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JOINT POSITION ON COST EFFICIENCY BENCHMARKING OF GERMAN ELECTRICITY TSOS

The four German TSOs support the objective of enhancing affordability and efficiency in the electricity sector. However, European TSO benchmarking is unlikely to contribute meaningfully to that goal because it does not address the factors that are actually driving network costs. Rising network costs are primarily the result of unprecedented investment needs for the energy transition, increasing material and financing costs, supply chain constraints, and lengthy permitting procedures.

As a result, it is difficult to see how mere cost-cutting benchmarking alone could lead to measurable reductions in consumers' electricity bills. Instead, the proposed benchmarking approach risks creating an additional layer of regulatory complexity while he has yet to demonstrate any proven benefit. Given that practical experience with benchmarking has revealed significant challenges regarding both the applicability and the explanatory power of the underlying models, the German TSOs consider a continuous improvement process based on non-binding best practices, knowledge sharing, and collaborative exchange to be a far more promising approach to identify and realise efficiency improvement potential, where objectively identified. Against this background, we do not expect that an international efficiency comparison would lead to a concrete, measurable reduction of energy costs for final consumers, as network costs are currently driven primarily by structural and external factors while strong incentives for investment and operational efficiency already exist under the current frameworks.

- **Past experience with cost efficiency benchmarks:** TSOs are fully committed to an affordable energy system and the need for efficiency of their operations. However, experience has shown that European but also national TSO efficiency benchmarking models often face significant limitations in terms of robustness, comparability and explanatory power, and therefore do not produce reliable, justified areas for improvement (see further below). These challenges increase even more in an international context, where TSOs operate under substantial different technical, geographical, regulatory and energy-system conditions.
- **Strong existing incentives for efficiency under existing regulation:** Rising network costs are not attributable to inefficiencies of TSOs, but rather investment needs associated with the energy transition, market bottlenecks (e.g. materials and services), and lengthy approval procedures. Regulation (EU) 2019/943 Article 18 already provides clear requirements on cost efficiency and national regulatory authorities (NRAs) have appropriate tools at their disposal to ensure efficiency, based on local circumstances. For example, under the "NOVA" principle (grid optimisation before reinforcement before expansion), applied through the Network Development Plan (NEP), alternative and potentially more cost-effective measures must be assessed before investing in new transmission infrastructure. Coupled

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with the unprecedented investment needs of the energy transition and limited financial resources, this ensures a strong focus on efficient solutions in both grid development and system operation.

- **Increased regulatory risks for grid investments:** Unreliable benchmarking results bear the risk of limiting TSOs' ability to attract the international capital needs necessary for grid investments. Benchmarking outcomes usually do not adequately reflect the underlying operating environment of individual TSOs, they may create regulatory uncertainty and distort investment signals. This could ultimately increase TSO costs, hinder the access to international capital markets and cause significant reputational harm to TSOs. Moreover, unreliable benchmarks increase the overall risk profile of TSOs especially through a increasing lack of transparency within regulatory frameworks, further exacerbating financing challenges in assessments of rating agencies and investors. Without the necessary capital for investments in grids, the energy transition, European competitiveness and security would be at risk, as the needed infrastructure could not be developed and put into place in time. As the vast majority of future network costs will be driven by the timely delivery of major infrastructure investments, any regulatory measure that increases financing or investment risks could ultimately lead to higher, rather than lower, costs for consumers.

EXPERIENCE WITH TSO BENCHMARKING DEMONSTRATES ITS LIMITATIONS

Over the past two decades, several European benchmarking exercises have sought to compare the cost efficiency of TSOs. While these initiatives aimed to improve regulatory oversight, practical experience has shown that their results are of limited relevance for regulatory decision-making. National Regulatory Authorities have rarely relied on such benchmarks, reflecting persistent concerns regarding their robustness, comparability and practical applicability. Germany's experience illustrates the limitations of efficiency benchmarking. The international benchmark model introduced in 2009 proved unsuitable in practice and was replaced in 2019 by a national reference network analysis comparing the four German TSOs. Within this analysis it was shown that the four German TSO were already ~100% (TTG 99,92%) efficient despite the European comparison. Since every approach has potential for improvement, it will be inherited by a new approach from 2029 onwards. The German NRA intends to develop alternative efficiency instruments and incentives that better reflect national circumstances and the specific characteristics of transmission networks. Similar challenges have emerged in other countries.

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Three fundamental challenges remain unresolved:

- **Limited Comparability of European TSOs:** European TSOs operate under highly diverse structural conditions, including different network topologies, geographic characteristics, generation portfolios, regulatory frameworks and system needs. They also face substantially different levels of network expansion for their supply mission, offshore integration requirements, renewable energy penetration and permitting constraints.
- Given the relatively small number of TSOs in Europe, benchmarking exercises rely heavily on assumptions, standardizations and methodological adjustments to achieve comparability. As a result, outcomes are often driven more by model specifications leading to apparent accuracy than by actual performance.
- **Inability to Capture Core TSO Responsibilities and Performance:** Benchmarking methodologies primarily focus on physical network assets and costs, while key TSO responsibilities such as system security, operational resilience and reliability cannot be adequately reflected. As a result, benchmarking is unable to capture the actual performance delivered through the resources employed. This risks creating misleading conclusions and incentives that prioritise short-term cost reductions over long-term system performance and security of supply.
- **Limited Relevance for Future Investment Decisions:** Benchmark studies largely assess historical costs linked to assets commissioned in the past. As Europe enters an unprecedented phase of grid expansion and electrification, such backward-looking assessments provide limited insight into the efficiency of today's investment decisions and future infrastructure needs. Future network costs will be driven primarily by the timely delivery of major investment programmes, financing conditions, supply chain developments and permitting procedures, factors that cannot be meaningfully assessed through historical benchmarking exercises.

MISLEADING EFFICIENCY COMPARISONS PUT GRID INVESTMENT, COMPETITIVENESS AND SECURITY OF SUPPLY AT RISK

The proposed TSO efficiency benchmarking raises a number of concerns that call into question its practical value and suitability as a regulatory tool:

- Benchmark results are heavily influenced by methodological choices rather than actual TSO performance.

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- Misinterpretation by investors and rating agencies but also real potential for sanctions following cost-cutting benchmarks could undermine confidence in regulatory frameworks and increase financing costs.
- Benchmarking may weaken investment incentives at a time of unprecedented grid expansion needs.
- A narrow focus on benchmarkable costs risks creating unintended incentives and overlooking broader system objectives such as resilience and security of supply.
- The proposed benchmarking approach would introduce additional administrative burden with no proven regulatory value.
- Regulatory efforts should focus on enabling investments and addressing the real drivers of network costs rather than developing resource-intensive benchmarking exercises.

KEY RECOMMENDATIONS

- **Keep efficiency assessments at national level** and avoid mandatory European TSO benchmarking, which fails to adequately reflect structural differences and may undermine incentives for efficient network investment and delivery.
- **Focus on the actual drivers of rising network costs**, including investment needs, supply-chain constraints, long lead times and permitting procedures.
- **Task ACER with identifying and analysing key cost drivers** affecting grid development across Europe while methodological adjusting to account for the incentive effect of output factors beyond mere cost-cutting benchmarking.
- **Establish a non-binding best-practice platform** through which ACER can facilitate knowledge-sharing on efficient network planning, asset management, digitalisation and project delivery.
- **A successful energy transition requires TSOs to attract unprecedented levels of capital.** Regulatory frameworks should strengthen, not undermine investment certainty. Well-designed output-based incentive schemes can promote efficiency improvements while preserving the investment certainty needed to deliver the network expansion required for the energy transition. The regulatory framework must ensure an adequate return on equity that reflects current market conditions and investment risks. Any reduction in the attractiveness or predictability of returns would increase financing challenges and could ultimately delay the investments required to achieve European energy and climate objectives.

To support Europe's energy transition, regulatory efforts should focus on enabling efficient investments and addressing structural cost drivers. A best-practice approach led by ACER would provide greater value than a benchmarking framework whose results are unlikely to reflect the realities of Europe's diverse transmission networks.