

Distribution Network Development Plans

Introduction

In the past legislative mandate and the current one, the European Commission is undergoing important efforts to reinforce its framework for **electricity network planning** to ensure that grids can efficiently support the growing electrification of the economy and the rapid integration of renewable energy. The Electricity Directive (EU) 2019/944 art. 32 paragraph 3 establishes clear responsibilities for Distribution System Operators (DSOs), flexibility requirements, and network modernisation measures over a medium- to long-term horizon.¹ An additional role is provided to Distribution Network Development Plans (DNDPs) by the EC within their guidance on Anticipatory Investments published in June 2025, where the link among approval of Anticipatory Investments via DNDPs is clearly made.²

In addition, the EU Action Plan for Grids, adopted by the European Commission in November 2023, recognises that achieving Europe's climate and energy goals requires a significant reinforcement in terms of new capacity and digitalisation of both transmission and distribution networks.³ Among its key measures, the Action Plan mandated ACER and CEER to develop Guidance on Electricity Distribution Network Planning, which has been published in July 2025, including recommendations for regulators and DSOs on methodologies, scenario design, stakeholder engagement, and coordination with transmission planning.⁴

These developments are closely linked to broader EU policy initiatives such as the forthcoming European Grids Package and the Electrification Action Plan, both of which will address and recognise the critical role of DSOs in enabling the integration of renewable energy, demand-side flexibility, and new electrified end users. Together, these initiatives represent a coherent EU effort to create a European planning framework that is integrated, forward-looking, and supportive of the energy transition.

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. 125–199.

² European Commission. (2025, June 6). *Commission notice on guidance on anticipatory investments for developing forward-looking electricity networks (C/2025/3179)*. *Official Journal of the European Union*, C/2025/3179. Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=OJ:C_202503179

³ European Commission, “*Grids, the missing link - An EU Action Plan for Grids*”, COM (2023) 757 final, 28 November 2023, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2023%3A757%3AFIN&qid=1701167355682>

⁴ ACER & CEER, *Guidance on electricity distribution network planning*, July 2025, <https://www.ceer.eu/wp-content/uploads/2025/07/ACER-CEER-electricity-distribution-network-planning-guidance-2025.pdf>

1. Distribution Network Development Plans (DNDPs)

DNDPs should remain strategic, high-level planning tools rather than prescriptive documents. Their purpose is to outline medium- to long-term directions, not to dictate detailed actions. For medium- and low-voltage grids, the 5–10-year horizon foreseen in the Electricity Directive is often too long to make detailed investments plans, as these networks face higher uncertainties — for instance, due to small-scale customer connections or local development patterns. Shorter planning horizons are therefore more appropriate in many cases and with longer planning horizons, the DSO needs to maintain flexibility to be able to update plans accordingly to the most recent developments.

A holistic approach to DNDPs should acknowledge that they are not investment plans nor instruments for cost auditing or regulatory approval. DNDPs should substantiate where and why there is a need for investments (incl. anticipatory investments), based on analyses that include coordinated development of the grid at both the DSO and TSO levels. These investments are a legitimate and essential means to accelerate renewable integration and electrification — provided such investments are supported by socio-economic assessments and appropriate regulatory frameworks.

DNDPs should also incorporate flexibility needs assessments as part of an integrated planning process. Flexibility must be considered alongside traditional grid reinforcement measures to ensure cost-effective solutions for congestion and voltage management.

GEODE considers existing DNDP frameworks already fit for purpose. Most Member States already coordinate effectively between national transmission and distribution planning, and there is no need for additional EU-level harmonisation, but rather **efficient implementation of existing framework**.

2. Empowering DSOs in the European Planning Framework

DSOs are becoming strategic partners in the energy transition as Europe's system grows more decentralised and sustainable, with rising numbers of electric vehicles, heat pumps, storage solutions and rooftop solar, alongside higher voltage such as connections from data centres and solar parks. Yet, the current Ten-Year Network Development Plan (TYNDP) remains transmission focused and does not sufficiently reflect the growing role and needs of DSOs. Today, far more is happening at the DSO level than in the past: DER, batteries and other new resources are increasing both the complexity of operating and planning the grid at distribution level and its importance for the efficiency and security of the entire system. For this reasons DSO are keen on taking on a more predominant role within the planning frameworks so that these distribution-level developments are fully integrated into long-term plans.

GEODE calls for early and structured DSO participation and interaction with TSOs when drafting the TYNDP to ensure that flexibility, resilience, and local decarbonisation needs at distribution level are reflected in European planning. DSOs plans must be in line with TSOs plan, and the other way around to achieve the most efficient solutions for the system as a whole.

GEODE recommends establishing formal channels for DSO/TSO cooperation, ensuring that bottom-up innovation and regional needs are recognised. This should strengthen coordination between TSOs, DSOs, and local stakeholders without imposing a one-size-fits-all EU planning model.

3. Ensuring Capacity and Investment for Future Planning

To meet future challenges, DSOs need access to regulatory tools, data, and resources that enable proactive, data-driven planning and allow DSO to handle the increased complexity of grid operation due to more renewable and DER particularly in lower grids levels. GEODE calls for targeted funding and regulatory incentives to support digitalisation, skills development, and anticipatory investments that enable distribution grid operation to switch from a reactive model to a predictive one that better meets the growing demand.

Locally driven planning should be recognised as a strategic EU priority, supported through appropriate mechanisms under the Grids Package and the Electrification Action Plan.

4. Ensuring Coherence Across Planning Levels: from Local to National specificities.

GEODE supports stronger alignment of assumptions and objectives between the DNDP, national, regional and local plans, while rejecting excessive harmonisation at EU level as national and local specificities have to be taken into account.

Although many of the challenges in the grid may appear similar at the European level, there are still major differences from one country to another. For example, in terms of which challenges are more critical, initial circumstances, as well as which instruments are most suited to address them. For this reason, it is important that EU regulation points the way, but at the same time leaves room for local adaptations.

In addition, coherence across planning levels should aim for consistency, not uniformity. Enhanced coordination between frameworks would improve efficiency, transparency, and investment outcomes, while preserving national autonomy and local flexibility.

Conclusion

Europe's clean energy transition will depend on how effectively electricity networks evolve to accommodate new consumption patterns, renewable integration, and flexibility services. To achieve this, DSOs must be recognised not only as infrastructure managers but as strategic partners in delivering Europe's electrification and decarbonisation objectives.

DNDPs should remain fit for purpose, strategically oriented, and sufficiently flexible, grounded in national context while allowing alignment with overarching European objectives without resorting to prescriptive harmonisation. Methodological diversity must be preserved to reflect local needs, customer behaviour, and regulatory contexts across Member States.

At the same time, GEODE underlines that the TYNDP must evolve to reflect this new reality. A process that remains focused primarily on transmission infrastructure risks overlooking the growing importance of distribution-level challenges and opportunities. Meaningful, structured and necessary DSO participation - through improved coordination with transmission system operators and institutional representation - is essential to ensure balanced and forward-looking European system planning.

To make this framework operational, DSOs must be adequately resourced and empowered. Targeted investment, digitalisation, and improved access to system data will enable proactive planning and support flexibility and reliability across Europe's electricity networks.

In conclusion, **GEODE underlines the pivotal role of DSOs in delivering Europe's electrification and decarbonisation objectives. Strengthening the alignment between DNDPs, national energy and climate plans, and the TYNDP—while maintaining flexibility to strategically reflect local and national specificities —will be essential to ensure a resilient, coordinated and future-ready European electricity system.** This approach should be duly reflected in forthcoming EU initiatives such as the European Grids Package and the Electrification Action Plan.

Key Recommendations

1. **Recognise DNDPs as strategic high-level planning over medium to long-term horizon tools with in-built flexibility for anticipatory investments.** Encourage holistic, anticipatory planning aligned with national and local objectives.
2. **Integrate distribution planning without harmonisation at EU level.** Promote consistency of assumptions and data, preserving national and local flexibility.
3. **Support DSO digitalisation and skills.** Incentivising funding and regulatory framework that promote proactive investments both in digitalisation of infrastructure as well as know-how to enable proactive and data-driven planning.
4. **Strengthen DSO involvement in the TYNDP.** Ensure systematic participation and structured collaboration with TSOs.
5. **Align with EU policy initiatives.** Ensure coherence between DNDPs, TYNDP, the **EU** forthcoming **Grids Package**, and the **Electrification Action Plan**.

GEODE is a European association representing local energy companies operating electricity and gas distribution networks committed to a sustainable, efficient and reliable management of the grids as the backbone of the energy system. Thanks to the technical expertise of its members, GEODE's mission is to accomplish the energy transition towards decentralised, decarbonised and digitalised energy systems.