

## **Let's Make It Real: Investing in Europe's electricity networks and grid technology sector**

Following the High-Level Forum on Grids, where Commissioner Simson placed electricity networks front and centre of the EU agenda, the European Commission has started work on a Grid Action Plan. We take the opportunity to share with you the essential elements that need to be considered for a future-proof, flexible and resilient electricity network, supported by strong, innovative, and globally competitive industrial base.

**Electricity grids are becoming the backbone of Europe's economy.** Europeans will consume ever more electrical energy – an increase from today's 23% to more than 50% by 2050. A growing share of electricity will be produced where the wind blows and the sun shines and this electricity will be transmitted by a strong grid network to consumers. Example: Europe wants 150 GW of offshore wind by 2030 from 32GW today. However, electricity generation and consumption will be increasingly fluctuating and as a consequence grids must be smart, resilient, and cross-border to secure a reliable supply. Europe's grid infrastructure is the best in the world, and it should stay that way.

**Demand for electricity grids exceeds manufacturing capacity in Europe.** Grid investments are accelerating dramatically in Europe and worldwide. The market is developing into a sellers' market where grid operators and utilities are increasingly competing for manufacturing slots of manufacturers in Europe.

**Too much is at stake to fail.** The consequences of not meeting the demand for grid technology in Europe are massive. Governments will miss their climate targets, companies will not succeed in their plans for developing renewable energy and strengthening their grid infrastructure. Together, we will fail on our promise that the Green Deal delivers more prosperity for our communities. And ultimately, we jeopardize the security and resilience of our most critical infrastructure, and Europe's unity on key geopolitical challenges.

Building on the clear [conclusions](#) from the High-Level Forum, the EU Action Plan on Grids needs to include the following 15 actions, which will support Europe's strong grid sector:

- **A clear long-term commitment** - in the form of network developments plans that are aligned with the National Energy and Climate Plans for all voltage levels accompanied by industrial plans, specifying the demand from network operators for grid technology - enables the industry to make the business case (with a competitive return on equity) to add capacity, to organise its supply chain and to recruit and develop the necessary skills;
- Increase the **digitalization** of the European electricity system (including grids at all voltage levels) to ensure 1) the **optimization of investment** to critical areas of peak or

congestion management, thereby increasing the hosting capacity of the current networks and reducing the pressure on the supply chain) and 2) the **optimization of human resources** with better prediction and asset management, thereby reducing the pressure on skills. Digitalization (with a move from Capex to Opex) is a priority to help the grid to be efficient, green, and flexible;

- Enhance investments conditions in new industrial capacities, for example by **removing or alleviating the financial burden** for industry via EU or national financial support and by ensuring fair and level market conditions. National promotional banks and the EIB should issue counter guarantees for key energy transition projects. This allows EU-based manufacturers and their supply chains to continue to bid for projects and keeps European grids resilient;
- Grid technologies, as a strategic technology, should be considered and included in support measures, such as the **Temporary Crisis and Transition Framework for State Aid**;
- As a regulated business, network operators in Europe need the **implementation, application and enforcement** of a coherent and harmonized regulation across Europe and in Member States and a redefinition of the evaluation of capex and opex following the evolution of the available technologies and the strategic choices. A successful energy transition needs not only the proper harmonized policies but the appropriately calibrated regulations to meet the targets. The network operators as the investors need the appropriate investment schemes to tackle the challenge of electrifying the European society and economy;
- EU to support regulatory schemes that reimburse **anticipatory investments** and operational expenditure;
- Enable or enhance contracts for **risk sharing** where appropriate due to increased costs over the project execution period;
- **Move from tailor-made products to industrialised production** by significantly reducing the variety in design requests from network operators, including sustainability criteria. This will drive efficiencies right down the supply chain;
- **Small is beautiful – incentivise compact offshore platform designs.** Europe should play to its strength and leverage sustainability and resilience in electricity grids. What matters most: making offshore platform design as compact as possible. This can save up to 40% of steel and reduce platform volumes by up to 50%. The benefit to Europe's resilience: European shipyards can double the manufacturing capacity and get certified for offshore platforms more easily;

- **Compliance with European Grid Codes** – without national extra frills. European Grid Codes define the technological capabilities of grid equipment and are essential to the functioning of Europe’s internal energy market. Today’s reality is that we need to manufacture technologies that comply with 27 national implementations of European Grid codes. This is a luxury Europe cannot afford considering the speed that the energy transition needs to take. Compliance with European grid codes will have to mean that one is compliant with national grid codes and not vice-versa;
- Enable Europe based manufacturers to **leverage their global supply chains** and facilitate free trade to the extent possible;
- Analyse the extent to which existing European and national regulations enable network operators to award **long-term framework agreements** with manufacturers;
- Analyse the impact of EU policy and regulation on the EU’s ability to secure **competitive supplies of critical raw materials** needed for production of grid technologies in Europe (e.g. steel, copper, aluminium, semiconductors)
- Develop a **research and innovation agenda**, including improving sustainability of the products for the electrical grids encompassing new materials, reducing material needs and enabling circular designs, which can be implemented with the support of EU research and innovation programmes;
- Continue to develop and support **skills initiatives** to deliver the skillset and technical expertise necessary to install and maintain the electrical grid network by facilitating training, supporting labour mobility, and streamlining the administrative process for skilled non-EU third country nationals. These initiatives include EU skills partnerships for onshore and offshore grids, e.g. by funding industry initiatives or Public Private Partnerships.

We are available to discuss these points in more detail and look forward to contributing to the Grid Action Plan. For Europe’s grid sector this will be a crucial document that will set the scene for the development of European grids, the investments in industrial manufacturing and ultimately in the success of the EU Green Deal.

Brussels, 11 October 2023



**European Distribution System Operators (E.DSO) is the industrial and entrepreneurial Association of leading large Distribution System Operators (DSOs) in Europe. E.DSO promotes and enables customers empowerment and the increase in the use of clean energy sources through electrification, the development of smart and digital grid technologies in real-life situations, new market designs and regulation. E.DSO gathers 35 leading DSOs in 19 countries, serving more than 30 million customers, cooperating to ensure the reliability of Europe's electricity supply for consumers and enabling their active participation in our energy system.**

**T&D Europe represents Europe's providers of grid technology, including transformers, switchgear as well as digital and software solutions. Our members enable the energy transition to a climate-neutral Europe by 2050. Over 200,000 people in our industry manufacture, innovate and supply smart systems for the efficient transmission and distribution of electricity. Our technologies and services future-proof the grid and make clean electricity accessible to all Europeans. We put our collective expertise to work to craft a brighter, electric future. Ready for the Green Deal**