JOINT POLICY PAPER

Shaping A Net Zero Future: The critical role of energy and climate infrastructure

THE CHALLENGE	Reaching the EU's energy and climate targets demands a dramatic upscaling of the current energy and climate infrastructure. The European Commission anticipates that annual investments for the energy system are needed of EUR 660 billion over the period from 2030 to 2050. Without access to a robust and widely connected infrastructure, green technologies such as wind power, solar, hydrogen and CO2 capture, storage and utilization (CCUS) cannot be deployed successfully. At the same time, international competitiveness of industry and end-users must be safeguarded. If action is not taken now, the EU risks falling behind on its green ambitions and risks losing production, economic growth, energy security and jobs, which are key to raising the living standards and well-being of all Europeans.
THE SOLUTIONS	Transforming the energy and climate infrastructure requires bold action on multiple levels and various policy areas to speed-up investments. This begins with delivering on already adopted legislation to ensure a streamlined build-up of infrastructure across electricity, hydrogen and CO2 transport. Faster permitting procedures for the construction of energy infrastructure and the construction of net-zero industrial facilities are also needed as well as coherent regulations to reduce complexity for investment decisions. Standardization plays a vital role in transporting electricity, green fuels and CO2 across country borders and in maintaining the development of technologies, which is vital for Europe's competitiveness. The EU plays an important role in accelerating the cross-sectoral and cross-border infrastructure to ensure affordable, reliable and robust energy and climate infrastructure in Europe.

The critical role of energy and climate infrastructure

Towards 2030 and on the pathway to 2050, infrastructure for electricity, green fuels and CO2 all need to be constructed at an unprecedented speed. As a condition for the European green transition, it is necessary to build out net-zero technologies in the most cost-efficient and sustainable way. Electrification of societies is key to couple renewables like wind, biogas and solar to our energy supply. Green hydrogen and sustainable fuels will also have an important role to play in particular in hard-to-abate sectors such as heavy industry, shipping, and transport. We also need both carbon reduction and carbon removals. In this regard, we must apply technologies such as carbon capture storage (CCS) and carbon capture and utilization (CCU). Decisions to build out infrastructure for all net-zero technologies need to be addressed today in parallel if the technologies are to be scaled at the necessary pace. On behalf of the Confederation of Netherlands' Industry and Employers (VNO-NCW) and Danish Industry (DI) we call for the upcoming political mandate from 2024-2029 to prioritise this agenda in both the European Parliament, Council and Commission.

VNO NCW

Danish Industry

5 RECOMMENDATIONS

1	**Power the EU's energy infrastructure to power our green transition**	Energy infrastructure should be the enabler and not the bottleneck for clean energy and energy security. Infrastructure is a precondition for all decarbonization efforts such as electrification, hydrogen production, heat pump deployment, electrical vehicles and energy efficiency measures. Therefore, powering up the EU electricity grids and other energy infrastructure such as hydrogen and CCUS must be on top of the political agenda for the next European Commission to support affordable and secure access to clean energy as part of a broader EU Industrial Deal.
2	**Enable long-term net zero infrastructure planning**	Today, several efforts from Member States and the EU are driving collaborative planning of infrastructure across the continent. However, there is currently no consistent approach to the integration of national network development plans into a broader European cross-border network. Further cross-border integration of energy infrastructure would, amongst others, stimulate efficiency and reduce demand for expensive back-up capacity mechanisms. A new Commission should focus on the dynamics between national and European energy planning.
3	**Develop and implement shared technical standards**	A prerequisite for transporting energy across borders is the development of common standards. Standards enable interoperability, data integration, and the protection of digital energy systems from cyber threats.. To facilitate robust and resilient digital electricity infrastructure, the embedment of trust in decentralized assets through digital identities must be pursued. This will enable the use of advanced algorithms and automated decision-making to enhance efficiency and security. As markets for hydrogen and CO2 are still being developed, the need for a European set of standards is key to securing a strong Single Market and avoiding fragmentation with national standards and definitions.
4	**Expand access to EU funding opportunities**	The EU has already unlocked funding opportunities for innovation through the EU Innovation Fund and Horizon Europe. The CEF-E programme furthermore allows for financing of cross-border infrastructure but is fundamentally unequipped for the anticipated doubling of investments needed for the European energy system (from 1.7% of GDP between 2010-2020 to 3.2% of GDP between 2030-2050). The method to unlock funding would be to expand programmes such as CEF-E and the EU Hydrogen Bank. Member States and the Commission should also initiate so-called Important Projects of Common European Interest (IPCEIs), in particular for cross-boarder carbon value chain projects.
5	**Faster permitting**	To ensure the necessary pace of energy infrastructure deployment, Member States should make full use of the permitting acceleration possibilities offered by the Renewable Energy Directive. In addition, a more harmonized approach to permitting across the whole net-zero industrial ecosystem must be pursued. At the moment, the permitting procedures and requirements laid down in European industrial and environmental law are diverging and in some instances inconsistent.

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