

REWIRING EUROPE:

Path to Energy Security

2026



Introduction

For a large part of the past two decades, climate change was the primary issue that the European energy policy wanted to resolve. Targets were measured in tonnes of avoided emissions, and subsequently, the case for renewables was primarily based on the environmental obligation. While that approach has not disappeared, it has been joined (and in practice overtaken) by different priorities: security, sovereignty, dependency, resilience.

Russia's full-scale invasion of Ukraine in February 2022 was the first shock that exposed how much of Europe's prosperity was dependent on pipelines from a single supplier who is becoming increasingly hostile. A second big shock followed in early 2026, when the US and Israel initiated a military campaign against Iran, causing a disruption in the Strait of Hormuz. This crisis made it evident for Brussels that even a successfully diversified energy system remains exposed to risks that might be thousands of kilometres away from European soil.

Even without another external shock, Europe's energy transition faces internal challenges. Electricity prices are still among the highest in the world, and the grid and storage infrastructure required to support an economy that depends on electricity is still insufficient, which is why the electrification of the continent is stagnating. Concurrently, the technologies needed for the transition have created dependencies on external suppliers, particularly for batteries and critical raw materials needed to build a cleaner energy system. At the same time, the rapid growth of artificial intelligence and data centers is creating a new source of electricity demand just as Brussels is attempting to speed up the electrification of heating and industry. The result of this approach is that the EU is trying to increase the electricity generation, upgrade its grid and storage capacity, accommodate the new digital industry, and decarbonise the continent simultaneously, making this transition as much of an industrial and infrastructural challenge as a geopolitical and climate one.

There has been a growing part of legislation and initiatives aimed at resolving these issues. REPowerEU set up the initial framework for reducing the dependence on Russian fossil fuels, while the Clean Industrial Deal and Affordable Energy Action Plan have focused on energy costs and industrial competitiveness. The legally binding phase-out of Russian gas is now being accompanied with the Electrification Action Plan, which intends to increase the share of electricity in overall consumption by the end of next decade. The upcoming Energy Union Package, alongside Grids package and simplification measures, is expected to further clarify how the bloc generates and consumes energy. Additionally, the Commission's reborn support for nuclear power and small modular reactors signal that the EU is willing to treat nuclear energy as part of its energy security strategy.

The central challenge is turning these policies into physical infrastructure. Europe's electrification ambitions will require hundreds of billions of euros of investment in electricity grids, while the planned expansion of energy storage would require almost a 300% increase in installed capacity by 2030. Transmission operators, manufacturers of grid equipment, renewable developers, battery and storage providers, as well as nuclear suppliers are therefore becoming increasingly important actors in the process. The transition is already creating a big market for the infrastructure necessary to make a more "electrified" Europe possible.

The industrial dimension goes beyond the power sector. Industries that heavily rely on energy, such as steel or chemicals, face the combined pressure of high energy costs and more restrictive carbon rules. All the companies operating in the EU will need to adapt to the new regulatory environment that is becoming more demanding, but is also trying to accelerate the investment through public financing and various simplification packages.



An issue that the strategy runs into is the threat of replacing the dependency on Russian oil and gas with the reliance on Chinese critical raw materials and batteries. Foreign energy suppliers such as Norway, the US, Qatar, and the countries in North Africa will remain crucial in the diversification process, although their role often intersects with the environmental rules of the bloc, creating tensions over importing energy into the European market.

Taken together, these developments show that the EU energy policy is becoming a broader strategy that includes energy security, industrial competitiveness, infrastructure investment, technological sovereignty, and geopolitical diversification. Such an architecture treats affordable and secure (and to a large level self-generated) power as a precondition for the bloc's economic and political survival. The success of that strategy will largely depend on whether the Member States and private companies can build the grids, energy storage, generation capacity, and industrial infrastructure to support these ambitions.

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Zooming Out:

Climate Change versus Energy Security

The European Green Deal, launched back in 2019, set the framework that still technically governs EU climate and energy policy. The capital goals are climate neutrality by 2050, a **55% emissions cut by 2030** codified through the “**Fit for 55 Package**”, and an expansion of renewable capacity that was codified in the Renewable Energy Directive. That framework was built for the time when energy security was taken for granted and not necessarily actively managed. Russia’s invasion of Ukraine broke that assumption in several weeks, and the EU’s response – the REPowerEU plan of May same year – marked the real starting point of the current trend of prioritising energy security. Emergency permitting rules together and the accelerated solar and wind deployment were identified as key areas of improvement, and quintessentially, Europe made an explicit (although initially vague) commitment to end dependence on Russian fossil fuels.

The years since have seen that logic materialise through several legislative efforts. In February 2025, the Commission paired its Clean Industrial Deal with an Affordable Energy Action Plan explicitly designed to bring down energy costs for industry and households. That was an implicit admission that the earlier framework, regardless of its environmental impact, did not solve Europe’s competitiveness problem. That same year brought the RESourceEU implementation act that was mostly aimed at reducing reliance on Chinese supply chains for the critical raw materials that modern grids depend on. In the ongoing year, the EU continued on the same pathway: a legally binding phase-out of Russian gas, a Small Modular Reactor strategy rehabilitating nuclear power at the EU level, and, in July, the Electrification Action Plan, which represents a push towards clean power primarily for the reasons of industrial competitiveness rather than environmental concerns.

Later this year, the EU is expected to adopt two more pieces of legislation that will influence the EU's energy landscape. The first one is Energy Products Omnibus announced in June, which intends to simplify energy labelling rules. The second, and the more significant, is the Energy Union Package for the decade ahead, expected to deal with the governance rules, renewable energy, energy efficiency and CO₂ transport. Taken together, it is hard to regard all of the legislation as a part of a single strategy – a fairer assumption is that each new package responds to whatever vulnerability the previous time period exposed. Grids package and simplification measures, is expected to further clarify how the bloc generates and consumes energy. Additionally, the Commission's reborn support for nuclear power and small modular reactors signal that the EU is willing to treat nuclear energy as part of its energy security strategy.

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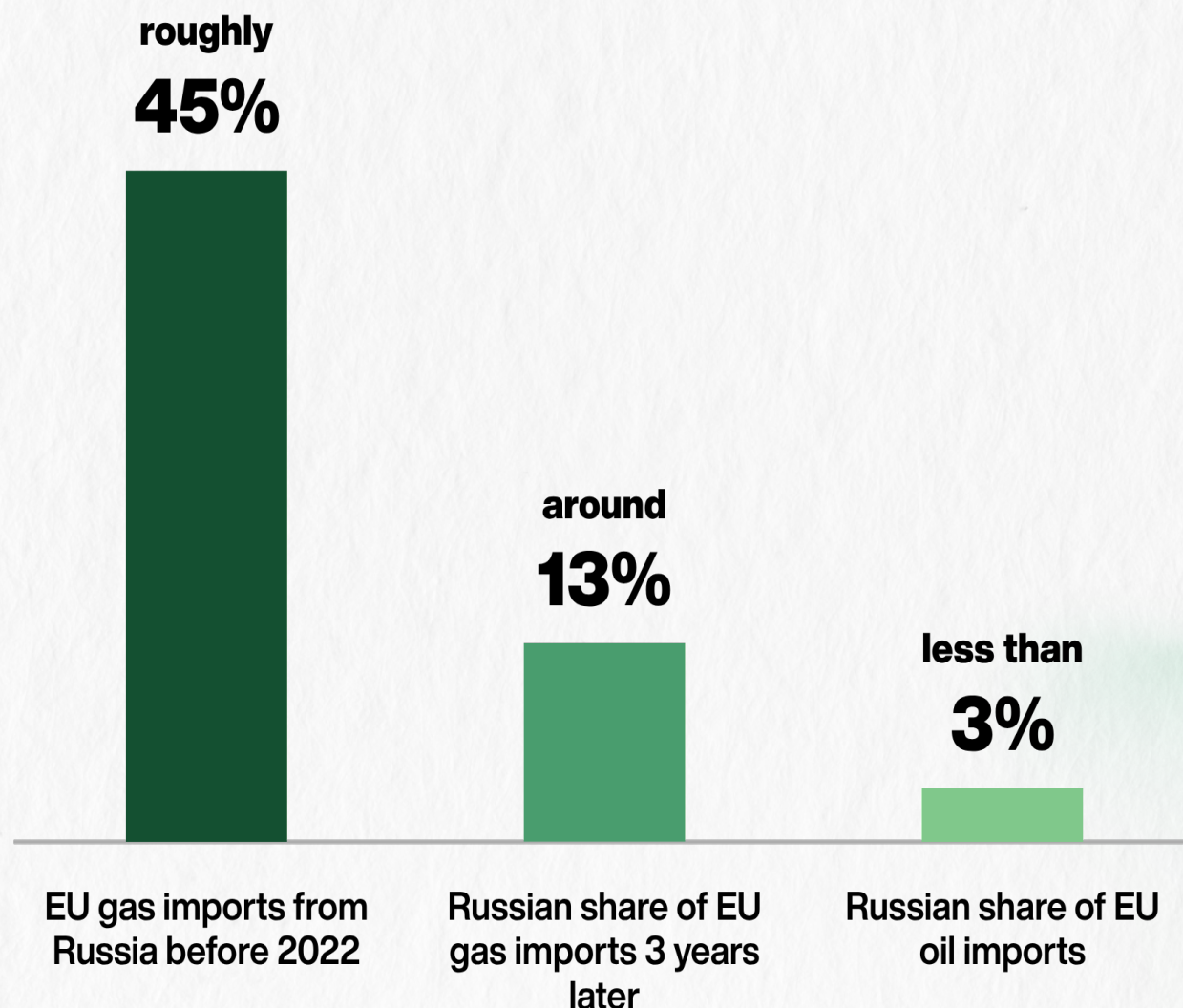
Fossil Fuels:

From Russia Without Love

No element of this policy shift matters more (symbolically and practically) than the effort to eliminate Russian fossil fuels from the European energy system entirely. Before 2022, Russia supplied **roughly 45%** of the EU's combined pipeline gas and LNG imports. In three years, that figure fell to **around 13% of gas imports** (worth a little over €15 billion a year) while Russian oil **fell to less than 3%** of EU imports. Gas market in Europe is currently much more diversified than before, with Norway now the EU's largest gas supplier, the US as the dominant LNG supplier, and significant volumes coming from North Africa, Azerbaijan, and Qatar.

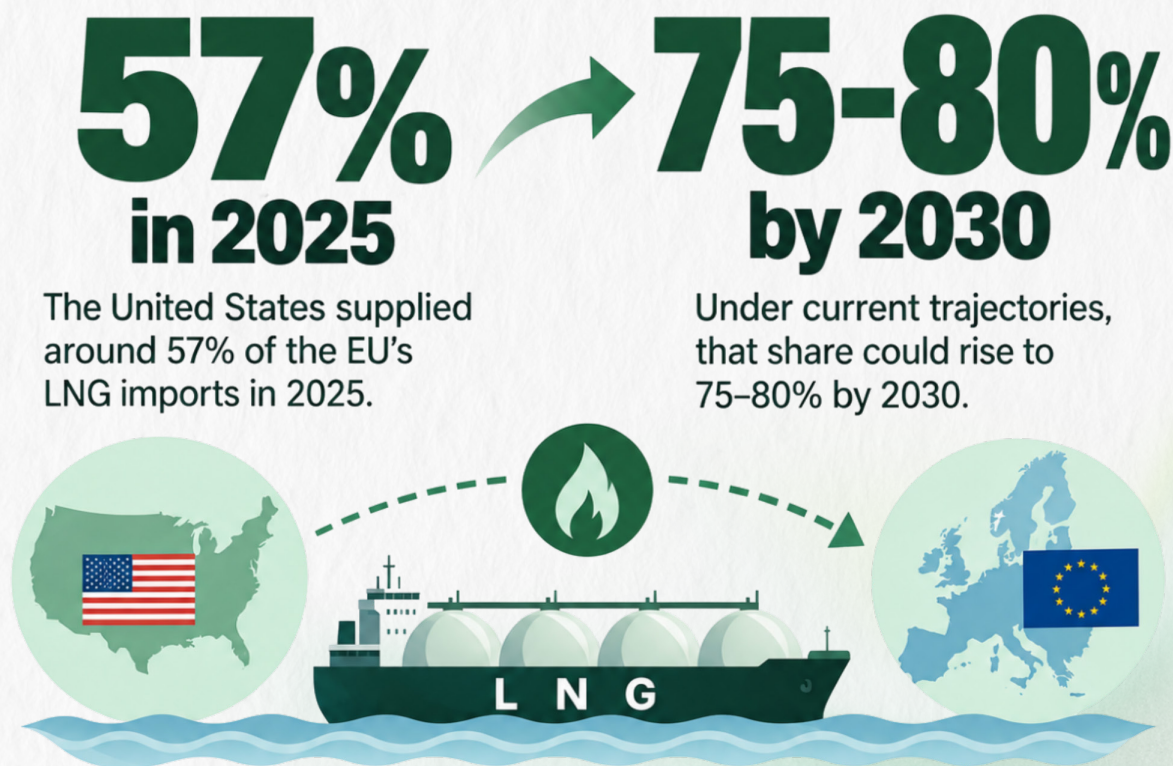
What changed in 2026 is that this decline was accelerated by binding laws – although even before 2026, the demand for gas and oil coming from Russia fell overall because of the market volatility and logistical challenges. Regulation 2026/261, adopted by EU governments in January and published in February, sets a legally permanent ban on both Russian LNG and pipeline gas. Short-term LNG supply contracts were prohibited from late April 2026, with long-term contracts following from January 2027, bringing a complete end to Russian LNG in the next several months. Pipeline gas has a longer timeline, with a ban taking effect by the end of September 2027, extendable by a month if a member state's storage levels are low. Every EU country was required to submit a national plan by March 2026 setting out how it intends to replace remaining Russian volumes. The vote to adopt the regulation was not unanimous. Orbán's and Fico's governments voted against, with the previous Hungarian government threatening a legal challenge, while Bulgaria abstained. Even though the tides in Budapest have changed, the vote signals that the politics of this transition will not be uncontested, as some parts of the Union are still exposed to Russian supply and there are Member States with notable opposition to this trajectory.

Russian energy imports to the EU fell sharply after 2022



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The key question is what replaces that supply, and here is where the EU runs into challenges. Swapping dependence on Russian pipeline gas for dependence on American LNG could potentially risk creating the same structural vulnerability under a different flag. The numbers support this concern – the United States already supplied **around 57% of the EU's LNG imports in 2025**, and under current trajectories, that share could **rise to 75-80% by 2030**, with US gas and LNG combined accounting for roughly 40% of all EU gas imports, up from about 27% today. Still, even with the volatilities that surround transatlantic relations, Washington is a far more reliable partner than Moscow, and the arrangement is reinforced by the EU-US trade agreement concluded earlier this year. But a system concentrated on a single external supplier (whoever it might be) is not entirely in line with the diversification rhetoric that Brussels tries to achieve. It is one of several areas of energy policy where the pattern repeats – solving one dependency risks building another over time.





Norway is a crucial strategic energy partner in this new structure. It is now the largest external supplier of gas to the EU, mostly through pipeline infrastructure that connects their fields to the rest of the continent. Unlike an LNG relationship that is usually based on spot market purchases, the relationship between Norway and the EU is supported by traditional cooperation in the energy sector and quality physical infrastructure. Equinor is the largest supplier of natural gas from the Norwegian continental shelf to Europe, while the wider Norwegian pipeline system operated by Gassco connects their offshore production with European markets. Taken together, almost 9000 kilometers of subsea pipelines connect Norwegian gas fields with the EU, making the infrastructure itself a core pillar of the alliance.

The diversification goes beyond just Norway and the US. Suppliers from North Africa (particularly Algeria) remain significant to the domestic market through both pipelines and LNG purchases, while Azerbaijan expanded deliveries through the Southern Gas Corridor, which makes possible for the Caspian gas to reach Europe without having to pass through Russia. Azerbaijan's state-owned SOCAR is the key commercial actor, whereas the European section of the corridor is jointly owned by several oil and infrastructure giants, namely British Petroleum, SOCAR, Italy's Snam, Spain's Enagas, and Belgium's Fluxys.

Brussels' relationship with Baku is likely to extend to other energy sources. The Southern Gas Corridor is an already established route, but there are signals that electricity, renewables, and even a potential green energy corridor across the Caspian and Black Sea could solidify this relationship further. Following the TAP lead, further projects will in the large part depend on private companies willing to invest in infrastructure such as pipelines and transmission networks.

Qatar is another big gas suppliers to Europe. While it is a quintessential LNG supplier, its relationship with the bloc is shaped by disagreements over regulatory conditions that concern importing fuels. QatarEnergy is the major producer and exporter on the Qatari side, while a variety of European companies such as Shell, Eni, and TotalEnergies entered the long-term supply agreements. However, the tensions between the EU and Qatar (and other international partners) traditionally arise regarding rules about “cleanliness” of the energy products. In June 2026, Qatar called on Brussels to reconsider its upcoming requirements surrounding the methane emission rules for imported fossil fuels, arguing that overly restrictive rules could make it harder to supply volumes that the EU needs. This tension illustrates a broader problem of the EU with many of its international partners (including the US) for years – the bloc is eager to impose stricter environmental standards on imported energy, which make the gas more difficult and expensive to sell into the European market.

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Renewables:

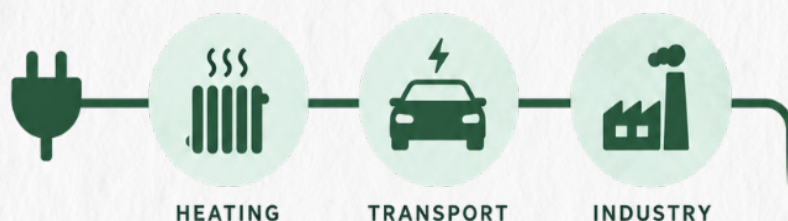
Progressing and Stalling at the Same Time

Measured solely by the amount, the EU's focus on renewables has been a success. **Around 70% of the electricity** going through European grids now comes from renewable sources and nuclear power combined, which is a transformation that would fifteen years ago seem improbable. Solar energy in particular has exceeded expectations, with the EU adding tens of gigawatts of new capacity annually and rooftop installations now covering almost two thirds of new solar buildout in several Member States. That expanded capacity was tested directly in early 2026. When the outbreak of the war in Iran threatened oil and gas flows through the Strait of Hormuz, European power markets absorbed the shock without price spikes as extreme as those that were present in the 2022 crisis, largely because renewables now supply enough of the grid to ease the impact of a gas price spike in a way they could not four years ago. That is a meaningful and positive proof point for the entire strategy.

Behind that expansion is a growing European market for utilities and development. Corporations such as Iberdrola, RWE, and Enel are among the largest European investors in renewable generation. For instance, Italy's Enel alone is planning around €20 billion of investment in renewables, **together with €26 billion allocated for grids**. Apart from increasing the share of renewable energy used in the EU, the push for clean energy sources is already redirecting large amounts of private capital towards new electricity infrastructure.

Electrification rate

23%



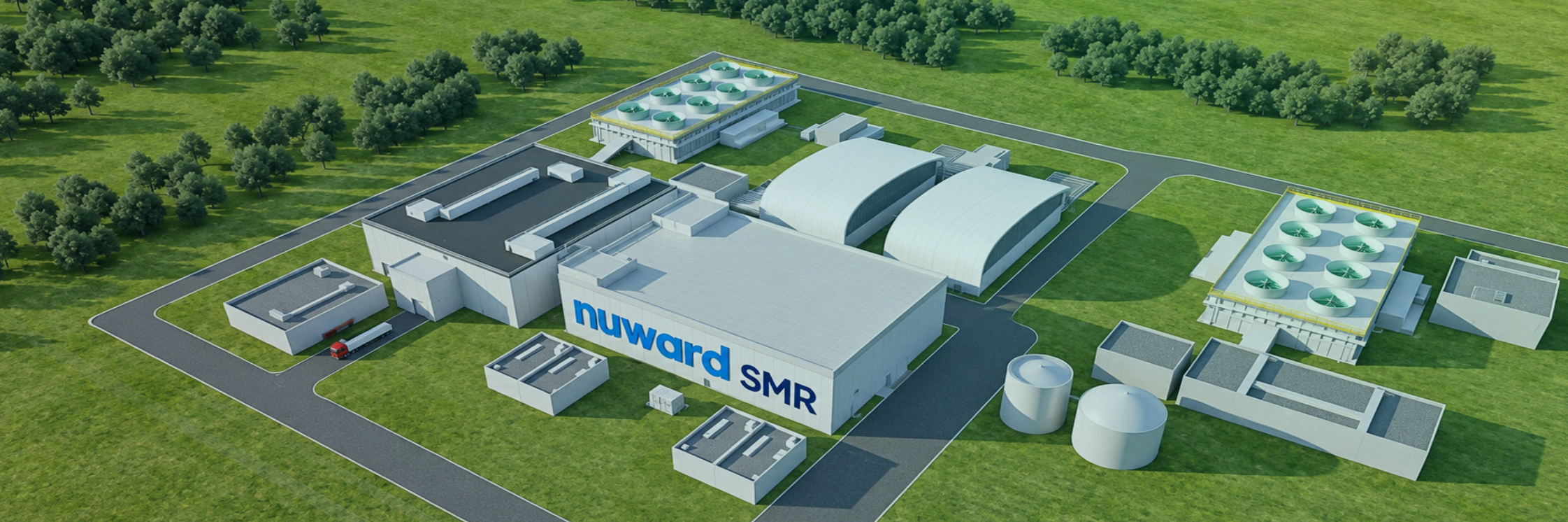
However, the deeper structural problem is how little of the energy Europeans actually use is electricity at all. **The electrification rate covering heating, transport and industry, is at 23% for the past decade, essentially unmoved despite the fact that the EU generates much larger quantity of renewable energy.** Cleaning up the grid, in other words, was far easier than persuading households and businesses to plug into it. The crucial reason is because **electricity remains almost three times more expensive than gas in much of the EU**, even where running an electric heat pump or vehicle would be cheaper over its lifetime. This gap between a relatively decarbonised power supply and a still fossil-dependent pattern of consumption, is precisely the problem the Electrification Action Plan and the coming Energy Union Package are designed to close through tax reforms and subsidised financing for initial cost of switching.

From Nuclear to Clean Energy

Perhaps the most unexpected reversal in EU energy policy over the past year or two concerns nuclear power, a technology the bloc's dominant political consensus spent the previous decade sidelining. **Nuclear currently supplies around 23% of the EU's electricity and roughly a third of its low-carbon electricity**, according to Eurostat, concentrated overwhelmingly in France and a handful of other committed operators. That contribution was treated as a legacy asset without much potential for growth for years – both the original REPowerEU plan and the Net-Zero Industry Act focused almost entirely on renewables and, some would say unfairly, put less emphasis on nuclear, effectively putting it out of the picture.

That course changed in March 2026, when the Commission published its Small Modular Reactor strategy alongside the updated Nuclear Illustrative Programme. The Commission estimates that the EU's nuclear ambitions, covering both existing reactors and new construction, will require **around €241 billion in investment by 2050**. President Von der Leyen used the occasion of a Paris nuclear summit to describe Europe's earlier retreat from nuclear power as a strategic mistake, which was an unexpected admission given her own political party's role in that retreat. German Chancellor Friedrich Merz also used almost identical language about his own country's 2023 reactor closures. Berlin has since agreed, in a deal with Paris, to stop blocking EU rules that make it easier to fund nuclear projects, even though they maintain there will be no return to nuclear power on German soil itself. The strategy projects that **small modular reactors could eventually supply between 17 and 53 gigawatts of EU capacity by 2050** with a functioning reactor targeted for the early 2030s.

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Nuclear supplies



There is also an industrial dimension to the revival of nuclear energy in Europe. Apart from the reactors, it could also create demand for engineering and construction. Crucially, European companies could potentially get a larger role in the global SMR market that is still in a relatively early stage. The most concrete example is France's EDF, whose **NUWARD subsidiary is developing a European SMR** and it's actively working with the industrial partners across the EU. The company aims to develop the first European SMR in the next decade, while also seeking industrial applications including electricity and heat for industry and data centers.

The gap between ambition and reality remains substantial. As of early 2026, no SMR design had received a construction licence anywhere in the EU, and there are questions about whether the technology can deliver meaningful capacity at scale in a reasonable time period, given the unresolved questions of cost and nuclear waste across Member States. The renewed interest is also connected to a separate trend covered later in the report: the rising electricity appetite of data centres and AI infrastructure, which has revived nuclear's appeal specifically as a source of reliable power that renewables on their own are not able to provide easily. Countries that never abandoned nuclear (notably Finland and Sweden) are already champions in the form of some of the most stable and competitive electricity prices in the EU.

Electrification of the Continent and the Energy Union

The Electrification Action Plan, published by the Commission on 17 July 2026, is the headliner of this year's legislative wave and can be regarded as a preview of the binding Energy Union Package for the decade ahead, expected later this year. The plan sets an indicative target of raising electrification **from 23% to 46% of energy use by 2040**, backed by tax and network-charge reforms and an acceleration of appointment of heat pumps by 2030. The plan suggests new requirements for electric cars and a reform of the EU carbon market. The Commission's own estimate is that reaching the target could cut the EU's fossil fuel imports by **around €260 billion a year by 2040**, reframing the entire strategy as measure for economic security.

The coming Energy Union Package, expected toward the end of 2026, is where much of this will likely become binding law. Alongside codifying the electrification target itself, a new energy storage target (roughly 200 gigawatts of installed storage capacity by 2030) is expected. If adopted, this would be almost a four times increase from the approximately 55 gigawatts in place today, alongside greater investment in district heating and cooling networks and an update to the wider Energy Union governance framework. Running in parallel, and less ambitious in scope, is the Omnibus to simplify energy product legislation. The Omnibus is a part of the Commission's broader simplification drive that has already produced several omnibus packages that are mainly aimed at reducing the administrative burden for companies (and especially SMEs). The idea behind the proposal is to make energy and tyre labelling rules easier for companies to navigate while still making sure that the consumers are informed about the products they purchase. Such a move is projected to save up to 125 million euros over the next decade. However, the electrification creates a problem that can't be solved just through simplification. Europe needs enough grid capacity and storage to physically accommodate the demand for electricity. In this sense, the success of the plan will heavily depend on new infrastructure being built.

Storage and Grid Readiness

One of the biggest technical constraints that could pose problems to this entire agenda is the state of Europe's electricity grid and its insufficient amount of large-scale storage. The network itself was built for a small number of large and predictable power stations and not for millions of individually connected solar panels or vehicle chargers. This makes grid expansion and storage capacity a prerequisite for electrification. Even if the businesses and households switch to electricity, it will not translate to greater energy security if the network can't deliver power where and when it is needed.

This is the biggest challenge for the European electrification agenda. Transmission and distribution operators will have to expand networks while engineering firms and storage developers will need to deliver the required capacity. Brussels therefore needs to tackle creating a regulatory environment in which private capital can be employed quickly enough to build the needed infrastructure in Europe.



50%

Permitting delays

Some estimates attribute up to 50% of all delay in delivering new grid projects to permitting alone.



€500B+

Grid investment by 2030

The European Commission estimates that European grids need more than €500 billion in investment by 2030.



80%+

Higher annual spending needed

Some estimates suggest annual grid spending must increase by more than 80% compared with recent years to meet growing demand.

The biggest obstacle currently is a permitting backlog – some estimates attribute **up to 50% of all delay** in delivering new grid projects to permitting alone. Additionally, the Commission's own assessment puts the investment needed in European grids **by 2030 at more than €500 billion**, with some estimates suggesting annual grid spending needs to increase by **more than 80%** compared with recent years to meet growing demand.



The companies involved are already visible in current projects – Hitachi energy and Larsen & Toubro were awarded two new offshore transmission projects by TenneT, Dutch national transmission system operator, which together aim to provide 4 GW of clean power to power **around 4 million households in Netherlands and Germany**. While projects like this show that the European grid is slowly being updated, there is still a significant gap between the bloc's electrification aspirations and the reality of grid that needs significant investment to support the transition.

Storage accelerates the problem further. If the EU wants to go from roughly 55 gigawatts of installed storage today to 200 gigawatts by 2030, it is close to a quadrupling in under four years., right at the moment when solar and wind capacity is simultaneously expected to be burdened more in the winter, precisely when solar output is lowest. Despite the fact that colder temperatures slightly increase the energy output, shorter daylight hours and lower sun angle negatively influence the final amount of energy generated – **in the most extreme cases by up to 50%**. It is unlikely that the solution for increasing the storage capacity will come from just one technology. Batteries will play the biggest role in storing excessive power from solar and wind sources for a couple of hours and then releasing it when the demand is higher. Pumped storage hydropower is able to provide more long-term storage, especially in the European regions that have a suitable geography (hilly or mountainous terrain). Other solutions such as using EVs or heating systems to shift when they use electricity through vehicle-to-grid systems and thermal storage could provide additional sources of flexibility.

For instance, Germany is already coming up on top as market for batteries, while Spain and Austria are leading in pumped storage hydropower. This trend is expected to expand the presence of large international storage developers in those particular markets. Companies such as Fluence and Wärtsilä are already active in the European storage market, while battery manufacturers such as Chinese CATL supply hardware for many projects. The European market is already will likely seeing an increase in demand for batteries and systems for grid management that allow them to operate, a trend which is expected to continue and intensify.

However, the investment needed will be expensive – the estimates are that the capital required for four-hour battery systems alone will be 24 billion euros between 2026 and 2030 if the EU wants to increase its battery storage from 17 to 80 GW. The scale of this investment is significant because grid and storage capacity can become serious constraints on the rest of the energy transition. Adding additional gigawatts of solar or wind capacity has limited value if it can't be delivered to users when it is needed. Whether the 200 GW target can be proved as realistic will likely also depend on whether the parallel Grids Package, which is already through its first legislative stage, succeeds in cutting the permitting timelines that will otherwise slow down this transition.

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The New Gold – Data Centers and AI

Below all of this is the electricity appetite of artificial intelligence – a trend the EU did not choose and can't easily control. The Commission's own estimate is that electricity consumption from European data centres could double or even triple over the next decade, driven almost entirely by the AI infrastructure boom. Ireland already offers a preview of what that looks like at scale: data centres now consume **more than 20% of the country's entire electricity supply**, which is the highest share anywhere in the world. Consequently, some argue that the demand by data centres is what is driving the costs of household electricity bills up as well.

This creates tension inside the EU's broader ambitions. Brussels wants Europe to be more technologically sovereign, building its own cloud and AI infrastructure rather than depending entirely on American hyperscalers. For instance, this ambition is reflected in the proposed Cloud and AI Development Act and its new sustainability and performance standards for data centres. The key companies expanding the cloud infrastructure in Europe are American hyperscalers such as Google, Amazon, and Microsoft, while operators such as Equinix and Digital Realty provide physical infrastructure for data centres that the clouds run on. Their investment decisions are increasingly reliant on the energy policy, as the location of the data centre heavily depends on the availability of grid capacity and electricity.

**data centres
now consume
more than**

20%

**of the Ireland's
entire electricity
supply**



However, building that infrastructure domestically means adding exactly the kind of large, steady electricity load that an already burdened grid can least easily absorb, at the same moment the EU is trying to electrify home heating and road transport in addition it. It is not a coincidence that nuclear power and small modular reactors in particular found some of their most enthusiastic advocates among policymakers focused on data centre demand.

Unlike solar or wind, nuclear offers the kind of constant and weather-independent output that server farms require all the time. **It remains to be seen if Europe can pursue tech sovereignty and energy security at the same time**, or if it will resort to trading progress on one for stalling the other, and it is likely to become one of the defining debates in the following years.

Winners and Strugglers in the EU

The EU's energy transition is, in practice, 27 separate transitions moving at different speeds, and the gap between the highest and lowest performing countries is not negligible. France is the clearest example of an advantage rooted in a choice made decades ago. French heavy reliance on nuclear power keeps its electricity among the more affordable in the EU and mitigates the gas price volatility, a position that has lately been more popular even in Brussels. As mentioned earlier, Finland and Sweden tell a similar story, combining nuclear baseload with hydropower and wind to produce some of the most stable prices on the continent. These Nordic examples show that overall energy diversification might be a good alternative for the EU as a whole. Balancing multiple clean energy sources and technologies, together with a controlled share of fossil fuels, would likely provide the strongest defence against price shocks. Furthermore, pairing the diversification of energy sources with a varied mix of suppliers in and outside of the Union for every particular energy source could be a good hedge against any kind of geopolitical shocks that might surprise Europe in the future.

Germany illustrates the opposite example. Despite huge investments in renewable capacity, German households pay among the highest electricity prices across the Union. Those prices can be prescribed to a variety of factors, most notably the grid surcharges tied to offshore wind connections and the cost of shutting down the nuclear power plants.



Ireland and Belgium round out the list of the most expensive electricity markets in the bloc, though for different structural reasons in each case, ranging from demand growth accelerated by data centres in Ireland's case to network and tax structures in Belgium's. At the other end of the spectrum, some Central and Eastern European states have some of the lowest prices in the EU, but that figure often masks continued reliance on coal and a structural vulnerability – tighter national budgets in the region make it harder to fund the grid upgrades and subsidy schemes that wealthier Western European states can more easily absorb. This means that today's lower prices in those countries may prove harder to sustain as the electrification push accelerates.

Spain and Portugal have emerged as something of a partial success story, pairing a fast buildout of renewables with comparatively favourable price ratio of electricity to gas that put them among the top on early EV and heat pump adoption.

Electrified Geopolitics

The energy sector is among most strategically important ones inside the EU, and as such, can't be separated from the wider map of alliances and rivalries surrounding it, and 2026 has sharpened nearly every line on that map.

Right at the EU's eastern border, Ukraine occupies an unusual dual role. It is simultaneously the country whose invasion triggered the entire European energy security overhaul and an increasingly important participant in the same transition Brussels is pursuing. Russia has spent much of the past year systematically targeting Ukraine's power grid. A large amount of country's generation capacity was destroyed through a deliberate campaign of precise strikes intended to fragment rather than simply damage the network, with thousands of attacks on Ukrainian energy infrastructure recorded since March 2025. Kyiv has responded with both resilience and retaliation.

Distributed rooftop solar and small mobile gas turbines have been deployed specifically to build the infrastructure that can survive a fragmented national grid, while a sustained Ukrainian drone campaign (hundreds of strikes on Russian oil facilities in 2026 alone) suppressed Russian refining capacity and cut into the oil revenue funding Moscow's war effort. For the EU, Ukraine's eventual reconstruction represents an energy security opportunity, an already grid-synchronised neighbour whose renewable and nuclear potential could eventually feed back into the wider European system, regardless of the possibility or speed of Ukraine's membership bid. Because of the urgency that the war Ukraine found itself in dictated so, the energy projects are being put in motion with comparatively lower administrative burden. Similar trend is the most visible in the tech and defence sectors that could serve as a good model for the EU when it comes to building an innovation-friendly environment that can materialise complex initiatives in a relatively short amount of time.

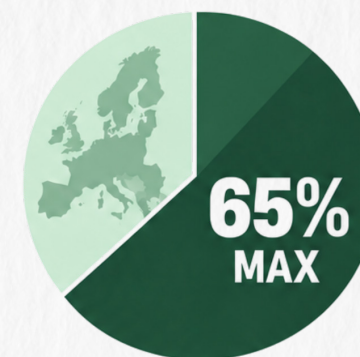


Russia, by contrast, is on the way of the permanent exclusion. The gas ban is not, like most EU sanctions, subject to periodic unanimous renewal as it is written into ordinary legislation and is far harder to reverse. What leverage Moscow retains lies mainly in the remaining eighteen months before the pipeline ban takes full effect, and in the disruptive potential of incidents like the **January 2026 Slovak-Ukraine dispute**, triggered when Russian drone strikes **damaged the Druzhba pipeline** and prompted Slovakia to briefly halt emergency electricity supplies to Ukraine. The incident served as a good reminder that the EU's internal solidarity on this issue is not automatic even among neighbouring Member States.

The Middle East supplies another major source of uncertainty. The conflict between the US, Israel and Iran, and the resulting blockades around the Strait of Hormuz are the clearest reminder so far that diversifying away from Russia does not automatically mean diversifying away from geopolitical risk altogether. Qatar is a good example – while their LNG supplies are a part of EU's diversification strategy, the route through which it is delivered remains exposed to the same problems that shook the global energy markets in 2026. While Qatar might be a more reliable partner than Russia, it remains an independent geopolitical actor whose interests will not always overlap with those of Brussels, which could threaten the trade between the two in the future .

The 2026 crisis gave new wind to the **India-Middle East-Europe Economic Corridor**, the route linking Indian ports to Europe via the Gulf and Israel that Brussels could profit from as a hedge against geopolitical risk connected with Iran. Unlike shipping that depends on the Hormuz, IMEC's route would bypass Iranian waters entirely, giving Europe a route that is more immune to Tehran's cooperation (or lack thereof). The reality, however, is that more than two and a half years after its announcement, the corridor remains largely a set of bilateral agreements and memorandums. Its more advanced eastern maritime leg, linking Indian ports to the UAE, offers some diversification value in the short run, but the northern rail bridge through Saudi Arabia, Jordan and Israel (the segment that would let Europe avoid Hormuz) depends on the kind of regional stability that the Iran war and ongoing Israeli-Arab tensions have made harder to secure. For now, IMEC functions mostly as a diplomatic signal of intent, and a complement to the newly concluded EU-India trade agreement, with a potential to become a piece of infrastructure European energy security can profit from in the future.

The EU is eager to strengthen the partnerships with regional actors, which is visible in its relationship with Azerbaijan. The Southern Gas Corridor shows how energy security depends more and more on physical infrastructure and long-term partnerships. Pipelines and projects with Europe's partners can be as strategically important as the domestic policies that aim to encourage companies to use them. TAP is jointly owned by several European companies, which makes the corridor a useful example of how international corporate partnerships are crucial for European energy security.



65% max
share of any single non-EU country
in a strategic material supply chain



China presents a subtler challenge. The EU has made progress cutting Russian fossil fuel dependency, but the hardware underpinning its clean energy transition (e.g. solar panels and EV batteries) remains overwhelmingly manufactured in China, which supplies more than **90% of the solar panels** installed in Europe and a large majority of EV battery imports. The Critical Raw Materials Act and its implementing RESourceEU programme cap any single **non-EU country's share of a strategic material at 65%** and mandate rising EU extraction, processing and recycling targets through 2030. This is Brussels's clearest attempt to manage this exposure, but the timelines posed mean that China will in all likelihood remain the dominant supplier of clean technology hardware for years to come.

Lastly, the United States occupies a central but double-edged role. It has become the EU's most important LNG supplier as Russian volumes dropped, reinforced by this year's EU-US trade agreement, and Washington's interest in a secure and well-supplied European market is genuine. But the scale of the projected shift (potentially 40% of all EU gas imports by 2030) clashes diversification logic that drives the rest of EU energy policy and reinforces that some of Europe's energy security will still depend on decisions made in the Oval Office.

Wiring in the Industry and the Businesses

For grid operators and renewable energy developers, the trajectory is favourable, although it requires more investment. Sustained public investment and a friendlier permitting environment on paper both show no signs of slowing. Even though it's in the early phases, the nuclear and SMR supply chain represents an opportunity that could be on the riskier side, depending on whether the licensing and cost problems that have so far prevented any EU construction licence can be resolved soon. Manufacturers that heavily rely on energy (particularly in steel or chemicals sectors), face a more complicated calculation – financial support is available through instruments like the Industrial Decarbonisation Bank, but the tightening of carbon market rules means the cost of not adapting keeps rising even as the cost of adapting remains high.

Data centre operators and the wider AI infrastructure sector are likely to see more regulatory involvement from Europe. The examples include new performance standards and closer scrutiny of grid connection requests, given how directly their growth collides with the electrification agenda's own demands on the same infrastructure. Gas and LNG trading and shipping firms are likely to face restructuring, as Russian supply disappears entirely and US and Gulf suppliers absorb a growing share of a smaller but still substantial European import market.

The general density of new legislation moving through Brussels this year and next (the Electrification Action Plan, the Grids Package, the Energy Products Omnibus, the Energy Union Package, the SMR strategy and its accompanying state aid questions) represent regulatory complexity that companies operating across multiple Member States will need dedicated help navigating.

Conclusion

Taken as a whole, the EU's current energy strategy is considerably more urgent than anything the bloc has produced in the past two decades. It has already delivered some results – a legally locked reduction in Russian fossil fuel dependence, a power grid that absorbed a Middle East supply shock in 2026 better in comparison to four years before, and the establishment that is now willing to reconsider nuclear power.

But the strategy's success is not guaranteed, and it is not free. The financial scale involved, hundreds of billions of euros in grid investment and nuclear ambitions, as well as almost quadrupling of storage capacity, will be a require significant public spending, together with the large amounts of private investment. This could put pressure on both governments and the private sector (companies and consumers alike), while also testing political patience. The costs of building new infrastructure and compliance costs are felt immediately, whereas benefits of greater energy security and lower exposure to prices of oil or gas could take a couple of years to materialise – this is particularly true for those Member States that are least able to absorb the cost. The general gap between a clean electricity supply and a still pattern of consumption that depends on fossil fuels shows how much harder it is to change consumer behaviour than to build generation capacity.

And almost everywhere, from LNG to solar panels to grid software, the pattern of trading one external dependency for another, whether it is on the United States or China, keeps appearing enough that it should be treated as a structural feature of this transition rather than an occasional issue. Brussels' objective is thus unlikely to be complete energy independence (which would be neither realistic nor necessarily desirable), but an arrangement in which energy will come from different sources and suppliers so that no single external party can easily threaten the Union's energy and economic stability. The success of Europe's strategy will heavily rely on whether European companies have the capital and regulatory conditions needed to build the infrastructure that will make diversification realistic. The EU might be able to end this decade much more energy secure than it began, but it will depend mostly in hard work on the level of national governments when it comes to permitting and building the electricity grid that was usually the hardest part of every previous phase of this project.

Legislation Overview

1. [COM/2019/640 \(The European Green Deal\) COM/2021/550 \('Fit for 55': delivering the EU's 2030 Climate Target on the way to climate neutrality\)](#)
2. [Directive \(EU\) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources \(recast\) \(Renewable Energy Directive\)](#)
3. [COM/2022/230 \(REPowerEU Plan\)](#)
4. [COM/2025/85 \(The Clean Industrial Deal\)](#)
5. [COM/2025/79 \(Action Plan for Affordable Energy\)](#)
6. [COM/2025/945 \(RESourceEU Action Plan\)](#)
7. [COM/2026/117 \(Small Modular Reactors Strategy\)](#)
8. [COM/2026/595 \(Electrification Action Plan\)](#)
9. [European Commission Proposal for a regulation on simplification and better use of digital options for energy and tyre labelling \(Energy Products Omnibus proposal\)](#)
10. [Commission work programme 2026](#)
11. [Regulation \(EU\) 2026/261 of the European Parliament and of the Council of 26 January 2026 on phasing out Russian natural gas imports and preparing the phase-out of Russian oil imports, improving monitoring of potential energy dependencies and amending Regulation \(EU\) 2017/1938](#)
12. [Regulation \(EU\) 2024/1735 of the European Parliament and of the Council of 13 June 2024 on establishing a framework of measures for strengthening Europe's net-zero technology manufacturing ecosystem and amending Regulation \(EU\) 2018/1724 \(Net-Zero Industry Act\)](#)
13. [COM/2025/315 \(Nuclear Illustrative Programme\)](#)
14. [COM/2025/1005 \(European Grids Package\)](#)
15. [COM/2026/502 \(Cloud and AI Development Act proposal\)](#)

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