



TEXTS ADOPTED

P10_TA(2025)0136

Electricity grids: the backbone of the EU energy system

European Parliament resolution of 19 June 2025 on electricity grids: the backbone of the EU energy system (2025/2006(INI))

The European Parliament,

- having regard to the Treaty on the Functioning of the European Union, and in particular Article 194 thereof,
- having regard to the Commission communication of 8 July 2020 entitled 'Powering a climate-neutral economy: An EU Strategy for Energy System Integration' (COM(2020)0299),
- having regard to the Commission communication of 28 November 2023 entitled 'Grids, the missing link - An EU Action Plan for Grids' (COM(2023)0757),
- having regard to the Commission report of January 2025 entitled 'Investment needs of European energy infrastructure to enable a decarbonised economy'¹,
- having regard to the Commission communication of 26 February 2025 entitled 'Action Plan for Affordable Energy - Unlocking the true value of our Energy Union to secure affordable, efficient and clean energy for all Europeans' (COM(2025)0079),
- having regard to the Commission communication of 26 February 2025 entitled 'The Clean Industrial Deal: A joint roadmap for competitiveness and decarbonisation' (COM(2025)0085),
- having regard to the Commission communication of 5 March 2025 entitled 'Industrial Action Plan for the European automotive sector'

¹ European Commission: Directorate-General for Energy, Artelys, LBST, Trinomics, Finesso, A. et al., *Investment needs of European energy infrastructure to enable a decarbonised economy - Final report*, Publications Office of the European Union, 2025.

(COM(2025)0095),

- having regard to Regulation (EU) 2021/1153 of the European Parliament and of the Council of 7 July 2021 establishing the Connecting Europe Facility and repealing Regulations (EU) No 1316/2013 and (EU) No 283/2014¹ (the CEF Regulation),
- having regard to Regulation (EU) 2022/869 of the European Parliament and of the Council of 30 May 2022 on guidelines for trans-European energy infrastructure, amending Regulations (EC) No 715/2009, (EU) 2019/942 and (EU) 2019/943 and Directives 2009/73/EC and (EU) 2019/944, and repealing Regulation (EU) No 347/2013² (the TEN-E Regulation),
- having regard to Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU³,
- having regard to Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity⁴,
- having regard to Directive (EU) 2023/2413 of the European Parliament and of the Council of 18 October 2023 amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652⁵ (the Renewable Energy Directive),
- having regard to Directive (EU) 2024/1275 of the European Parliament and of the Council of 24 April 2024 on the energy performance of buildings⁶,
- having regard to Directive (EU) 2024/1711 of the European Parliament and of the Council of 13 June 2024 amending Directives (EU) 2018/2001 and (EU) 2019/944 as regards improving the Union's

¹ OJ L 249, 14.7.2021, p. 38, [ELI: http://data.europa.eu/eli/reg/2021/1153/oj](http://data.europa.eu/eli/reg/2021/1153/oj).

² OJ L 152, 3.6.2022, p. 45, [ELI: http://data.europa.eu/eli/reg/2022/869/oj](http://data.europa.eu/eli/reg/2022/869/oj).

³ OJ L 158, 14.6.2019, p. 125, [ELI: http://data.europa.eu/eli/dir/2019/944/oj](http://data.europa.eu/eli/dir/2019/944/oj).

⁴ OJ L 158, 14.6.2019, p. 54, [ELI: http://data.europa.eu/eli/reg/2019/943/oj](http://data.europa.eu/eli/reg/2019/943/oj).

⁵ OJ L, 2023/2413, 31.10.2023, [ELI: http://data.europa.eu/eli/dir/2023/2413/oj](http://data.europa.eu/eli/dir/2023/2413/oj).

⁶ OJ L, 2024/1275, 8.5.2024, [ELI: http://data.europa.eu/eli/dir/2024/1275/oj](http://data.europa.eu/eli/dir/2024/1275/oj).

electricity market design¹,

- having regard to Regulation (EU) 2024/1747 of the European Parliament and of the Council of 13 June 2024 amending Regulations (EU) 2019/942 and (EU) 2019/943 as regards improving the Union's electricity market design² (Electricity Market Design (EMD) Regulation),
- having regard to Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council³, which reflects the EU's electricity interconnection targets,
- having regard to the Council conclusions on 'Advancing Sustainable Electricity Grid Infrastructure', as approved by the Transport, Telecommunications and Energy Council at its meeting on 30 May 2024,
- having regard to its resolution of 10 July 2020 on a comprehensive European approach to energy storage⁴,
- having regard to its resolution of 19 May 2021 on a European strategy for energy system integration⁵,
- having regard to the report of January 2023 by the EU Agency for the Cooperation of Energy Regulators (ACER) on electricity transmission and distribution tariff methodologies in Europe,
- having regard to the report of 19 December 2023 by ACER entitled 'Demand response and other distributed energy resources: what barriers are holding them back?',
- having regard to the report of April 2025 by the European Network of Transmission System Operators for Electricity (ENTSO-E) entitled

¹ OJ L, 2024/1711, 26.6.2024, [ELI: http://data.europa.eu/eli/dir/2024/1711/oj](http://data.europa.eu/eli/dir/2024/1711/oj).

² OJ L, 2024/1747, 26.6.2024, [ELI: http://data.europa.eu/eli/reg/2024/1747/oj](http://data.europa.eu/eli/reg/2024/1747/oj).

³ OJ L 328, 21.12.2018, p. 1, [ELI: http://data.europa.eu/eli/reg/2018/1999/oj](http://data.europa.eu/eli/reg/2018/1999/oj).

⁴ OJ C 371, 15.9.2021, p. 58.

⁵ OJ C 15, 12.1.2022, p. 45.

‘Bidding Zone Review of the 2025 Target Year’¹,

- having regard to Rule 55 of its Rules of Procedure,
 - having regard to the report of the Committee on Industry, Research and Energy (A10-0091/2025),
- A. whereas electricity grids are essential for the Union to achieve its clean energy transition and to deliver renewable energy while supporting economic growth and prosperity; whereas inefficiencies and lack of full integration negatively impact energy prices for consumers and companies;
- B. whereas in light of the growing demand for electricity, significant investments and upgrades are required, along with regulatory oversight, to increase cross-border and national-level transmission capacity and modernise infrastructure, ensuring a decarbonised, flexible, more decentralised, digitalised and resilient electricity system;
- C. whereas poor connectivity and grid bottlenecks are among the main reasons the EU cannot fully benefit from the significant installed capacities of wind and solar energy, thereby ensuring affordable prices for households and industry; whereas the lack of strong interconnection between regions with different natural and climatic characteristics leads to the overproduction of energy and administrative limitation on renewable production in some regions, while other regions are struggling with insufficient supply and high prices;
- D. whereas transmission system operators (TSOs) are essential for integrating offshore renewable energy into the EU grid, in particular for those connected to more than one market; whereas, if TSOs fail to provide the agreed grid capacity, compensation should be paid to developers for lost export capacity, funded by congestion income; whereas such compensation should be shared fairly among TSOs and align with principles of non-discrimination and maximising cross-border trade; whereas this highlights the importance of maintaining a functioning interconnector backbone, as failures in interconnector capacity may result in costs for both producers and TSOs;
- E. whereas Europe will only reach its decarbonisation objectives if there is a coordinated, pan-European approach to electricity system

¹ European Network of Transmission System Operators for Electricity (ENTSO-E), ‘Bidding Zone Review of the 2025 Target Year’, April 2025, https://eepublicdownloads.blob.core.windows.net/public-cdn-container/clean-documents/Network%20codes%20documents/NC%20CACM/BZR/2025/Bidding_Zone_Review_of_the_2025_Target_Year.pdf.

planning, connecting borders, sectors and regions;

- F. whereas the planning of electricity transmission and distribution networks must be coordinated to ensure the effective development of the EU electricity system;
- G. whereas the EU electricity grid was built for a 20th century economy based on centralised, fossil fuel-fired electricity generation, and must be modernised to meet the demands of a digitalised economy with increased levels of electrification and a higher share of decentralised and variable renewable energy sources;
- H. whereas cross-border interconnectors, transmission and distribution grid infrastructure are critical for integrating renewables, reducing costs for European consumers and increasing the security of energy supply;
- I. whereas distribution level grid projects are already eligible for funds under the Connecting Europe Facility – Energy (CEF-E); whereas, however, only a small share has been allocated to distribution grids under the most recent Projects of Common Interest (PCI) list; whereas CEF-E should better reflect the role of distribution grids for the achievement of EU energy and climate targets;
- J. whereas ENTSO-E has calculated that cross-border electricity investment of EUR 13 billion per year until 2050 would reduce system costs by EUR 23 billion per year;
- K. whereas the ‘energy efficiency first’ principle is a fundamental principle of EU energy policy and is legally binding; notes that the correct implementation of this principle will significantly reduce energy consumption, thereby lowering the need for investment in electricity grids and interconnectors;
- L. whereas keeping the EU energy policy triangle of sustainability, security of supply and affordability in balance is key to a successful energy transition and to a reliable European energy system;
- M. whereas energy network planning is a long-term process closely linked to investment stability;
- N. whereas energy system flexibility needs are expected to double by 2030, in light of an increased share of renewables; whereas demand-side flexibility is therefore crucial for grid stability; whereas individual citizens, businesses and communities participating in the electricity market may bring manifold benefits to the grids, such as enhanced system efficiency, resilience, investment optimisation, improved social acceptance and lower energy costs; whereas serious delays and inconsistencies in implementing existing EU provisions on citizens’ energy, demand flexibility and smart network operations remain a concern;

- O. whereas although recycling meets between 40 % and 55 % of Europe's aluminium and copper needs, further measures to extend recycling capacity, waste collection and supply chain efficiency must be considered;
- P. whereas the Commission and High Representative's joint communication entitled 'EU Action Plan on Cable Security' highlights the importance of ensuring the secure supply of spare cable parts and the stockpiling of essential material and equipment;
- Q. whereas the electricity system blackout experienced in the Iberian Peninsula and parts of France on 28 April 2025 illustrated, among other things, how important it is to increase the energy grid's resilience by ensuring that it is well maintained, protected and balanced at all times, including through flexible system services and enhanced cross-border interconnections, to allow for an agile recovery in the event of system failure;
- R. whereas national and regional level system operators hold important responsibilities, particularly in the area of energy supply security; whereas all tasks of a regulatory nature should be performed by regulatory agencies acting in the public interest; whereas, however, alongside these responsibilities, a strengthened role for regulators and ACER in the planning processes can contribute to addressing shortcomings, such as ENTSO-E's current 10-year network development plan (TYNDP) grid planning, as identified in the grid monitoring report; whereas, while acknowledging the TSOs' responsibilities in drawing up these scenarios, ACER's early involvement in the drawing-up process could help to ensure that the guidelines for the drawing-up of the scenarios are followed in accordance with the TEN-E Regulation;
- S. whereas interconnection development will contribute to further integrating the EU electricity market, which not only increases system flexibility and resilience, but also unlocks economies of scale in renewable electricity production;
- T. whereas the energy workforce will need to increase by 50 % to deploy the requisite renewable energy, grid and energy efficiency technologies¹;
- U. whereas small and medium-sized enterprises (SMEs) are the backbone of the EU's economy, entrepreneurship and innovation, comprising 99 % of businesses, providing jobs to more than 85 million EU citizens and generating more than 58 % of the EU's GDP;
- V. whereas increasing decentralised electricity generation and demand

¹ Commission communication of 5 March 2025 entitled 'The Union of Skills' (COM(2025)0090).

response are important to reduce reliance on centralised production, which may be easily targeted by physical threats or cyberthreats, or compromised by climate-related events;

1. Calls on the Member States to fully explore, optimise, modernise and expand their electricity grid capacity, including transmission and distribution; considers electricity grids to be the central element in the EU's transition to a competitive, net zero economy by 2050, one that is capable of accommodating high volumes of variable renewable energy technologies and/or evolving demand sources driven by increased levels of electrification and the advancement of digital technologies; notes the Member States' prerogative to determine their own energy mix;
2. Calls on the Commission, the Member States, ACER, EU DSO Entity¹ and ENTSO-E² to implement the actions of the EU grid action plan, the action plan for affordable energy, the reform of the EU's electricity market design and the Renewable Energy Directive without delay;
3. Points out that the completion of the EU's energy market integration will save up to EUR 40 billion annually, and that a 50 % increase in cross-border electricity trade could increase the EU's annual GDP by 0,1 %³;

Relevance of electricity grids for the European energy transition

4. Welcomes the Commission's communication on grids⁴; underlines the expected increase in electricity consumption of 60 % by 2030, the rising need to integrate a large share of variable renewable power into the grid, and the need for grids to adapt to a more decentralised, digitalised and flexible electricity system, including the optimisation of system operations and the full utilisation of local flexibility resources, demand response and energy storage solutions to complement wholesale markets and enhance grid resilience, resulting in an additional 23 GW of cross-border capacity by 2025

¹ The EU DSO Entity is a technical expert body and association of distribution system operators (DSOs) mandated by the Electricity Market Regulation ((EU) 2019/943) to promote the functioning of the electricity market and to facilitate the energy transition.

² The European Network of Transmission System Operators for Electricity (ENTSO-E) is the association for the cooperation of European transmission system operators (TSOs).

³ International Monetary Fund (IMF), IMF Staff Background Note on EU Energy Market Integration, 16 January 2025, as included in the Council background note of 17 January 2025 on EU energy market integration: <https://data.consilium.europa.eu/doc/document/ST-5438-2025-INIT/en/pdf>.

⁴ Commission communication of 28 November 2023 entitled 'Grids, the missing link - An EU Action Plan for Grids' (COM(2023)0757).

and a further 64 GW of capacity by 2030; notes that over 40 % of the Union's distribution grids are over 40 years old and need to be updated¹;

5. Reiterates that, by 2030, the Union needs to invest around EUR375 to 425 billion in distribution grids, and, overall, EUR 584 billion, in transmission and distribution electricity grids², including cross-border interconnectors and the adaptation of distribution grids to the energy transition;
6. Notes with concern that in 2023 the costs of managing transmission electricity grid congestion in the EU were EUR 4,2 billion³ and continue to rise, and that curtailment is an obstacle to increasing the share of renewable energy sources; notes that this figure does not include the distribution electricity grid; stresses that in 2023 nearly 30 TWh of renewable electricity were curtailed across several Member States due to insufficient grid capacity; further notes the sharp increase in annual hours of negative electricity prices, rising from 154 in 2018 to 1 031 as of September 2024⁴, largely driven by grid congestion at borders, and the lack of sufficient storage, flexibility and demand response in the electricity market to temporally match variable renewable electricity supply with electricity demand; stresses that addressing these issues could help to absorb surplus supply, thereby maximising the use of existing grid infrastructure, but that existing market and regulatory frameworks often fail to provide adequate incentives for achieving this;
7. Highlights that a failure to modernise and expand the EU's electricity grid, alongside the rapid deployment of the high volumes of variable renewable energy required to deliver on its targets, has and will continue to result in high levels of dispatch-down (instructions to reduce output); believes that the dispatch-down of renewables, caused by grid congestion and curtailment, represents an unacceptable waste of high-value renewable electricity and money; calls on the Commission, as part of its forthcoming European Grids Package, to set out an EU strategy to vastly reduce the dispatch-down of renewable electricity;
8. Highlights the role of smart grids in improving congestion management and optimising the electricity distribution of renewables; stresses their contribution to network flexibility by integrating digital tools that facilitate demand-side response and collective self-consumption; underlines that better grid management

¹ *ibid.*

² *ibid.*

³ ACER 2024 Market Monitoring Report, 'Transmission capacities for cross-zonal trade of electricity and congestion management in the EU', 3 July 2024.

⁴ ACER 2024 Market Monitoring Report, 'Key developments in EU electricity wholesale markets', 20 March 2024.

enhances energy resilience, reduces curtailments and secures supply during peak demand periods;

9. Highlights that the electricity grid infrastructure is a priority for achieving the EU's strategic autonomy and its climate and energy targets; notes the Clean Industrial Deal's commitment to electrification with a key performance indicator of a 32 % economy-wide electrification rate by 2030, which would necessitate a significant and continuous update and deployment of grids; regrets that delays in responding to requests for connection to grids result in a slower pace of electrification, even in Member States where generation from renewables is rapidly increasing;
10. Highlights, in particular, the crucial role that energy communities can play in supporting local economies; regrets that energy communities and smaller operators face disproportionate barriers to grid access and grid funding access due to regulatory hurdles and resource constraints; calls, therefore, on the Member States that are lagging behind in this regard to fully implement the Clean Energy Package, Fit for 55 and Renewable Energy Directive provisions, empowering citizens, municipalities, SMEs and companies to actively participate in the electricity market, in particular by developing enabling frameworks for renewable energy communities and the promotion of energy-sharing schemes; calls for grid-related EU and national level funding to take into account the specific needs of projects promoted by energy communities;

Regulatory situation and challenges

11. Is convinced that regulatory stability is a key condition for unlocking private investments in the electricity grid and, where feasible, enabling the affordable electrification of the EU's economy, and reiterates the need to implement already adopted legislation before assessing potential new reviews;
12. Underlines that integrated grid planning across sectors at local, regional, national and EU levels will lead to increased system efficiency and reduced costs; calls, therefore, on the Commission and on the Member States to work towards integrated planning and to ensure that electricity network development plans are aligned with the 2021-2030 national energy and climate plans (NECPs) for all voltage levels; notes that a strengthened governance framework would help to ensure alignment between grid development plans and national and EU level policy objectives; recognises that, while the Member States are required to report on their contributions to EU targets through the NECPs, there is currently no equivalent obligation on TSOs to systematically report at EU level;
13. Underlines that the TEN-E Regulation and the Projects of Common Interest (PCI) and Projects of Mutual Interest (PMI) are powerful

tools in the development of the Union's cross-border energy infrastructure; regrets the shortcomings in the current TYNDP for European electricity infrastructure, which results in investment interests falling short of cross-border needs¹, and that grid planning does not fully leverage cross-border and cross-sectoral savings²; further regrets delays regarding to the completion of PCIs; urges the Commission to introduce more coordinated, long-term cross-sectoral planning to deliver the related savings and benefits across the EU; highlights that such coordinated planning could better inform cost sharing of infrastructure across the Member States; notes that, although the TEN-E Regulation enables smart electricity grid projects with a cross-border impact to obtain PCI status, even if such projects do not cross a physical border, the PCI list in 2023 included only five such projects; strongly believes, therefore, that the PCI process needs to be strengthened, simplified and streamlined for more clarity and transparency; calls on the Member States to fully complete the PCIs; calls on the Commission to urgently propose a targeted revision of the TEN-E Regulation in order to (1) introduce a robust planning process that combines system operators' responsibilities with a strengthened role for ACER by mandating ACER to request amendments to the scenarios and the TYNDP, (2) ensure scenarios are drawn up in line with the decarbonisation agenda and enable easier access for smart electricity grid projects, and (3) introduce a simplified application process for small and medium-sized distribution system operators (DSOs);

14. Emphasises that network planning is a long-term process closely linked to investment stability; proposes, therefore, extending the time frame for network development plans to 20 years; highlights that grid investment is urgently required by the EU's competitive agenda and should not be delayed;
15. Additionally notes that the EU will continue to have strong electricity links with its neighbouring countries and therefore believes the Commission should enhance such cooperation with neighbouring countries through PMIs with non-EU countries, as provided for in the TEN-E Regulation;
16. Strongly emphasises that CEF-E has proven to be the crucial instrument for co-financing cross-border energy infrastructure and insists on its continuation; welcomes the inclusion of offshore electricity grid projects in the Commission's most recent allocation of grants under CEF-E;
17. Considers the lack of detailed, reliable and comparable data on

¹ ACER 2024 Monitoring Report, 'Electricity Infrastructure development to support a competitive and sustainable energy system', 16 December 2024, p. 17.

² *ibid.*

national and EU grid planning an obstacle to more efficient grids; calls therefore on the Member States to thoroughly implement the relevant provision in the Electricity Directive¹, in particular Article 32, and to encourage smaller DSOs to apply this Article's provision;

18. Welcomes the EU DSO Entity's report on good practices on Distribution Network Development Plans² (DNDPs), which calls on the Member States to include cost-benefit analyses in their DNDPs, in order to evaluate investment opportunities; urges the Commission to develop guidelines based on this report, in cooperation with the EU DSO Entity, to harmonise and increase transparency of national development planning for distribution grids, to publish a European overview of the DNDPs and to require all transmission and distribution operators to provide energy regulators with the necessary data about their current and future grid hosting capacity information and grid planning, to enable energy regulators to properly scrutinise grid planning; calls on the Member States to implement Article 31(3) of Directive (EU) 2024/1711, which requests grid operators to publish information on the capacity available in their area of operation, in order to ensure transparency and enable stakeholders to make informed investment decisions; calls on the Commission to develop a centralised online repository for all transmission plans and DNDPs;
19. Highlights the significant risk posed by curtailment to the viability of renewable energy investment, especially considering that many Member States fail to compensate market participants for curtailed electricity volumes, despite the requirements set out in Articles 12 and 13 of Regulation (EU) 2019/943; regrets the lack of transparency, availability and data granularity regarding curtailed renewable energy volumes and congestion management costs;
20. Highlights the value of putting clear metrics in place to measure whether the EU is on track to deliver the grid expansion and reinforcements needed to meet its 2050 objectives; notes that such metrics could include reductions in renewable energy curtailment, lower grid development costs relative to the amount of capacity delivered, increases in the efficient use of existing infrastructure, a reduction in losses and lower raw material intensity;
21. Notes the work done by ENTSO-E and the EU DSO Entity on harmonised definitions of available grid hosting capacity for system operators and to establish an Union-wide overview thereof; believes

¹ Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU (OJ L 158, 14.6.2019, p. 125, ELI: <http://data.europa.eu/eli/dir/2019/944/oj>).

² EU DSO Entity, 'DSO Entity's identified good practices on Distribution Network Development Plans', 1 July 2024.

that national regulatory authorities (NRAs) could benefit from clear legislative provisions as to how Member States can prioritise grid connections, so as to abandon the ‘first-come, first-served’ principle; therefore asks the Commission to amend Article 6 of Directive (EU) 2019/944 on the internal market for electricity, as part of the implementation review that the Commission must complete by 31 December 2025, and to consequently introduce transparent priority connection criteria to be chosen and further defined by the Member States for (1) generation connection, such as quality and maturity of the project, level of commitment, contribution to decarbonisation, social value, and for (2) consumer connection, such as quality and maturity of the project, level of commitment, contribution to decarbonisation, public interest or its strategic and/or social value, and grid optimisation; calls on the NRAs and the Member States to provide clear prioritisation rules according to their local and national specificities to allow the ‘first-come, first-served’ approach to be abandoned by disincentivising applications for connection that are not substantiated by a solid project, that are speculative or where the developer cannot show sufficient commitment to the realisation of a project;

22. Underlines that improved cross-border interconnections offer substantial cost-saving potential at the system level, with annual reductions in generation costs estimated at EUR 9 billion up to 2040, while requiring annual investments of EUR 6 billion in cross-border infrastructure and storage capacity;
23. Regrets that some Member States did not achieve the 10% interconnection target by 2020 and urges them to strive to achieve the current 15% interconnection target for 2030, as set out in Regulation (EU) 2018/1999, since interconnection capacity is crucial for the functioning of the EU’s internal electricity market, leading to significant cost savings at system level and decreasing generation costs by EUR 9 billion annually to 2040¹; regrets that the 32 GW of cross-border capacity needed by 2030 remains unaddressed²; deplores the delays and uncertainties regarding several interconnection projects; calls, therefore, on the Commission to propose, by June 2026 at the latest, a binding interconnection target for 2036 based on a needs assessment; stresses the need for cooperation with non-hosting Member States and for the EU and its neighbouring countries to be involved in negotiations, in order to ensure the projects’ finalisation;
24. Highlights the need to accelerate permitting procedures for

¹ ACER 2024 Monitoring Report, ‘Electricity Infrastructure development to support a competitive and sustainable energy system’, 16 December 2024.

² Commission communication of 28 November 2023 entitled ‘Grids, the missing link - An EU Action Plan for Grids’ (COM(2023)0757).

electricity infrastructure; stresses that grid expansion should not be delayed by lengthy permitting procedures or excessive reporting requirements; therefore welcomes the positive progress made regarding provisions adopted in the latest revision of the Renewable Energy Directive, specifically Article 16f thereof, and the Emergency Regulation on Permitting¹ to accelerate, streamline and simplify permit-granting procedures for grid and renewable energy projects, especially the principle of public overriding interest for grid projects; notes, however, that some of the Member States have not seen a material improvement in project permitting timelines, despite the ambitious frameworks set out at EU level; therefore urges the Member States to implement these measures without delay and calls on the Commission to closely monitor the implementation of the Renewable Energy Directive, and regularly assess if revised permitting provisions are sufficient to deliver on the EU's objectives; additionally calls on the Commission to set out guidelines for the Member States to include a principle of tacit approval in their national planning systems, as described in Article 16a of the Renewable Energy Directive; stresses that reinforcing administrative capacity, including through adequate staffing of planning and permitting authorities, will accelerate permitting procedures;

25. Encourages the Member States to draw up plans to designate dedicated infrastructure areas for grid projects, as outlined in Article 15e of the Renewable Energy Directive; stresses that such plans are essential to account for local specificities and ensure respect for protected areas; emphasises that these plans should be closely coordinated with the designation of acceleration areas for renewables, to ensure a streamlined, efficient and integrated approach to energy infrastructure development;
26. Notes that often documents need to be submitted in paper form; calls on the Member States to increase the digitalisation of these processes in order to accelerate permitting procedures; calls on the Commission and the Member States to revise all EU legislation relevant to permitting, such as the Environmental Impact Assessment Directive², with a view to introducing mandatory digital application, submission and processing requirements;
27. Highlights the importance of public acceptance and public engagement when developing new grid projects and calls on the Commission to develop a set of best practices to be shared among

¹ Council Regulation (EU) 2022/2577 of 22 December 2022 laying down a framework to accelerate the deployment of renewable energy (OJ L 335, 29.12.2022, p. 36, [ELI: http://data.europa.eu/eli/reg/2022/2577/oj](http://data.europa.eu/eli/reg/2022/2577/oj)).

² Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (OJ L 26, 28.1.2012, p. 1, [ELI: http://data.europa.eu/eli/dir/2011/92/oj](http://data.europa.eu/eli/dir/2011/92/oj)).

the Member States in this regard; highlights the critical importance of effective communication with citizens and communities regarding grid projects and reinforcement; notes that local-level support can help to accelerate the delivery of critical infrastructure and thus meet national and EU level objectives; urges the swift implementation of the EU's pact for engagement with the electricity sector and coordination with national signatories (TSOs, DSOs, NRAs) to guarantee early, meaningful and regular public participation in grid projects;

28. Calls for the convening of a TAIEX¹ Group on Permitting within the forthcoming European Grids Package to support the Member States in addressing administrative bottlenecks, enhancing regulatory capacity and accelerating project approvals through the sharing of best practices and cross-border coordination;
29. Welcomes the initiatives announced under the Action Plan for Affordable Energy; recommends that the Commission extend the 'tripartite contract for affordable energy for Europe's industry' to smaller energy producers, including energy communities, SMEs and businesses, leveraging flexibility and demand response, and link the outcome of these cooperation structures with grid planning processes at national and EU level, in order to optimise planning, investment and grid utilisation from the outset;
30. Highlights the need for improvements to be made to the public procurement framework, in order to tackle the challenges to grid operators regarding supply chains; therefore welcomes the Commission communication on the Clean Industrial Deal and the announcement by the Commission of a forthcoming review of the Public Procurement Directives²; stresses public procurement's potential for the continued development of a strong EU manufacturing supply chain for electricity grid equipment, software and services; encourages the Commission to promote resilience, sustainability and security in public procurement procedures for grid operators; advocates for greater consistency between EU regulations on public procurement; calls on the Commission to adapt EU rules on public procurement with a view to harmonising and simplifying functional tendering specifications, in order to ramp up the production capacities of grid components;
31. Believes that adequate standardisation and common technical

¹ TAIEX is the Technical Assistance and Information Exchange instrument of the Commission. It supports public administrations with regard to the transposition, implementation and enforcement of EU legislation as well as facilitating the sharing of EU best practices.

² Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC (OJ L 94, 28.3.2014, p. 65, ELI: <http://data.europa.eu/eli/dir/2014/24/oj>).

specifications are necessary for achieving economies of scale, and to speed up technological development; considers, additionally, that it is essential to ensure the right level of standardisation so that manufacturers' capacity to innovate is not reduced;

32. Reiterates the need to consider new business models between equipment manufacturers and operators, such as long-term framework agreements that encourage the shift from one-off 'grid projects' to sustained and structured 'grid programmes', which result in more predictable planning for grid technology manufacturers; calls for the streamlining of tendering processes for the provision of grid equipment and services;
33. Stresses that this forthcoming revision of the Public Procurement Directives will allow the inclusion of sustainability, resilience and European preference criteria in EU public procurement processes for strategic sectors, in line with the provisions set out in Article 25 of Regulation (EU) 2024/1735¹; calls for grids and related technologies to be explicitly recognised as strategic sectors, to ensure their eligibility under the revised framework; underlines that strengthening European preference in public procurement processes is essential for reducing the EU's dependence on non-EU suppliers, enhancing supply chain security, and fostering a resilient EU industrial base capable of supporting the energy transition; welcomes the introduction by the European Investment Bank (EIB) of a 'Grids Manufacturing Package' to support the European supply chain with at least EUR 1,5 billion in counter-guarantees for grid component manufacturers; calls for further similar financial instruments to be developed to provide long-term investment certainty and to accelerate the scaling-up of European production capacity;

Financing

34. Notes that over the past five years, global investment in power capacity has increased by nearly 40 %, while investment in grid infrastructure has lagged behind; notes that estimates of investment that the EU will need to make in its grid over the 2025-2050 period range from EUR 1 950 billion to EUR 2 600 billion²;
35. Observes with concern that the budget allocated under CEF-E has

¹ 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 (OJ L, 2024/1735, 28.6.2024, ELI: <http://data.europa.eu/eli/reg/2024/1735/oj>).

² ACER 2024 Monitoring Report, 'Electricity Infrastructure development to support a competitive and sustainable energy system', 16 December 2024, p. 30.

been insufficient to expedite all PCI and PMI categories; notes that with a EUR 5,84 billion budget for 2021-2027, the programme has restricted capacity and may struggle to keep pace with investment needs; calls on the Commission and the Member States to significantly increase the CEF-E envelope and the percentage of CEF-E funds dedicated to electricity infrastructure as a separate adequate resource, when proposing the next multiannual financial framework (MFF), and to ensure that projects both at the distribution and at the transmission levels with an EU added value are eligible for budget allocated under CEF-E; encourages the Commission to further explore co-financing possibilities between CEF-E and the Renewable Energy Financing Mechanism;

36. States that EU funding is predominantly allocated to transmission grids with relatively insignificant allocations to distribution grids, despite their significant role in the EU energy transition, demonstrated by the fact that, between 2014 and 2020, CEF-E funded around EUR 5,3 billion worth of projects, of which around EUR 1,7 billion went to transmission grids and EUR 237 million to smart distribution grids; notes that the last PCI list only contained five smart electricity projects;
37. Deeply regrets that, whereas regional funds such as the Cohesion Fund, the European Regional Development Fund or the Recovery and Resilience Facility provide for grid investments in principle, in practice they are underutilised for grid projects; regrets also that the evaluation criteria applied to the assessment of projects submitted in response to the EU Innovation Fund's calls for proposals prevent funding for the demonstration and manufacturing of grid technologies; calls on the Commission and the Member States to ensure that a proportionate amount of such funding is also spent on grid investment;
38. Calls on the Member States to simplify access to the EU funds managed by the Member States for grid operators, for instance through the establishment of a one-stop-shop in those Member States in which a large share of DSOs are of a small or medium size;
39. Calls on the Commission to propose a dedicated funding instrument, such as one based on revenues from the market-based emission reduction scheme, to allow the Member States to support decentralised and innovative grid projects with a clear EU added value, including smaller projects, ensuring its effective use by the Member States for these purposes;
40. Emphasises the need for regulatory frameworks to attract private investment and ensure cost-reflective tariffs, in addition to public funding mechanisms;
41. Is convinced that anticipatory investments and forward-looking

investments will help to address grid bottlenecks and prevent curtailment; points out that the EMD Regulation sets out regulatory elements for anticipatory investments but lacks a harmonised definition and implementation across the Union; calls on the Member States to swiftly implement the aforementioned provisions of the EMD Regulation and remove national legal barriers, on NRAs to remove barriers as regards regulatory incentives and disincentives, and on the Commission to urgently provide guidance regarding the approval of anticipatory investments, as announced in its Action Plan for Grids¹; believes that further harmonisation in this respect might be beneficial; calls for detailed cost-benefit analyses and scenario-based planning to assess the likelihood of future utilisation, and recommends a two-step approval process for projects with a higher risk level by first approving smaller budgets for studies or planning, followed by a second approval for the more costly steps, in order to reduce the risk of stranded assets;

42. Acknowledges that grid investments from capital markets can be incentivised by providing market-oriented conditions, such as suitable rates of return and a robust regulatory framework; emphasises that the EU and the Member States should encourage private investments by providing risk mitigation tools or Member State guarantees; calls on the Commission and the EIB to further strengthen financing and de-risking initiatives and tools, such as counter-guarantees, to support additional electricity grid expansion and modernisation at affordable rates for system operators; emphasises the relevance of ensuring that the EU's electricity grid is financed and therefore owned by public and private capital only from EU actors, or previously screened non-EU investors, in view of the criticality of the infrastructure;
43. Underlines that, while investment decisions should be guided by efficiencies, including energy and cost efficiency, investments should not only be focused on capital expenditure, and that investments optimising, renewing and modernising the existing infrastructure should be equally considered; therefore welcomes Article 18 of the EMD Regulation, which calls for tariff methodologies to give equal consideration to capital and operational expenditure, and remunerate operators to increase efficiencies in the operation and development of their networks, including through energy efficiency, flexibility and digitalisation; calls on the Commission and the Member States to thoroughly implement its provisions and to focus on ensuring fair and timely compensation to system operators for the costs borne by them;
44. Notes that the electrification of the EU economy, where technically and economically feasible, would help to drive down network tariffs

¹ Commission communication of 28 November 2023 entitled 'Grids, the missing link - An EU Action Plan for Grids' (COM(2023)0757).

by spreading the costs across a wider range of users; highlights, therefore, the importance of ensuring that the development of the future network is fully aligned with demand projections driven by increases in the level of electrification; is concerned by experts' forecasts of network tariff increases of around 50% to 100% by 2050¹; stresses, therefore, the need for instruments and incentives that support grid operators in efficiently managing available grid capacity, including through procuring flexibility services, with a view to reducing imminent grid investment needs; highlights that flexible connection agreements, flexible network tariffs and local flexibility markets contribute to grid efficiency; invites NRAs to promote these flexible tariffs that allow consumers to easily react to price signals while shielding vulnerable households and businesses from price peaks; calls on the Commission and the Member States to actively address bottlenecks in tariffs, connection fees and regulations to facilitate cross-border and offshore hybrid grid investment;

45. Calls on the Member States to implement the relevant EU legal framework to unlock demand-side flexibility by accelerating the deployment of smart meters, enabling access to data from all metering devices and ensuring efficient price signals, to allow industries and households to optimise their consumption and reduce their electricity bills, and at the same time help reduce operational costs and the need for additional grid investment;
46. Stresses that the relaxation of network tariffs and certain charges, which could have the effect of lowering electricity prices, as proposed in the Affordable Energy Action Plan, has to be accompanied by a plan to replace the sources of the funds needed for grid investment with alternatives, in order to avoid facing underinvestment of the grids in the future;
47. Highlights the importance of minimising the additional costs on consumers' bills resulting from the investments required to deliver the grid modernisation and expansion needed to meet the EU's climate and competitiveness goals; asks the Commission to work with the Member States to develop a coordinated set of best practices for investments and equitable network tariff composition, with a strong emphasis on increasing transparency and removing non-energy related charges from the tariffs;
48. Points out that transmission infrastructure and availability of cross-zonal capacities are vital for an integrated market and for the exchange of low-marginal cost renewable energies, while respecting system security; notes that the EMD Regulation sets a minimum 70 % target of capacities available for cross-zonal trade by 2025 but

¹ ACER 2024 Monitoring Report, 'Electricity Infrastructure development to support a competitive and sustainable energy system', op. cit.

Member States are far from reaching it; therefore urges the Member States and their TSOs to speed up their efforts to maximise cross-zonal trading opportunities, to ensure an efficient internal electricity market, appropriate investment decisions and renewable energy integration; regrets that achieving this target has often resulted in re-dispatch costs; notes that existing cost sharing mechanisms, such as cross-border cost allocation (CBCA), inter-transmission system operator (TSO) compensation and re-dispatching cost sharing, are limited and difficult to implement, which does not encourage cross-border investments, such as in offshore grids; calls on the Commission to holistically review and improve these mechanisms to ensure that they reflect the shared benefits of infrastructure and address the diversity of electricity flows, whether internal or cross-border, including a fair and balanced cost-benefit sharing mechanism for cross-border infrastructure projects that is based on objective criteria;

49. Takes note of the report of April 2025 by ENTSO-E on potential alternative bidding zone configurations based on location marginal pricing simulations provided by TSOs;

Grid-enhancing technologies, digitalisation, innovative solutions and resilience

50. Underlines that grid-enhancing technologies, digital solutions, ancillary services and data management technologies, as well as smart energy appliances, often leveraging artificial intelligence, can significantly increase the efficiency of existing grid capacities and maximise the use of existing assets, reducing the requirement for new infrastructure, for instance by providing real-time information on energy flows; therefore insists that these technologies and innovative solutions must be explored; urges NRAs to incentivise TSOs and DSOs to rely more on such technologies, weighing up the costs and benefits of their use versus grid expansion and by using remuneration schemes based on benefits rather than costs, and to benchmark the TSOs and DSOs on their uptake of such technologies; invites the Commission to further promote such innovative technologies when assessing projects that apply for EU funding;
51. Welcomes the work accomplished by ENTSO-E and the EU DSO Entity in developing the TSO/DSO Technopedia¹ so far, and calls on the Commission to mandate the biannual updating of the Technopedia to accurately reflect the technology readiness levels (TRLs) of technologies included;
52. Urges the Commission and the Member States to further enable and

¹ EU DSO Entity, 'Implementation of Action 7 in the EU Action Plan for Grids: DSO/TSO Technopedia, ENTSO-E & DSO Entity', 18 December 2024.

increase the digitalisation of the European electricity system, enabling the optimisation of the operation of its power system and reducing pressure on the supply chain; underlines that data sharing and data interoperability are essential for grid planning and optimisation; encourages the Member States, the NRAs, the EU DSO Entity and ACER to continue to accelerate their work on the monitoring system based on indicators measuring the performance of smart grids ('smart grid indicators'), as set out in the Electricity Directive;

53. Stresses the urgent need to enhance the security of critical electricity infrastructure, including interconnectors and subsea cables at risk of sabotage, and increase its resilience to extreme weather events, climate change and physical and digital attacks; highlights the need to strengthen cooperation at national, regional and EU levels;
54. Stresses the growing risk of coordinated cyberattacks targeting the EU's entire electricity network; recalls the importance of the rapid implementation of cybersecurity and other related network codes and the related legislation, such as the NIS 2 Directive¹ and the Cybersecurity Act², and encourages the Commission to correct, in upcoming legislative reviews, the status of physical grid equipment, including remotely controllable grid equipment, such as inverters, which is currently not held to a high enough cybersecurity standard, especially in cases where the manufacturer is required, under the jurisdiction of a non-EU country, to report information on software or hardware vulnerabilities to the authorities of that non-EU country; calls for enhanced EU level cooperation between all parties to strengthen preparedness and resilience; considers that NRAs should acknowledge the costs incurred by operators in adopting cybersecurity and resilience measures, and provide incentives for investments pertaining to increasing the resilience of the energy infrastructure to cyberthreats, and physical and hybrid threats, including climate adaptation measures;
55. Underlines the need to step up efforts to protect existing and future critical undersea and onshore energy infrastructure; considers that

¹ Directive (EU) 2022/2555 of the European Parliament and of the Council of 14 December 2022 on measures for a high common level of cybersecurity across the Union, amending Regulation (EU) No 910/2014 and Directive (EU) 2018/1972, and repealing Directive (EU) 2016/1148 (NIS 2 Directive) (OJ L 333, 27.12.2022, p. 80, ELI: <http://data.europa.eu/eli/dir/2022/2555/oj>).

² Regulation (EU) 2019/881 of the European Parliament and of the Council of 17 April 2019 on ENISA (the European Union Agency for Cybersecurity) and on information and communications technology cybersecurity certification and repealing Regulation (EU) No 526/2013 (Cybersecurity Act) (OJ L 151, 7.6.2019, p. 15, ELI: <http://data.europa.eu/eli/reg/2019/881/oj>).

the EU should play a broader role in preventing incidents that threaten this infrastructure, in promoting surveillance and in restoring any damaged infrastructure using state of the art technologies; calls on the Commission and the Member States to find solutions to increase the protection and resilience of critical infrastructure, including solutions to financing such measures and technologies;

56. Recognises that new high-voltage electricity grid projects provide a multifunctional and cost-efficient opportunity to integrate additional security measures (i.e. sensors, sonar, etc.) and environmental solutions (i.e. bird deflectors, fire detectors, nature corridors, etc.) if planned in a holistic manner; asks the Commission to develop guidelines for NRAs to ensure that initial grid project planning is carried out and financed with these elements in mind;
57. Urges the Commission, DSOs and TSOs to develop an EU-owned Common European Energy Data Space, based on technical expertise and practice utilising the available data¹ and based on a common set of rules ensuring the secure, transparent portability and interoperability of energy data, where harmonised data is safely managed, exchanged and stored in the EU; stresses that this Common European Energy Data Space should facilitate data pooling and sharing through appropriate governance structures and data sharing services, supporting critical energy operations including transmission and distribution; underlines that European TSOs, DSOs and other previously screened electricity grid actors must be able to securely and smartly operate the grid, optimising its use by integrating flexibility and innovative technologies, in line with key principles of interoperability, trust, data value and governance; notes that data exchange arrangements must also take into account interactions with non-EU parties;
58. Recognises the potential of flexibility as a necessary tool for optimising system operations, maintaining the stability of the system and empowering consumers by incentivising them to shift their consumption patterns; stresses the importance of implementing appropriate measures to guarantee efficient price signals that incentivise flexibility, including from all end-consumers, and ensuring that all resources contribute to system security, including by accelerating the deployment of smart meters, smart energy-efficient buildings, and enabling access to data from all metering devices; asks NRAs to recognise flexibility innovations and pilot

¹ European Commission: Directorate-General for Energy, Fraunhofer Institute for Systems and Innovation Research ISI, Guidehouse, McKinsey & Company, TNO, Trinomics, Utrecht University, Berkhout, V., Villeviere, C., Bergsträsser, J., Klobasa, M., Regeczi, D., Dognini, A., Singh, M., Stornebrink, M., Hülsewig, T., Seigeot, V., Lenzmann, F., Breitschopf, B., *Common European Energy Data Space*, Publications Office of the European Union, 2023.

projects in the system, insofar as these do not negatively impact the grid's overall balance and stability, in order to continue incentivising innovation;

59. Calls on NRAs to work closely with TSOs and DSOs to assess the flexibility potential, and needs of the national systems in current and future planning, taking into consideration the presence of industry, large consumers, large generators and storage; highlights in particular the critical role that storage assets, including long-duration electricity storage, capable of providing up to 100 hours of electricity, can play in providing congestion management services to the grid; notes that in order to provide these essential system services, investors in storage assets require stable, long-term revenue models, similar to the way in which support schemes have successfully provided revenue certainty for renewable generation assets;

Supply chain, raw materials and the need for skills

60. Notes with concern that global growth in the demand for grid technologies has put pressure on supply chains and the availability of cables, transformers, components and critical technologies; highlights the findings in the February 2025 International Energy Agency report, 'Building the Future Transmission Grid'¹, that it now takes two to three years to procure cables and up to four years to secure large power transformers, and that average lead times for cables and large power transformers have almost doubled since 2021;
61. Is concerned about the long lead times for many grid technology components and remains determined to maintain European technology leadership in grid technology, emphasising the need for innovation to develop, demonstrate and scale European high-capacity grid technologies and innovative grid-enhancing technologies;
62. Stresses that critical and strategic raw materials are essential for grid infrastructure, with aluminium and copper demand set to rise by 33 % and 35 % respectively by 2050²; takes note of the Commission decision recognising certain critical raw materials projects as

¹ International Energy Agency, 'Building the Future Transmission Grid – Strategies to navigate supply chain challenges', February 2025, <https://iea.blob.core.windows.net/assets/a688d0f5-a100-447f-91a1-50b7b0d8eaa1/BuildingtheFutureTransmissionGrid.pdf>.

² KU Leuven, Eurometaux, 'Study quantifies metal supplies needed to reach EU's climate neutrality goal', 25 April 2022, <https://www.eurometaux.eu/media/hxdhepyp/press-release-study-quantifies-metal-supplies-needed-to-reach-eu-s-climate-neutrality-goal.pdf>.

strategic projects under the Critical Raw Materials Act¹, in order to secure access to these key materials and diversify sources of supply; calls on the Commission and the Member States to enhance recycling, and support strategic partnerships and trade agreements to this end;

63. Highlights the need to strengthen grid supply chains to increase the supply of grid technologies at affordable costs, and thereby limit the costs borne by consumers via network charges; calls for a strategic approach to acquiring energy technologies, components or critical materials related to grids, in order to avoid developing dependencies on single suppliers outside of the EU;
64. Believes that holistic, coordinated, long-term grid planning across the entire European energy system is needed to solve the supply chain capacity bottleneck, and that such planning provides manufacturers with essential transparency and predictability for adequately planning manufacturing capacity increases; considers that such planning must be reliable and enable new business models, such as long-term framework agreements and capacity reservation contracts;
65. Urges the maximum standardisation of key electricity grid equipment, insofar as is technically possible, via a joint technical assessment by the Commission, DSOs, TSOs and industry, covering all voltage levels in order to scale up production, lower prices and delivery times, and promote the interoperability of systems;
66. Stresses the urgent need to address labour shortages in the energy sector; notes that the Commission has projected that the energy workforce needs to significantly increase in order to deploy renewable energies, upgrade and expand grids, and manufacture energy efficiency, grid and other relevant technologies; regrets the shortages of electrical mechanics and fitters reported in 15 of the Member States, increasing the staffing needs of DSOs and TSOs; highlights that the energy workforce must grow by 50 % by 2030 to support the deployment of renewables², grid expansion and energy efficiency, with an estimated 2 million additional jobs required in electricity distribution by 2050; calls for training, upskilling and reskilling initiatives, prioritising grid-related skills to close skills gaps; welcomes university-business partnerships and targeted EU skills academies for strategic sectors, including grids; encourages

¹ Regulation (EU) 2024/1252 of the European Parliament and of the Council of 11 April 2024 establishing a framework for ensuring a secure and sustainable supply of critical raw materials and amending Regulations (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1724 and (EU) 2019/1020 (OJ L, 2024/1252, 3.5.2024, ELI: <http://data.europa.eu/eli/reg/2024/1252/oj>).

² Commission communication of 5 March 2025 entitled 'The Union of Skills' (COM(2025)0090).

DSOs and TSOs to diversify their workforce, including by increasing women's participation;

67. Reiterates that the Member States and the EU should cooperate to adapt the relevant skills programmes and develop best practices to fulfil the growing skills demand across all educational levels, with a strong emphasis on encouraging gender balance in the sector;
68. Highlights the crucial role of SMEs and EU businesses in supplying the technology sector for the electricity grid; points out the need to access affordable electrification, limiting the costs related to the supply chain and ensuring a skilled workforce;

Offshore

69. Acknowledges the strategic relevance of offshore development in delivering the EU's objectives of energy autonomy, increased use of renewable energy, a resilient and cost-effective electricity system and climate neutrality by 2050; stresses the importance of fully utilising the potential of Europe's five sea basins for offshore energy generation; highlights the particular significance of the North Seas (covering the geographical area of the North Seas, including the Irish and Celtic Seas), which offer favourable conditions and the highest potential, with an agreed target of 300 GW of installed offshore generation capacity by 2050 within the framework of the North Seas Energy Cooperation; welcomes the progress made in this regard; emphasises the need to develop a meshed offshore grid, including hybrid interconnectors, particularly in the North Seas, to fully harness offshore potential and improve electricity market integration; calls on the Commission and the Member States to strengthen regional cooperation on grid planning and energy cooperation across all sea basins with the EU's neighbouring countries, in particular the UK and Norway, specifically in offshore wind energy development and the planning and manufacturing of electricity grids;
70. Highlights the need for a stable and predictable regulatory framework that ensures the most optimal trading arrangements to provide the required investor confidence to support the development and interconnection of offshore grid and offshore wind projects, ensuring market efficiency and efficient cross-border flows, including with non-EU countries; underlines the necessity of strengthening national grids where required to maximise the benefits of offshore energy; acknowledges that combining offshore transmission with generation assets (offshore hybrids) will be an integral part of an efficient network system, as this comes with several advantages for the European energy system but still lacks the right regulatory framework to incentivise necessary investment;

Cooperation with non-EU countries

71. Calls on the Member States to increase cooperation and coordination with like-minded non-EU countries such as Norway and the UK; recalls that the development of electricity infrastructure to harness the offshore wind potential of the North Seas is a shared priority for both the EU and the UK;
72. Highlights the need for a pragmatic and cooperative approach to EU-UK electricity trading; calls on the Commission to work closely with the UK administration to agree on a mutually beneficial trading arrangement that strengthens security of supply and the pathway to net zero for both jurisdictions; additionally, believes that efficiencies of trading arrangements can be improved further; calls on the Commission to engage with its UK counterparts constructively on this matter;

Outermost regions

73. Stresses the unique challenges faced by the EU's outermost regions and other areas not connected to the European electricity grid; highlights their reliance on imports and high vulnerability to electricity blackouts and extreme climate hazards; notes the importance of developing resilient and autonomous energy systems through local grid development and cleaner energy production; calls on the Commission to address these regions' specific needs in the European Grids Package and to propose additional financial support to improve the autonomy of their energy systems, and address their lack of interconnection and absence of broader grid connection benefits;

◦

◦ ◦

74. Instructs its President to forward this resolution to the Council and the Commission.