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SENSITIVE*
UNTIL ADOPTION

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

to future-proof electricity bills in the European Union amending Regulation (EU) 2019/943 European Parliament and of the Council (EU) of 5 June 2019 on the internal market for electricity

(Text with EEA relevance)

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EXPLANATORY MEMORANDUM

1. CONTEXT OF THE PROPOSAL

• Reasons for and objectives of the proposal

The Commission adopted the Action Plan for Affordable Energy in February 2025[1], with measures aiming to decrease energy costs for citizens and businesses, most of them to be delivered in the short-term. The Action Plan examined the factors driving up energy prices, identified energy supply costs and taxation as well as network and system costs as key areas to address in order to help reduce the energy bills for European consumers. The Commission followed up on this Plan with several initiatives, including Guidelines on future proof network charges[2], the European Grids Package[3] and most recently the Citizens Energy Package[4] and the Strategic Roadmap for Digitalisation and AI in Energy[5].

In light of events in the Middle East, on 19 March 2026 the European Council called on the Commission to urgently present targeted measures, across all components of electricity prices for concrete actions to lower electricity prices.

The Commission responded with the publication of Accelerate EU[6] which detailed the need to reduce energy costs through an acceleration of the deployment of homegrown clean energy and an increased rate of electrification combined with further upgrading the electricity system through measures regarding the construction of new grid infrastructure, the use of existing infrastructure and taxation.

This proposal supports the objective of AccelerateEU by improving the design of network charges in order to ensure cost-efficiency of the transmission and distribution networks and incentivise both system operators and network users to better use the existing infrastructure. This is complemented by measures on taxation, ensuring among others electricity is taxed less than natural gas.

Network charges

The common electricity market is a cornerstone for the competitiveness and prosperity of our Union. The EU is dedicated to pursuing the decarbonisation objective while enhancing energy affordability and security. This is pivotal for the competitiveness of European industries, as outlined in the Clean Industrial Deal[7], which also addresses the need to support strategic autonomy, secure vital supply chains and maintain economic prosperity. However, in recent years, the Union has been facing rising energy costs, which puts the Union's competitiveness at risk.

The European electricity network is the most interconnected in the world and a fundamental pillar of the European electricity market. Rising electricity demand, increasing electrification of end uses, and the accelerated deployment of renewables will require significant investments in modernising and expanding the electricity network and an optimisation of the

1 COM/2025/79.
2 C/2026/126.
3 COM/2025/1005.
4 COM/2026/115.
5 Reference to be added once adopted [27 May]
6 COM/2026/370.
7 COM/2025/85.

way electricity grids are designed and operated. In hours where a lot of electricity is generated by renewables, low or negative electricity prices – which have continuously increased over the last years[8] – reflect the need for the system to be more flexible. This is crucial to fully exploit the potential of renewables sources and avoid unnecessary costly curtailment, and at the same time incentivise consumption at times and locations when and where the cheapest energy sources are available and the costs for the operation of the system are minimised.

The costs of the electricity system are covered by network charges. They finance the physical upgrade of grids and the operation of the system. This is essential to facilitate the deployment of renewables, electrification and new industrial and business demand. Network charges have in recent years represented on average between 24-29%[9] of the electricity bill for households (with the other main factors being the price of the commodity, taxes and levies and carbon costs). While the energy price component is expected to decrease, grid costs are expected to become an even larger item on electricity bills. ACER estimates that to build a decarbonised EU energy system, investments of an unprecedented magnitude (annual grid investment in Europe is estimated to double until 2050, reaching up to EUR 75-100 billion) will be needed in the electricity transmission and distribution grids doubling and even tripling annual investment rates of the past decades[10]. Rising system costs may lead to significant increases of total grid costs over time by 60% by 2050 compared to 2022.[11]

Making the best use of existing grid infrastructure, and a smart and efficient design of network charges will be instrumental in increasing the infrastructure's efficiency to optimise overall system costs. Against this background, network charges that incentivise system efficiencies can reduce the costs of operating the overall system and the network charges component of the energy bill, for example by decreasing re-dispatching needs and costs, lowering peak demand and thereby grid investment needs.[12]

Therefore, it is important to ensure that network charges incentivise system operators to perform an efficient operation of the grid, to use flexibility and to develop smart grids and use non-wire solutions like grid-enhancing technologies, while maintaining the incentive to invest in the grid and ensuring a level playing field. Users of the grids should be incentivised to behave in a system-friendly way, adjusting their energy use or shifting it towards times and places where the cheapest energy sources are available and when it is the most cost efficient for the overall system. In this regard, the Action Plan for Affordable Energy has pointed already to the possibility of putting forward a legislative proposal on network charge design. For this reason, the President of the European Commission announced on 16 March 2026 that

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8 ACER (2026) Key developments in EU electricity and gas markets https://www.acer.europa.eu/monitoring/electricity-gas-key-developments-2026

9 ACER (2024) Retail market Monitoring report: https://www.acer.europa.eu/sites/default/files/documents/Publications/ACER-CEER_2024_MMR_Retail.pdf

10 ACER Report 'Electricity infrastructure development to support a competitive and sustainable energy system', ACER_2024_Monitoring_Electricity_Infrastructure.pdf.

11 https://www.acer.europa.eu/sites/default/files/documents/Publications/ACER_2024_Monitoring_Electricity_Infrastructure.pdf; ACER, 16 December 2024

12 In Slovenia, a tariff reform from 2024 led to a decrease of more than 2.4% in peak load. A study from Agora Energiewende focusing on Germany showed that dynamic tariffs could significantly increase consumers flexibility, with a potential to shift 10% of the total annual electricity consumption in 2035. A report commissioned by SmartEN showed that well-designed tariffs can decrease the peak load above 20% with high levels of EV adoption.

the Commission will prepare a legal proposal to improve the productivity of grid infrastructure.

This proposal addresses concerns on rising energy costs, since they are driven not only by high and volatile prices but also by rising system costs. The proposal aims to improve the design of network charges in order to ensure cost-efficiency of the transmission and distribution networks and incentivise both system operators and network users to lower system costs including through better use of the existing infrastructure.

The proposal is putting forward stronger incentives for system operators to increase cost-effectiveness as well as to enable timely grid access, incentives for grid users to adapt their consumption behaviour, enhanced transparency and an obligation on regulatory authorities to set performance indicators in order to increase efficiency in the use of the grid and increase system efficiency. All these proposals should help ensure that network charges reflect the true costs imposed on the system and support further an efficient use of the grid.

The proposal allows for special network charge regimes applicable to particular user categories, such as energy intensive industry, and combines such an option with the necessary safeguards to avoid adverse effects on affordability for households and SMEs.

To make these changes operational, the proposal needs to be combined with the creation of a new implementing act on network charges design. Such an act already exists in the gas sector.

Smart meters and smart grids

To improve the efficiency of grid infrastructure it is necessary that the electricity system is equipped with the technical and digital capabilities to monitor the grid status and optimise grid usage close to real-time, and to be able to incentivise or steer grid users to optimise their grid use. This can contribute to further reducing system costs. Such capabilities enable system operators to respond faster and more efficiently, better using existing infrastructure in place, and allow system users to react to price signals. To achieve this, a broader enabling framework is required combining smart metering systems, smart and digitalised grids and more effective re-use of electricity grid data. Without such enabling conditions, the scope for consumers, aggregators, suppliers and system operators to respond to price signals, including from smart network charges to provide flexibility and optimise system operation remains structurally limited.

For that reason, the proposal on network charges is accompanied with limited but targeted measures on smart meters and smart grids. It introduces a minimum Union-wide deployment obligation for smart metering systems to ensure that, in each Member State, at least [50]% of final customers are equipped with smart meters by [2030], and that this level is progressively increased to at least [65]% of final customers by [2033], thereby strengthening the technical basis for active consumer participation and more granular system visibility. At the same time, this is creating a sufficient level of uptake across the Union to support more efficient use of existing electricity network infrastructure and enable consumers to better manage their energy consumption and costs. In addition, it clarifies that cost-benefit assessments under Directive (EU) 2019/944 apply only to deployment beyond the [65]% level, ensuring a consistent Union-wide approach while preserving flexibility for further deployment based on economic considerations. It also provides for the development of common smart grid indicators to support a more consistent monitoring of the uptake of smart and innovative grid solutions and to strengthen the link between network regulation, performance and efficient use of existing

infrastructure. Importantly, it establishes a targeted framework to improve the exchange and secure reuse of electricity grid data, in order to support the efficient, secure and flexible operation of the electricity system, as well as the development of innovative digital and data-driven tools, including artificial intelligence applications, capable of improving grid performance and optimisation - thereby responding directly to the President's call for grid operators to improve the productivity of existing infrastructure by making full use of innovative technologies.[13]

Taken together, these measures are intended to ensure that the incentives created through smart network charges can translate into concrete operational efficiencies and lower overall system costs.

Taxation

In line with the objectives of the Affordable Energy Action Plan and AccelerateEU, reforming network charges should be accompanied by targeted measures on the taxation of electricity and, more specifically, the incentives for electrification embedded therein, or risk falling short of achieving the objective of durably reducing the cost drivers of electricity bills. Such an approach would therefore have a significant adverse impact on affordability for Union consumers and on the competitiveness of the Union economy.

To that end this proposal also aligns the principles on taxation of electricity with EU energy, environment and climate policies thus contributing to the EU efforts to reduce emissions. To increase the electrification of the European energy system, as detailed in AccelerateEU, incentives for the use of natural gas over electricity in Member State taxation systems should be reversed.

In addition to this broader measure, this proposal includes a tailored and more targeted possibility to reduce electricity taxation for energy intensive industries, so that the taxes on electricity for these users may be further decreased and the incentive for electrification enhanced.

These measures will ensure that final energy costs for consumers are reduced and that regulation of energy costs is better aligned with European electrification objectives.

The principles on taxation of energy as laid out in this amendment to Regulation (EU) 2019/943 (the Electricity Regulation) focus on the implementation of the EU provisions imposing a minimum rate on electricity and natural gas and regulating the possibility granted to Member States to apply reduced taxation rates on electricity used by energy intensive industries as set by Council Directive 2003/96/EC. In line with the objectives of this Directive, Member States remain free to set their energy tax levels, provided they follow the provisions in the Directive, while the principles in the Electricity Regulation will enable existing differences in the electrification incentives in energy taxation frameworks of Member States to be reduced.

This proposal introduces limited and targeted amendments to the Electricity Regulation which are strictly necessary to achieve the proposal's objectives. Further possible modifications of that Regulation are entirely outside of the scope and aims of the present proposal. The

[13] Letter of President Von Der Leyen ahead of European Council 16 March 2026 '*While grid charges are essential (..) Grid operators too can do more to improve the productivity of grid infrastructure,* ***making full use of innovative technologies***'

Commission will constructively engage with the co-legislators, in order to ensure that the legislative process on the present proposal fully preserves its essential scope and does not distort it.

- **Consistency with existing policy provisions in the policy area and other Union policies**

This proposed initiative aligns with the objectives of increasing electrification as detailed in AccelerateEU and the Clean Industrial Deal.

The proposal's objectives to protect consumers, improve competitiveness of EU industry and boost renewables and low carbon investment are also wholly consistent with the framework of the European Green Deal, the Clean Industrial Deal and coherent and complementary to current initiatives. It responds to the issues that were identified in the Commission's Action Plan for Affordable Energy in February 2025, namely that high energy costs put at risk the competitiveness of European companies and represent a significant burden for consumers. It is therefore imperative to ensure an efficient use of the energy system, supported by an appropriate structure of taxes, will play an important role to enable electricity users to benefit from more predictable and lower energy costs.

The proposed initiative is strongly linked and complementary to the legislative proposals brought forward in the European Grids Package. It contributes to the aim to allow the best use of our existing energy infrastructure. By aiming to make the best use of existing grid infrastructure to reduce the cost of grid to what is necessary, this proposal complements the European Grids Package, which aims to make the planning of new grid infrastructure more efficient and cost-effective, including by putting forward a priority consideration of alternatives to network development like non-wire, smart and digital solutions or non-fossil flexibility such as demand response and storage in the network planning both on national and EU level. The proposal strengthens the regulatory framework for the deployment of non-wire, smart and digital solutions and their use in system operation, by ensuring that such solutions are promoted whenever they can improve the usable capacity, flexibility and reliability of electricity networks in a cost-efficient manner, and by reinforcing the policy direction already set under the European Grids Package to give priority in network planning to non-wire solutions alongside non-fossil flexibility.

The proposal also seeks to reduce final energy costs for consumers by providing the right incentives to use European grids in an optimal way by higher observability of the grid via smart meters, to protect consumers against rising energy costs and to safeguard competitiveness of European industries. To this end, it introduces a Union-wide baseline for smart metering deployment, aimed at achieving sufficient uptake to support more responsive system operation and improved use of network capacity. In parallel, it clarifies that the role of cost-benefit assessments is limited to deployment beyond that baseline, ensuring a coherent approach across the Union while maintaining flexibility for Member States.

It is also consistent with the Union's broader digital and energy policy framework, including the Data Act[14], the AI Act[15] and existing electricity market legislation[16] on data management and interoperability. The proposal complements those instruments by addressing sector-specific needs linked to electricity grid data exchange and the development of innovative

[14] Regulation (EU) 2023/2854
[15] Regulation (EU) 2024/1689
[16] Directive (EU) 2019/944, Regulation (EU) 2019/943

digital and AI-based solutions for electricity grid system operation and optimisation, while ensuring alignment with Union rules on data protection, cybersecurity, transparency and lawful data use and by supporting the development of European digital and AI-based solutions for critical energy infrastructure, thereby contributing to the Union's strategic autonomy.

This proposal further delivers on the political commitment made by President von der Leyen, who announced in her letter to the Heads of State and Government ahead of the March 2026 EU Council, dated 16 March 2026, that there is clear scope, including through legislation, to reduce electricity taxation by ensuring that electricity is taxed more favourably than gas and through facilitating reductions on the taxation of electricity used by energy intensive businesses.

2. LEGAL BASIS, SUBSIDIARITY AND PROPORTIONALITY

• Legal basis

The proposal is based on Article 194(2) of the Treaty on the Functioning of the European Union (TFEU), which provides the legal basis for proposing measures aiming inter alia to ensure the functioning of the energy market, promote energy efficiency and energy saving and the development of new and renewable forms of energy.[17] In the field of energy, the EU has a shared competence pursuant to Article 4(2)(i) TFEU.

The proposal also includes targeted taxation measures which are purely ancillary to the main energy system objective ensuring the functioning of the energy market as listed in Article 194(2) TFEU. Specifically, the taxation measures are designed to support the achievement of this objective by complementing and reinforcing the objective of increasing the cost-effectiveness of network charges with targeted measures aiming at lowering electricity costs for consumers, thereby increasing its affordability, ensure a level playing field between energy consumers across the EU and support the EU's electrification objectives. These measures consist of general principles and clarifications in line with the existing EU harmonised framework as set out in Council Directive 2003/96/EU.

• Subsidiarity (for non-exclusive competence)

The need for EU action

The growing share of low-cost renewables electricity across the EU combined with the goal of increased electrification to secure energy autonomy puts more stress on European grids. This requires significant grid investments, which translate into higher grid costs. Households and businesses across the EU have been exposed to these higher costs, seriously affecting affordability and competitiveness.

This is an issue of EU-wide relevance, requiring a consistent legal framework within the Union, which can only be addressed with action at EU level. Uncoordinated national policies concerning the principles for transmission and distribution tariffs may distort the internal market to an extent that generation, energy storage services or consumers will be under very different incentives to participate in the market. The incentives for use of electricity over natural gas that are present in national taxation systems should be similarly streamlined across the EU to ensure consistent price signals to be present across the EU energy market, supporting a unified approach to energy security by electrification.

[17] Article 194(1) TFEU.

The current rules leave national regulatory authorities (NRAs) a significant margin of implementation. This has created strongly diverging network charge regimes between different Member States. However, the increased integration of EU electricity markets requires closer coordination between national actors. National policy interventions in the electricity sector have a direct impact on neighbouring Member States due to grid interconnections. To preserve the functioning of the electricity system, and the efficiency in cross-border trade and investments and to accelerate, in a coordinated way, the energy transition towards a more integrated and more energy-efficient energy system based on renewable generation, a common approach is needed.

In addition, making network charges more system-friendly should be supported by common enabling conditions across the Union. Smart meters, smart grids and effective electricity grid data exchanges facilitate the ability of both system operators and grid users to respond to price signals and use existing infrastructure more efficiently. A minimum level of smart metering deployment across the Union supports these conditions by ensuring sufficient uptake for interoperable solutions, while leaving further deployment subject to cost-benefit assessments at national level. Without a more coordinated Union framework in these areas, national approaches would remain fragmented, slowing down the development of European innovative and data-driven solutions. A pan-European system of electricity grid data re-use is needed to enable the development, testing and scaling of European innovative digital solutions for grid operation and management, as such solutions depend on access to sufficiently diverse, high-quality and interoperable grid data across systems and Member States.

The amendments proposed set out a balance between obligations and flexibility left to the Member States on how to achieve cost-efficient grid charges, roll-out of smart meters, and establish smart grids and facilitate data exchanges and re-use of data for innovation purposes.

Additionally, the proposals in this Regulation align with the objectives as set out by the Council Directive (EU) 2003/96, including the proper functioning of the internal market.

EU added value

Ensuring an appropriate and comprehensive framework for energy costs covering network charges and taxes on an EU-level is more efficient and effective than individual Member States' actions as it avoids a fragmented approach that might lead to unduly high network charges or distortive differences in tax structures. The measures proposed to address the shortcomings identified will be more ambitious and cost-effective if driven by a common legal and policy framework. In addition, action at Member State level would only be possible within the constraints of the existing EU-wide framework for network charges as set out in the Electricity Regulation and not be able to achieve the necessary changes to that framework.

At the same time, the proposal puts forward a coherent framework to promote non-wire, smart and digital solutions across the electricity system levels, a minimum level of smart metering deployment to support active consumer participation and more efficient network use, a structured Union process through ACER recommendations and progress reporting to anchor smart grid indicators in regulatory practice, and a coordinated and interoperable approach to electricity grid data exchange and re-use for innovation purposes.

Likewise, support of these changes by simultaneously addressing energy taxation system inconsistencies at European level ensures their effectiveness across Member States. A failure to increase electrification rates across all EU Member States will result in the effects of future

energy crises being unevenly distributed across the Union. Such asymmetrical impact undermines the internal market. Achieving these objectives is only possible by setting principles to be applied on the taxation of electricity.

Consequently, the objectives of this initiative cannot be achieved only by Member States themselves, and this is where action at EU-level provides an added value.

- **Proportionality**

The proposed amendments to the Electricity Regulation are considered proportionate.

To provide stronger incentives for an efficient use of European grids the proposed measures introduce, among others, enhanced transparency rules and the use of performance indicators by national regulatory authorities. The newly introduced transparency rules may lead to increased administrative costs and burden, in particular as regards the additional elements that national administrations will need to make publicly available. However, this impact is on the one hand limited, because the additional elements that are required to be made transparent are kept to a minimum and are in line with those elements that have been flagged by ACER in its latest best practices report, published on 26 March 2025.[18] One the other hand, such impact is necessary and proportionate to achieve the objective of increasing comparability of tariff-setting, enhance the understanding of system users as regards the tariffs payable by them, enable them to adjust their behaviour to a system-friendly one, ultimately rendering system costs more efficient.

The proposed measures on non-wire, smart and digital solutions are proportionate because they do not impose a uniform technological model or a centralised EU system for smart grids and data exchange. They are limited to what is necessary to steer more cost-effective grid operation: first, requiring regulatory authorities to promote non-wire, smart and digital solutions where these demonstrably improve grid capacity, flexibility or reliability; second, introducing a common framework for limited number of smart grid indicators to support more consistent monitoring and regulatory incentives; and third, establishing targeted obligations on grid data exchange, combined with a voluntary Union-level framework for the development of innovative digital tools, complemented by a baseline level of smart metering rollout, while leaving deployment beyond that level to Member States on the basis of cost-benefit assessments. The proposal therefore combines only those common Union rules that are necessary to reduce fragmentation and support the internal market with broad implementation flexibility for Member States, regulatory authorities and system operators, and confines further harmonisation to implementing acts only where uniform technical and governance requirements are needed.

The taxation principles do not exceed what is necessary to attain the objective of aligning energy taxation systems with the amendments to network charges and to provide flexibility to promote the electrification of energy intensive businesses.

Finally, the overall package of measures proposed is considered appropriate given the overarching imperative of ensuring affordable electricity prices and competitiveness of European companies.

[18] ACER report on network tariff practices of 26 March 2025, page 75. The report is available here: 2025-ACER-Electricity-Network-Tariff-Practices.pdf

- **Choice of the instrument**

The proposal will amend the Electricity Regulation. Given that the proposal aims to add a limited set of new provisions and amend a limited set of existing provisions in these instruments, the recourse to an amending act is adequate.

The principles on taxation of energy as laid out in this amendment of the Electricity Regulation focus on the application of the EU provisions imposing a minimum rate on electricity and natural gas and providing practical guidance on the making use of the possibility for Member States to apply reduced taxation rates to electricity used by intensive industries as set by Council Directive 2003/96/EC. In line with the objectives of this Directive, Member States remain free to set their energy tax levels, provided they follow the provisions in the Directive, while the principles in this Regulation will enable existing differences in the electrification incentives in energy taxation frameworks of Member States to be reduced.

3. RESULTS OF EX-POST EVALUATIONS, STAKEHOLDER CONSULTATIONS AND IMPACT ASSESSMENTS

- **Stakeholder consultations and impact assessment**

The present proposal is part of the Commission's response to the energy crisis that originates from the conflict in the Middle East and the closure of the Strait of Hormuz. While over recent years, the EU has massively accelerated the energy transition towards an efficient, flexible and interconnected system that is based on homegrown and clean energy sources, it remains dependent on fossil fuel imports. Over half (57%) of the energy consumed in Europe is imported fossil fuels.

Rising prices are the immediate consequence of the conflict, driving up fossil fuels costs for the EU by 500 million EUR/day. There is no immediate threat to the security of supply, although stocks of some fuels are tight. The EU is in the process of reducing the share of fossil fuels in electricity production, but gas and oil continue to dominate in heating, industry and transport and are a key input to industrial value chains (e.g. chemicals, plastics and fertilisers). This leaves European households and businesses, notably SMEs and energy-intensive industries, and their workers, exposed to global price spikes. Moreover, the possible effects of the crisis on GDP growth and inflation are significant and its impacts are likely to be felt for at least several months and go well beyond the energy sector, with economic, employment and social impacts.

In this context, swift EU action is needed to avert significant harm from European electricity consumers, in particular to decrease electricity bills and the EU dependence on fossil fuels. In March 2026 the European Council European called on the Commission "to urgently present targeted measures – across all components of electricity prices – for concrete actions to lower electricity prices and to address excessive volatility in the short term, including for energy-intensive sectors, taking into account the different situations across Member States".[19] The Commission followed up with the AccelerateEU Communication[20], which announced the adoption of a legislative proposal on two significant components of the electricity bill, namely network charges and taxation, in May 2026

[19] en-20260319-european-council-conclusions.pdf
[20] 7fac9eea-5717-4182-a368-bd68c427ff4c_en

Therefore, due to the urgency to prepare the proposal so that it can be adopted swiftly by the co-legislators, neither a dedicated stakeholder consultation nor an impact assessment could be carried out.

However, this initiative drew conclusions from recent public consultations on the European Grids package as well as the Strategic Roadmap for Digitalisation and AI. Under the European Grids package consultation, 76 % of respondents agreed that further measures are needed to increase the efficiency of the existing grid, with 62 % of respondents further agreeing that enhancing the visibility and quantified benefits of digital, innovative, and grid-enhancing technologies is also needed.

Under the Open Public Consultation from the Strategic Roadmap for Digitalisation and AI in energy, the majority of participants agree or strongly agree that an EU-wide initiative for the development of AI foundation models would accelerate the deployment of digital and AI solutions to the energy system. According to this group of surveyed participants, there is strong confidence in fostering collaboration to accelerate the adoption of digital tools and AI solutions in the energy sector. About 60% of participants agreed with deploying AI foundation models, but the majority (45%) included a caveat: caution should be exercised. AI foundation models should be explored in specific use cases – such as grids -, with clear safeguards and governance in place. Building partnerships, in particular collaboration between grid operators, academia, and research was ranked as main action (next to funding and financing) to most effectively strengthen Europe's capacity to innovate in smart energy systems. In terms of additional measures, the respondents clearly aligned to identify collaborative environments as key. "Support for creating ecosystems/hubs that bring together developers and energy players to build AI-based solutions, applications, foundational models, etc." received 81 mentions. Among the most effective actions in developing a coordinated framework to advance AI and digital technologies in the energy sector, giving regulatory clarity and importance in upcoming legislation was frequently mentioned.

The Commission plans to further engage with stakeholders, for ensuring a successful implementation of this Regulation. Furthermore, in line with the principles of better regulation as set out in the Communication[21] on 'A simpler, clearer and better enforced EU rulebook', the Commission will prepare a staff working document to be published as soon as possible after the proposal is adopted.

- **Regulatory fitness and simplification**

The proposed amendments to the Electricity Regulation focus on what is considered necessary to achieve the objective of addressing rising system costs by incentivising system operators and system users to act in a system-friendly and cost-efficient way. They do not constitute a full revision of these instruments.

The proposal to make network charges more cost-efficient may increase administrative requirements for national administrations, albeit in a proportionate way as explained above. At the same time, the envisaged economic impact will benefit businesses and consumers by contributing to lower energy bills. The impact on national administration is considered minimal compared to the current framework, as the economic gains of the reform would largely surpass any short or long-term administrative reorganisation.

[21] https://ec.europa.eu/commission/presscorner/detail/en/qanda_26_902

For smart grid indicators, the proposal builds on an already existing regulatory practice. National regulatory authorities are already required under Directive (EU) 2019/944 to monitor and assess smart grid development, and ACER and CEER have already developed analytical work in this area. The proposal therefore does not create an entirely new reporting logic but rather structures and streamlines existing practice at Union level in order to support more coherent monitoring and regulatory follow-up.

For smart metering systems, the proposal builds on the existing framework under Directive (EU) 2019/944 by introducing a minimum level of deployment across the Union, while maintaining the role of cost-benefit assessments for deployment beyond that level, thereby clarifying and refining the current approach without introducing a new regulatory mechanism.

For grid data exchange between system operators, the proposal builds further on existing but more general cooperation and data-sharing obligations in the electricity acquis, in particular on TSO-DSO cooperation in network planning and operation. It makes those obligations more operational and purpose-driven by specifying that data exchange must support the development and effective use of smart grids and innovative data-driven solutions for system operation, thereby reducing legal ambiguity and fragmentation rather than creating a wholly new layer of obligations.

For the framework supporting the controlled reuse of electricity grid data for research and innovation, the proposal builds on bottom-up initiatives already being developed by grid operators and their representative bodies. It does not impose mandatory participation but provides a clearer legal and governance framework around voluntary cooperation that is already emerging in practice, with the aim of enabling scale, legal certainty and common safeguards across the Union.

The proposed amendments regarding taxation reduce the regulatory burden for energy intensive businesses and national administrations via the removal of certain pre-conditions for the application of lower excise rates. Changes in taxation rates due to the amendments in this proposal can be implemented at national level via targeted changes to the domestic framework in regular (fiscal) legislative processes and do not influence the regulatory burden.

- **Fundamental rights**

No negative impact on fundamental rights has been identified.

4. BUDGETARY IMPLICATIONS

The budgetary impact associated with this proposal concerns the resources of the European Union Agency for the Cooperation of Energy Regulators (ACER) and the Commission which are described in the Legislative Financial Statement accompanying the proposal. Essentially, for the new tasks to be carried out by ACER 2 additional full time equivalent (FTE) for ACER from 2026 onwards, as well as corresponding financial resources will be required. The Commission's workload will increase by 5 FTE.

5. OTHER ELEMENTS

- **Implementation plans and monitoring, evaluation and reporting arrangements**

The Commission will monitor compliance of Member States and other actors with the measures that shall be ultimately adopted and take enforcement measures if and when required. The Commission will also liaise with ACER and the national regulatory authorities.

Moreover, to facilitate the implementation of the measures ultimately adopted, the Commission will be available for bilateral meetings and calls with Member States in case of specific questions.

- **Detailed explanation of the specific provisions of the proposal**

The amendments to pre-existing principles for transmission and distribution network tariffs provide further details on existing criteria and additional criteria for ensuring a cost-efficient use of electricity grids. They further empower the Commission to adopt implementing acts in the form of guidelines in the areas of transmission and distribution tariff structures.

The amendments require regulatory authorities to promote non-wire, smart and digital solutions to support a more cost-effective use of existing infrastructure before resorting to conventional grid expansion.

The amendments further establish a structured Union-level framework for smart grid indicators to enable smart grids and innovative data-driven solutions for monitoring, optimisation and coordination of network operation. ACER is tasked with issuing a recommendation on a limited set of indicators and with publishing regular Union-level progress reports, while the Commission is empowered to adopt implementing acts.

The proposed amendments also introduce a clearer and more operational obligation for transmission and distribution system operators to manage and exchange grid data in a way that enables the development, deployment and effective use of smart grids.

The amendments create a framework for voluntary cooperation between system operators, jointly facilitated by ENTSO-E and the EU DSO Entity, to develop, test, integrate and deploy innovative digital tools for grid operation and optimisation. They formalise the key governance, access, cybersecurity, compliance and lifecycle-management elements needed for such cooperation, while allowing the Commission to issue an opinion on the proposed arrangement and to adopt implementing acts establishing common requirements on data models, formats, interfaces, transparency and risk management. The purpose is to provide a sector-specific legal basis for the lawful, secure and controlled reuse of electricity grid data for research and innovation in the public interest, including advanced analytics and AI-based solutions.

The amendments introduce a minimum Union-wide deployment requirement for smart metering systems, requiring Member States to ensure coverage of at least [50]% of final customers by [31 December 2030] and at least [65]% by [31 December 2033]. It clarifies that cost-benefit assessments under Directive (EU) 2019/944 may continue to apply only beyond the [65]% threshold.

The proposal concerning the excise taxation of electricity determines that the minimum level of taxation for electricity shall be lower than the minimum level of taxation applicable to natural gas. Additionally, the conditions to apply a reduced rate of up to zero of taxation for electricity for use by energy intensive businesses shall be deemed to be met, given the positive environmental and climate impact of the uptake of electricity and its role in the achievement of the EU's Net-Zero targets.

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

to future-proof electricity bills in the European Union amending Regulation (EU) 2019/943 European Parliament and of the Council (EU) of 5 June 2019 on the internal market for electricity

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 194(2) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee,

Having regard to the opinion of the Committee of the Regions,

Acting in accordance with the ordinary legislative procedure,

Whereas:

(1) Network charges or tariffs comprise connection charges and use charges. Connection charges are typically payable on a "one-off" basis for connecting to the network. Use charges are linked to the use of the network and include charges for building, upgrading, maintaining and operating the transmission and distribution infrastructure, charges for transmission and distribution losses, charges for system operators' procurement of system services and charges for withdrawing or injecting electricity. Considering that network charges constitute a considerable factor for the level of electricity costs and are an important driver to ensure a cost-optimal energy system, harmonised rules can support a level playing field and extend good practices to all Member States, thereby promoting a more efficient approach which can bring down costs and have a positive impact on the affordability of electricity for European consumers and on the competitiveness of the European economy. To that end, network charges should be cost-reflective, transparent, non-discriminatory and should provide the right incentives to both system operators and system users for the cost-efficient functioning of the electricity system.

(2) Cost-reflective network charges should reflect the costs incurred by system operators to develop and operate a cost-efficient network, insofar as such costs correspond to those of an efficient and structurally comparable network operator, considering operational and capital expenditures, and should include an appropriate return on investment. To achieve a cost-efficient use of the network and in line with the energy efficiency first principle, tariffs should incentivise system operators to optimise the use of existing grids, including through the use of flexibility services and the deployment of non-wire and digital solutions, smart grids and smart metering systems. Moreover, network charges should be designed in such a way as to provide the necessary incentives to system users to contribute to a higher flexibility of the network, and to

avoid inefficient curtailment while at the same time allowing energy to be used where the cheapest energy sources are available and when it is the most cost efficient for the overall system. Network charges should also provide locational investment signals and contain capacity as well as time-of-use elements, which could be of static or dynamic nature to incentivise system users to make more efficient use of the network. Furthermore, costs created by system users who either inject or withdraw electricity to and from the grid should also be considered in the overall network charges methodology.

(3) To ensure a level playing field for all market participants in the interconnected European electricity markets, network charges should be applied in a way which does not discriminate between production connected at the distribution level and production connected at the transmission level. Moreover, network charges should not disincentivise aggregation, energy communities, self-generation, self-consumption, storage or participation in demand response and enable effective and timely third-party access. Any special tariff regimes for specific categories of system users should respect the principle of cost-reflectivity. With respect to storage, network charges should be used to incentivise grid friendly behaviour and tariff regimes should account for its particularities, avoid "double charging" of storage facilities and be mindful that this could discourage deployment of storage assets, while reflecting the overall cost impact of the storage on network costs.

(4) Regulatory authorities play a crucial role in ensuring that tariffs are designed in the most appropriate way to ensure cost efficiency of the network and that sufficient investment is provided for the necessary grid operation and development. In view of the need to guarantee a level playing field and to ensure an efficient use of European electricity networks, regulatory authorities should apply consistent and objective benchmarking criteria. Therefore, regulatory authorities should set performance indicators, including smart grid indicators, to assess the extent to which system operators operate and develop the network cost-efficiently. Given its expertise and experience, the European Union Agency for the Cooperation of Energy Regulators (ACER) should assist regulatory authorities in this exercise, including through carrying out an efficiency comparison among transmission system operators. Given the very diverse landscape of distribution systems across the Union, with more than 2600 distribution system operators owning a licence, regulatory authorities are best placed to perform efficiency comparisons among distribution system operators on national level.

(5) Given the pressure on electricity bills, the need for significant investments into the grid and the necessity to ensure the affordability of electricity and the competitiveness of the European industry, Member States may choose to allocate funding to the electricity network from their general budget, including by allocating specific parts of Cohesion funds or other available EU funding to grid investments. Such injections of public funds to support overall network costs may only take place insofar as they are non-discriminatory, and in line with the applicable legal requirements and the principle of cost-reflectiveness. Moreover, it is important to ensure that such public support is targeted and provides overall benefits through the acceleration of decarbonisation and market integration such as investments into interconnectors, major network upgrades or offshore grid connection infrastructure and certain specific needs in the network such as investments that reduce waiting times for grid connections. It should not delay investments in necessary infrastructure or distort the optimal location of power generation units.

(6) The ability to compare tariffs is instrumental for system users to act in a system-friendly way. Not only does this enhance their understanding as regards the applicable tariffs, but it also helps them understand how to adjust their behaviour vis-à-vis the system accordingly to pay lower tariffs. In order to increase comparability in tariff-setting, more transparency is necessary. Additional transparency will also enable regulatory authorities to adopt best practices and carry out their respective cost-effectiveness assessments when fixing or approving tariff methodologies. This is particularly important for the different elements that need to be considered in the tariff methodologies, as well as the complex trade-offs underlying the assessment on the basis of which tariff methodologies are fixed or approved. Prior to fixing or approving tariff methodologies, regulatory authorities should publicly consult relevant stakeholders. Regulatory authorities should take into account the short-term distributional impacts of any changes in the tariff methodologies and consider whether a gradual approach is necessary so as to give system users time to adjust their behaviour and consumption patterns.

(7) Since 2019, ACER has issued several best practices reports on tariff methodologies. These reports provide insight into the challenges and recent developments in network tariff-setting and specific analyses of national tariff-setting practices. They have also increased transparency and allowed for the sharing of good practices and comparability in tariff-setting. Therefore, ACER should continue to issue such reports. These reports should be separate from ACER's reports comparing the efficiency of transmission system operators and their costs.

(8) In order to ensure uniform conditions for the implementation of this Regulation, implementing powers should be conferred on the Commission. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council.[22] Given its long-standing experience and expertise, ACER should provide a recommendation to the Commission, before the Commission issues an implementing act on harmonised methodology on tariffs.

(9) The deployment of non-wire, smart and digital solutions should be promoted whenever they efficiently enhance the usable capacity, flexibility and reliability of electricity transmission and distribution networks. Building up on proposals under the European Grids Package[23], system operators should ensure that non-wire, smart and digital solutions are considered with priority in network planning as well as system operation alongside non-fossil flexibility such as demand response, storage and other solutions.

(10) Efficient use of electricity infrastructure increasingly depends on the ability of transmission and distribution systems to integrate flexibility, digitalisation and data-driven solutions. In this context, common indicators should provide a consistent basis for measuring the performance of system operators in deploying smart grid

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22 Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by the Member States of the Commission's exercise of implementing powers (OJ L 55, 28.2.2011, p. 13).

23 Proposal for a Directive of the European Parliament and of the Council amending Directives (EU) 2018/2001, (EU) 2019/944, (EU) 2024/1788 as regards acceleration of permit-granting procedures (COM/2025/1007 final)
Proposal for a Regulation of the European Parliament and of the Council on guidelines for trans-European energy infrastructure, amending Regulations (EU) 2019/942, (EU) 2019/943 and (EU) 2024/1789 and repealing Regulation (EU) 2022/869 (COM/2025/1006 final)

functionalities and making effective use of existing infrastructure. Building on existing analytical work by ACER and regulatory authorities, the establishment of a limited set of common indicators should contribute to a more coherent monitoring framework, support convergence of regulatory approaches and facilitate the identification of best practices. Regular Union-level assessment based on those indicators should contribute to improving the efficiency and adaptability of electricity networks and provide a consistent analytical basis for the development of regulatory approaches that better reflect system performance, benefits for the broader energy system and the uptake of innovative solutions.

(11) In order to reduce system costs and improve the functioning of the internal energy market, thereby contributing to lower electricity prices, it is necessary to make better use of existing grid infrastructure via seamless data exchange and use of digital tools. This requires more effective and timely exchange of relevant electricity grid data between system operators to enable a higher level of grid observability by better coordination across transmission and distribution levels.

(12) System operators should improve the productivity of network infrastructure through the deployment of innovative technologies, supported by interoperable grid data exchange arrangements, as data-driven tools for grid operation will contribute to reducing system constraints, thereby limiting the scope of grid reinforcements and alleviating system stress.

(13) The efficient and secure operation of electricity networks increasingly depends on the development and deployment of advanced digital and data-driven solutions. Availability and accessibility of relevant electricity grid data is crucial for the ability to develop, test and scale innovative solutions for grid operation and optimisation. In particular, the use of electricity grid data for analytical, research and innovation purposes is constrained by legal uncertainty, high transaction costs and the absence of common arrangements for secure data access, processing and governance. It is therefore appropriate to provide a framework enabling transmission system operators and distribution system operators, on a voluntary basis and through a coordinated arrangement at Union level, to cooperate with relevant stakeholders in pooling data, expertise and computing resources for the development, testing, integration and deployment of innovative digital tools for electricity system operation and optimisation. Electricity grid data can include, depending on the use case, network topology, grid parameters and asset characteristics, connection and capacity data, real-time measurements from Supervisory Control and Data Acquisition (SCADA) systems and other operational measurements, state estimation and power flow data, voltage, load flow and congestion data, outage and maintenance data, dispatch, redispatch and curtailment data, flexibility needs, and operational forecasts, limits and constraints relevant for transmission and distribution system operation.

(14) Such a framework should also support the wider availability of the solutions developed for the benefit of system operators across the Union, while ensuring appropriate safeguards for data protection, confidentiality, safety, cybersecurity and system security. To support the consistent development of such arrangements at scale, common requirements on data models, data formats, data ontologies, access procedures, governance, transparency and secure grid data exchange should be established at Union level building on existing standards such as the Common Grid Model Exchange Standard. Implementing powers should therefore be conferred on the Commission to ensure uniform conditions for the definition of those requirements and

for the lawful, secure and controlled reuse of data for research and innovation purposes supporting the operation and optimisation of the electricity system.

(15) The efficient use of the electricity network relies on the availability of accurate and granular consumption data and on the ability of final customers to access and act upon such data. Smart metering systems are a key enabler of demand response and dynamic electricity price contracts, which can contribute to improving the utilisation of existing electricity network infrastructure, including by reducing the curtailment of renewable energy and facilitating electrification. By enabling consumers to adjust their consumption to periods of lower prices and to benefit from more efficient use of the electricity system, smart metering systems can contribute to more affordable and predictable energy bills. In order to achieve a sufficient level of deployment across the Union and to support more efficient network usage, including across borders within the internal energy market, Member States should ensure that at least [50]% of final customers have access to a smart meter to establish a critical mass for consumer participation and flexibility services, and progressively increase this level to at least [65%] by [31 December 2033]. Cost-benefit assessments under Directive (EU) 2019/944 should apply only to deployment beyond that level, ensuring proportionality while meeting the Union's digitalisation and flexibility objectives.

(16) Electricity costs are also impacted by the taxes levied on electricity bills. To support the affordability of electricity, its uptake as an energy source and the transition to a low-carbon economy, Member States should ensure that electricity is taxed more favourably than natural gas, thereby providing a pricing signal to support the electrification of the Union. This principle is in line with the Union's climate goals and can be enacted by Member States under the current Union harmonised framework as set out by Council Directive 2003/96/EU.

(17) This price signal is particularly relevant for energy-intensive businesses, where the cost-differential to natural gas can hinder the transition to cleaner energy sources. Article 17 of Council Directive 2003/96/EU permits Member States to apply a reduced level of taxation, including a rate of zero, to electricity used by energy-intensive businesses, subject to certain environmental and energy efficiency conditions. As electrification is a key pillar of the Union's strategy to reach net-zero greenhouse gas emissions, as recently reaffirmed in the Clean Industrial Deal, accelerating the electrification of the economy will not only contribute to the climate objectives but can also help reduce energy costs and support the competitiveness of the EU's manufacturing sector. Consequently, electricity used by energy-intensive businesses should be considered as meeting the environmental objectives and increased energy efficiency conditionality set forth in article 17 paragraph 4 of Council Directive 2003/96/EU.

HAVE ADOPTED THIS REGULATION:

Article 1

Amendments to Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity

Regulation (EU) 2019/943 is amended as follows:

(1) Article 18 is replaced by the following:

"Article 18

Network charges

1. Network charges shall be cost-reflective, transparent and non-discriminatory, shall provide incentives to system operators to develop and operate the transmission and distribution networks in a cost-efficient way and shall provide incentives to system users to adjust their use of the electricity system to support its cost-efficient functioning.

2. Tariff methodologies shall include the design of network charges applied to system users and the determination of the remuneration that transmission and distribution system operators receive through those network charges. They shall:

   (a) reflect the costs of transmission and distribution system operators, insofar as those costs correspond to those of an efficient and structurally comparable system operator. These costs shall consider both capital and operational expenditure, including costs related to anticipatory investment, and shall not include costs supporting unrelated policy objectives. Regulatory authorities shall set performance indicators as regards the efficient operation and development of the network, including smart grid indicators in accordance with Article 18a;

   (b) take account of the payments and receipts resulting from the inter-transmission system operator compensation mechanism, including actual payments made and received as well as payments expected for future periods, estimated on the basis of previous periods;

   (c) provide appropriate incentives to transmission and distribution system operators for the cost-efficient operation and development of the network over both the short and long term and for the optimisation of the existing grids, including through the use of flexibility services, the deployment of non-wire and digital solutions, smart grids and smart metering systems. Such incentives shall also include incentives to reach the minimum levels of available capacity for cross-zonal trades set out in Article 16(8);

   (d) reflect the costs created by system users which withdraw electricity from and inject electricity into the transmission or distribution networks;

   (e) provide appropriate incentives to system users to withdraw electricity from and inject electricity into the transmission or distribution networks in a way which supports the efficient functioning of these networks;

   (f) provide locational investment signals;

   (g) provide appropriate incentives to system users for the reduction of peak load consumption, including through adding a capacity element to the tariff structure;

(h) contain time-of-use elements to reflect the use of the network;

(i) not discriminate between system users connected at the distribution level and system users connected at the transmission level;

(j) not disincentivise effective and timely third-party access, aggregation, energy communities, self-generation, self-consumption, storage or the participation in demand response;

(k) enable the integration of renewable energy through the development and facilitation of non-fossil-flexibility such as storage and demand response, as well as innovation, non-wire solutions, smart grids and digitalisation;

(l) enable the use of flexible connections, while ensuring this does not delay needed network reinforcements;

(m) not impose specific network charges on individual transactions for cross-zonal trading of electricity;

(n) ensure that network charges applicable to storage installations reflect any benefits created for the network and are limited to the costs that these installations create for the transmission or distribution networks; and

(o) ensure that the connection and system integration of data centres does not lead to higher network charges for other system users;

3. Special tariff regimes may apply to specific categories of system users, such as energy intensive industry and energy communities, provided that the regulatory authorities can demonstrate that the consumption of the users in question has a proportionally lower or higher impact on the overall cost of the transmission or distribution network and that the principle of cost-reflectivity is respected.

4. Member States may partially cover network costs through State funds to lower the overall amount of network charges imposed on system users provided that the following requirements are met:

(a) the State funding shall be provided in a non-discriminatory manner, without selectively favouring, directly or indirectly, specific categories of system users;

(b) the provision of State funds shall not undermine any incentives provided to system operators for the efficient operation and development of the network and to system users to adjust their consumption to lower the overall costs of the transmission and distribution systems;

(c) the State funds shall only cover the additional costs resulting from measures to accelerate decarbonisation and market integration; and

(d) the provision of State funds shall not be to the detriment of competition or the effective functioning of the internal market for electricity.

5. As of *[first day of the month following [12] months after the date of entry into force of this Regulation]*, regulatory authorities shall ensure the transparency of the methodologies, parameters and values used to determine or approve the costs that are to be recovered by transmission and distribution system operators. To that end, regulatory authorities shall publish at least the following information on costs, or shall require its publication by the relevant transmission or distribution system operator:

(a) transmission infrastructure costs, such as capital expenditure, including return on capital and depreciation, and operational expenditure;

(b) distribution infrastructure costs, such as capital expenditure, including, return on capital and depreciation, and operational expenditure;

(c) costs of transmission losses;

(d) costs of distribution losses;

(e) costs of metering services;

(f) costs of withdrawing and/or injecting reactive power outside the allowed limits; and

(g) costs of system operators purchases of ancillary services and congestion management services, including re-dispatching costs.

Regulatory authorities shall furthermore publish at least the following information, or shall require its publication by the relevant transmission or distribution system operator:

(a) the assessment underlying the detailed transmission and distribution tariff methodologies;

(b) the cost categories and the amounts of such costs recovered by each type of tariff they apply;

(c) where applicable, the amount of network charges covered through State funds or other public funds pursuant to paragraph 4;

(d) the annual transmission and distribution tariff values for each system user group;

(e) any studies relied upon for the available choices for tariff design;

(f) any special tariff regimes provided to system users together with a justification for those regimes; and

(g) the performance indicators as regards the efficient operation and development of the network referred to in paragraph 2, point a).

The information referred to in this paragraph shall be made available in a freely accessible, downloadable and read-only format and, to the extent possible, in one or more commonly understood languages, while preserving the confidentiality of commercially sensitive information.

6. Prior to fixing or approving the applicable tariff methodologies in accordance with Article 59(1)(a) of Directive (EU) 2019/944, regulatory authorities shall carry out one or more public consultations on the relevant draft methodologies.

7. ACER shall assist regulatory authorities in determining performance indicators as defined in paragraph 2, point a), and shall carry out an efficiency comparison among transmission system operators, and their costs, considering these indicators. By *[first day of the month following [24] months after the date of entry into force of this Regulation]* and every four years thereafter, ACER shall publish a report with the efficiency comparison among transmission system operators and their costs set out, while protecting commercially sensitive data. The regulatory authorities and the transmission system operators shall provide ACER with all the data necessary for that comparison.

Regulatory authorities shall carry out the efficiency comparison among distribution system operators in their respective jurisdictions, insofar as there is more than one distribution system operator, and taking into account national specificities. By *[first day of the month following [36] months after the date of entry into force of this Regulation]* and every four years thereafter, regulatory authorities shall publish a report building on the results of national efficiency comparison among distribution system operators and their costs. The relevant distribution system operators shall provide regulatory authorities with all the data necessary for that comparison.

8. In order to mitigate the risk of market fragmentation, ACER shall by *[first day of the month following [24] months after the date of entry into force of this Regulation]* provide a best practice report on transmission and distribution tariff methodologies while taking account of national specificities. That best practice report shall address at least:

(a) the ratio of tariffs applied to producers and tariffs applied to final customers;

(b) the costs to be recovered by tariffs;

(c) time-differentiated network tariffs;

(d) locational signals;

(e) the relationship between transmission tariffs and distribution tariffs;

(f) methods, to be determined after consulting relevant stakeholders, to ensure transparency in the setting and structure of tariffs, including anticipatory investment, that are in line with relevant Union and national energy objectives and taking into account the acceleration areas as established in accordance with Directive (EU) 2018/2001;

(g) groups of network users subject to tariffs including, where applicable, the characteristics of those groups, forms of consumption, and any tariff exemptions;

(h) losses in high, medium and low-voltage grids; and

(i) incentives for efficient investment in networks, and for efficient use of the existing network, including resources providing flexibility and flexible connection agreements, and use of non-wire, digital and smart solutions.

ACER shall update the best practice report at least once every two years.

9. Regulatory authorities shall duly take the best practice report into consideration when fixing or approving transmission tariffs and distribution tariffs or their methodologies in accordance with Article 59 of Directive (EU) 2019/944.'

(2) the following Articles 18a, 18b and 18c are inserted:

'Article 18a

Smart grid indicators and innovation

1. Regulatory authorities shall promote the deployment of non-wire, smart and digital solutions, whenever such technologies and solutions efficiently enhance the usable capacity, flexibility and reliability of electricity transmission and distribution networks.

2. By *[first day of the month following [12] months after the date of entry into force of this Regulation]*, ACER shall, in close cooperation with the Commission, the ENTSO for Electricity and the EU DSO entity as well as relevant stakeholders, issue a recommendation addressed to regulatory authorities on smart grid indicators to measure the uptake and performance of smart and innovative grid technologies and digital solutions in transmission and distribution networks. Transmission system operators and distribution system operators shall provide, and where relevant shall ensure the provision of, the data requested for that purpose to the regulatory authorities and to ACER.

3. At least every three years after the publication of ACER's recommendation referred to in paragraph 2, ACER shall publish a Union-level progress report assessing the development and uptake of smart grid solutions and the efficient use of electricity infrastructure, based on the indicators referred to in paragraph 2 and on national reports under Article 59(l) of Directive (EU) 2019/944. ACER's report shall identify best practices and, where appropriate, recommend further measures.

4. Transmission system operators and distribution system operators shall manage and exchange grid data in a manner that enables the development, deployment and effective use of smart grids in order to ensure the efficient, secure and flexible operation of the electricity system. For that purpose, they shall cooperate to make use of available data, including metering, network, market and operational data in a harmonised manner, and shall develop and operate innovative data-driven solutions supporting the monitoring, optimisation and coordination of network operation, including the integration of demand response, renewable energy sources and non-fossil flexibility.

5. Transmission system operators and distribution system operators shall, in cooperation with other system operators through a coordinated arrangement jointly facilitated by the ENTSO for Electricity and the EU DSO entity, establish a voluntary secure electricity grid data exchange framework enabling the development, testing, integration and deployment of innovative technologies supporting the efficient and safe grid operation and optimisation, while ensuring compliance with data protection, confidentiality and security requirements. For that purpose, they shall:

   (a) cooperate with relevant European stakeholders, including research and technology organisations and industrial solutions providers to pool in expertise, data and digital resources;

   (b) allow the use of the developed innovative solutions, by all European transmission and distribution system operators filing a request via the coordinated arrangement of the ENTSO for Electricity and the EU DSO entity;

   The ENTSO for Electricity and the EU DSO entity, in close cooperation with those transmission system operators and distribution system operators wishing to establish the coordinated arrangement, shall define, and communicate to the Commission:

   i) governance, decision-making rules and rules of participation of transmission system operators and distribution system operators, including those joining at a later stage, allocation of roles and responsibilities, intellectual property management and the modalities for access to the developed innovative solutions;

   ii) technical and operational measures to comply with Union law, in particular Regulation (EU) 2023/2854 of the European Parliament and of the Council[(*)],

Regulation (EU) 2016/679, Regulation (EU) 2024/1689 of the European Parliament and of the Council[(**)] and other relevant Union legislation;

(*) Regulation (EU) 2023/2854 of the European Parliament and of the Council of 13 December 2023 on harmonised rules on fair access to and use of data and amending Regulation (EU) 2017/2394 and Directive (EU) 2020/1828 (OJ L, 2023/2854, 22.12.2023, ELI: http://data.europa.eu/eli/reg/2023/2854/oj)

(**) Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (OJ L, 2024/1689, 12.7.2024, ELI: http://data.europa.eu/eli/reg/2024/1689/oj)

iii) safety and cybersecurity measures to ensure the safe integration of developed solutions within transmission and distribution system operator's internal processes and operations;

iv) technical and operational measures to ensure operation, maintenance and updates of the digital tools resulting from the data exchange framework throughout their overall lifecycles towards deployment and operational integration into to grid; and;

v) common frameworks for testing, benchmarking and validation of outputs.

The Commission shall deliver an opinion on the elements communicated pursuant to points i) to v) within three months from the day of the receipt of the information. The ENTSO for Electricity, the EU DSO entity and the transmission system operators and distribution system operators concerned shall take utmost account of that opinion when establishing and implementing the coordinated arrangement. The ENTSO for Electricity and the EU DSO entity shall inform the Commission how that opinion has been taken into account.

Without prejudice to the voluntary nature of participation, all transmission system operators and distribution system operators, engaged in this framework shall, upon the adoption of implementing acts by the Commission pursuant to Article 61(5) point b, fully comply with the technical, operational, cybersecurity, and transparency requirements set forth therein.

Article 18b

Smart metering systems

1. Member States shall ensure the deployment in their territories of smart metering systems covering at least [50]% of all final customers by [31 December 2030] and [65]% by [31 December 2033], to enable the active participation of final customers in the electricity market. Deployment beyond that level may be subject to a cost-benefit assessment which shall be undertaken in accordance with the principles laid down in Annex II of Directive (EU) 2019/944. The functionalities of these smart metering systems shall meet the requirements set out in Article 20 of Directive (EU) 2019/944.

2. For the purposes of Directive (EU) 2019/944, any reference to a cost-benefit assessment in relation to the deployment of smart metering systems shall be understood as applying exclusively to deployment beyond the 65% coverage level set out in paragraph 1 of this Article.

Article 18c

Electricity taxation

1. Member States shall promote the uptake of electricity as an energy source by adopting a supporting taxation framework.

2. Member States shall apply a tax differential [on the excise duties regulated under Council Directive 2003/96/EC] between electricity and natural gas, such that electricity is taxed at a rate that is not higher than the rate applied to natural gas, in accordance with the principle set forth in paragraph 1.

3. Electricity supplied to energy intensive businesses as defined in Article 17 paragraph 1 of Council Directive 2003/96/EC shall be deemed to meet the requirements in paragraph 4 of the same Article.'

(3) Article 61 is amended as follows:

(a) the following paragraph 5a is added:

"5a. The Commission may adopt an implementing act setting out guidelines on a common structure and harmonised methodology on tariffs pursuant to Article 18. Prior to the adoption of such acts, or any amendment thereof, the Commission shall request ACER to issue a recommendation addressed to the Commission on a proposal for a common structure and harmonised methodology on tariffs. These guidelines shall set out the rules on harmonised tariff structures for electricity, including detailed conditions under which regulatory authorities may introduce separate network charge regimes for specific categories of system users as referred to in Article 18(3) and harmonised rules on the procedural and substantive requirements for the public consultations referred to in Article 18(6).

The Commission may adopt an implementing act on smart grid indicators pursuant to Article 18a. Prior to the adoption of such act or any amendment thereof, the Commission shall consider ACER's recommendation pursuant to Article 18a.

Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 67(2) ";

(b) the following paragraph 5b is added:

"5b. The Commission may adopt implementing acts setting out guidelines to enable the lawful, secure and controlled reuse of data for research and innovation public-interest purposes supporting the operation and optimisation of the electricity system pursuant to Article 18a. These guidelines shall:

(a) specify and update technical data models, formats, ontologies, and interfaces;

(b) specify conditions of transparent and accountable operations of secure processing environments enabling data exchange for innovation purposes and requirements for the publication of periodic activities reports, including the use cases supported and any identified barriers to data sharing;

(c) specify liability, cybersecurity, risk mitigation and incident reporting requirements, in accordance with existing Union legislation, in particular Regulation (EU) 2024/1689.

Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 67(2) ".

Article 2

Entry into force

This Regulation shall enter into force on the [xxx] day following that of its publication in the Official Journal of the European Union.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

For the European Parliament	*For the Council*
The President	*The President*