

An EU Grids Action Plan for a Just Energy Transition: EPSU and industriAll Europe joint recommendations

European trade unions in the energy and industrial sectors, represented by EPSU and industriAll Europe, call for an ambitious EU grids strategy that recognises the crucial role that workers play in the maintenance, modernisation and upgrading of Europe's electricity infrastructures. This comes with massive challenges, including economic challenges (investment trajectory, financing, budgets, pricing, etc.), national planning requirements, R&D efforts and above all investments in people to ensure a qualified and sufficient workforce, while maintaining good quality jobs at all levels (operation, maintenance, engineering, production, realization, etc.).

The access to abundant, stable and decarbonised energy at affordable prices must be a citizen's right and it is an essential good for the highly energy-intensive industry in its production processes. Therefore, ensuring an adequate grid infrastructure at scale of the EU's energy and climate targets is the essential prerequisite for a just energy transition.

We welcome the EU Grids Action Plan, with its 14 key actions, published by the European Commission in November 2023. However, we regret that while the Commission acknowledges the shortage of a qualified workforce as a real challenge, it pays little attention to the specific needs and actions to promote a qualified workforce and high quality jobs in the sector. Workers expect a coherent strategy that is backed by proactive industrial policy and an EU investment plan. Only through a coherent approach can we succeed in the energy transition that is just for workers.

The modernisation and expansion of the grid infrastructure is an essential element in fighting climate change and environmental degradation. At the same time, access to an abundant amount of decarbonised, stable and affordable electricity supply is existential to ensure a socially just green and digital transition and safeguard a strong and sustainable industrial base with high-quality jobs in Europe. A robust and well-functioning grid infrastructure must tackle the complex task of integrating more intermittent/non-dispatchable renewable electricity, electric vehicle charging infrastructures, flexibility solutions, a sustainable storage infrastructure in power grids also supported by controllable low-carbon energies.

According to the European Commission, electricity consumption is expected to increase by about 60% until 2030 to serve the growing demand linked to the electrification of many sectors (mobility, heating and cooling, industry) as well as low-carbon H2 production.

One of the challenges is therefore to integrate a growing share of intermittent renewable power and adapt grids to meet the needs of a more decentralised electricity system with greater flexibility and more complex management of the demand – consumption balance.

But our electricity grids are ageing and require urgent modernisation and development to meet new needs, by backing up the electricity infrastructure with a robust digital and telecommunications infrastructure that is resilient to cyber risks. Moreover, to promote the resilience of the EU's energy system and decrease our dependency on energy imports, our energy systems require more integration with new interconnectors.

However, the balance and resilience of the European electricity system can only be built if all the Member States contribute to the overall balance, through their 'Generation - Consumption' balance at the level of their respective territories. The maintenance or creation of controllable decarbonised electricity production capacity will also constitute a necessary point of balance for the stability of our electricity networks.

The investment needs are massive, particularly to connect new renewable energy sources. The Commission estimates that €584 billion of investments in the electricity networks are necessary until 2030. But for the energy transition to be fair and sustainable, the bill must not be borne solely by the network operators (i.e. TSOs, DSOs) and ultimately by the consumers through tariffs and levies. Much more public investment to support the grids expansion is essential.

Achieving this will require a skilled workforce and must ensure good quality jobs in all areas, from engineering to maintenance, from design to construction, from blue-collar worker to project manager. Skills shortages are already today a problem for the electricity generation and transmission industry and may become a barrier to the energy transition if not adequately addressed. To our great concern, comprehensive measures to anticipate skills needs and support adequate training are still largely missing in many countries¹.

In that context, EPSU and industriAll Europe have identified the following key requirements for the modernisation and upgrading of Europe's electricity grids:

1. Put in place an adequate industrial policy framework in support of a European energy value chain

1.1. We call for a proactive industrial policy that can facilitate the clean energy transition and high-quality jobs. We need to strengthen EU resilience and foster a European energy value chain, while keeping a strong manufacturing base in Europe. While the Green Deal Industrial Plan and the Net-Zero Industry Act have been a welcome initiative, we regret that they fall short of providing for more concrete industrial policy tools in support of a resilient energy infrastructure across Europe and high-quality jobs. The focus on state aid and the absence of a sovereignty fund risks deepening the fragmentation of Member States in terms of modernising and expanding their electricity grids.

1.2. Securing the supply chains for critical energy components and materials on a European scale is essential for enhancing energy sovereignty and reducing dependency on external sources. Drawing inspiration from the Airbus model, a European-wide strategy to develop and maintain a strong supply chain is essential. This requires European (and

¹ As noted in the Commission's recent assessment of the updated National Energy and Climate Plans: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2023%3A796%3AFIN>

international) coordination of strategies to secure raw materials as well as more circular economy through recycling, investing in local production capabilities, establishing strategic reserves, and fostering innovation in energy technology. By doing so, Europe can ensure a stable and reliable supply of essential components for its energy infrastructure, which is vital for both energy security and economic stability. In view of the scarcity and rising costs of metals, such as copper and aluminium, which are critical for building grid extensions, distributed renewable generators connections, offshore grids and interconnectors Member States should assess the associated economic and environmental costs and decide which projects to prioritise.

- 1.3. Long permitting processes are one of the major barriers to the rapid roll-out of grids. Permitting processes should be facilitated and made faster through quality public services, increased administrative capacities and funding rather than by limiting scrutiny. Permitting procedures must continue to maintain and promote the highest social, societal and environmental standards.
- 1.4. We also call for more funds for research and development programs at the European and national levels. TSOs and DSOs need to both improve existing technologies and invent new ones for enhancing grid resilience as well as workers' safety.
- 1.5. DSO's play a key role in the adaptation of the distribution network to the new energy landscape with prosumers, new habits (e.g. BEVs), demand response, smart meters, but also for data management and the IT infrastructure. DSO's needs should be taken into account in the implementation of the grids action plan.
- 1.6. New infrastructures can only be built with the consent of local communities and in cooperation with local and regional governments, as well as within the framework of state laws, including environmental regulations. Societal acceptance is key, as shown by delays in some Member States. Therefore, strong coordination and regulation based on the concepts of general interest, public services and citizenship would be an asset.
- 1.7. Investment to improve energy grid capacity is needed both within Member States and across borders, and greater cooperation is needed between both TSOs and DSOs at European level. A coordinated EU approach is required to equip the grids for the increase in production of renewable or the creation of controllable decarbonised production capacity, while respecting the prerogative of Member States to choose their national electricity mix.
- 1.8. In addition to the electrification of the energy-intensive industry, transport sector, including for commercial vehicles, must be seen as a priority in the grid development planning. The grid infrastructure planning must correspond to the EU's emission reduction targets for these sectors. This must include electricity storage at scale as well as the transport charging infrastructure deployment which must be in line with the emission reduction targets the EU has set for road transport and new vehicles. The swift roll-out of a wide network of charging stations, including for heavy-duty vehicles, as foreseen in the implementation of the Alternative Fuels Infrastructure Regulation must be seen as a minimum prerequisite and the grid development must be at the centre of

the review clauses of the CO2 standards Regulations and the related assessment reports expected from the European Commission. IndustriAll Europe and EPSU recall the importance of rail in the decarbonisation of the transport sector and stress the importance of taking into account the necessary development of rail infrastructures in the development of electricity networks².

- 1.9. Europe faces ever more frequent and intense climate emergencies. Extreme weather events are already impacting Europe's energy infrastructure and workers. Adapting infrastructure (networks and generation plants) to climate change is an absolute necessity. Therefore, climate change preparedness must therefore be included as a key element of grid development planning. Furthermore, to mitigate as much as possible the impacts of climate change, climate protection should be included as a regulatory objective of the planning of renewable or low-carbon energies and the electricity grid.
- 1.10. Investing in existing energy grids is crucial for adapting to current and future energy demands and challenges. This approach recognises that there is no universal solution, as different regions have unique needs and circumstances. Upgrading (user connections and networks to eliminate congestion) and modernising (refurbishment, reconstruction) the grid infrastructure can enhance its capacity, reliability, and efficiency. This means implementing smart grid technologies, improving resilience against climate impacts, and ensuring that the grid can handle the integration of renewable or low-carbon energy sources. By tailoring investments to the specific requirements of each region, we can achieve a more robust and adaptable energy system.
- 1.11. Limiting the need for extensive grid infrastructure can be achieved by promoting a balanced approach to energy generation and consumption at both national and regional levels, while taking into account the current regional distribution of generation capacities and large consumers. This involves developing decentralised energy systems that can generate power close to where it is consumed, thereby reducing transmission losses and grid congestion. By fostering local renewable energy projects, implementing demand response programmes, and encouraging energy efficiency measures, we can create a more balanced and sustainable energy landscape. Maintaining a safe operational margin ensures that the system remains reliable and capable of meeting demand even during peak periods or unexpected disruptions.

2. Provide adequate funding

- 2.1. In its Grids Action Plan, the EU Commission recognises that €584 billion of investment are necessary until 2030. According to the Commission, a major part of the investment has to come from the private sector. We agree that private grid operators and energy generators that have made billions in profit over the years must be required to foot part of the bill when it comes to scaling up while not forgetting those who capture value without contributing to the smooth running of energy systems – e.g. traders and

² See [IndustriAll Europe Position on the Rail industry](#)

marketers). At the same time, we highlight the need for a strong role for the public sector and public financing and the planning of the electricity grids.

- 2.2. In the context of such massive financial need, it is incomprehensible that crucial funding instruments, such as CEF Energy for cross-border projects, have been further limited in size while their scope has been expanded. We emphasise that ensuring our energy and climate targets, while making our energy systems more resilient, is a common European goal and must be backed by adequate EU funding. EU funding for energy infrastructures should also be based on technology neutrality.
- 2.3. Given the financial, geographical and operational scale of investment needed to modernise the electricity grid, an EU wide, just energy transition financial plan is necessary, using sustainable and sovereign EU funds. This plan must be directed at the common societal interest and prevent unjust, excessive profiteering and windfall profits.
- 2.4. Moreover, we need to secure more own (budgetary) resource instruments from the EU to support a coherent rollout of grids and support those Member States with fewer capacities to fund the infrastructure upgrades. We insist on the important role that the RRF has been playing in financing infrastructure projects.
- 2.5. Access to EU funding must be based on social conditionalities, focusing on social cohesion, quality employment and promotion of social dialogue. Criteria for social conditionalities, such as those set out in the NZIA, must be developed further.
- 2.6. We highlight the importance of building quality public services with the necessary administrative capacities at Member State level to access the available EU funding instruments, such as the ERDF, Cohesion Funding and the Modernisation Fund.
- 2.7. The massive investment needs in grid infrastructure are at odds with EU fiscal rules on national spending and recent plans to bring back austerity measures. To enable the necessary investments, the EU and Member States must reverse and put a stop to any further austerity measures.
- 2.8. In many Member States, investment in the transmission grid fell in previous years, due to public spending cuts. This translates into increasing electricity prices for consumers, citizens and companies, as grids are predominantly financed through tariffs significantly increasing electricity costs for citizens and companies. This means we are moving further away from the goal of affordable energy for all.
- 2.9. Exposure to the volatility of the financial markets increases investment risks. To avoid this, European subsidies and financing should be obtained from the European Investment Bank. These investments should be accompanied by measurable objectives, throughout the European supply chain in electricity transmission and distribution networks.
- 2.10. An unpredictable environment can have negative effects on investment. A stable and predictable outlook is needed for energy producers and for the construction of

electricity networks. This calls for a strong coordination between all actors in the energy infrastructure (production and grid operators) to ensure an optimum performance, economic stability and a shared long-term vision. A strictly independent European Energy Agency could fulfill this role.

- 2.11. Critical funding in research and development must be increased beyond the European commitment (3% for all sectors combined) with an aim for 5% in energy and energy efficiency.

3. Ensure a stronger role for the public sector

- 3.1. Increasing privatisation of electricity supply operation and maintenance has gone hand in hand with profiteering and underinvestment in the electricity grids. In order to avoid repeating the same mistakes, there is a need for an EU-wide analysis of the impact of deregulation of the electricity markets with a focus on working environment, pricing, and the functioning of the electricity market as a whole.
- 3.2. Private short-term financial goals are incoherent with the long-term approach required by the sector and are proving to be a handicap for reindustrialisation. Private companies, even if providing public services, are under pressure to meet financial targets. We believe that the public sector must play a much stronger role in addressing the challenges and advocate to reinforce the public service approach to a coherent grid planning and development. There is an imperative need for strong regulation if we are to succeed in the long term, with a need for planning that is managed, monitored, controlled and geared towards the general interest.
- 3.3. In addition, it is to be expected that grid expansion funded by the public sector will be significantly more favourable than private grid expansion due to the lower refinancing costs (risk premiums) and the absence of expected returns. Electricity prices could therefore decrease for everyone due to lower grid fees.
- 3.4. We call for the establishment of an independent European Energy Agency. Such an agency must act in the public interest and be strictly independent from operators, ‘economic’ stakeholders (i.e. producers, traders, aggregators, infrastructure managers.) as well as from the world of finance and rating agencies. An independent European Energy Agency could take up the responsibility of coordinating between the national authorities for the coherent planning and management of the grid infrastructure that corresponds to the ambitions of the EU climate and energy targets. This coherent management must also require a balance between supply and demand at national level (a sovereign mission for each TSO). We call for the active participation of social partners in its governance.
- 3.5. We call for Member States to develop National Plans for electricity transmission and distribution networks which provide for interconnection between countries, flexibility of the total network, mechanisms to respond to unforeseen cuts and improved response times to restore electrical connections.

- 3.6. Strict regulation for TSOs and DSOs is required to guarantee security of supply, promote the ecological sustainability of the entire energy system, and protect grid users from excessive charges.

4. Acknowledge the vital role of workers

- 4.1. A large and highly skilled workforce, equipped to carry out heavy maintenance, is required to replace old power lines, transformers, and telecontrol devices. All investment plans, whether at EU, national or company level, must anticipate and address the size and skills of the workforce required.
- 4.2. In light of the transition under way, it will be necessary to develop new, quality training pathways to match the skills needed, focusing on grid expansion and operations/maintenance where there are significant labour shortages. The opportunities for job-to-job transitions should also be explored for those workers in sectors heavily implicated by the energy transition. Re- and upskilling programmes will be vital to tap the potential from those sectors. New professions and new work tasks have emerged for energy production and for the construction of electricity networks. An appropriate education system compatible at the EU level must be created to address these needs.
- 4.3. In addition, the skills needed in the electricity industries must be taught to young Europeans as part of their school curriculum. Practical work should be set up to enable them to acquire the knowledge through their own experience. Awakenning their interest through experience of the production and transmission of electrical energy will strengthen their desire to join these industries as adults.
- 4.4. The scaling up and modernising of the grids poses new health and safety risks for the workers involved, for example, due to loss of expertise in areas such as maintenance of over-head power lines, the instability of the old infrastructure that needs to be renewed, and in light of climate change and extreme weather conditions. More recently, new health and safety risks arise from attacks on critical energy infrastructure. Additionally, specific attention to older workers, with adaption of their job missions, is crucial. This urgently requires, either at national or EU level, a plan for new health and safety risks, to be developed in social dialogue with the trade unions representatives.
- 4.5. More recently, new cyber-risks arose from geostrategic tensions, which imply the need for new jobs and new cybersecurity skills to secure both transmission and distribution grids. Responding to these risks induces additional costs borne by consumers, but there is no alternative.
- 4.6. Energy infrastructure is a strategic national asset. A valued, in-house workforce from the construction phase throughout the network's lifespan is therefore needed to maintain the continued safe supply of electricity, rather than outsourcing this vital role to workers with precarious contracts and poor working conditions.
- 4.7. The energy sector is already facing staff shortages. To address this, it will be necessary to improve the attractiveness of the sector through better working conditions,

professional development possibilities and a new status for workers, as well as more diversity at work and specific actions to increase the participation of women. Adequate staffing levels are necessary to ensure maintenance and supervision, guarantee a well-functioning electricity supply - including in times of crisis - and to prepare for the clean energy transition.

- 4.8. We emphasise the crucial role of social dialogue to ensure the attractiveness of the sector. Through collective bargaining unions, employers can secure high-quality employment and working conditions that attract new talent and untapped potentials, in particular women and workers from industries affected by the energy transition, to the sector. For that reason, collective bargaining systems and coverage must be promoted and strengthened.
- 4.9. As the pressure rises on developing new grid capacities and ensuring grid stability, as a response to increased energy demand, the need to ensure enough well skilled workers and experts capable of developing infrastructure as well as to maintain and operate the grid is as high as the infrastructure needs itself. We therefore emphasise that any skills strategy that fails to prioritise quality working conditions and decent wages for all staff (including subcontractors) is doomed to fail. Meaningful social dialogue and sectoral collective bargaining are indispensable and must therefore be included in skills strategies and in the EU Grids Action Plan.

IndustriAll Europe and EPSU emphasise that to achieve a just energy transition the European energy system cannot be built on the pure logic of profitability but must be based on strong criteria of public good, sustainability and quality. Priority must be given to reducing environmental debt rather than financial debt. Fiscal austerity and purely market-driven policies run counter to the needs of well-being of citizens and workers and to the necessary fight against climate change and environmental protection.

Crucially, to ensure the interests of workers are represented and thus improve recruitment and retention in the energy sector, trade unions must have a seat at the table, both in terms of planning and process. As the challenges faced are EU-wide, coordination between unions and a bigger role for the unions at EU level is vital.