

Navigating risks and enhancing resilience: charting Europe's energy and climate pathways



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Context

This report reflects the statements and questions made during a high-level European Policy Summit, which brought together over 150 participants in-person and a few hundred online, from Brussels and all over Europe.

The European Union's climate and energy policies are at a pivotal moment, striving to balance global competition, competitiveness and the dual imperatives of digital and green transitions. The Russian war in Ukraine, extreme weather events across Europe and the US Inflation Reduction Act have all significantly impacted Europe's climate and energy resilience.

As the EU aims to become the first climate-neutral continent by 2050, it is rolling out ambitious initiatives to cut greenhouse gas emissions, boost renewable energy use and improve energy efficiency. The EU's development of a green industrial framework is critical to strengthening the capacity of net-zero technologies and spurring investment in net-zero manufacturing.

Participants considered questions including:

- How can we improve the speed and scale of the clean energy transition?
- How can we improve the quantity and quality of our grids?
- How does the acceleration of the clean energy transition support the EU's competitiveness aims?
- What is the role for nuclear energy and small modular reactors in the hard-to-decarbonise sectors of the economy?
- How can we make the market stable and attractive for greater investment in climate resilience?
- What kind of strategy does the EU need to create the enabling conditions for industry to be competitive while leading positive changes in its decarbonisation pathways?
- What role can communities have in this process?

Ideas to take forward:

Throughout the Climate and Energy Summit “Navigating risks and enhancing resilience: charting Europe’s energy and climate pathways”, the panellists, roundtable speakers and participants brought forward various insights and ideas to tackle the challenges affecting the European energy system and society at large. These ideas focused on the importance of prioritising implementation in this new institutional cycle to boost renewable energy development, energy efficiency, electrification and demand-side action. By stressing the connection between competitiveness and the European climate ambitions, the panellists emphasised the necessity to stay the course on the objectives of the Green Deal and to ensure a just and fair transition.

- **Accelerate renewable energy deployment**

The EU must urgently scale up renewable energy to meet its climate goals. Renewables are the cheapest source of electricity, but deployment is still lagging behind targets.

- **Prioritise electrification and demand-side action**

Electrifying industry, transport and buildings must be a top priority, supported by innovative financing mechanisms to help companies switch from fossil fuels.

- **Strengthen energy security through regional cooperation**

Senior speakers noted the value of regional cooperation frameworks to coordinate grid investments, renewable projects and energy efficiency measures. This collaborative approach is key to enhancing Europe’s energy security.

- **Ensure a balanced and resilient energy system**

A resilient energy system requires a balanced mix of renewable and other dispatchable low-carbon sources. Integrating variable renewables while maintaining system stability will be crucial.

- **Empower citizens through affordable energy**

Addressing energy poverty must be a central pillar of the EU’s energy policy.

- **Streamline regulations and prioritise implementation**

The new institutional cycle will need to focus on implementation and create a more stable investment environment. This will help unlock private capital and enable

companies to scale up innovative clean technologies more quickly.

- **Provide tailored financial support**

The EU and member states must deploy a mix of grants, guarantees and other financial instruments to de-risk investments and crowd in private capital. This will be crucial for scaling up manufacturing capacity and commercialising breakthrough innovations.

- **Ensure a level playing field**

Panellists stressed the importance of maintaining a fair, global market for clean technologies. The EU should use tools like carbon border adjustments and resilience criteria to protect European industries from unfair competition while keeping markets open.

- **Prioritise energy efficiency and system optimisation**

Experts emphasised that improving energy efficiency and optimising the entire energy system - from supply to demand - is key to boosting competitiveness. Defining clear energy efficient standards and incentivising holistic efficiency measures will be critical.

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From left to right:

1. **Brent Wanner**, Head of Power Sector Unit at the International Energy Agency (IEA)
2. **Albinas Zananavičius**, Lithuanian Vice-Minister for Energy
3. **Xavier Ursat**, Senior Executive Vice-President for New Nuclear Projects and Engineering, Innovation, Corporate Social Responsibility and Strategy at EDF Group; **Albinas Zananavičius**, Lithuanian Vice-Minister for Energy; **Manon Dufour**, Head of the Brussels office of Third Generation Environmentalism (E3G)
4. **Mechthild Wörsdörfer**, Deputy Director-General at the European Commission Directorate-General for Energy (DG ENER)



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Event summary

Learning from the past

Participants considered experiences to date and how Europe finds itself in the position it does today when it comes to climate and energy risks.

As the fastest warming region on Earth, the Arctic has seen temperatures increase eight degrees Centigrade since the 1980s and lost almost half of its sea ice. There are even fears that the climate tipping point may already have passed for countries such as Greenland.

Data from ExxonMobil in the 1970s clearly showed the link between carbon dioxide emissions and temperature increases, but was buried in favour of a “global misinformation campaign,” said **Heïdi Sevestre**, Glaciologist, Deputy Secretary of the Arctic Monitoring and Assessment Programme (AMAP) and 2024 European Young Leader (EYL40).

Despite decreasing dependency on Russia, the EU still imports almost 60% of its energy and faces new supply risks. Strengthening energy security and accelerating decarbonisation will need to remain high political priorities in the next EU institutional cycle.

There were, however, messages of hope based on past experience. Lithuania is overseeing “one of the fastest energy transformations in the world,” said **Albinas Zananavičius**, Lithuanian Vice-Minister for Energy. The country got rid of all Russian energy early in 2022, then doubled domestic production of renewable energy.

“The Draghi report is welcome, but does not change the reality on the ground. There is a policy choice that will do that which is that we must clean the European energy market from Russian fossil fuels”, the Lithuanian Vice-Minister went on to explain.

Meanwhile, Finland offers another example of successful, clean energy production based on renewables and nuclear power. The Nordic country has some of the lowest energy prices in the EU area and well-functioning markets based around full implementation of EU policies.

There is a need for countries to work together at the EU level, for instance on public procurement, and hope that industry will follow. EU policy can make a big difference in building a genuine, clean energy industry. As President von der Leyen showed in Kiev recently, the EU can be bold and will continue to stand up to countries that pose a risk to world security and energy security. There is, however, a need for a “managed intervention approach” in the face of energy and climate risk.

Lubomila Jordanova, Founder & CEO of Plan A and 2024 European Young Leader (EYL40), said it was important to “shy away from the idea Europe is losing because it is not fast enough.” Instead, there is a need to make sure the EU is looking at the right metrics. Belgium, participants were reminded, invests more in R&D as a proportion of GDP than the US.

There is a misconception that Europe is less efficient than North America. EU policy is already more efficient than the US Inflation Reduction Act (IRA). Since the Juncker Plan was launched in 2015, the EU has developed an “overwhelming” pipeline of projects and has simultaneously made progress boosting investment and reducing unemployment while decoupling growth from emissions.

“ Shy away from the idea Europe is losing because it is not fast enough

Lubomila Jordanova, Founder & CEO of Plan A and 2024 European Young Leader (EYL40)

European competitiveness, when it comes to the energy efficiency, has shown great results compared to the US. “We are much more effective and we need less energy”, said **Monica Frassoni**, President of the European Alliance to Save Energy, former co-president of the European Green Party, former member of the European Parliament and Trustee of Friends of Europe, referring to the impact assessment made by the European Commission on the energy efficiency directive.

Europe must now stay the course with the Green Deal, said **Kurt Vandenberghe**, Director General at the European Commission Directorate-General for Climate Action (DG CLIMA). The investments needed are indeed massive, but they are not unprecedented, as they are levels seen in the 1970s.

“ We are much more effective and we need less energy

Monica Frassoni, President of the European Alliance to Save Energy, former co-president of the European Green Party, former member of the European Parliament and Trustee of Friends of Europe

Looking at the present moment

Debate also honed in on the energy and climate situation for industry, policy makers and voters on the ground today, in Europe and beyond.

“Most companies we deal with have made a strategic decision to go green,” said **Kim Jørgensen**, Director General and Permanent Representative of the European Investment Bank to the EU institutions.

Even though reliance on fossil fuels is still very real around the world, a peak in CO2 emissions could be imminent. Recent International Energy Agency (IEA) data predicts an emissions peak this year or next, followed by a peak in oil and gas use around 2030. “We are very much at the top of the hill,” said **Brent Wanner**, Head of Power Sector Unit at the IEA. Renewables are cheap and growing very fast. Solar and wind are the cheapest sources of electricity in most markets today.

Europe already has a lot of good news to celebrate. Energy prices and demand are down and EU countries are successfully coming through unprecedented crises. These are record years for wind and solar power in Europe.



From left to right:

1. **Heidi Sevestre**, Glaciologist, Deputy Secretary of the Arctic Monitoring and Assessment Programme (AMAP) and European Young Leader (EYL40)
2. **Monica Frassoni**, President of the European Alliance to Save Energy, former co-president of the European Green Party, former member of the European Parliament and Trustee of Friends of Europe; **Stefano Lorenzi**, Chief Executive Officer of 3Sun
3. **Kim Jørgensen**, Director General and Permanent Representative of the European Investment Bank to the EU institutions
4. **Lubomila Jordanova**, Founder & Chief Executive Officer of Plan A and European Young Leader (EYL40)
5. **Kurt Vandenberghe**, Director General at the European Commission Directorate-General for Climate Action (DG CLIMA); **Andrea Wechsler**, Member of the European Parliament Committee on Industry, Research and Energy (ITRE)



In this regard, the world is moving into the “age of electricity” and needs to remain vigilant to make sure its energy is secure. A focus on electricity grids and storage will be essential. As mentioned by **Xavier Ursat**, Senior Executive Vice-President for New Nuclear Projects and Engineering, Innovation, Corporate Social Responsibility and Strategy at EDF Group, a dedicated “electrification bank” could be one of the solutions to reduce exposure to volatile fossil fuel prices and import dependency.

“ *Most companies we deal with have made a strategic decision to go green* ”

Kim Jørgensen, Director General and Permanent Representative of the European Investment Bank to the EU institutions

Europe must ensure there is no trade off competitiveness and the Green Deal at all costs. This could include looking for situations in which the EU can help to organise private financing, perhaps through Power Purchase Agreement (PPAs) contracts between public sector buyers and private sector producers. There should also be consideration of how much decarbonisation can be achieved by new or emerging technologies.

Other opportunities on the Commission agenda today include “redefining clean investment partnerships,” said **Manon Dufour**, Head of the Brussels Office of Third Generation Environmentalism (E3G). Much more could be done with Africa and discussions underway today, for instance around technology transfer and renewables development, need to be continued with all key partners.

Europe cannot and should not replicate the government support and structure seen in China, but companies need help from Europe to be sustainable. Clean energy success stories in Europe will inspire other countries to get started, but the EU needs to find the right mechanisms for support. This includes developing efficient energy systems and clear policies. One of the biggest challenges for European investors today is knowing what is green and where to put money.

At the same time, Europe faces a critical time window to establish itself in the clean energy sector. As 90% of global solar production is currently based in China, European companies like 3SUN Gigafactory, the world's most automated solar cell and module manufacturing plant, in Italy, face structural cost disadvantages, compounded by the significant subsidies Chinese manufacturers have received. However, by thinking and operating like a startup, unencumbered by legacy systems, they are working to leapfrog existing technologies. For this model to succeed and attract further investment, Europe must provide a clear framework, combining incentives with policies that foster innovation and competitiveness. As Head of 3SUN Gigafactory, **Stefano Lorenzi** emphasised that Europe should be more strategic if it wants to reach the target of producing 30 GW of annual photovoltaic manufacturing. Looking at the map of Europe, Lorenzi suggests leveraging regional strengths. For example, investing in cell production where there is expertise and talent in semiconductors, and prioritising wafer production where there is an abundance of green electricity and water. To make the 30-gigawatt goal achievable, Europe urgently needs an incentive framework that can replicate the effect of the Inflation Reduction Act (IRA) and other mechanisms. Companies like 3SUN can be seen as experiments; if Europe wants to reshore a portion of the PV supply chain, it will

need the right mix of tools, be it incentives or protection measures that value the resilience of the European energy system. Without a clear focus on renewables, clean power and energy efficiency the EU Clean Industrial Deal will struggle to concentrate on what is really needed.

Considering the future

With the announcement of the Clean Industrial Deal in the first 100 days of the Commission's mandate, policymakers and regulators need to think carefully about the future energy dimension of EU policy. This includes how to support electrification and safeguard clean energy infrastructure in highly competitive global supply chains, bearing in mind that sustainability and market competition are not mutually exclusive.

The incoming group of European commissioners is set to advance the implementation of the Green Deal, with Member States facing many commitments ahead. Additionally, the new Commission plans to release action plans addressing important topics like affordable energy and electrification. "Energy prices will be one of the topics of the next Commission, and that is part of the Clean Industrial Deal, which the next Commission will present in the first 100 days. That will be accompanied by an Action Plan on Affordable Energy," stressed **Mechthild Wörsdörfer**, Deputy Director-General at the European Commission Directorate-General for Energy (DG ENER).

Creating a resilient energy system will provide security, moving forward. This is particularly important for the 50 million people living in energy poverty in Europe. "We can create longer term solutions, including rethinking energy tax policy," said event moderator **Dharmendra Kanani**, Chief Operating Officer and Chief Spokesperson of Friends of Europe.

Energy prices are now back to pre-crisis levels in Europe, but there is a need for consumers to be more proactive, as well as better protected. This will include using power grids more efficiently, which raises questions about who will pay for the necessary network upgrades and construction. Electrification will be a key lever to decarbonisation.

This is a "real industrial issue on a massive scale," said **Xavier Ursat** Senior Executive Vice-President for New Nuclear Projects and Engineering, Innovation, Corporate Social Responsibility and Strategy at EDF Group. EDF will invest in flexibility.

Network tariffs, permitting processes and new industry investments could all be part of the solution. This suggests the need to develop a new kind of public-private partnership. A flexible, technology neutral approach, including renewables but also nuclear energy, would make it easier for the grid to manage huge injections of low-carbon electricity.

This future clean energy mix will rely heavily on electricity. Although the share of renewables in the EU energy mix has doubled over the past twenty years, the renewables sector faces challenges. Solar and wind industries are affected by volatile prices of critical raw materials, long permitting processes, and a significant investment gap in grids and electricity storage, which constrain the potential of renewables in Europe.

Last year, 23% of energy in the EU was electricity. To reach net zero, the figure must be at least 50%. To reach this target, the choice for Europe should not be between nuclear and renewable energy but between fossil fuels and low carbon energy.

The Commission is preparing an ambitious statement for COP talks this year, but Member States must agree to take this forward. Nuclear energy remains a controversial subject for some Member States and agreement to focus on “low carbon energy” would help international as well as EU talks to progress.

In a cleaner and more secure energy future, the EU will need a clear framework for sustainable investment, as shown in Friends of Europe's February 2024 report 10 Policy Choices for a Renewed Social Contract for Europe.

The switch from fossil fuels to clean electricity comes at a cost and industry will need help decarbonising. The switch should also be measured and monitored at EU level.

Financing and permitting of grid development, for instance, remains difficult. The Commission should set out how it will support industry. This includes making a business case for EU policy implementing acts.

“We do not need more regulation, we need implementation,” said **Andrea Wechsler**, Member of the European Parliament Committee on Industry, Research and Energy.

Just as, in the past, the EU has set global standards for the implementation of frameworks to tackle societal and challenges, from data protection and emissions trading to AI, there is now a need for clear framework for sustainable investment, enhancing energy security on the continent and accelerating the shift to a carbon-neutral future.

In this way, by charting its own energy and climate pathways, Europe may support and encourage global efforts to navigate risks and enhance resilience.

“ We do not need more regulation, we need implementation

Andrea Wechsler, Member of the European Parliament Committee on Industry, Research and Energy



From left to right:

1. **Maxime Bleskine**, Chief Executive Officer of VoltR, the manufacturer of eco-designed lithium batteries
2. **Hanna Ojanen**, Head of Carbon Markets and Policy at Carbo Culture, a climate technology company building a rapidly scalable biochar carbon removal solution





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