

August 2025

The Renewables Grid Initiative (RGI) welcomes the opportunity to provide feedback to the upcoming European Grids Package, and the continued momentum behind the urgent need to expand and upgrade electricity grid infrastructure across Europe. There is a broad consensus on the need to scale up the deployment of electricity grids at all voltage levels, to sustain and enable the pace and magnitude of investments in generation and storage assets for renewables across Europe.

Electricity grids are the enablers of electrification as well as renewables and market integration, thus, putting Europe on track towards a timely and cost-efficient energy transition, and supporting European competitiveness, energy security and resilience. As stated in the Draghi report¹, 'a central element in accelerating decarbonisation will be unlocking the potential of clean energy through a collective EU focus on grids. If there is one horizontal area in the energy sector whose importance cannot be overstated, it is the EU's energy grids'. In parallel, the economic benefits of strengthening grid infrastructure are substantial. ENTSO-E's Infrastructure Gap Report estimates that in 2040, €6 billion investment in electricity grid would provide €13b/year in system cost reduction².

#### Prioritising implementation for an effective European Grids Package

RGI strongly believes that the upcoming European Grids Package should give due attention to implementation. Over the past years, the European Union has put in place a comprehensive regulatory and policy framework, including the EU Action Plan for Grids, which needs to be translated into action. RGI acknowledges that the existing framework adequately incentivises the development of electricity interconnectors and ensures coordination between TYNDP and NDPs. Optimisation opportunities already exist within current frameworks, such as through strengthened regional cooperation, and the Grids Package should fully leverage them. Any potential revision, including on the governance framework of the TYNDP process, should be further assessed against these goals.

#### Planning for a resilient and future-proof energy system

Energy system planning is crucial to guiding future investments in infrastructure. In Europe, it becomes increasingly evident that scarcity, including within supply chains, is becoming a lasting reality, at least for the coming decade. This underscores the imperative for energy system planning to be exercised with an optimisation mindset.

<sup>&</sup>lt;sup>1</sup> The future of European competitiveness, Mario Draghi (2024)

<sup>&</sup>lt;sup>2</sup> Opportunities for a more efficient European power system by 2050 - Infrastructure Gaps Report, ENTSO-E, (2025)



August 2025

In fact, embedding efficiency at the system level in scenario-building exercises and energy system planning at large is not just an option but a necessity for Europe. It is a prerequisite for European energy independence, to reduce costs, and to address scarcity and affordability questions, while ensuring that investments, including on electricity grids, are aligned with EU climate targets and the climate neutrality objective.

The success of the Grids Package will depend on how the fundamental characteristics of the power system are taken into consideration. RGI believes that the upcoming Package should give due attention to the increasing constraints placed on the transmission system. For example, the ongoing transformation of the generation mixes and new demand profiles, combined with market volatility, is leading to new dynamic behaviours of the system and energy actors that are not yet fully understood. Moreover, electricity grid, and therefore the TYNDP, planning process, cannot be considered independently from overall energy policy. Electricity grid development follows long cycles, and investments require clarity. To this end, timely and stable system needs identification that addresses uncertainties stemming from the evolving policy landscape is key. These should be addressed at the national level, with mechanisms to stabilise planning reference scenarios and ensure policy integration.

The European Grids Package needs to enable holistic, future-oriented planning across borders, sectors and vectors. This includes ensuring consistency with long-term EU goals, targets and strategies<sup>3</sup>, aligning offshore targets and other key inputs, such as flexibility needs and electrification, at a pan-European level, while anticipating investments across the energy system. Furthermore, for robust and climate-neutral energy system planning, the Grids Package should incorporate climate variability and future climate scenarios into electricity grid planning at national and European level. The integration of these aspects should be more firmly anchored in the relevant processes to promote the corresponding methodological developments in a targeted manner and give them higher priority.

Importantly, the Grids Package should recognise the full potential of direct electrification and further support it. The European Commission should pay due consideration to, and strive for, the achievement of the 32% electrification KPI included in the Clean Industrial Deal, alongside the implementation of the upcoming Electrification Action Plan. On that front, structured integration of new electrification and industrial demand, for instance stemming from the implementation of the Net-Zero Industry Act (NZIA) provisions and projects supported by the Clean Industrial Deal State Aid Framework (CISAF), into national and European electricity grid planning, would ensure that system needs more accurately reflect decarbonisation-driven growth. Notably, the expansion of direct electrification and renewable energy resources takes place largely at distribution level. For TSOs to effectively manage these assets and include them in energy system planning and operations, close collaboration is required between TSOs and DSOs. Distribution-level assets need to be visible to TSOs, including through the use of APIs and standardised data protocols. Unlocking flexibility, also in light of the revised Electricity Regulation, will require even closer integration, to enable, for example, the remote management of distributed storage assets. Nevertheless, along with potential conflicts of interest that

<sup>&</sup>lt;sup>3</sup> See EMBER's study entitled 'The final push for EU Russian gas phase-out'



August 2025

should be closely monitored, the main barriers to planning across voltage levels are usually institutional and not technical.

RGI acknowledges that strengthening the link between national and pan-European planning can enhance cost-effectiveness and security. We urge the EU to adopt a balanced approach. Energy systems and infrastructural needs are not homogenous across Europe, but strongly depend on geographies, available resources, flexibility options, regional demand and national priorities. These differences require planning processes respectful of national contexts, including required national grid reinforcements. In turn, this would allow for encompassing specificities and system needs at the Member State level therefore, also contributing to legitimacy and acceptance of electricity grid infrastructure.

Strengthening regional cooperation could significantly contribute to more efficient infrastructure planning across borders. By building on and complementing existing national and EU planning processes, joint analyses and identification of projects at regional level<sup>4</sup> could capture realistic benefits and burdens, harvesting cumulative optimisation opportunities that go beyond a project-by-project approach. Embedding regional planning to relevant fora, such as NSEC in case of the North Sea basin, would help ensure political commitment. For this to happen, coordination between TSOs, national authorities, and other stakeholders, including NGOs, should be enhanced, supported by clear mandates, transparent timelines, and adequate resourcing. Strengthening regional cooperation would also benefit from greater involvement of politicians in high-level group meetings, ideally chaired by ministers at least once a year. Consequently, this would contribute to robust integration and system efficiency, while respecting the critical role of TSOs, leveraging their technical, operational and regional expertise.

Coordinated planning will also help expand cross-border electricity projects with third countries. While the revised TEN-E Regulation already introduced the concepts of PCI and PMI projects, RGI recognises that cross-border electricity projects between EU Member States in cooperation with third countries, including with the UK, Norway and Switzerland, should be strengthened and enabled, and different planning conditions should be taken into consideration. This is crucial to leverage mutually beneficial projects that enhance resilience of the broader energy system by optimising electricity flows. Specifically for offshore developments, the European Grids Package should reflect needs in the broader context of cross-border electricity, including data exchange mechanisms, alignment of system operation rules and joint planning principles.

Alongside this, RGI believes that increased efficiency of the existing electricity grids should be further supported and incentivised. To this end, practices such as the algorithm-based protection system for optimal sizing of the grid, along with good practices related to smart grids and efficiency technologies, should be explored at the EU level as well as demand-based infrastructure planning. However, RGI stresses that efficiency measures should be viewed as complementary, not a substitute, to the deployment of needed infrastructure. Future targets cannot be met by merely

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<sup>&</sup>lt;sup>4</sup> See for instance the work undertaken in the <u>Offshore TSO Collaboration</u> (OTC), and the studies conducted at the Penta region, including on <u>power system flexibility</u> and on <u>a common vision for a decarbonised electricity system</u>



August 2025

optimising the current infrastructure and critically, the physical limits and secure operating conditions of the electricity system should always be considered and respected.

#### A holistic approach to acceleration

Space is a finite resource and subject to conflicting interests. Given that infrastructure always has an impact on the environment it is built in, development of RES and electricity grid infrastructure should follow robust and holistic spatial planning. Based on a diverse set of criteria and tailored to the local context, such an approach can help leverage local knowledge and align supply-side investments, such as wind and solar, with new sources of demand.

Strategic spatial planning can also play an important role in addressing one of the most persistent challenges to electricity grid development: permitting delays. By enabling the early identification of suitable areas for electricity infrastructure, it can enhance predictability, support cross-sectoral coordination, and help streamline environmental assessments. This is crucial as permitting delays remain a bottleneck across the electricity grid value chain, leading to higher costs not only for individual projects but for the entire energy system.

While streamlining permitting procedures is needed to accelerate electricity grid expansion and to ensure timely delivery of electricity grid infrastructure, RGI cautions that a one-size-fits-all approach would not be effective. The root causes of delays and the administrative approaches differ across Member States, which necessitates a comprehensive assessment to identify targeted solutions. It is necessary to highlight that implementation challenges originating from local and/or national regulatory requirements should be addressed at the respective level, rather than the European level, to properly account for specificities and ensure effective outcomes.

Acceleration should go hand in hand with optimisation by addressing administrative bottlenecks, lack of data, and staffing shortages, ensuring that these actions lead to faster project delivery and greater regulatory stability. According to the European Court of Auditors, delays in permitting are largely due to complex coordination among multiple authorities, legal challenges, and public opposition<sup>5</sup>. Therefore, the European Grids Package should aim at addressing these shortcomings, not through shortening relevant administrative deadlines but by enhancing enforceability and accountability, while maintaining environmental safeguards. In view of the need to significantly expand and upgrade electricity grids, nature protection along with early, meaningful and regular stakeholder engagement can help reduce delays by building long-term public support for electricity grid projects and the energy transition at large. Environmental legislation can support both biodiversity protection and public acceptance of renewable and electricity grid projects. Overall, electricity grid development should aim at a minimum no net loss of biodiversity, guided by the mitigation hierarchy and informed by robust environmental assessments. This would contribute to both the energy transition and nature protection

<sup>&</sup>lt;sup>5</sup> European Court of Auditors, <u>Making the EU electricity grid fit for net-zero emissions</u>, pages 27 & 28 (2025)



August 2025

and restoration. As environmental and climate risks will increasingly impact the ability to access capital on financial markets, climate and biodiversity protection is a clear economic decision<sup>6</sup>.

A key opportunity to advance these objectives lies in the timely transposition and implementation of the revised Renewable Energy Directive (RED III) – especially the provisions on grid acceleration areas. Member States should accelerate efforts to apply these provisions effectively, respecting the recently published Commission guidance to ensure harmonisation across Europe. This would require encompassing technical, environmental, and societal considerations, alongside economical ones, as well as a future-oriented and integrated policy approach in the framework of the RED III. Aligning implementation of the Directive with EU's longer-term targets, including the EU 2040 climate target and the objective of climate neutrality latest by 2050, would provide the needed certainty for system operators.

Simultaneously, the European Grids Package should further build on and support the implementation of the EU Pact for Engagement at the national level to unlock the benefits of stakeholder engagement already from the policy development and scenario-building stage, and throughout deployment, operations and decommissioning of electricity grid infrastructure. This has the potential to improve the quality and acceptance of projects and to ensure that relevant stakeholders, including NGOs, citizens, communities and local authorities, are actively participating in the energy transition at large. RGI is already working closely with the European Commission and ACER to develop this initiative further, recognising the need to provide tangible benefits to local and affected communities, while increasing long-term trust in electricity grid development processes.

Overall, spatial planning tools and good practices related to the designation of acceleration areas, to nature protection and restoration – such as Integrated Vegetation Management (IVM)<sup>7</sup>, bird flight diverters<sup>8</sup> and sensitivity mapping – and to stakeholder engagement, should be widely disseminated and utilised<sup>9</sup> in line with the RED III.

<sup>&</sup>lt;sup>6</sup> Moreover, ECB recently <u>reaffirmed</u> the profound implications of climate change and nature degradation for price stability, incorporating it in its <u>monetary policy strategy statement</u>, while in the <u>2025 Environmental Implementation Review</u>, the European Commission has identified that 'because of the implementation gap in the field of EU environmental law, the EU is currently incurring large costs of non-implementation...Considering these (types of) costs across the three main areas of EU environmental law – circular economy and waste, zero pollution, and nature/biodiversity – a recent study has found that the cost of not fully implementing EU environmental law and policy amounts to at least EUR 180 billion a year. In other words, the implementation gap is costing the EU EUR 180 billion per year, but it would take less than that to fix it (EUR 122 billion per year)'

<sup>&</sup>lt;sup>7</sup> See RGI's Best Practice Guide on Integrated Vegetation Management (2024)

<sup>&</sup>lt;sup>8</sup> See RGI's Wire Marker Effectiveness Review

<sup>&</sup>lt;sup>9</sup> See <u>RGI's</u> and <u>OCEaN's</u> databases, alongside OCEaN's report on '<u>Avoidance and Minimisation of</u> Environmental Impacts from Offshore Wind and Grid Infrastructure'





#### Unlocking investments for electricity grids

Adapting EU funding instruments and de-risking private finance will be essential to enable the investments needed for electricity grid expansion and upgrades across Europe. Financial stakeholders have shown strong interest in contributing to electricity grid development. Meeting the significant investment levels expected from TSOs requires timely and sustainable access to capital, underpinned by predictable and forward-looking regulatory frameworks that ensure fair and competitive returns, while maintaining affordability.

Notably, pan-European investment needs for electricity grids have more than tripled for the 2025-2040 period. Meanwhile, the Connecting Europe Facility for Energy (CEF-E) for many years has remained stable in financial volume, while becoming more fragmented due to the inclusion of additional sectors. At the same time, some financial instruments aimed at supporting electricity grid infrastructure, often remain underutilised due to administrative complexities and barriers to access.

In this context, RGI calls on the European Commission and Member States to increase and simplify access to both existing and new EU funding instruments – such as CEF-E <sup>10</sup>, LIFE, HorizonEurope, Innovation and Modernisation Funds, Marguerite III and others – including for anticipatory investments and demonstration projects that explore innovative grid technologies, and net-positive solutions to biodiversity and ecosystems. New complementary funding, such as through revenues from ETS auctions, should also be explored. To further support TSOs, the European Commission should set up a one-stop shop that simplifies access to EU funds, reduces administrative burdens and improves uptake of funding opportunities. This would not only allow TSOs to secure needed investments, but also release pressure from tariffs, thus contributing to affordability of electricity.

Strengthening equity support for TSOs is critical to maintaining strong credit ratings amid rising investment volumes. Financing and de-risking tools – such as counter-guarantees and quasi-equity investments provided through the European Investment Bank (EIB) – can further support system operators and their suppliers. Yet, these measures should be largely implemented outside the scope of the TEN-E Regulation, and they should also support cross-border electricity projects between EU Member States and third countries.

#### **About RGI**

RGI is a unique collaboration of NGOs and TSOs (Transmission System Operators) from across Europe engaging in an 'energy transition ecosystem-of-actors'. We promote fair, transparent, sustainable grid development to enable the growth of renewables to achieve full decarbonisation in line with the Paris Agreement.

RGI Members originate from a variety of European countries, consisting of TSOs from Belgium (Elia), Croatia (HOPS), France (RTE), Germany (50Hertz, Amprion, TenneT and TransnetBW), Greece (IPTO), Ireland (EirGrid), Italy (Terna), the Netherlands (TenneT), Norway (Statnett), Portugal (REN), Spain (Red Eléctrica), Switzerland (Swissgrid) and UK (NESO); and the NGOs Bellona Europa, BIOM, BirdLife

<sup>&</sup>lt;sup>10</sup> In view of the upcoming Multiannual Financial Framework (MFF) 2028-2034 and the recent Commission proposal



### August 2025

Europe, Climate Action Network (CAN) Europe, Ember, France Nature Environnement (FNE), Friends of the Earth Ireland, Fundación Renovables, Germanwatch, Legambiente, NABU, Natuur&Milieu, the Royal Society for the Protection of Birds (RSPB), WWF International and ZERO. Europacable, IUCN and T&D are Supporting Members.



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