enabling policies to continue driving RES investment. Revision expected in Q3 2026.
Energy Efficiency Directive	Can set (indicative) energy efficiency goals to 2040; can further support electrification through its potential to reduce overall energy demand, without limiting the deployment of clean electrified end-uses. Potential to introduce an electrification KPI in the EED. Revision expected in Q3 2026.
Energy Performance of Buildings Directive	Decarbonisation of buildings' heating and cooling.
Electricity Market Design (Electricity Regulation; Electricity Directive)	Continued enabling investment environment for decarbonised electricity, flexibility and storage; safeguarding of the marginal pricing model; an integrated market for PPAs.
Energy Taxation Directive	Aligns energy taxation with climate goals, incentivising electricity over fossil fuels and supporting post-2030 clean electrification
CO₂ Emission Performance Standards Regulation	Limits GHG intensity of cars and light-duty vehicles. De facto internal combustion engine ban likely reversed following Automotive Package.
REFuelEU Aviation Regulation	Mandates increasing use of Sustainable Aviation Fuels
FuelEU Maritime Regulation	Limits GHG intensity of energy used on certain ships

Eurelectric pursues in all its activities the application of the following sustainable development values:

Economic Development

- Growth, added-value, efficiency

Environmental Leadership

- Commitment, innovation, pro-activeness

Social Responsibility

- Transparency, ethics, accountability



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