July 2025

TRANSNET BW

POSITION ON A EUROPEAN GRIDS PACKAGE

Executive Summary

/ **Streamline Grid Planning**
To ensure that the TYNDP remains a strategic and effective tool for the energy transition, we call for simplification to prevent complexity and regulatory overload, national and regional responsibility for concrete project planning, stronger identification of cross-border needs through integrated on-/ offshore optimization, and a stable two-year cycle capturing the integrated sector-coupling and weather variability in scenarios for grid planning.

/ **Simplify Permitting Without Causing Disruptions**
Environmental assessments should be simplified and streamlined only if this results in truly faster progress. New permitting measures must focus on efficiency and simplification to reduce burdens on project promoters and authorities. Delays caused by transition-related disruptions must be avoided: Implementation processes that only take effect in several years are counterproductive.

/ **Facilitate Investments by Providing a Stable, Supportive Regulatory Framework**
Grid expansion must be based on accurate, realistic assumptions about the pace of electrification to ensure cost-efficiency. TSOs must be able to finance grid expansion through equity and debt markets, easier access to guarantees, and improved access to EU funding.

/ **Cost Sharing Requires Political Consensus and Must Be Voluntary**
Cost sharing must not be enforced as a mandatory mechanism and needs to respect national responsibilities, especially where TSOs are legally obliged to make grid investments. CBCA should focus on the regional level to understand and address local benefits and interdependencies. The TEN-E Regulation should be amended so that the granting of CEF funds is decoupled from a CBCA decision.

/ **Prioritize Grid Connections by Adopting a First-Ready First-Served Principle**
The first-come first-served principle must be supplemented by additional criteria that enable grid operators to make decisions and sort out projects more quickly, thus moving to a first-ready first-served principle.

/ **Stability Through Flexibility**
Unlocking consumer flexibility is key to reducing energy system costs and ensuring grid stability. Without it, Germany could face up to €2.4 billion in additional annual costs due to increased imports and infrastructure needs. By introducing targeted incentives, rewarding system-friendly behaviour, and implementing dynamic grid fees, flexibility can be harnessed across all actors - making the energy system more secure, efficient, and affordable.

/ **Streamline and Simplify PCI/ PMI Data Collection**
The current selection process is resource intensive. Combining the PCI/PMI monitoring, Union List submissions, and Transparency Platform reporting into a single platform (e.g., MONIP) - in addition to reducing their scope - will significantly cut bureaucracy. Outdated information should not have to be resubmitted yearly.

/ **Adapt EU Procurement Rules Pragmatically**
To not jeopardize grid expansion, an exemption from the tendering requirement for TSO projects is required, or at least significantly increasing the thresholds for construction contracts worth €20 million or more and for services worth €5 million or more.

INTRODUCTION

Since 2013, the Regulation on Trans-European Energy Networks (TEN-E) has played a key role in identifying and facilitating the implementation of cross-border infrastructure projects critical to the EU's energy transition. In response to evolving challenges and the need for accelerated grid development, the European Commission has announced the forthcoming European Grids Package, expected by the end of 2025. This initiative builds on the 2023 Grid Action Plan and is part of the broader Clean Industrial Deal and Competitiveness Compass. Its primary aim is to modernize and expand Europe's electricity grids to support rapid electrification, integrate affordable renewable energy, and streamline permitting procedures for grid infrastructure, storage, and renewables. The European Grids Package is expected to include legislative proposals that will not only simplify regulatory procedures but also enhance cross-sector integration and optimize network planning. These reforms are seen as critical to avoiding delays in grid connections and ensuring that renewable energy can be fully utilized rather than curtailed due to infrastructure bottlenecks. TransnetBW welcomes the opportunity to provide its views on the currently discussed contents of the upcoming Grids Package.

1. EU INFRASTRUCTURE PLANNING

The TEN-E regulation entails a key element for the energy transition – the Ten-Year Network Development Plan (TYNDP). The planning tools of the TYNDP (e.g., Scenario Building, Cost-Benefit-Analysis (CBA), Identification of System Needs (IoSN), Offshore Network Development Plan (ONDP), etc.) generally fulfill their purpose. However, after more than a decade of development, the scope and complexity of the TYNDP have significantly increased and now is a good moment to evaluate its purpose and strategic focus. To ensure that the TYNDP remains a strategic and effective tool for the energy transition, it is essential to reflect on its core purpose and identify areas where its structure and processes can be improved. In this context, we call for simplification to prevent complexity and regulatory overload, national and regional responsibility for concrete project planning, stronger identification of cross-border needs through integrated on-/ offshore optimization, and a stable two-year cycle capturing the integrated sector-coupling and weather variability in scenarios for grid planning.

Prevent regulatory overload and further complexity by focusing on simplification

/ The increasing complexity of the TYNDP products is mainly due to growing content requirements and frequent adjustments to the methodology and data granularity. We support exploring simplification of the TYNDP process, provided that its functionality and legal compliance requirements are fully maintained. Future regulatory changes must avoid unnecessarily increasing the complexity of the TYNDP processes. Simplification and stability should go hand in hand, which is why we support targeted improvements of the TYNDP that simplify current processes, while maintaining its strengths.

Project planning should be carried out at the national and regional level

/ The TYNDP should not serve as the central masterplan guiding the EU infrastructure planning. It is important to understand that the TYNDP identifies economic opportunities considering current national and European energy and climate targets but that it cannot derive specific solutions for how these should be addressed.

/ The concrete planning of specific grid projects must remain at the national level, in the hands of TSOs, to ensure that regional needs and technical realities are properly addressed. European-level planning tools like the TYNDP cannot address the necessary granularity, while national studies - such as the Network Development Plan (NDP) - reflect regional specifics and allow TSOs to apply their technical expertise effectively. It is essential for robust and sustainable planning to always take national and regional perspectives into account.

/ The planning of the transmission network at European level is overall efficient in identifying gaps in infrastructure. Promoters do pick up on needs identified in the TYNDP, perform additional prospective assessments, and propose new projects in the next cycle, where and when economic signals are robust enough to support investments.

- In Germany, there is a close interface between the TYNDP and the NDP, e.g., with common EU network and market data, data on project planning, and coordinated methodologies such as CBA (cost-benefit analysis). In addition, the interconnector studies are also largely based on TYNDP data, and their results are then incorporated into both NDP and TYNDP.

Stronger focus on identifying cross-border needs through integrated on-/offshore optimization

- Interconnections are essential for ensuring system stability and balancing fluctuating renewable generation across regions in a climate-neutral power system. According to our TransnetBW study AQ2050[1], strong cross-border and regional grid links are critical to efficiently manage flexibility and security of supply while reducing the overall system costs.
- Through the integrated optimization of onshore and offshore grids, the TYNDP can effectively highlight economic opportunities for new interconnections and sufficiently display how economic welfare can be maximized by expanding interconnector capacity, while leaving the planning of concrete projects with TSOs.

Include weather variability and future climate scenarios in grid planning

- Incorporating year-to-year weather variability in renewables generation and future climate scenarios into grid planning at national and European level is essential for robust and climate-neutral energy system planning.
- 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. At the same time, it is important to find a balanced trade-off between methodological development and the associated effort so that the scope and complexity of the approaches do not exceed the scope of existing processes.
- At the European level, weather variability is already part of the processes (e.g., probabilistic ERAA, multiple weather years in the TYNDP CBA, transition to projected weather data). However, implementation and methodological quality vary greatly. Given the significant impact on results, a stronger focus on improving methodological quality is urgently needed by including e.g., weather, and optimal expansion of capacities in scenarios.
- We therefore advocate to capture the effect of different climatic years as a major driver of deviation between demand forecasts and actual developments, especially against the backdrop of climate change, and to extend the data collection beyond the current time horizons and climate years covered by TYNDP/ERAA.

Develop integrated, fully sector-coupled scenarios and maintain the stable two-year cycle of the TYNDP

- Given the dynamic energy policy framework, regular updates to EU scenarios are essential therefore the two-year cycle for TYNDP scenarios should be maintained.
- To achieve a high quality of needs-identification and realistic, robust energy infrastructure planning, we recommend developing generation and consumption scenarios that consider the planning horizon until 2050, covering all European countries. For grid planning to be targeted and efficient, the scenarios should include all future renewable, thermal, and pump storage generation plants, as well as consumers and prosumers in all European regions.
- To adequately reflect future European electricity demand, the role of sector-coupling should be further assessed. Considering key technologies, such as electrolysers, heat pumps, and electric mobility, as well as including their interactions with the power system supports efficient and targeted grid planning. The installed capacities as well as the operation patterns of such technologies should be represented realistically.
- The use of a transparent, fully sector-coupled energy system model for scenario development could be beneficial to identify optimal capacity expansion on the supply side under consideration of the national plans, thus contributing to increasing both the quality and the overall efficiency of the process.

[1] https://www.transnetbw.de/en/adequacy-2050

/ NECPs form the key basis for the TYNDP scenarios and thus for European grid planning. In order to achieve a sufficient quality of NECPs, further harmonization of NECPs (in particular the scope of data and definitions applied) should be strived for, but also the introduction of certain content quality checks (e.g., consistency between load increase, expansion of generation capacities, and planned interconnector capacities).Therefore, inconsistencies between NECPs should be critically reviewed and addressed from a European perspective to ensure that all Member States reflect the Union's targets.

2. PERMIT-GRANTING

According to ENTSO-E, over half of the transmission projects needed in the EU by 2030 still lack permits. The delays partially seem to stem from the inadequate implementation of the provisions by Member States. Therefore, new permitting measures must focus on efficiency and simplification, especially in environmental assessments, to reduce burdens on project promoters and authorities. However, care must be taken to avoid delays caused by transition-related disruptions. Implementation processes that only take effect in 10–15 years are counterproductive and should be avoided.

Simplify permitting without causing disruptions

/ Environmental assessments should be simplified and streamlined if this results in faster progress for the overall project up to the commissioning date. To see whether a measure has an accelerating effect, its impact on the entire project must be considered, not just the permit process itself. Simplifying review processes and introducing generalized environmental measures may lead to faster permits. However, generalized environmental measures could in turn lead to considerable additional work in construction preparation and construction.
/ Adaptation of the Environmental Liability Directive (2004/35) in line with the latest amendments to the Renewable Energy Directive (2023/2413) and the Emergency Regulation on Permitting (2022/2577) to provide further legal certainty.
/ Planning obligations and requirements stemming from material law increase burdens and workload for project promoters and permitting authorities.
/ Once classified as critical, Member States should have the possibility to exempt the energy infrastructure projects from relevant EU directive, including the Environmental Impact Assessment (EIA) Directive, the Habitats Directive, the Birds Directive, and the Water Framework Directive.
/ The EU should, where beneficial, adopt best practices from Member States with efficient procedures and consider harmonizing rules.
/ Environmental, geological, and technical data must be accessible and shareable without introducing new administrative burdens. Therefore, permitting procedures should be fully digitalized.

3. FACILITATING INVESTMENTS IN GRID INFRASTRUCTURE

Over the past five years, global investment in power generation has grown by nearly 40%, but grid infrastructure investment has not kept pace. According to the European Parliament's own initiative report, the EU is expected to need between €1.95 trillion and €2.6 trillion in total grid investments over the period 2025 to 2050[2]. Strategic electricity infrastructure investments help Europe meet its energy and climate goals, by facilitating electrification, integrating markets and securing reliable electricity supply. Timely investments in grid infrastructure now will create value for society and save money in the future. In the short term, there are only limited cost reductions possible for TSOs as the investment level is high and needs to increase further.

[2] https://www.europarl.europa.eu/meetdocs/2024_2029/plmrep/COMMITTEES/ITRE/DV/2025/05-12/ITREINIReport-ElectricityGrids-CompromiseCA1-0805_EN.pdf

Facilitate investments by providing a stable, supportive regulatory framework and guarantees

Grid expansion must be based on accurate, realistic assumptions about the pace of electrification to avoid oversizing and ensure cost-efficient infrastructure planning. Nevertheless, we must also consider spreading out grid expansion over a longer period, because if we distribute our grid expansion targets over a longer period without losing sight of our climate goals, we could implement the transition at significantly lower prices.

- Ensure stable, forward-looking regulation: TSOs must be able to finance grid expansion through equity and debt markets, which require stable, forward-looking, and predictable regulations. Adjustments may be needed to account for new financial instruments affecting TSOs' business models. Long-term investors also need confidence that regulatory rules won't change unpredictably due to regulatory independence.
- The regulatory framework must ensure attractive returns: Regulatory framework must offer attractive risk-return profiles for investors to raise the capital required for investments. An appropriate return on equity - via the return on equity (RoE) or the weighted average cost of capital (WACC) - therefore helps to attract investors and keep the financing costs for the grid fees low.
- Easier access to guarantees: Guarantees from state bodies, development banks, or the EIB improve TSOs' risk profile, especially in corporate and project financing. This reduces capital costs and ultimately benefits tariff payers. Therefore, TSOs, as 'Government-related entities' should benefit from fast-track or simplified procedures. Currently, the efforts needed to gain e.g., access to EIB financing have some barriers related to time and cost. They should be eased for TSOs in general but also particularly by recognizing their status as "Government-related entities" or comparable assets with low financial risk.
- Improve access to EU funding: TSOs should have improved access to EU funds and grants without compromising their financial flexibility. Currently, limited EU funding and high competition with other sectors hinder TSOs' ability to secure sufficient support. Since energy transmission is a critical part of the energy transition, it should not compete equally with other sectors. To address this, the EU should consider creating dedicated funding envelopes specifically for transmission infrastructure.
- Harmonized network tariffs at the European level are not a viable solution. However, developing common guidelines at the European level can provide valuable support for the design of national network tariff systems - particularly to reduce overall energy system costs.

Cost Sharing requires political consensus and must be voluntary

The build-out of infrastructure requires significant financial means and can be understood as a joint European effort. However, the Cross-Border Cost-Allocation (CBCA) framework, as described in the TEN-E regulation, is not fit for purpose. Initially designed to allocate costs of PCI/PMI projects to benefitting Member States, in practice, it is very time consuming and leads to a significant bureaucratic burden and increased resource requirements without providing any added value. Hence, we urge to focus on voluntary, regional cost sharing mechanisms, as they appear to be more promising.

- Cost sharing decisions need to be politically decided and voluntary, i.e. not enforced as a mandatory mechanism or default option. They need to respect national responsibilities, especially where TSOs are legally obliged to make grid investments. Political consensus and transparent data provision by TSOs are essential prerequisites for cost sharing, which can run into billions.
- Cost sharing in general, and CBCA, should focus on the regional level first as regional approaches are better suited than pan-European ones to understand and address local benefits and interdependencies. Cost sharing discussions could be facilitated via existing regional cooperation structures such as North Seas Energy Cooperation (NSEC).
- As there have been no known successful CBCA decisions, the CBCA framework under TEN-E should not apply to electricity projects (under Annex II Nr. 1 TEN-E).
- The TEN-E Regulation should be amended so that the granting of CEF funds is decoupled from a CBCA decision.
- The consideration of ex-post conditionalities must be a political decision. However, for CBCA, ex post conditionalities must be avoided, as they pose significant financial risk for TSOs. A deviation of only few

percent can mean the additional payment of millions, thus endangering the development of national transmission networks, and therefore, the energy transition.

4. GRID CONNECTION LEAD TIMES

The number of grid connection requests has increased significantly. In addition, different approaches for different types of use make comparability and economic optimization difficult. From our perspective, implementing an overarching process would be a more sensible approach, given that all customers ultimately require the same scarce product: grid connection capacity. Under the current first-come first-served system, the order in which grid connection applications are received determines the capacity available in the grid. However, many projects are not realized (due to multiple applications at different locations, or if a project proves uneconomical, or if the available capacity is blocked for nature conservation reasons, etc.). As these unsound projects "block" the connection, additional criteria are needed to enable the grid operator to sort out immature projects more quickly (e.g., proof of land ownership, official decisions, unsound project companies, priority projects in the national interest, etc.).

Prioritize grid connections by adopting 'first-ready first-served' principle

/ The first-come first-served principle must be supplemented by additional criteria that enable grid operators to make decisions and sort out projects more quickly, thus moving to a first-ready first-served principle. However, it may be sensible to allocate different quotas for different technologies to ensure that technology-specific policy objectives are achieved.

5. FLEXIBILITY

Flexible consumer behavior that responds to market incentives aligned with system-serving needs offers enormous opportunities and savings potential. We are still a long way from this today. And even if only half of consumers display inflexible consumption behavior and this unused flexibility must be replaced elsewhere, we expect additional annual costs of €2.4 billion[3], mainly for electricity imports to Germany and additional infrastructure. However, high security of supply and controllability of electricity costs are not mutually exclusive. The decisive factor is the efficient use of flexibility on both the generation and consumption sides. Only if electricity generation and consumption are flexibly coordinated can a climate-neutral, secure, resilient, and, above all, affordable energy supply be achieved.

Stability through flexibility

/ Introduce targeted incentives to promote coordinated, grid-friendly behavior across all actors: Setting incentives for system- and grid-friendly behavior: Storage operators, electricity producers, industry, and end consumers will work together in a coordinated manner to help keep the electricity system stable, resulting in more robust operation, higher efficiency, and lower overall costs.
/ Reward flexible, system-friendly behavior: Flexible consumers who behave in a system-friendly manner reduce stress on the power grid and thus the need for grid expansion. This is just as important in the context of increasingly frequent generation surpluses as it is in times of low power supply.
/ Use dynamic grid fees to create market incentives for behavior that benefits the system without jeopardizing revenue stability for grid operators. Such dynamic grid fees can encourage flexibility and ensure that it is used in a way that benefits the system and the grid. If designed correctly, grid congestion costs can be reduced, and grid expansion can be limited if necessary.
/ Target funding and regulation to deploy large-scale batteries and electrolysers in a grid-friendly manner: Large-scale batteries and electrolysers should be strategically deployed to reduce stress on the grid and prevent bottlenecks. Both can utilize excess wind and solar power near generation sites, which allows for flexible, demand-oriented operation. Their location is crucial to fully unlock the potential, which is why targeted funding programs and regulatory adjustments are needed.

[3] https://www.transnetbw.de/_Resources/Persistent/2/7/b/0/27b0a2c51034dbca1da15085da2882823eec588a/2025-05-12_Positionspapier-Flexibilit%C3%A4t_Web.pdf

6. SIMPLIFICATION

Projects of Common Interest (PCI) and Projects of Mutual Interest (PMI) are biennially selected before they are added to the Union List of PCI/PMIs. In addition, project promoters must submit a yearly monitoring on the progress of their PCI/PMI. Both selection process and monitoring are defined in the TEN-E regulation and require significant resources. We therefore see room for simplifying these processes.

Streamline and simplify PCI/PMI data collections

- Combining the PCI/PMI monitoring, Union List submissions, and Transparency Platform reporting into a single platform (e.g., MONIP) - in addition to reducing their scope - will significantly cut bureaucracy. Outdated information should not have to be resubmitted yearly.
- The current selection process is resource intensive. Mature PCI/PMIs already on the Union List or under construction should not be required to reapply. Only key milestones, such as changes to the project phase, should need updating.
- Each Regional Group determines its assessment methodology to evaluate and rank the PCI candidates. The added value in determining a new methodology for every PCI selection process is not apparent. Also, project rankings should either be eliminated or made fully transparent to ensure fairness and clarity for promoters.

7. PUBLIC PROCUREMENT AND SUPPLY CHAINS

The growth in demand for grid technologies globally has put significant pressure on the asset supply chain and hence the availability of cables, transformers, components, and critical technologies. Recent findings such as the IEA report “Building the Future Transmission Grid” show 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 have almost doubled since 2021. This pressure causes a price increase, which also burdens consumers.

Adapt EU procurement rules pragmatically to speed up grid expansion

The current EU framework for public procurement procedures is outdated and does not reflect current market conditions. Originally designed to promote competition among providers, allowing network operators to choose from a wide range of competing (technology) providers, the reality today is completely different: network operators are increasingly facing reverse competition – they are competing to find providers who are still able to deliver.
An overregulated procurement framework exacerbates this structural imbalance by complicating procedures for all parties involved, causing delays and placing an unreasonable burden on resources. Despite Europe-wide tenders, we observe only low participation by suppliers from other EU Member States in practice. There is also good reason to believe that EU tenders lead to overpriced bids. Lengthy processes, tight deadlines and a rigid and inconsistent legal framework not only hamper the flexibility of procurement but also deter potential bidders. The resulting lack of competition jeopardises network expansion and thus security of supply, especially in times of rising demand and limited production capacities.

- To not jeopardize grid expansion, we call for an exemption from the tendering requirement for transmission system operator projects. At the very least, however, we call for a significant increase in the thresholds for construction contracts worth €20 million or more and for services worth €5 million or more, in line with the general conditions.

Harmonization needs a balanced, phased approach

While harmonizing TSO requirements for HVDC poses a solution to these challenges, we emphasize that this is a long, costly process requiring careful assessment. Harmonization should not be pursued for its own sake

or at a pace that reinforces dependance on non-European suppliers. Therefore, we call for a coordinated harmonization process that includes manufacturers and grid operators.

- Investments require predictability, not just visibility. Reliable commitments - like call-off guarantees, standardization, or pricing mechanisms - are essential to turn visibility into actual investment.
- While harmonization offers long-term benefits, it also poses operational risks (e.g., redundancy losses, cybersecurity, exclusion of smaller suppliers). A step-by-step, cooperative strategy is more practical and inclusive.
- Project visibility: Manufacturers require contracts and commitments, not just projections. Having the possibility to expand long-term framework agreements can have a significant effect for stabilizing supply and capturing more capacity. The lack of commitment and funding is a more critical issue for manufacturers than mere visibility.
- Update public procurement rules to support the EU's goal of establishing a strategic manufacturing capacity for net-zero technologies in Europe (aiming to meet at least 40% of annual deployment needs by 2030) while, at the same time, supporting diversified sourcing for critical technologies and components.

Who we are

TransnetBW operates the electricity transmission grid for more than 11 million people in Baden-Württemberg, Germany. In doing so, we secure the electricity supply in the region and throughout Europe. Together with our project partners, TransnetBW works to expand the network beyond its control area, notably with the projects SuedLink and Ultranet. As a member of ENTSO-E, the Florence School of Regulation and the Copenhagen School of Energy Infrastructure, we actively participate in discussions and develop solutions in the field of European energy infrastructure. On our TransnetBW Policy and Regulation homepage you will find our current contact persons, position and concept papers.

CONTACT INFORMATION

Dr. Ana Burghi
Team Lead European Affairs
+49 160 1648707
a.doamaralburghi@transnetbw.de

Michael Mieszczanski
Brussels Representative
+32 479 660529
m.mieszczanski@transnetbw.de

Alanna Weigel
Advisor European Affairs
+49 160 7749714
a.weigel@transnetbw.de