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PROPOSAL

From:	Secretary-General of the European Commission, signed by Ms Martine DEPREZ, Director
date of receipt:	17 July 2026
To:	Ms Thérèse BLANCHET, Secretary-General of the Council of the European Union
No. Cion doc.:	COM(2026) 600 final
Subject:	Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Regulation (EU) 2019/943, as regards future-proofing electricity bills in the Union, through reducing system costs and fostering electrification and digitalisation

Delegations will find attached document COM(2026) 600 final.

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Brussels, 17.7.2026
COM(2026) 600 final

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Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

amending Regulation (EU) 2019/943, as regards future-proofing electricity bills in the Union, through reducing system costs and fostering electrification and digitalisation

{SWD(2026) 600 final}

(Text with EEA relevance)

EXPLANATORY MEMORANDUM

1. CONTEXT OF THE PROPOSAL

- **Reasons for and objectives of the proposal**

The European Commission ('Commission') adopted the Affordable Energy Action Plan 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 and 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], the Citizens Energy Package[4] and the Strategic Roadmap for digitalisation and AI in the energy sector[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 for concrete actions to lower all components of electricity prices.

The Commission responded with the publication of AccelerateEU[6], explaining the need to reduce energy costs by accelerating the deployment of homegrown clean energy and increasing the rate of electrification. This should be combined with further upgrading the electricity system through measures on 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 to ensure the cost efficiency of transmission and distribution networks and incentivise both system operators and system users to make better use of the existing infrastructure. In addition, it introduces taxation measures, to ensure, among other goals that electricity is taxed less than natural gas. The proposal also clarifies the role of national regulatory authorities when it comes to ensuring efficient, transparent and non-discriminatory access to transmission and distribution networks[7], including in situations of grid congestion which may require the application of measures ensuring maturity and progress of grid connection requests, as well as setting out prioritisation conditions.

Network charges

The common electricity market is one of the cornerstones for competitiveness and prosperity in our Union. The Union is dedicated to pursuing decarbonisation while increasing energy affordability and security. This is pivotal for the competitiveness of European industries, as outlined in the Clean Industrial Deal[8], which also addresses the need to support strategic autonomy, secure vital supply chains and maintain economic prosperity. However, in recent years, and over two crises, the Union has been facing rising energy costs, which puts our competitiveness at risk.

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1 COM/2025/79.
2 C/2026/126.
3 COM/2025/1005.
4 COM/2026/115.
5 COM/2026/501.
6 COM/2026/370.
7 Article 3 point (q) of Regulation (EU) 2019/943.
8 COM/2025/85.

The European electricity network is the most interconnected in the world and a fundamental pillar of the European electricity market. Rising electricity demand, the increasing electrification of end uses, the decentralisation of electricity production and the accelerated deployment of renewables will require significant investment in modernising and expanding the electricity network, and the optimisation of the way electricity grids are designed and operated. At times where a lot of electricity is generated by renewables, low or negative electricity prices – which have become more regular over recent years[9] – reflect the need for the system to be more flexible. This is crucial to exploit the potential of renewables sources and avoid cost-inefficient curtailment, while incentivising consumption at times and locations in which the cheapest energy sources are available and the costs for the operation of the system are minimised.

The electricity system's costs are covered by network charges. They finance the physical upgrade of grids, the maintenance and the operation of the system. This is essential for the deployment of renewables, electrification and new industrial and business demand. Network charges have, in recent years, represented, on average, between 24 and 29%[10] of the electricity bill for households (with the other main factors being the price of the energy commodity, taxes and levies and carbon costs). While the energy component of the electricity price is expected to decrease, grid costs are expected to become an even larger item on electricity bills. The European Union Agency for the Cooperation of Energy Regulators (ACER) estimates that to build a decarbonised EU energy system, investments of an unprecedented level will be needed in the electricity transmission and distribution grids[11]. This would double and even triple the annual investment rates of the past decades. Rising system costs may lead to a significant increase in total grid costs over time of up to by 60% by 2050 compared to 2022.

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

Therefore, it is important to ensure that network charges incentivise system operators to operate the grid efficiently, to use flexibility and to develop smart electricity 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. Grid users should be incentivised to behave in a system-friendly way, adjusting their energy use or shifting it towards times and places in

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

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

11 ACER Report 'Electricity infrastructure development to support a competitive and sustainable energy system', ACER_2024_Monitoring_Electricity_Infrastructure.pdf. According to the report, "*annual grid investment in Europe is estimated to double until 2050, reaching up to EUR 100 billion, with lower estimates at EUR 75 billion.*"

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.

which the cheapest energy sources are available and when it is the most cost efficient for the overall system. To achieve this, the Affordable Energy Action Plan has suggested putting forward a legislative proposal on network charge design. For this reason, the President of the Commission announced on 16 March 2026 that the Commission will prepare a legislative proposal to improve the productivity of grid infrastructure.

This proposal addresses concerns about rising energy costs, since they are driven not only by high and volatile prices but also by rising system costs. It does so by improving the design of network charges to ensure cost efficiency of transmission and distribution networks and by ensuring that the necessary incentives are provided to both system operators and system 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, provide incentives for grid users to adapt their consumption behaviour, encourage enhanced transparency and oblige regulatory authorities to set performance indicators to increase efficient grid use and system efficiency. All these measures should help ensure that network charges reflect the true costs imposed on the system and further support efficient grid use.

The proposal allows for special cost-reflective network charge regimes to apply to specific categories of system users based on their consumption pattern, such as energy-intensive industries, and data centres. It combines this option with safeguards to avoid adverse effects on affordability for households and SMEs.

To make these changes operational, the proposal needs to be combined with tertiary legislation on a common structure and harmonised methodology on network charges, similar to existing legislation in the gas sector.

Smart meters and smart electricity grids

To improve grid infrastructure efficiency, the electricity system must be equipped with the technical and digital capabilities to monitor the grid status and optimise grid usage close to real-time, and to incentivise or steer grid users to optimise their grid use, especially when coupled with PV installation and home batteries and/or dynamic tariffs. This may further reduce system costs notably by reducing peak demands. These capabilities enable system operators to respond faster and more efficiently, making better use of the existing infrastructure, 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 this reason, the proposal on network charges is accompanied by limited but targeted measures on smart meters and smart electricity 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 will be equipped with smart meters by 2030. This proportion should be progressively increased to at least 75 % of final customers by 2033 to strengthen the technical basis for active consumer participation and more granular system visibility. For Member States with deployment levels below 30 % at the date of entry into force of this Regulation, a limited extension for the deadline of the 50 % target would be appropriate.

This approach reflects the current state of play across the Union, with overall smart meter penetration at around 60 % in 2024[13] and fifteen Member States already exceeding 80 % coverage, in line with the deployment levels set out in Annex II of Directive (EU) 2019/944[14], demonstrating that higher penetration rates are achievable, while others remain significantly below this threshold or have not yet initiated large-scale deployment. This uneven rollout undermines the effective functioning of the internal market and the development of innovative products and services. At the same time, the proposed deployment obligation should create a sufficient uptake across the Union to support more efficient use of the existing electricity network infrastructure and enable consumers to understand and manage their energy consumption and costs better. In addition, the proposal clarifies that cost-benefit assessments under Directive (EU) 2019/944 will apply only to deployment beyond the 75 % 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 electricity 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. Most importantly, it establishes a targeted framework to improve the exchange and secure re-use of electricity grid data. It also supports the efficient, secure and flexible operation of the electricity system, and the development of innovative digital and data-driven tools, including artificial intelligence applications, capable of improving grid performance and optimisation. This in direct response to the President's call for grid operators to improve the productivity of the existing infrastructure by making full use of innovative technologies.[15]

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

Taxation

The electrification of the European economy is a strategic imperative for the Union's competitiveness, energy security, and decarbonisation objectives. Achieving a more electrified and climate-neutral energy system requires substantial investments in electricity grids and infrastructure. Network charges and energy taxation together constitute the main regulatory cost drivers embedded in electricity bills and, as such, are inextricably linked levers in incentivising electrification. Addressing network charges in isolation, without simultaneously aligning the principles of taxation of electricity with EU electrification, would undermine the coherence and effectiveness of Union energy policy. Only by acting on both elements in a coordinated manner can this proposal structurally reduce the cost of electricity for consumers and meaningfully advance the Union's electrification goals.

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

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13 ACER/CEER Energy Retail Market Monitoring Report (November 2025); Country Fiches (July 2025).

14 Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU (OJ L 158, 14.6.2019, p. 125, ELI: http://data.europa.eu/eli/dir/2019/944/oj).

15 Letter of President Von Der Leyen ahead of European Council dated 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**'.

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 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.

Grid connection measures in case of network congestion

Timely electricity network access is crucial for the competitiveness and decarbonisation of the European industry, automotive and transport sectors – for example recharging pools – and digitalisation of the economy including the establishment of data centres. It is also a crucial condition for fulfilling the goals of the Clean Industrial Deal, Accelerate EU and achieving climate neutrality by 2050. It is also critical for fulfilling housing needs and related basic societal needs. Delays in grid connections slow down the clean transition and European economic growth. Grid connection queues are present in at least 16 Member States based on the evidence collected in 2025.[16] This is why tackling grid connection queues is becoming increasingly urgent throughout the EU.

While the long-term solution to the challenge of insufficient network capacity is the accelerated build out of grids in a forward-looking manner, more short-term solutions can be

[16] Fraunhofer ISI, Fraunhofer IEG, Guidehouse, REKK, Study on network development planning, tariff structures and connection requests for electricity distribution grids, September 2025, https://op.europa.eu/en/publication-detail/-/publication/08843617-9cf8-11f0-97c8-01aa75ed71a1.

advanced in parallel to ensure timely grid connection of clean energy generation and electrified loads. Building on existing legal framework, the Commission put forward a Guidance on efficient and timely grid connections[17] ("Guidance") as part of the European Grids package. The Guidance provided concrete recommendations for coordinated network planning involving society and industry, more efficient utilisation of existing grids, including through design of network tariffs, connection charges or flexibility, and finally, transparency of grid hosting capacity and connection procedures. Concerning the grid connection procedures, the Guidance stresses the need to move away from first-come first-served allocation of network capacity towards a system considering maturity and progress of grid connection requests, as well as their impacts on congestion, or environmental, social or economic considerations.

This legal proposal implements the provisions of the Guidance related to efficient and non-discriminatory grid connection procedures in case of congestion in the EU legal framework, further specifying the existing rules under the Article 6 of the Directive (EU) 2019/944 by making explicit mention of the option to prioritise sectors or network users within a sector or the option to consider impacts on network congestion, economic, social or environmental considerations as long as these are based on transparent and non-discriminatory criteria. Existing legislation also does not explicitly cover maturity and progress criteria to tackle speculative or immature connection requests. Clarification is necessary to enable full implementation of the Guidance provisions as well as to clarify the role of regulatory authorities in setting the network access conditions, in line with existing provisions of Articles 6 and 59 of the Directive (EU) 2019/944. At the same time, the proposal leaves space to consider national conditions by leaving full discretion over selection of respective measures to the national regulatory authority. They must however ensure that other measures addressing grid congestion, implementing the existing EU legal framework, like cross-sectorial network planning involving stakeholders, flexible connection agreement or use of non-wire and digital solutions to ensure network efficiency, are in place.

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

This proposed initiative aligns with the objectives of increasing electrification while ensuring affordability as laid down in AccelerateEU and the Clean Industrial Deal. Hence, this proposal also aligns with the objective of the Electrification Action Plan[18] which is the acceleration of electrification in the energy sector to ensure cost-efficient and secure energy transition and decreasing import dependency. The electrification action plan includes horizontal actions to achieve indicative electrification objectives as well as sector-specific actions targeting transport, buildings and industry. Efficient network charges as well as grid use and development is critical for the success of the Action Plan.

The proposal's objectives to reduce costs for consumers, improve the competitiveness of EU industry, and boost renewables and low-carbon investment are consistent with the framework of the European Green Deal and the Clean Industrial Deal, and in line with current initiatives. The proposal responds to the issues that were identified in the Commission's Action Plan for Affordable Energy in February 2025, i.e., that high energy costs put the competitiveness of European companies at risk and represent a significant burden for consumers.

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17 Commission Notice, 'Guidance on efficient and timely grid connections' (C/2025/6703).

18 COM(2026)595 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - Electrification Action Plan.

It is therefore imperative to ensure that an efficient use of the energy system, supported by an appropriate tax structure, plays an important role in enabling electricity users to benefit from more predictable and lower energy costs.

The proposed initiative is strongly linked to and works well with the legislative proposals put forward in the European Grids Package. It aims to make the best use of existing grid infrastructure to reduce the cost of grid to what is necessary. Therefore, it complements the European Grids Package, which aims to make the planning of new grid infrastructure more efficient and cost-effective. This includes giving priority consideration to 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 at national and Union levels. The proposal strengthens the regulatory framework for the deployment of non-wire, smart and digital solutions and their use in system operation on a national level, while the European Grids Package focuses more prominently on cross-border infrastructure. It does so 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. It reinforces the policy direction already taken under the European Grids Package to give priority in network planning to non-wire solutions alongside non-fossil flexibility. On grid access, the legal proposal is fully consistent with the goals of the European Grids Package by implementing the provisions of the Guidance on efficient and timely grid connections related to efficient and non-discriminatory grid connection procedures in case of congestion management in the EU legal framework, hence reinforcing ongoing work on Guidance implementation.

In line with the objectives of the Citizens Energy Package[19] to empower consumers and strengthen their participation in the energy market, the proposal also seeks to reduce final energy costs for consumers by providing the right incentives to use European grids in an optimal way. This is consistent with findings of the report on market-based electricity supply prices and promoting remuneration of flexibility in retail contracts[20] under the Citizens Energy Package implementation set, which highlights the importance of smart meter rollout. The proposal delivers on this by increasing observability of the grid via smart meters, thereby enabling more active consumer participation and facilitating demand-side flexibility, while helping to protect consumers against rising energy costs and to safeguard the competitiveness of European industries. To this end, it introduces a Union-wide baseline for smart meter 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 consistent 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 Regulation on harmonised rules on fair access to and use of data (the Data Act)[21], the Regulation on harmonised rules on fair access to and use of data (the AI Act)[22] and existing electricity market legislation[23] 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 digital and AI-based solutions for electricity grid system operation and optimisation. At the same time, it ensures alignment with Union rules on data protection, cybersecurity, transparency and lawful data use and supports the

[19] COM(2026)115 final.
[20] COM(2026)850 final.
[21] Regulation (EU) 2023/2854.
[22] Regulation (EU) 2024/1689.
[23] Directive (EU) 2019/944, Regulation (EU) 2019/943.

development of European digital and AI-based solutions for critical energy infrastructure, thereby contributing to the Union's strategic autonomy. It also contributes to the objectives of the Cloud and AI Development Act (CADA), notably by improving the use of existing infrastructure, hence enabling more timely grid connections and thereby timely deployment of cloud and AI infrastructure, including data centres.

Furthermore, the proposal is also consistent with the European Climate Law, as it supports emissions reductions through improved energy efficiency, demand-side flexibility and the integration of renewable energy sources, contributing to a more decarbonised and resilient energy system.

This proposal also 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 to reduce electricity taxation, including through legislation. This can be done by ensuring that electricity is taxed more favourably than gas and by 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[24]. In the field of energy, the Union 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 and complement 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, variable and decentralised electricity from renewables across the Union 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, at least in a short-term horizon until the demand fully materializes and the costs are spread across wider consumer base. Households and businesses across the Union have been exposed to these higher costs, affecting affordability and competitiveness.

This is an issue of Union-wide relevance, requiring a consistent legal framework within the Union, which can only be addressed with action at Union level. Uncoordinated national

[24] Article 194(1) TFEU.

policies on the principles for transmission and distribution tariffs may distort the internal market to the extent that generation, energy storage services or consumers will be under very different incentives to participate in the market. The incentives for the use of electricity over natural gas in national taxation systems should be streamlined at Union level to ensure consistent price signals across the EU energy market, supporting a unified approach to electrification and by extension energy security.

The current rules leave national regulatory authorities (NRAs) a significant margin for 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. A common approach is needed for a functioning electricity system, efficient cross-border trade and investment and a faster, better coordinated energy transition towards a more integrated and energy-efficient energy system based on renewable generation.

In addition, making network charges more system-friendly should be supported by common enabling conditions across the Union. Smart meters, smart electricity grids and effective electricity grid data exchanges make it easier for both system operators and grid users to respond to price signals and use the existing infrastructure more efficiently. A minimum level of smart meter 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 innovative and data-driven solutions at Union level. A pan-EU system of electricity grid data reuse is needed to enable the development, testing and scaling of innovative digital solutions for EU grid operation and management. These solutions depend on access to sufficiently diverse, high-quality and interoperable grid data across systems and Member States.

Concerning grid connection measures in case of network congestion, the proposal clarifies the scope of application of existing rules under Article 6 of Directive (EU) 2019/944 in situations of grid congestion, by enabling regulatory authorities to adapt national conditions and measures as they see fit to reflect the specific situation in a given Member States or grid area. The proposal does not lead to impacts from subsidiarity angle as it fully maintains the responsibility of national regulatory authorities.

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

Additionally, the proposals in this Regulation align with the objectives set out in 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 at Union level is more efficient than individual Member States taking action unilaterally, 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 far reaching and cost-effective, if driven by a common legal and policy framework. In addition, actions at Member State level would only be possible

within the constraints of the existing Union-wide framework for network charges as set out in the Electricity Regulation and would 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 all electricity system levels. This requires a minimum level of smart meter deployment to support active consumer participation and more efficient network use, a structured Union process through ACER recommendations and progress reporting to anchor smart electricity grid indicators in regulatory practice, and a coordinated and interoperable approach to electricity grid data exchange and reuse for innovation purposes.

The proposed provisions on grid connection measures in case of network congestion are necessary to provide clarity on the application of Article 6 of Directive (EU) 2019/944 in case of grid congestion, by providing a right to regulatory authorities to establish measures and conditions for priority consideration of economic, social, environmental and network impacts, maturity and progress of grid access applicants, and to differentiate between sectors and within sectors or groups of network users, as necessary, and based on transparent and non-discriminatory criteria.

Likewise, supporting these changes by simultaneously addressing energy taxation system inconsistencies at Union level would ensure their effectiveness across all Member States.

Consequently, the objectives of this initiative cannot be achieved by Member States on their own. This is where action at Union level provides added value.

- **Proportionality**

The proposed amendments to the Electricity Regulation are considered proportionate.

To provide stronger incentives for the efficient use of European grids, the proposed measures introduce, among other things, enhanced transparency rules and the use of performance indicators by national regulatory authorities. The newly introduced transparency rules may lead to an increased administrative burden and higher costs, in particular as regards the additional elements that national administrations will need to make publicly available. However, the impact of this will be limited because the additional elements requiring transparency 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.[25] Moreover, their impact is necessary and proportionate for achieving the objectives of increasing comparability of tariff-setting, enhancing the understanding of system users as regards the tariffs payable by them, enabling them to adjust their behaviour to a system-friendly one, and ultimately reducing system costs.

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 electricity grids and data exchange. They are limited to what is necessary to steer more cost-effective grid operation:

- firstly, by requiring regulatory authorities to promote non-wire, smart and digital solutions where these demonstrably improve grid capacity, flexibility or reliability;

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

- secondly, by introducing a common framework for a limited number of smart electricity grid indicators to support more consistent monitoring and regulatory incentives;
- thirdly, by establishing targeted obligations on grid data exchange, combined with a voluntary Union-level framework for the development of innovative digital tools.

This complemented by a baseline level of smart meter 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 by giving Member States, regulatory authorities and system operators great flexibility with its implementation. It limits further harmonisation to implementing acts and only where uniform technical and governance requirements are needed.

The taxation principles do not exceed what is necessary to achieve 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.

Concerning the provisions of the proposal on grid connection measures in case of network congestion, these leave full discretion to national regulatory authorities in line with their exclusive competence to fix or approve conditions for access to the grid, hence being fully proportionate and aligned with the objective of enabling efficient grid access.

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

- **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 this instrument, the recourse to an amending act is adequate. On 2 July 2025, the Commission issued a draft notice with guidelines on future proof network charges for reduced system costs[26]. In that notice the Commission proposes a design of tariff methodologies for network charges to incentivise the use of flexibility and investments to optimise the use of existing grid, deliver grid expansion at least cost and ensure a fair and cost-reflective allocation of grid charges while encouraging European competitiveness, deeper electrification and decarbonisation. However, to achieve these objectives, it is of utmost importance that the relevant design principles are implemented in all Member States. This can only be achieved through legally binding instruments, such as the measures of this proposal.

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

[26] C(2025) 4010.

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**

This proposal is part of the Commission's response to the energy crisis triggered by the conflict in the Middle East and the closure of the Strait of Hormuz. Although in recent years, the Union greatly 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 from imported fossil fuels.

Rising prices have been the immediate consequence of the conflict and this has driven up fossil fuel costs for the Union by 500 million EUR/day. There is no immediate threat to the security of supply, although stocks of some fuels are tight. The Union is in the process of reducing the share of fossil fuels in its 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 employees, exposed to global price spikes. Moreover, the possible effects of the crisis on GDP growth and inflation are significant and its impact is likely to be felt for at least several months and go well beyond the energy sector, with economic, employment and social ramifications.

In this context, swift Union action is needed to avoid significant harm to EU electricity consumers, in particular to decrease electricity bills and the EU dependence on fossil fuels. In 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 and to address excessive volatility in the short term, including for energy-intensive sectors, taking into account the different situations across Member States'[27]. The Commission responded with the AccelerateEU Communication[28], which announced the adoption of a legislative proposal on two significant components of the electricity bill, i.e. network charges and taxation, in May 2026.

Therefore, due to the need for urgent action and adoption of this proposal within an extremely compressed timeframe, the Commissioner responsible for better regulation has granted a specific derogation from carrying out an impact assessment and dedicated stakeholder consultations prior to the adoption of this proposal. In line with the principles of better regulation as set out in the Communication[29] on 'A simpler, clearer and better enforced EU rulebook', a staff working document has been prepared to accompany the proposal. The staff working document sets out the explanation and rationale behind the Commission's proposal as well as the way in which the measures presented therein will increase the cost-effectiveness of the grid operation and foster electrification, ultimately reducing system costs. In addition, the staff working document presents the available evidence of relevance for the proposed measures.

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27 en-20260319-european-council-conclusions.pdf.
28 7fac9eea-5717-4182-a368-bd68c427ff4c_en.
29 https://ec.europa.eu/commission/presscorner/detail/en/qanda_26_902.

However, this initiative drew upon the conclusions of recent public consultations on the European Grids Package as well as the Strategic Roadmap for Digitalisation and AI in the energy sector. 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 also agreeing that enhancing the visibility and quantified benefits of digital, innovative, and grid-enhancing technologies is also needed.

According to the study mandated by the European Commission,[30] at least 16 Member States face grid connection queues as of mid-2025. Some countries are rarely affected due to slower electrification or uptake of renewable energy sources, while others are experiencing severe grid congestion. Other analysis[31] noted some queues were 30 times the amount of the peak load in 2024, pointing to the presence of speculative and immature requests in the queue. The existence of speculative and immature requests hindering timely grid access was also confirmed under a targeted stakeholder consultation under the European Grids package, running between 25 June and 25 July 2025. Among the respondents which represented system operators, regulatory authorities, Member States, energy market stakeholders as well as representatives of civil society, 66 % agreed that there is a problem with speculative and immature requests in their geography and in the EU, and 56 % agreed that grid capacity is locked due to non-maturing requests. Moreover, 82 % of respondents agreed or partly agreed that measures contributing to relieving congestion in the grid as part of the grid connection procedures could be helpful. Slightly lower number of respondents (71 %) agreed or partly agreed with added value of measures considering contribution of connection requests to clean transition, services of general interest or based on other criteria.

Under the Open Public Consultation from the Strategic Roadmap for digitalisation and AI in the energy sector, most participants agree or strongly agree that a Union-wide initiative for the development of AI foundation models would accelerate the deployment of digital and AI solutions in 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 most of these (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) that would most effectively strengthen the Union's capacity to innovate with smart energy systems. In terms of additional measures, the respondents clearly aligned in identifying 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. Giving regulatory clarity and importance in upcoming legislation were frequently mentioned among the most effective actions for developing a coordinated framework to advance AI and digital technologies in the energy sector.

The Commission plans to further engage with stakeholders, to ensure the successful implementation of this Regulation.

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30 Fraunhofer ISI, Fraunhofer IEG, Guidehouse, REKK, Study on network development planning, tariff structures and connection requests for electricity distribution grids, September 2025, https://op.europa.eu/en/publication-detail/-/publication/08843617-9cf8-11f0-97c8-01aa75ed71a1.

31 Boston Consulting Group centre for energy impact: Mind the queue, Connection reform for the electricity grid, 2025. https://web-assets.bcg.com/f5/79/77645d12463793d174af9ae00d4a/mind-the-queue-connection-reform-for-the-electricity-grid-r2.pdf.

- **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 this instrument.

The proposal to make network charges more cost-efficient may increase administrative requirements for national administrations, but they are proportionate as explained above. At the same time, the envisaged economic impact would 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 outweigh any short- or long-term administrative reorganisation costs.

For smart electricity grid indicators, the proposal builds on existing regulatory practice. National regulatory authorities are already required under Directive (EU) 2019/944 to monitor and assess smart electricity grid development, and ACER and the Council of European Energy Regulators (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 cooperation in network planning and operation between transmission system operators (TSOs) and distribution system operators (DSOs). It makes those obligations more operational and purpose-driven by specifying that data exchange must support the development and effective use of smart electricity grids and innovative data-driven solutions for system operation, thereby reducing legal ambiguity and fragmentation rather than creating a new layer of obligations.

For the framework supporting the controlled re-use 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 to enable reaching 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.

Concerning the proposed provisions on grid connection measures in case of congestion, the proposal fully builds on Article 6 the Directive (EU) 2019/944 and on the Guidance on efficient and timely grid connections and clarifies the existing responsibility of national

regulatory authorities to set conditions for non-discriminatory and transparent third-party grid access, hence not leading to any additional administrative 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 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, two additional full-time equivalents (FTEs) will be required for ACER from 2026 onwards, as well as corresponding financial resources. The Commission's workload will increase by 5 FTEs.

5. OTHER ELEMENTS

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

The Commission will monitor the compliance of Member States and other actors with the measures that should ultimately be adopted and take enforcement measures when required. The Commission will also liaise with ACER and 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 for specific questions.

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

The amendments to the existing principles for transmission and distribution network tariffs provide further details on current and additional criteria for ensuring a cost-efficient use of electricity grids. They further empower the Commission to adopt delegated acts in the form of guidelines on a common structure and harmonised methodology on transmission and distribution tariffs, including detailed conditions under which regulatory authorities may introduce separate network charge regimes for specific categories of system users as well as harmonised rules on the procedural and substantive requirements for public consultations on relevant draft tariff methodologies.

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 electricity grid indicators to enable smart electricity 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; 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 electricity grids.

The amendments create a framework for voluntary cooperation between system operators, jointly facilitated by the European Network of Transmission System Operators for Electricity 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. They also allow 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 75 % by 31 December 2033, with a possibility for a limited extension of the deadline for reaching the targets in duly justified cases. It clarifies that cost-benefit assessments under Directive (EU) 2019/944 may continue to apply but only beyond the 75 % 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.

The proposal concerning grid connection measures in case of network congestion provides further clarifications to the existing right and responsibility of regulatory authorities to adopt measures and set conditions for non-discriminatory, objective and transparent third-party access pursuant to Article 6 of Directive (EU) 2019/944. It does so by clarifying that regulatory authorities may consider the impacts grid connection requests may have on network congestion, and may take into account economic, social or environmental considerations as well as the maturity of grid connection requests and their progress during their presence in the grid connection queue. Regulatory authorities may also adopt conditions to prioritise economic sectors or group of users, as well as set conditions for treatment of users within the sectors or group of users, while ensuring that any such conditions are non-discriminatory, open and transparent. At the same time, regulatory authorities should ensure that the applicable measures addressing grid congestion are duly implemented, notably the priority consideration of non-wire, smart and digital solutions, flexible connection agreements or early involvement of stakeholders in the cross-sectorial network planning.

2026/0203 (COD)

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

amending Regulation (EU) 2019/943, as regards future-proofing electricity bills in the Union, through reducing system costs and fostering electrification and digitalisation

(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) High electricity costs are adversely affecting households and businesses across the Union, thereby undermining the competitiveness of the internal market and social cohesion. While the cost of the commodity cost component in the electricity bill is determined by supply and demand regulatory cost components of electricity bills, namely network charges and taxation may be further aligned with the Union energy and climate objectives. To provide tangible relief to electricity consumers, it is necessary to adopt a coherent set of measures targeting those components of electricity bills.

(2) The measures concerning network charges set out in this Regulation aim to optimise grid costs through a number of measures including increased efficiency of the network, improved cost allocation mechanisms, and enhanced demand flexibility. Moreover, in order to further enhance demand flexibility, the deployment and effective use of smart grids, smart metering systems and interoperable data improve observability and controllability of the electricity system. These tools enable more efficient grid operation and planning, and the activation of flexibility resources at the lowest cost. By reducing inefficiencies in the transmission and distribution of electricity, including through more data-driven grid management and more accurate price signals for flexible consumption and generation, these measures will ultimately lower the network charges component of electricity bills, thereby contributing to the overall objective of reducing energy costs for final consumers.

(3) The provisions on taxation contained in this Regulation are ancillary to the measures concerning network charges and are necessary to support the objective of reducing electricity bills. Reductions in network charges may not fully translate into lower

electricity bills for final consumers, if electricity remains subject to higher taxation than fossil fuels. Such a discrepancy risks offsetting the benefits of lower network charges and undermining the Union's broader objectives of affordability and electrification.

(4) Accelerating the electrification of the Union's energy system can help reduce energy costs and exposure to fossil-fuel price volatility by enabling greater use of domestic renewable and low carbon electricity, in particular where electrification is supported by appropriate tariff design, efficient technologies and flexibility. Smart meters and smart grids, supported by secure and interoperable data exchange between system operators, market participants and final customers, are key enablers of such flexibility, as they allow electricity consumption, generation and storage to respond more efficiently to system needs and price signals. However, the transition to electrification is hampered where national taxation frameworks continue to favour fossil fuels over electricity, thereby disincentivising the shift to lower-cost, renewable and low-carbon energy solutions.

(5) In order to effectively lower electricity bills and support the Union's energy and climate objectives, it is necessary to adopt a dual approach comprising both increasing the efficiency of electricity networks and the alignment of taxation principles. The measures concerning taxation set out in this Regulation do not harmonise tax rates or levels but ensure that electricity is not subject to a higher tax burden than gas. By removing regulatory barriers that could otherwise impede the affordability of electricity and the transition to electrification, these provisions support the primary objective of this Regulation while respecting the competence of Member States in the area of taxation.

(6) The primary objective of these measures, i.e. increased efficiency of the network through smarter network charges, smart and digital technologies and streamlined data exchanges, should, in turn, also ensure efficient expansion of the electricity grid. Grid expansion is often necessary to accelerate grid connections and accommodate rising demand for electricity by system users such as data centres, energy intensive industries or market participants in the transport sector.

(7) Network charges or tariffs comprise connection charges and use charges. Connection charges are typically payable on a 'one-off' basis for connecting to the electricity network. Use charges are linked to the use of the electricity network. Use charges 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 are a considerable factor in electricity costs and are an important driver for ensuring a cost-optimal energy system, harmonised rules can support a level playing field and extend good practices to all Member States. This promotes a more efficient approach, which can bring down costs and have a positive impact on the affordability of electricity for Union consumers and on the competitiveness of the European economy. To that end, network charges should be cost-reflective, transparent and non-discriminatory, and should provide the right incentives to both system operators and system users for the cost-efficient functioning of the electricity system.

(8) 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. Network charges should also 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 minimise electricity losses and to optimise the use of existing grids, including through the use of flexibility services and the deployment of non-wire and digital solutions, smart electricity 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 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. The latter could be of a 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.

(9) 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 should enable effective and timely third-party access. With respect to storage, network charges should be used to incentivise grid-friendly behaviour, and they should reflect the benefits to the grid, without discouraging deployment of storage assets. Moreover, tariff regimes should account for the particularities of storage facilities, by avoiding 'double charging' while reflecting the overall cost impact of the storage on network costs.

(10) Any special tariff regimes for specific categories of system users, such as energy-intensive industries and data centres, should respect the principle of cost-reflectivity. While the electricity consumption of data centres is expected to grow significantly in the coming years, increasing pressure on electricity grids and tariffs, their optimal location, time-of-use and consumption profile can support their efficient connection and integration into the electricity system and should be incentivised in network tariffs, in particular when data centres can render services to the energy system, for example by bringing flexibility services, additional energy storage and clean energy production to the grid.

(11) 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 ensure there is sufficient investment 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. In this context, regulatory authorities should set performance indicators, including smart electricity 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 task, 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 at the national level.

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

(13) The ability to compare tariffs is instrumental for system users to act in a system-friendly way. Not only does this improve their understanding of the applicable tariffs, but it also helps them understand how to adjust their behaviour vis-à-vis the system accordingly to pay lower tariffs. 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 for the complex trade-offs underlying the assessment on the basis used to fix or approve tariff methodologies. 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.

(14) Since 2019, ACER has issued several best practices reports on tariff methodologies. Those reports provide insight into the challenges and recent developments in network tariff setting and specific analyses of national tariff setting practices. The reports have also increased transparency and allowed for the sharing of good practices and comparability in tariff setting. Given these positive outcomes, ACER should continue to issue such reports. Those reports should be separate from ACER's reports comparing the efficiency of transmission system operators and their costs, because of their different subject matter.

(15) In order to lay down the necessary details to ensure the effectiveness of Regulation (EU) 2019/943, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission, in respect of supplementing this Regulation by establishing guidelines on a common structure and harmonised methodology on tariffs, detailed conditions under which regulatory authorities may introduce separate network charge regimes for specific categories of system users and harmonised rules on the procedural and substantive requirements for the public consultations that need to be carried out for the relevant

draft tariff methodologies. Given the long-standing experience and expertise of regulators in approving tariff methodologies and in the supervision and control of related activities, ACER should provide a recommendation to the Commission before the Commission issues delegated acts on a common structure and harmonised methodology on tariffs. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making.[1] In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.

(16) 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. Complementing the framework for smart electricity grids provided under Directive (EU) 2019/944 of the European Parliament and of the Council[2] and under Regulation (EU) 2022/869 of the European Parliament and of the Council[3], transmission and distribution system operators should ensure that non-wire, smart and digital solutions, alongside non-fossil flexibility such as demand response, storage and other solutions, are considered with priority in network planning as well as system operation. The efficiency-enhancing effects of these solutions should be demonstrated on the basis of objective and transparent criteria, such as their impact on usable network capacity, congestion, resilience, quality of supply or integration of renewable energy and flexibility, and cost-efficiency in achieving these goals in comparison to physical grid development. Regulatory authorities should be able to rely on network development plans including related cost-benefit assessments, and relevant performance indicators for that purpose.

(17) Efficient use of electricity infrastructure increasingly depends on the ability of transmission and distribution systems to develop the grid efficiently for future power system needs, including renewable acceleration areas and industrial areas and 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 electricity grid functionalities and making effective use of existing infrastructure. A limited set of common indicators should be recommended by ACER, building on its existing analytical work and that of national regulatory authorities, in order to achieve a more coherent monitoring framework, support convergence of regulatory approaches, facilitate the identification of best practices for regulatory approaches and measure progress in the development of smart electricity grids, as defined in Article 2, point (9), of Regulation (EU) 2022/869.

(18) In order to improve 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

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1 OJ L 123, 12.5.2016, p. 1.

2 Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU (OJ L 158, 14.6.2019, p. 125, ELI: http://data.europa.eu/eli/dir/2019/944/oj).

3 Regulation (EU) 2022/869 of the European Parliament and of the Council of 30 May 2022 on guidelines for trans-European energy infrastructure, amending Regulations (EC) No 715/2009, (EU) 2019/942 and (EU) 2019/943 and Directives 2009/73/EC and (EU) 2019/944, and repealing Regulation (EU) No 347/2013 (OJ L 152, 3.6.2022, p. 45, ELI: http://data.europa.eu/eli/reg/2022/869/oj).

innovative solutions, regular Union-level reporting should be carried out based on those indicators. ACER should receive data on deployment of smart electricity grid technologies as well as on enabling regulatory practices and national smart grid indicators in order to enable ACER to assess existing practices to identify best case examples from national regulatory authorities. Currently, smart electricity grid indicators are not being implemented in a harmonised manner across the Union, and divergent approaches lead to a differing regulatory environment, undermining the consistent measurement of the uptake and performance of smart and innovative grid technologies and digital solutions in transmission and distribution networks. In order to ensure uniform conditions for the implementation of this Regulation, implementing powers should be conferred to the Commission to establish smart electricity grid indicators to measure the uptake and performance of smart and innovative grid technologies and digital solutions in transmission and distribution networks. The Commission should consider ACER's recommendation.

(19) 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 a more effective and timely exchange of relevant electricity grid data between system operators, which will enable a higher level of grid observability by better coordination across transmission and distribution levels. Depending on the use case, electricity grid data can include 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, as well as limits and constraints relevant for transmission and distribution system operation.

(20) System operators should improve the productivity of network infrastructure through the deployment of innovative technologies, supported by interoperable grid data exchange arrangements. This is because data-driven tools for grid operation will contribute to reducing system constraints, thereby limiting the scope of grid reinforcements and alleviating system stress. Where electricity grid data contains personal data, any processing of such data should be in line with the applicable data protection rules, in particular Regulation (EU) 2016/679 of the European Parliament and of the Council[4]. For the purposes of this Regulation, system operators should in principle only exchange aggregated or anonymised data. Personal data should only be shared when anonymised data are not sufficient for the objective pursued. Where such electricity grid data falls within the scope of Chapter II of Regulation (EU) 2023/2854 of the European Parliament and of the Council[5], the rights and obligations laid down in that Chapter apply. This Regulation should not create a parallel or conflicting regime for access to and sharing of that data.

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[4] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (OJ L 119, 4.5.2016, p. 1, ELI: http://data.europa.eu/eli/reg/2016/679/oj).

[5] 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).

(21) The efficient and secure operation of electricity networks increasingly depends on developing and deploying advanced digital and data-driven solutions. Availability and accessibility of relevant electricity grid data are 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 for a framework enabling transmission system operators and distribution system operators to cooperate, on a voluntary basis and through a coordinated Union-level arrangement, to cooperate with relevant stakeholders in pooling data, expertise and computing resources to develop, test, integrate and deploy innovative digital tools for electricity system operation and optimisation.

(22) The framework for cooperation between transmission system operators and distribution system operators should support the wider availability of the solutions developed to benefit system operators across the Union. It should also ensure appropriate safeguards for data protection, confidentiality, safety, cybersecurity and system security. The Commission stands ready to provide informal guidance to companies on the compatibility of cooperation projects contributing to the achievement of Union priorities with antitrust rules, in particular projects related to innovation, decarbonisation and AI development

(23) To support the consistent development of the coordinated arrangement 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. These should build on existing standards such as the Common Grid Model Exchange Standard. In order to ensure uniform conditions for the implementation of the coordinated arrangement, implementing powers should be conferred on the Commission to establish those requirements as well as rules for the lawful, secure and controlled reuse of data for research and innovation purposes supporting the operation and optimisation of the electricity system.

(24) The efficient use of the electricity network relies on the availability of accurate and granular consumption data and on final customers' ability to access and act upon such data. Smart metering systems are a key enabler of demand response and dynamic electricity price contracts, which can help improve the use 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 sufficient 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 critical mass for consumer participation and flexibility services, and progressively increase this level to at least 75 % by 31 December 2033. To ensure feasible rollout timelines while keeping the overall EU ambition, Member States with deployment levels below 30 % at the date of entry into force of this Regulation should be given additional time to reach these targets. This addresses the current uneven state of deployment across the Union, with overall penetration at around 60 % and several Member States lagging behind or not yet having initiated large-scale rollouts, in a proportionate way. Cost-benefit assessments under Directive (EU) 2019/944 should apply only to deployment beyond the 75 % level, ensuring

proportionality while meeting the Union's digitalisation and flexibility objectives. In order to support the effective implementation of these obligations as laid down in Article 18b of this Regulation, Member States are encouraged to make appropriate use of available funding and financing opportunities under relevant Union programmes and instruments, in accordance with the rules governing those programmes and instruments.

(25) Given the critical role of deployed and operated smart metering systems in an increasingly digitalised electricity system, a high level of cybersecurity and operational and supply chain resilience should be ensured throughout their lifetime, taking into account relevant European cybersecurity legislation, including Regulation (EU) 2024/2847 of the European Parliament and of the Council[6], in particular where smart metering components fall within the scope of critical products, certification schemes established under Regulation (EU) 2019/881 of the European Parliament and of the Council[7], as well as the need to avoid supply chain security risks and dependencies that could undermine continuity and security of essential metering functionalities and data protection. As smart metering systems form part of the broader electricity grid technology ecosystem, relevant sustainability, resilience and security of supply considerations reflected in Regulation (EU) 2024/1735 of the European Parliament and of the Council[8] also need to be taken into account, including, where appropriate, in procurement practices.

(26) The uptake of electrification is intrinsically linked to electricity costs, which in turn are impacted not only by network charges by also 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 established by Council Directive 2003/96/EU[9]. However, where this is duly justified by a Member State, based on specific national circumstances, including in view of the fiscal situation of the Member State, the Commission should have the possibility to authorize Member State, by means of an implementing act, to defer the application of the first subparagraph until a point in time which strikes a balance between the specific national circumstances concerned and the need to reach the Union's electrification objectives.

(27) 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.

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6 Regulation (EU) 2024/2847 of the European Parliament and of the Council of 23 October 2024 on horizontal cybersecurity requirements for products with digital elements and amending Regulations (EU) No 168/2013 and (EU) 2019/1020 and Directive (EU) 2020/1828 (Cyber Resilience Act), (OJ L, 2024/2847, 20.11.2024, ELI: http://data.europa.eu/eli/reg/2024/2847/oj).

7 Regulation (EU) 2019/881 of the European Parliament and of the Council of 17 April 2019 on ENISA (the European Union Agency for Cybersecurity) and on information and communications technology cybersecurity certification and repealing Regulation (EU) No 526/2013 (Cybersecurity Act), (OJ L 151, 7.6.2019, p.15, ELI: http://data.europa.eu/eli/reg/2019/881/oj).

8 Regulation (EU) 2024/1735 of the European Parliament and of the Council of 13 June 2024 on establishing a framework of measures for strengthening Europe's net-zero technology manufacturing ecosystem and amending Regulation (EU) 2018/1724 (OJ L, 2024/1735, 28.6.2024, ELI: http://data.europa.eu/eli/reg/2024/1735/oj).

9 Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity (OJ L 283, 31.10.2003, p. 51, ELI: http://data.europa.eu/eli/dir/2003/96/oj).

Article 17 of 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, water 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 climate objectives but can also help reduce energy costs and support the competitiveness of the Union's manufacturing sector. Consequently, electricity used by energy-intensive businesses should be considered as meeting the environmental objectives and increased energy efficiency conditionality set out in Article 17(4) of Directive 2003/96/EU.

(28) In case of scarcity in the available capacity of the grid, regulatory authorities should be allowed to approve measures to deter speculative requests for connection to the grid and manage connection queues, to ensure that access to the grid is done in an objective, transparent and non-discriminatory manner in line with Article 3 of Regulation (EU) 2019/943 and Article 6 of Directive (EU) 2019/944. In addition, Member States and regulatory authorities should ensure the applicability of other available measures to address insufficient grid capacity like flexible connection agreements or cross-sectorial network planning. Member States can also explore further options for considering maturity and progress of grid connection requests in line with the first ready first serve principle or anticipatory network planning, as explained under the Guidance on efficient and timely grid connections[10]. To this end, Member States should be allowed to create conditions to establish specific areas with available or planned grid capacity upgrades to enable accelerated access of network users like for instance industrial customers and data centres to networks. When approving measures and conditions on access to grid, and especially for special categories of system users like data centres or energy intensive industry considering their network impacts, regulatory authorities should also be allowed to prioritise users within the same category with flexible consumption patterns contributing to on-site storage and on-site generation of additional clean energy and sustainable use of resources.

(29) Regulation (EU) 2019/943 should therefore be amended accordingly.

(30) Since the objective of this Regulation, namely to achieve the cost effectiveness of the system operation and foster electrification of the grid, cannot be sufficiently achieved by the Member States, but can rather be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Regulation does not go beyond what is necessary to achieve those objectives.

(31) The European Data Protection Supervisor was consulted in accordance with Article 42(1) of Regulation (EU) 2018/1725 of the European Parliament and of the Council and delivered an opinion on [date].

(32) The provisions of this Regulation are without prejudice to the right of Member States to notify State aid measures, according to the applicable procedures and conditions laid down in State aid rules. Member States may for example introduce measures to support industrial electrification projects where an effective decarbonization effect is confirmed and in line with the guidelines on State aid for climate, environmental

[10] Commission notice of 10 December 2025, Guidance on efficient and timely grid connections, C(2025) 8473 final.

protection and energy (CEEAG)[11] and the Clean Industrial Deal State Aid Framework (CISAF)[12]. Such State aid measures may also provide support for the additional expenditure related to the connection to the electricity grid or to the extension of a pre-existing electricity grid connection, including both upfront costs, for example "last-mile" grid connection, and yearly costs, i.e. regular grid tariff, while preserving incentives provided to system users to choose their location and adjust their consumption to lower the overall costs of the transmission and distribution systems,

HAVE ADOPTED THIS REGULATION:

[11] Communication from the Commission – Guidelines on State aid for climate, environmental protection and energy 2022, C/2022/481.

[12] Communication from the Commission – Framework for State Aid measures to support the Clean Industrial Deal (Clean Industrial Deal State Aid Framework), C/2025/7600.

Article 1

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, considering both capital and operational expenditure, including costs related to anticipatory investment, but not costs supporting unrelated policy objectives. Regulatory authorities shall set common performance indicators as regards the efficient operation and development of the network, including smart electricity 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 across all voltage levels, inter alia through the use of flexibility services, the deployment of non-wire and digital solutions, smart electricity grids and smart metering systems, including 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 electricity 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

3. Special tariff regimes may apply to specific categories of system users, such as energy-intensive industries or data centres and energy communities, provided that the regulatory authorities can demonstrate that the consumption profile 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 billed to system users provided that the following requirements are met:

   (a) the State funds to transmission or distribution system operators are provided in a non-discriminatory manner, without selectively favouring, directly or indirectly, specific categories of system users;

   (b) the provision of State funds does 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 are temporary, and cover only the additional costs resulting from measures to accelerate decarbonisation, electrification of production processes and market integration;

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

   This paragraph is without prejudice to the right of Member States to notify under applicable State aid rules measures aimed to reduce energy costs, including network charges, for specific categories of users while preserving incentives provided to system users to choose their location and adjust their consumption to lower the overall costs of the transmission and distribution systems.

5. From *[first day of the month of entry into force plus 13 months]*, 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. From that date, regulatory authorities shall publish, or require that the relevant transmission system operators or distribution system operator publishes, at least the following information:

   (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 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 and their share of the total network charges;

   (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;

   (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), point (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 in accordance with paragraph 2, point a), and shall carry out an efficiency comparison

among transmission system operators, and their costs, considering those indicators. The regulatory authorities and the transmission system operators shall provide ACER with all the data necessary for that comparison. By *[first day of the month of entry into force plus 25 months]* 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.

Regulatory authorities shall carry out the efficiency comparison among distribution system operators in their respective jurisdictions, and their costs, insofar as there is more than one distribution system operator and taking into account national specificities. The relevant distribution system operators shall provide regulatory authorities with all the data necessary for that comparison. By *[first day of the month of entry into force plus 37 months]* 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.

8. ACER shall by *[first day of the month of the entry into force plus 25 months]* 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 the following:

   (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;

   (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,18c and 18d are inserted:

'Article 18a

Smart electricity 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, via regulatory incentives pursuant to Article 18 as well as by considering those solutions with priority under the network development plans pursuant to Articles 32 and 51 of Directive (EU) 2019/944.
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, the EU DSO entity and relevant stakeholders, issue a recommendation addressed to regulatory authorities on smart electricity 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, or ensure the provision of, the data requested for that purpose to the regulatory authorities and to ACER. This data shall not include any personal data.
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 electricity grid solutions and the efficient use of electricity infrastructure, based on the indicators referred to in paragraph 2 of this Article 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 to the regulatory authorities and the Commission.
4. Transmission system operators and distribution system operators shall manage and exchange grid data to enable the development, deployment and effective use of smart electricity grids in order to ensure the efficient, secure and flexible operation of the electricity system. For that purpose, they shall cooperate, including via establishing data sharing agreements, to make use of electricity grid data in a harmonised manner. They shall do so in compliance with chapter III of Regulation (EU) 2023/2854 of the European Parliament and of the Council*. Where electricity grid data falls within the scope of Chapter II of Regulation (EU) 2023/2854 of the European Parliament and of the Council*, that Chapter shall apply. They shall also develop and operate state-of-the arts digital data-driven solutions to support the monitoring, optimisation and coordination of network operation, including the integration of demand response, renewable energy sources and non-fossil flexibility. Personal data shall be shared only when anonymised data are not sufficient for the objective pursued.
5. By [*first day of the month following 12 months after the date of entry into force of this Regulation*] 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. That framework shall enable the lawful, secure and controlled reuse of data for research and innovation public-interest purposes of developing, testing, integration and deployment of state-of-the arts technologies supporting the efficient and safe grid operation and optimisation. In applying the provisions in this paragraph, the transmission system operators and distribution system operators shall:

(a) ensure compliance with confidentiality and security requirements;

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

(c) allow the use of the developed state-of-the arts 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 shall, in close cooperation with those transmission system operators and distribution system operators wishing to establish the coordinated arrangement, draw up, and communicate to the Commission, the following:

(a) governance, decision-making rules and rules of participation of transmission system operators and distribution system operators, including those joining at a later stage, the allocation of roles and responsibilities, intellectual property management and the means of accessing the developed state-of-the arts solutions;

(b) technical and operational measures to comply with relevant energy, cybersecurity and data legislation, in particular Regulation (EU) 2023/2854 , Regulation (EU) 2016/679 and Regulation (EU) 2024/1689 of the European Parliament and of the Council[**];

(c) safety and cybersecurity measures to ensure the safe integration of developed solutions within the internal processes and operations of transmission and distribution system operators;

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

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

The Commission shall deliver an opinion on the elements communicated pursuant to points (a) to (e) within six months from the day of the receipt of the information. Where these elements concern processing of personal data, the Commission shall consult the European Data Protection Supervisor. 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.

All transmission system operators and distribution system operators engaged in the coordinated arrangement 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 out therein. This requirement does not affect the voluntary nature of participation.

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 75 % of all final customers by 31 December 2033. Where a Member State's deployment level is below 30 % at the date of entry into force of this Regulation, the deadline for the 50 % target shall be 31 December 2031 and the deadline for the 75% target shall be 31 December 2034. 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 75 % coverage level referred to 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. The Commission may, upon a duly justified request from a Member State, based on specific national circumstances, including in view of the fiscal situation of the Member State, authorise that Member State, by means of an implementing act, to defer the application of the first subparagraph until a point in time which strikes a balance between the specific national circumstances concerned and the need to reach the Union's electrification objectives.
3. Electricity supplied to energy intensive businesses as defined in Article 17)1), point (a), of Directive 2003/96/EC shall be deemed to meet the requirements in paragraph 4 of that Article.

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* 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).

***Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity (OJ L 283, 31.10.2003, p. 51, ELI: http://data.europa.eu/eli/dir/2003/96/oj.';

Article 18d

Grid connection measures in case of network congestion

1. In order to provide market participants with access to the transmission and distribution networks pursuant to Article 3, point (q), in case of scarcity in the available grid capacity, regulatory authorities may approve measures to deter speculative requests for connection to the grid, ensure sufficient maturity of projects requesting grid connection and prioritise categories of system users such as public sector, social services, energy communities, households, small and medium enterprises, data centres, energy intensive industries or market participants in the transport sector as well as set conditions to allow prioritising users within a specific category as necessary, based on objective, transparent and non-discriminatory criteria. These criteria may consider the impact of potential projects on solving network congestion as well as economic, environmental and social benefits.

2. Member States and regulatory authorities shall ensure that other relevant measures to address insufficient grid capacity are applied, including use of non-wire, smart and digital solutions pursuant to Article 18a, flexible connection agreements pursuant to Article 6a of Directive (EU) 2019/944, and cross-sectorial network planning with involvement of stakeholders pursuant to Article 55 of Regulation (EU) 2024/1788 and Article 51 of Directive (EU) 2019/944.';

(3) Article 61 is amended as follows:

(a) the following paragraphs 5a and 5b are added:

'5a. The Commission is empowered to adopt delegated acts in accordance with Article 68 supplementing this Regulation by 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, ACER shall, upon request of the Commission issue a recommendation as referred to in Article 2, point (c), of Regulation (EU) 2019/942 for a common structure and harmonised methodology on tariffs. Those 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 is empowered to adopt implementing acts setting out, for the purpose of Article 18a, smart electricity grid indicators to measure the uptake and performance of smart and innovative grid technologies and digital solutions in transmission and distribution networks. The Commission shall consider ACER's recommendation issued pursuant to Article 18a(2), when preparing, amending or adopting such implementing acts.

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

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

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

(b) specify conditions of transparent and accountable operations of secure processing environments enabling data exchange for innovation purposes and requirements for publishing of periodic activity 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). The Commission may request data, information and documentation generated or exchanged within the coordinated arrangement established in accordance with Article 18a(5) to the extent necessary and proportionate to prepare those implementing acts.'

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*

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1. FRAMEWORK OF THE PROPOSAL

1.1. Title of the proposal

Legislative proposal on amending Regulation (EU) 2019/943 to future-proof electricity bills in the European Union

1.2. Policy area concerned

Policy area: Energy

Activity: Action Plan for Affordable Energy

1.3. Objectives

1.3.1. General objectives

The main aim of the legal proposal in the area of network charges is to make the transition towards a more system-friendly network charge design and network operation mandatory for national regulatory authorities, while supporting the broader Union objective of accelerating electrification and ensuring that the regulatory cost structure of electricity consumption is aligned with EU energy, climate and competitiveness objectives.

This would include 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. In parallel, the proposal seeks to ensure that the combined effect of network charges and electricity taxation supports electrification, contributes to lower electricity costs for consumers and industry, and strengthens the competitiveness of the Union economy.

The legal proposal introduces targeted supporting measures to accelerate smart meter deployment, require system operators to exchange grid data for smart grid purposes, and establish a voluntary EU-level framework for the secure reuse of electricity data to develop and test innovative digital tools for grid optimisation — all aimed at improving the productivity of existing grid infrastructure and reducing overall system costs. These measures are complemented by targeted principles on electricity taxation, aimed at ensuring that taxation frameworks do not discourage electrification and that electricity is taxed more favourably than competing fossil fuels, notably natural gas, in line with the objectives of AccelerateEU, the Affordable Energy Action Plan and the Union's decarbonisation objectives.

The proposal also seeks to contribute to reducing final electricity costs for consumers and energy-intensive industries by enabling a more coherent interaction between network charge design and the incentives embedded in Member States' electricity taxation frameworks, while fully respecting the competences of Member States under Council Directive 2003/96/EC.

Finally, the proposal provides a clarification concerning right of regulatory authorities to adopt grid connection measures in case of network congestion, by a way of adopting measures and setting conditions for non-discriminatory, objective and transparent third-party access with possible consideration of impacts of grid

connection requests on network congestion, economic, social or environmental considerations, and taking into account their maturity and progress. Regulatory authorities may also adopt conditions to prioritise economic sectors or group of users, as well as set conditions for treatment of users within the sectors or group of users while ensuring that other measures addressing grid congestion are duly implemented.

For further information see Explanatory Memorandum.

1.3.2. Specific objectives

The following specific objectives (SOs) focus on those which are addressed by provisions which require additional resources for the Commission (DG ENER and DG JRC):

SO1: Improve the efficiency, security and flexibility of electricity system operation by establishing a purpose-driven legal obligation for transmission and distribution system operators to exchange grid data in a harmonised manner, enabling the development, deployment and effective use of smart electricity grids and innovative data-driven solutions for network monitoring, optimisation and coordination.

SO2: Enable the development, testing and deployment of innovative digital tools for grid operation and optimisation by requiring grid operators to establish a voluntary Union-level framework for the secure and controlled reuse of electricity grid data for research and innovation purposes, providing the legal certainty, framework and common technical requirements. Enable the Commission to adopt implementing acts setting out guidelines to enable the lawful, secure and controlled reuse of electricity grid data for research and innovation public-interest purposes.

SO3: Enable the Commission to adopt an implementing act setting out guidelines on a harmonised methodology on tariffs, thereby contributing to more coherent regulatory approaches across the Union.

SO4: Enable the Commission to adopt an implementing act on smart grid indicators, thereby contributing to more coherent regulatory approaches across the Union.

SO5: The proposal introduces a limited new task for the Commission related to Article 18b on smart metering systems. This task consists essentially in following up the implementation by Member States of the minimum deployment requirement for smart metering systems and monitoring the application of the clarification that cost-benefit assessments may only apply beyond the minimum level of coverage.

SO6: Proposal clarifies rights of regulatory authorities concerning adoption of grid connection measures in case of congestion, to ensure grid connection procedures are timely and efficient and support electrification. There is no requirement for the Commission or ACER in this relation, hence there are no financial impacts on the Commission or ACER. To this end, financial impacts on EU institutions are not further assessed as fulfilment of this SO remain fully in hands of national regulatory authorities.

The proposal entails new requirements for the Commission (DG ENER and DG JRC, which are linked to the achievement of SO1 and SO2:

Requirement 1 (linked to SO1 and SO2): To support the grid operators in their data exchange activities, the Commission will, on the one hand, develop adequate energy data exchange provisions in the relevant instruments such as, for example, the Demand Response Network Code (Article 18a(4)), and, on the other hand,

overseeing the implementation of the new framework for electricity grid data exchange for innovation purposes, under which ENTSO for Electricity, the EU DSO Entity, and participating TSOs and DSOs are required to establish and communicate the governance, participation rules, technical and operational measures, cybersecurity safeguards, lifecycle management arrangements, and testing and validation frameworks of the coordinated arrangement (Article 18a(5)). The Commission is required to assess those elements, deliver an opinion within three months, and monitor how that opinion has been taken into account. The JRC provides technical and scientific support for the development of the voluntary secure electricity data exchange framework under Article 18a(5). This includes the provision of guidelines on testing and validation approaches, and essential cybersecurity requirements.

Requirement 2 (linked to SO2): The Commission is empowered to adopt implementing acts setting out guidelines to enable the lawful, secure and controlled reuse of electricity grid data for research and innovation public-interest purposes supporting the operation and optimisation of the electricity system (Article 61(5b)). This includes technical and legal preparation, stakeholder consultation, drafting and implementation follow-up. The JRC will be involved in providing technical input for the preparation of these implementing acts including on data models, ontologies, interfaces, interoperability architectures and technical specifications.

Requirement 3 (SO3): The Commission is empowered to adopt an implementing act setting out guidelines on a harmonised methodology on tariffs pursuant to Article 18. This task supports the development of a more coherent and harmonised regulatory framework across Member States.

Requirement 4 (SO4): The Commission is empowered to adopt an implementing act on smart grid indicators pursuant to Article 18a. For that purpose, the Commission will need to assess ACER's recommendation on smart grid indicators, prepare and manage stakeholder consultations and interservice coordination, draft the implementing act where appropriate, and support its adoption and subsequent review. These tasks support the development of a more coherent and harmonised regulatory framework across Member States.

Requirement 5 (linked to SO5): The related follow-up task would fall to DG ENER only and is expected to remain limited, given that progress on smart metering deployment is already covered through existing monitoring exercises.

The following specific objectives (SOs) focus on those which are addressed by provisions which require additional resources for ACER:

SO6: Promote the uptake of smart and innovative grid technologies and digital solutions in transmission and distribution networks by establishing smart grid indicators, thereby supporting the digitalisation and modernisation of electricity infrastructure.

SO7: Strengthen Union-level monitoring of the development and uptake of smart grid solutions and the efficient use of electricity infrastructure by publishing regular progress reports, thereby improving regulatory oversight and evidence-based decision-making.

SO8: Further strengthen the objective of increasing efficiency in the use of the grid and increase system efficiency, through assisting regulatory authorities in setting performance indicators as regards the efficient operation and development of the network.

SO9: Further strengthen the objective of increasing efficiency in the use of the grid and increase system efficiency, through carrying out efficiency comparisons among transmission system operators.

S10: Contributing to the objective of achieving harmonisation in tariff-setting methodologies, through developing a recommendation addressed to the Commission on a proposal for a harmonised methodology on tariffs, prior to the Commission adopting an implementing act on the topic.

The proposal entails new requirements for ACER, which are linked to the achievement of SO6, SO7, SO8, SO8 and S10:

Requirement 6 (linked to SO6): ACER is required, in close cooperation with the ENTSO for Electricity, the EU DSO Entity and relevant stakeholders, to issue a recommendation addressed to regulatory authorities on smart grid indicators to measure the uptake of smart and innovative grid technologies and digital solutions in transmission and distribution networks (Article 18a(2)).

Requirement 7 (linked to SO7): ACER is required to publish a Union-level progress report assessing the development and uptake of smart grid solutions and the efficient use of electricity infrastructure (Article 18a(3)). This report is to be published at least every three years following the publication of ACER's recommendation on smart grid indicators.

Requirement 8 (linked to SO8): ACER is tasked with assisting regulatory authorities in determining performance indicators (Article 18(7)).

Requirement 9 (linked to SO9): ACER is tasked with publishing a report on the efficiency comparison among transmission system operators and their costs, by the first day of the month following 12 months after the date of entry into force of the Regulation and every four years thereafter (Article 18(7)).

Requirement 10 (linked to S10): ACER is tasked with issuing a recommendation addressed to the Commission on a proposal for a harmonised methodology on tariffs (Article 61(5a)).

1.3.3. Expected results and impact

The resources will allow the Commission (DG ENER and DG JRC) and ACER to carry out the tasks necessary to fulfil their mandate under EU legislation as per the requirements under this proposal.

The proposal is expected to strengthen the cost-efficient, secure and digital operation of the electricity system by improving the regulatory framework for smart electricity grids, electricity grid data exchange and smart metering systems. The resources linked to the proposal are intended to ensure effective implementation of these new elements and to deliver tangible benefits for regulatory authorities, system operators, market participants and electricity users.

The Commission (DG ENER and JRC)

Requirement 1 and 2: Tasking the Commission with responsibilities related to the implementation of the provisions on electricity grid data exchange is expected to deliver a more coherent Union-wide framework for the uptake of smart and digital grid solutions. This should support more consistent monitoring of progress across Member States, better identification of best practices, and a stronger basis for regulatory incentives encouraging efficient grid operation and development. In

particular it is expected to facilitate the development, testing and scaling of innovative digital and AI-based solutions for grid operation and optimisation, thereby improving grid observability, system efficiency and the integration of renewable energy sources, demand response and non-fossil flexibility.

Requirement 3: Tasking the Commission with the preparation and adoption of an implementing act on harmonised methodology on tariffs to support a more harmonised and predictable framework for national regulatory implementation. This should reduce fragmentation in national approaches, improve legal certainty for regulatory authorities and system operators, and strengthen the effectiveness of the broader reform in lowering system costs.

Requirement 4: Tasking the Commission with the preparation and adoption of an implementing act on smart grid indicators is expected to support a more harmonised and predictable framework for national regulatory implementation. This should reduce fragmentation in national approaches, improve legal certainty for regulatory authorities and system operators, and strengthen the effectiveness of the broader reform in lowering system costs. In addition, common implementing rules on grid data reuse are expected to support secure and interoperable innovation across the Union, to the benefit of electricity system operators and users.

Requirement 5: Tasking the Commission (DG ENER) with following up the implementation of Article 18b on smart metering systems is expected to support a more consistent application of the minimum deployment requirement for smart metering systems across Member States. This includes monitoring Member States' compliance with the minimum level of deployment and the application of the clarification that cost-benefit assessments may only apply beyond that minimum level of coverage. This should contribute to greater legal certainty, improve the rollout of smart metering systems, and support a more effective and harmonised framework for consumer participation and system efficiency, to the benefit of consumers, system operators and regulatory authorities.

ACER

Requirement 6: Entrusting ACER with the development of a recommendation on smart grid indicators is expected to promote a more coherent approach to measuring digitalisation and innovation in electricity networks across the Union. This should improve the monitoring of progress, support the wider deployment of smart and innovative grid technologies and digital solutions, and contribute to a more efficient and modern use of electricity infrastructure, to the benefit of transmission and distribution system operators, regulatory authorities and network users.

Requirement 7: Tasking ACER with reporting on progress in the development and uptake of smart grid solutions and the efficient use of electricity infrastructure is expected to strengthen Union-level monitoring of smart grid deployment and infrastructure efficiency. This should support better-informed regulatory oversight and contribute to a more efficient and modern use of electricity infrastructure, to the benefit of transmission and distribution system operators, regulatory authorities and network users.

Requirement 8: Tasking ACER with assisting regulatory authorities in determining performance indicators is expected to improve the transparency, consistency and evidence base of regulatory oversight across the Union. This should support better-informed regulatory decisions and strengthen incentives for efficient network

operation and investment, to the benefit of regulatory authorities, system operators and electricity users.

Requirement 9: Tasking ACER with carrying out and publishing an efficiency comparison among transmission system operators and their costs is expected to help identify good practices and inefficiencies across transmission system operators. This should strengthen benchmarking across the Union and support more efficient network operation and investment decisions, to the benefit of regulatory authorities, system operators and electricity users.

Requirement 10: Tasking ACER with issuing a recommendation to the Commission on a proposal for a harmonised methodology on tariffs is expected to support greater consistency and predictability in tariff-setting approaches across Member States. This should contribute to a more harmonised regulatory framework, reduce fragmentation in national approaches, and support a clearer and more coherent basis for network tariff design, to the benefit of regulatory authorities, system operators and market participants.

1.3.4. Indicators of performance

Please see Explanatory Memorandum as regards monitoring progress and achievements of the initiative.

1.4. The proposal relates to:

☒ a new action

☐ a new action following a pilot project / preparatory action[1]

☐ the extension of an existing action

☐ a merger or redirection of one or more actions towards another/a new action

1.5. Grounds for the proposal

1.5.1. Requirements to be met in the short or long term including a detailed timeline for roll-out of the implementation of the initiative

The Commission (DG ENER and DG JRC)

Requirement 1: DG ENER is tasked with overseeing the implementation of the electricity grid data exchange framework for innovation purposes, including coordinating the overall implementation process with ACER, ENTSO for Electricity, the EU DSO Entity, TSOs, DSOs, Member States and other relevant stakeholders, and ensuring coherence with the broader Union framework (Article 18a(5)). In addition, the Commission is required to receive, assess and follow up on the elements communicated by ENTSO for Electricity, the EU DSO Entity and participating TSOs and DSOs concerning governance, participation rules, technical and operational measures, cybersecurity safeguards, lifecycle arrangements and testing frameworks, deliver a Commission opinion within three months, and monitor how that opinion has been taken into account. Dedicated resources would in particular support overall coordination of the implementation process with ACER, ENTSO for Electricity, the EU DSO Entity, system operators, Member States and other stakeholders; preparation of the Commission opinion under Article 18a(5); policy and legal follow-up, including on ACER recommendations and data governance, cybersecurity, AI

[1] As referred to in Article 58(2), point (a) or (b) of the Financial Regulation.

and critical infrastructure issues; and stakeholder engagement, monitoring and possible future updates of the implementing framework.

The JRC provides technical and scientific advice for the development of the voluntary secure electricity data exchange framework under Article 18a(5). This includes the provision of guidelines on testing and validation approaches, and essential cybersecurity requirements. Where appropriate JRC could contribute to the formulation of timely, policy relevant use cases related to electricity grid planning, operation and optimisation. The JRC would also provide technical input for the implementing acts under Article 61.5b, supporting the technical assessment of the voluntary secure electricity grid data exchange framework under Article 18a(5).

Requirement 2: The Commission is empowered to adopt implementing acts setting out guidelines to enable the lawful, secure and controlled reuse of electricity grid data for research and innovation public-interest purposes supporting the operation and optimisation of the electricity system pursuant to Article 18a (Article 61(5b)). This includes technical and legal preparation, stakeholder consultation, drafting and implementation follow-up. This task requires a combined effort from DG ENER and the JRC, the latter in providing technical input for the preparation of these implementing acts including on data models, ontologies, interfaces, interoperability architectures and technical specifications. These resources would cover in particular preparing, drafting and steering the adoption of implementing acts under Article 61.5a and 5b, including interservice consultation and consultation of Member States under the relevant comitology procedure.

Requirement 3: The Commission may adopt an implementing act setting out guidelines on a harmonised methodology on tariffs pursuant to Article 18 (Article 61(5a)). This task requires analytical, regulatory and coordination capacity within DG ENER. These required resources would cover in particular policy and legal follow-up.

Requirement 4: The Commission may adopt an implementing act on smart grid indicators pursuant to Article 18a (Article 61(5a)). This task requires analytical, regulatory and coordination capacity within DG ENER. These required resources would cover in particular policy and legal follow-up.

Requirement 5: No separate human resources are considered necessary for DG ENER in relation to Article 18b, given that progress on smart metering deployment is already covered through existing monitoring exercises.

ACER

Requirement 6: ACER is required, in close cooperation with transmission and distribution system operators and relevant stakeholders, to issue a recommendation addressed to regulatory authorities on smart grid indicators to measure the uptake of smart and innovative grid technologies and digital solutions in transmission and distribution networks (Article 18a(2)). This recommendation is to be issued by one year after the entry into force of the Regulation and constitutes a one-off task.

Requirement 7: ACER is required to publish a Union-level progress report assessing the development and uptake of smart grid solutions and the efficient use of electricity infrastructure (Article 18a(3)). This report is to be published at least every three years following the publication of ACER's recommendation on smart grid indicators and constitutes a recurring task.

For Requirements 6 and 7 combined ACER thus requires additional staff to lead and conduct the expert work including initial recommendation and regular monitoring on both TSOs and DSOs, as well as to assist on data collection and other clerical tasks inherent to this activity.

Requirement 8: ACER is tasked with assisting regulatory authorities in determining performance indicators (Article 18(7)).

Requirement 9: ACER is tasked with publishing a report with efficiency comparison among transmission system operators and their costs, by first day of the month following 12 months after the date of entry into force of this Regulation and every four years thereafter (Article 18(7)).

Requirement 10: ACER is tasked with issuing a recommendation addressed to the Commission on a proposal for a harmonised methodology on tariffs (Article 61(5a)).

For Requirements 8, 9 and 10, ACER requires additional staff resources for horizontal support and overhead, as well as an operational budget for specialised consultancy and developments.

1.5.2. Added value of EU involvement (it may result from different factors, e.g. coordination gains, legal certainty, greater effectiveness or complementarities). For the purposes of this section 'added value of EU involvement' is the value resulting from EU action that is additional to the value that would have been otherwise created by Member States alone.

An EU-level framework for energy costs, including network charges, is more effective than separate national measures because it avoids fragmentation. Member States alone cannot achieve the necessary reforms within the limits of the existing EU framework under the Electricity Regulation. A common legal and policy framework also enables more ambitious and cost-effective action.

The proposal establishes a coherent EU approach for non-wire, smart, and digital solutions across electricity systems, including minimum smart metering deployment, stronger consumer participation, ACER-led smart grid indicators, and interoperable grid data exchange.

The proposed measures are proportionate because they introduce only the measures necessary to improve grid efficiency, transparency, and electrification incentives without imposing a uniform technological model or excessive administrative burden. Since the initiative mainly adds and adjusts provisions in existing EU legislation, an amending act is the appropriate legal instrument.

1.5.3. Lessons learned from similar experiences in the past

Experience from the implementation of the existing electricity market framework has shown that increasing electrification, the rapid deployment of renewables and the growing digitalisation of the electricity system require a more system-oriented and efficient approach to the operation and use of electricity networks. Existing regulatory frameworks have not always provided sufficiently strong incentives for efficient grid use, flexibility, timely grid access or the deployment of smart and digital solutions.

Recent policy initiatives, including the Action Plan for Affordable Energy, the European Grids Package and AccelerateEU, also highlighted the need for a more coherent approach to the regulatory components contributing to electricity costs,

including network charges and taxation, in order to support electrification, affordability and competitiveness objectives.

Previous experience with the implementation of Union electricity market legislation has furthermore shown that increasingly technical and data-intensive regulatory frameworks require adequate technical, regulatory and monitoring capacity at Union level, including within ACER and the Commission.

1.5.4. Compatibility with the multiannual financial framework and possible synergies with other appropriate instruments

The proposal aligns with the objectives 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 Grids Package, which is a key deliverable under the Clean Industrial Deal and the Action Plan for Affordable Energy, being part of the 2025 Commission Work Program.

The Commission proposal for the new Multiannual Financial Framework (MFF) 2028-2034 highlights "the vital importance of a genuine Energy Union and well integrated EU infrastructure networks", which is reflected in a substantially increased budget proposed for the Connecting Europe Facility (CEF) for Energy.

1.5.5. Assessment of the different available financing options, including scope for redeployment

The FTE are needed for additional tasks being performed by ACER while existing tasks will not decrease in the foreseeable future.

As far as legally possible, additional FTEs requested for ACER will be financed from a relevant programme envelope under the same MFF heading, subject to the agreement on the MFF 2028-2034.

1.6. Duration of the proposal and of its financial impact

☐ **limited duration**

☐ in effect from [DD/MM]YYYY to [DD/MM]YYYY

☐ financial impact from YYYY to YYYY for commitment appropriations and from YYYY to YYYY for payment appropriations.

☒ **unlimited duration**

Implementation with a start-up period from YYYY to YYYY,

followed by full-scale operation.

1.7. Method(s) of budget implementation planned

☒ **Direct management** by the Commission

- ☒ by its departments, including by its staff in the Union delegations;
- ☐ by the executive agencies

☐ **Shared management** with the Member States

☒ **Indirect management** by entrusting budget implementation tasks to:

- ☐ third countries or the bodies they have designated
- ☐ international organisations and their agencies (to be specified)
- ☐ the European Investment Bank and the European Investment Fund
- ☒ bodies referred to in Articles 70 and 71 of the Financial Regulation
- ☐ public law bodies
- ☐ bodies governed by private law with a public service mission to the extent that they are provided with adequate financial guarantees
- ☐ bodies governed by the private law of a Member State that are entrusted with the implementation of a public-private partnership and that are provided with adequate financial guarantees
- ☐ bodies or persons entrusted with the implementation of specific actions in the common foreign and security policy pursuant to Title V of the Treaty on European Union, and identified in the relevant basic act
- ☐ bodies established in a Member State, governed by the private law of a Member State or Union law and eligible to be entrusted, in accordance with sector-specific rules, with the implementation of Union funds or budgetary guarantees, to the extent that such bodies are controlled by public law bodies or by bodies governed by private law with a public service mission, and are provided with adequate financial guarantees in the form of joint and several liability by the controlling bodies or equivalent financial guarantees and which may be, for each action, limited to the maximum amount of the Union support.

Comments

N.A.

2. MANAGEMENT MEASURES

2.1. Monitoring and reporting rules

According to its financial regulation, ACER has to provide, in the context of its Programming Document, an annual Work Programme including details on resources, both financial and human, per each of the activities carried out.

ACER reports monthly to DG ENER on budget execution, including commitments, and payments by budget title, and vacancy rates by type of staff.

In addition, DG ENER is directly represented in the governance bodies of ACER. Through its representatives in the Administrative Board, DG ENER will be informed of the use of the budget and the establishment plan at each of its meetings during the year.

Finally, also in line with financial rules, ACER is subject to annual requirements for reporting on activities and the use of resources through the Administrative Board and its Annual Activity Report.

The tasks directly implemented by DG ENER, where appropriate with support from the JRC, will follow the annual cycle of planning and monitoring, as implemented in the Commission and the executive agencies, including reporting the results through the Annual Activity Report of DG ENER and the JRC.

2.2. Management and control systems

2.2.1. Justification of the budget implementation method(s), the funding implementation mechanism(s), the payment modalities and the control strategy proposed

Regarding requirements falling within the scope of the Commission, these tasks will be carried out primarily by DG ENER, with scientific and technical support from the JRC. Subject to implementation needs, some supporting activities may be carried out through public procurement, including expert studies, technical support, workshops, prototyping or validation exercises. In such cases, procurement would be implemented under direct management in full compliance with the Financial Regulation. The control strategy for these expenditures would follow the Commission's standard ex ante and ex post legal, financial and operational controls.

Regarding requirements falling within the scope of ACER, the Agency is best placed to carry out the tasks related to the preparation of recommendations and Union-level progress reports on smart grid indicators. While ACER will have to develop new expertise, it is nevertheless most cost-effective to allocate the new tasks under this proposal to an existing agency which already works on similar tasks.

2.2.2. Information concerning the risks identified and the internal control system(s) set up to mitigate them

DG Energy

The elements directly managed by DG Energy may be subject to the usual risks affecting public procurement procedures. These risks are considered low level as regards legality and regularity of the expenditure. Appropriate and effective controls are in place at corporate and DG level. Concerning performance, the main risk are wrong estimates as regards the workload created by this proposal, given that it introduces new tasks. This risk needs to be accepted, since, as experience has shown,

if additional resources needs are not included in the initial proposal, it is very difficult to remedy this situation later on.

DG JRC

As part of the risk assessment process for its scientific activities, the JRC identifies potential risks, evaluates their level and plans necessary mitigating actions and identifies existing controls. The key risk identified refers to a) the estimation of the related workload for the new tasks associated to this proposal (the workload for some of the tasks might be underestimated); b) insufficient quantity or quality of the data to support the various new tasks. For a) the risk needs to be accepted; mitigation measures include careful staff planning throughout the duration of the activities to ensure appropriate expertise. For b) the actions include an early participation in designing and framing the data collection processes, as well as early identification, within each task requiring data intense activities, of the potential barriers to get access to the data of interest and early communication with DG ENER and relevant stakeholders to raise the issue of data availability.

ACER

As regards new tasks for ACER, the proposal includes several new tasks which mitigates this risk, since while the workload of some future tasks may be underestimated, others may be overestimated, providing scope for possible future redeployment.

2.2.3. Estimation and justification of the cost-effectiveness of the controls (ratio between the control costs and the value of the related funds managed), and assessment of the expected levels of risk of error (at payment & at closure)

DG Energy and DG JRC

The tasks assigned for DG Energy will be implemented following already existing control system and the cost of control ratio is expected to remain stable (5 to 6% of the funds managed based on recent exercises).

ACER

The allocation of additional tasks for the existing mandate of ACER is not expected to generate specific additional controls at Agency level, therefore, the ratio of control costs over value of funds managed will remain unaltered for ACER.

2.3. Measures to prevent fraud and irregularities

DG Energy

DG Energy adopted a revised Anti-fraud Strategy in 2020 and, in 2023, a revised action plan covering the years 2023-2025. DG Energy is is currently revising its AFS for the years 2026-2028, in accordance with the OLAF methodology. The Energy AFS are based on the Commission Antifraud Strategy and on a specific risk assessment carried out internally to identify the areas most vulnerable to fraud, the controls already in place and the actions necessary to improve DG Energy's capacity to prevent, detect and correct fraud.

DG JRC

The JRC Anti-Fraud Strategy, along with its accompanying Action Plan, was adopted in 2020 and modified in 2024 to revise and update the plan for the period 2025-2027. The updated plan includes three new actions: an awareness-raising

campaign focusing on Commission ethics issues and anti-fraud measures, with relevant examples tailored for JRC scientific staff, launched in the first half of 2025; an expanded training programme featuring thematic sessions on topics such as conflict of interest, authorship, the use of AI, whistleblowing and reporting channels, among others; updated Sharepoint pages dedicated to ethics issues and anti-fraud measures. These new actions complement the ongoing efforts from the 2021-2024 Action Plan and JRC participation in the Commission Antifraud Strategy Action Plan. The JRC values its cooperation with OLAF, the internal control team, and other stakeholders in our collective efforts to combat fraud.

ACER

ACER applies the anti-fraud principles of decentralised EU Agencies, in line with the Commission approach and the Guidelines by OLAF of 2024 for decentralised agencies and JUs. In December 2024 the Agency adopted a new Anti-Fraud Strategy, repealing Decision 15/2021 of the Administrative Board of the Agency. The new strategy, spanning the period 2025-2027, is based on the following strategic objectives: optimise existing fraud prevention measures, enhance timeliness and accuracy of existing detection systems, strengthen investigation protocols, and optimise corrective actions for swift recoveries.

3. ESTIMATED FINANCIAL IMPACT OF THE PROPOSAL/INITIATIVE

3.1. Heading(s) of the multiannual financial framework and expenditure budget line(s) affected

- Existing budget lines

In order of multiannual financial framework headings and budget lines.

Heading of multiannual financial framework	Budget line	Type of expenditure	Contribution			
	Number	Diff./Non-diff.[1]	from EFTA countries [2]	from candidate countries and potential candidates [3]	From other third countries	other assigned revenue
1	02.10.03 European Union Agency for the Cooperation of Energy Regulators (ACER)	Diff.	YES	NO	NO	NO

[1] Diff. = Differentiated appropriations / Non-diff. = Non-differentiated appropriations.
[2] EFTA: European Free Trade Association.
[3] Candidate countries and, where applicable, potential candidates from the Western Balkans.

3.2. Estimated financial impact of the proposal on appropriations

3.2.1. Summary of estimated impact on operational appropriations

☐ The proposal/initiative does not require the use of operational appropriations

☒ The proposal/initiative requires the use of operational appropriations, as explained below

3.2.1.1. Appropriations from voted budget

EUR million (to three decimal places)

Heading of multiannual financial framework		Number	1					
DG: JRC			Year **2024**	Year **2025**	Year **2026**	Year **2027**	**TOTAL MFF 2021-2027**	**TOTAL MFF 2028-2034**
Operational appropriations								
Budget line	Commitments	(1a)					**0.000**	
	Payments	(2a)					**0.000**	
Budget line	Commitments	(1b)					**0.000**	
	Payments	(2b)					**0.000**	
Appropriations of an administrative nature financed from the envelope of specific programmes								
Budget line 01 01 01 Support expenditure for Horizon Europe		(3)				**0.255**	**0.255**	**1.782**
TOTAL appropriations for DG JRC	Commitments	=1a+1b+3	**0.000**	**0.000**	**0.000**	**0.255**	**0.255**	**1.782**
	Payments	=2a+2b+3	**0.000**	**0.000**	**0.000**	**0.255**	**0.255**	**1.782**

The appropriations identified as needed under the support line of Horizon Europe (Direct Research) will be redeployed from the envelope of the programme allocated to JRC and do not constitute an additional request to the current level of appropriations requested in the context of the Draft Budget 2027.

EUR million (to three decimal places)

ACER	Year **2024**	Year **2025**	Year **2026**	Year **2027**	**TOTAL MFF 2021-2027**	**TOTAL MFF 2028-2034**

Budget line: 02.10.03 / EU Budget contribution to the agency				0.391	**0.391**	**10.039**[1]

The appropriations / EU budget contribution to the agency will be compensated by a reduction of the envelope of the following programme Connecting Europe Facility - Energy / budget line: 02.03.01 / in the year: 2027

The amount of appropriations to be allocated to the agency in the next MFF is indicative and subject to the agreement on the MFF. It should be integrated into the Agency's subsidy due to the permanent nature of the tasks allocated by this proposal and will be compensated, if relevant, by an equivalent reduction of a relevant programme envelope under the same MFF heading. If a compensatory reduction is needed, the resources allocated to the Agency may also need to be revised through the annual budgetary procedure.

			Year **2024**	Year **2025**	Year **2026**	Year **2027**	**TOTAL MFF 2021-2027**	**TOTAL MFF 2028-2034**
TOTAL operational appropriations (including contribution to decentralised agency)	Commitments	(4)	0.000	0.000	0.000	0.391	**0.391**	**10.039**
	Payments	(5)	0.000	0.000	0.000	0.391	**0.391**	**10.039**
TOTAL appropriations of an administrative nature financed from the envelope for specific programmes		(6)	0.000	0.000	0.000	0.255	**0.255**	**1.782**
TOTAL appropriations under HEADING 1	Commitments	=4+6	**0.000**	**0.000**	**0.000**	**0.645**	**0.645**	**11.821**
of the multiannual financial framework	Payments	=5+6	**0.000**	**0.000**	**0.000**	**0.645**	**0.645**	**11.821**

			Year **2024**	Year **2025**	Year **2026**	Year **2027**	**TOTAL MFF 2021-2027**	**TOTAL MFF 2028-2034**
• TOTAL operational appropriations (all operational headings)	Commitments	(4)	0.000	0.000	0.000	0.391	**0.391**	**10.039**
	Payments	(5)	0.000	0.000	0.000	0.391	**0.391**	**10.039**

[1] This figure takes into account the cummulated 2% annual indexation.

• TOTAL appropriations of an administrative nature financed from the envelope for specific programmes (all operational headings)		(6)	0.000	0.000	0.000	0.255	**0.255**	**1.782**
TOTAL appropriations under Headings 1 to 6 of the multiannual financial framework (Reference amount)	Commitments	=4+6	**0.000**	**0.000**	**0.000**	**0.645**	**0.391**	**11.821**
	Payments	=5+6	**0.000**	**0.000**	**0.000**	**0.645**	**0.391**	**11.821**

Heading of multiannual financial framework	**7**	‘Administrative expenditure’

DG: ENER	Year **2024**	Year **2025**	Year **2026**	Year **2027**	**TOTAL MFF 2021-2027**	**TOTAL MFF 2028-2034**
• Human resources	0.000	0.000	0.000	0.404	**0.404**	**2.828**
• Other administrative expenditure	0.000	0.000	0.000	0.018	**0.018**	**0.126**
TOTAL DG ENER	**0.000**	**0.000**	**0.000**	**0.422**	**0.422**	**2.954**
TOTAL appropriations under HEADING 7 of the multiannual financial framework (Total commitments = Total payments)	**0.000**	**0.000**	**0.000**	**0.422**	**0.422**	**2.954**

EUR million (to three decimal places)

		Year **2024**	Year **2025**	Year **2026**	Year **2027**	**TOTAL MFF 2021-2027**	**TOTAL MFF 2028-2034**
TOTAL appropriations under HEADINGS 1 to 7	Commitments	**0.000**	**0.000**	**0.000**	**1.067**	**1.067**	**14.775**
of the multiannual financial framework	Payments	**0.000**	**0.000**	**0.000**	**1.067**	**1.067**	**14.775**

3.2.2. Estimated output funded from operational appropriations

Commitment appropriations in EUR million (to three decimal places)

Indicate			Year	Year	Year	Year	Enter as many years as necessary to show the	**TOTAL**

objectives and outputs ⇩			**2024**		**2025**		**2026**		**2027**		duration of the impact (see Section 1.6)							
	OUTPUTS																	
	Type[2]	Average cost	No	Cost	No	Cost	No	Cost	No	Cost	No	Cost	No	Cost	No	Cost	Total No	Total cost
SPECIFIC OBJECTIVE No 1[3]…																		
- Output																		
- Output																		
- Output																		
Subtotal for specific objective No 1																		
SPECIFIC OBJECTIVE No 2 ...																		
- Output																		
Subtotal for specific objective No 2																		
TOTALS																		

2 Outputs are products and services to be supplied (e.g.: number of student exchanges financed, number of km of roads built, etc.).

3 As described in Section 1.3.2. 'Specific objective(s)'

3.2.3. Summary of estimated impact on administrative appropriations

☐ The proposal/initiative does not require the use of appropriations of an administrative nature

☒ The proposal/initiative requires the use of appropriations of an administrative nature, as explained below

3.2.3.1. Appropriations from voted budget

VOTED APPROPRIATIONS	Year 2024	Year 2025	Year 2026	Year 2027	TOTAL 2021 - 2027	TOTAL MFF 2028-2034
HEADING 7						
Human resources	0.000	0.000	0.000	0.404	**0.404**	2.828
Other administrative expenditure	0.000	0.000	0.000	0.018	**0.018**	0.126
Subtotal HEADING 7	**0.000**	**0.000**	**0.000**	**0.422**	**0.422**	**2.954**
Outside HEADING 7						
Human resources	0.000	0.000	0.000	0.255	**0.255**	1.782
Other expenditure of an administrative nature	0.000	0.000	0.000	0.000	**0.000**	0.000
Subtotal outside HEADING 7	**0.000**	**0.000**	**0.000**	**0.255**	**0.255**	**1.782**
TOTAL	**0.000**	**0.000**	**0.000**	**0.677**	**0.677**	**4.736**

In 2027, the appropriations required for human resources and other expenditure of an administrative nature will be met by appropriations from the DG that are already assigned to management of the action and/or have been redeployed within the DG, together, if necessary, with any additional allocation which may be granted to the managing DG under the annual allocation procedure and in the light of budgetary constraints.

The estimated impact on expenditure and staffing for 2028 and beyond is added for illustrative purposes only and does not pre-judge the next Multiannual Financial Framework. The source of financing and scope of Union financial commitment in the post-2027 period remain subject to the outcome of interinstitutional negotiations on the MFF 2028-2034 and thereafter shall be determined through the annual budgetary procedure. All appropriations and staffing allocations as of 2028 are indicative.

3.2.4. Estimated requirements of human resources

☐ The proposal/initiative does not require the use of human resources

☒ The proposal/initiative requires the use of human resources, as explained below

3.2.4.1. Financed from voted budget

Estimate to be expressed in full-time equivalent units (FTEs)

VOTED APPROPRIATIONS		Year 2024	Year 2025	Year 2026	Year 2027	Post 2027
• Establishment plan posts (officials and temporary staff)						
20 01 02 01 (Headquarters and Commission's Representation Offices)		0	0	0	1	1
20 01 02 03 (EU Delegations)		0	0	0	0	0
01 01 01 01 (Indirect research)		0	0	0	0	0
01 01 01 11 (Direct research)		0	0	0	0.5	0.5
Other budget lines (specify)		0	0	0	0	0
• External staff (in FTEs)						
20 02 01 (AC, END from the 'global envelope')		0	0	0	2	2
20 02 03 (AC, AL, END and JPD in the EU Delegations)		0	0	0	0	0
Admin. Support line [XX.01.YY.YY]	- at Headquarters	0	0	0	0	0
	- in EU Delegations	0	0	0	0	0
01 01 01 02 (AC, END - Indirect research)		0	0	0	0	0
01 01 01 12 (AC, END - Direct research)		0	0	0	1.5	1.5
Other budget lines (specify) - Heading 7		0	0	0	0	0
Other budget lines (specify) - Outside Heading 7		0	0	0	0	0
TOTAL		**0**	**0**	**0**	**5**	**5**

	Current staff available in the Commission services	**Additional staff***		
		To be financed under Heading 7 / Research	**To be financed from BA line**	**To be financed from fees**
Establishment plan posts	1 DG ENER 0.5 AD DG JRC		N/A	
External staff (CA, SNEs, INT)	2 CA DG ENER 1.5 CA DG JRC			

The estimated impact on expenditure and staffing for 2028 and beyond is added for illustrative purposes only and does not pre-judge the next Multiannual Financial Framework. The source of financing and scope of Union financial commitment in the post-2027 period remain subject to the outcome of interinstitutional negotiations on the MFF 2028-2034 and thereafter shall be determined through the annual budgetary procedure. All appropriations and staffing allocations as of 2028 are indicative.

Description of tasks to be carried out by:

Officials and temporary staff	The implementation of the provisions on network charges, smart grid indicators, electricity grid data exchange and the reuse of electricity grid data for research and innovation purposes introduces a set of new tasks for the Commission, which require resources to ensure effective and timely implementation. These tasks are of a cross-cutting nature, combining energy regulation, digital policy, data governance, cybersecurity and innovation support, and require sustained interaction with a wide range of actors at Union and national level. <u>DG ENER</u> The allocation of **1 permanent official (AD) FTE** within DG ENER is required to ensure the long-term governance, coordination and regulatory oversight of the new framework established under Article 18a. This includes steering the implementation of the electricity grid data exchange framework, ensuring coherence with the broader Union legal framework (including the Data Act, AI Act and cybersecurity legislation), coordinating with ACER, ENTSO-E, the EU DSO Entity and Member States, and overseeing the follow-up to the Commission opinion on the coordinated arrangement. These resources would be related to Requirement 1 and cover in particular: <u>Process steering and regulatory coordination</u> - Coordinate the overall implementation process with ACER, ENTSO for Electricity, the EU DSO Entity, TSOs, DSOs, Member States and other relevant stakeholders. - Manage the preparation of a Commission opinion on the coordinated arrangement communicated under Article 18a(5), including the assessment of governance, participation, technical, operational, transparency and cybersecurity elements. - Ensure coherence of the initiative with the broader Union framework on electricity markets, digitalisation, cybersecurity, data protection, AI and industrial policy. <u>Policy and legal follow-up</u> - Assess the regulatory implications of ACER recommendations and progress reports on smart grid indicators. - Follow up on the implementation of the voluntary electricity grid data exchange framework, including how the Commission opinion is taken into account. - Coordinate with relevant Commission services, in particular on issues related to data governance, cybersecurity, AI, and critical infrastructure. <u>Stakeholder engagement and monitoring</u> - Organise and follow up meetings, expert workshops and targeted consultations with TSOs, DSOs, ENTSO-E, the EU DSO Entity, ACER, industry, research actors and other

	stakeholders. - Monitor implementation progress and support future updates of the implementing framework where necessary. These tasks are structural and long-term in nature, as they relate to the continuous monitoring, evolution and governance of the digitalisation of electricity networks at Union level. They go beyond the current scope of DG ENER's activities, which do not include the operational oversight of a Union-level framework for grid data exchange and innovation. This would also include limited implementation follow-up related to Article 18b on smart metering systems. <u>DG JRC</u> DG JRC has conducted a detailed assessment of the technical and scientific support required to implement the proposal and has reviewed the possibility of internal redeployment. Considering that some synergies exist with ongoing activities in the areas of digitalisation of the energy system and cybersecurity, to implement these additional activities, with an effort of **0.5 AD FTE – redeployed from its internal resources** - which will be dedicated to the support to the development of implementing acts. This includes providing technical input for the preparation of implementing acts under Article 61.5b, including on data models, ontologies, interfaces, interoperability architectures and technical specifications.
External staff	<u>DG ENER</u> **2 temporary Contract Agent (CA) FTEs** are required to support the preparation, drafting and adoption of **implementing acts** under Article 61 (tariff methodology and smart grid indicators & data reuse) related to the following requirements: - Requirement 2: The Commission is empowered to adopt implementing acts setting out guidelines to enable the lawful, secure and controlled reuse of electricity grid data for research and innovation public-interest purposes supporting the operation and optimisation of the electricity system pursuant to Article 18a (Article 61(5b)). This includes technical and legal preparation, stakeholder consultation, drafting and implementation follow-up. This task requires an estimated 0.5 FTE from DG ENER. These resources would cover in particular preparing, drafting and steering the adoption of implementing acts under Article 61.5a and 5b, including interservice consultation and consultation of Member States under the relevant comitology procedure. - Requirement 3: The Commission may adopt an implementing act setting out guidelines on a harmonised methodology on tariffs pursuant to Article 18 (Article 61(5a)). This task requires additional analytical, regulatory and coordination capacity within DG ENER, including an estimated 1 FTE for the preparation of an implementing act. These resources would cover in particular policy and legal follow-up.

	- Requirement 4: The Commission may adopt an implementing act on smart grid indicators pursuant to Article 18a (Article 61(5a)). This task requires nalytical, regulatory and coordination capacity within DG ENER, including an estimated 0.5 FTE for the preparation of an implementing act. These resources would cover in particular policy and legal follow-up. These activities are more concentrated in the initial phase of implementation and during periodic updates of the implementing framework. They require significant analytical and coordination capacity over a defined period, but are not expected to require permanent reinforcement once the main implementing framework is established. <u>JRC</u> DG JRC has conducted a detailed assessment of the technical and scientific support required to implement the proposal and has reviewed the possibility of internal redeployment. Considering that some synergies exist with ongoing activities in the areas of digitalisation of the energy system and cybersecurity, to implement these additional activities, with an effort of **1.5 CA FTEs, the JRC will redeploy its internal resources** to provide technical and scientific advice for the development of the voluntary secure electricity data exchange framework under Article 18a(5). This includes the provision of guidelines on testing and validation approaches, and essential cybersecurity requirements. Regarding the data exchange framework, the JRC support would focus in particular on: - Support the formulation of timely, policy relevant use cases related to electricity grid planning, operation and optimisation. - Supporting the voluntary secure electricity grid data exchange framework through providing methodologies for independent testing, benchmarking and validation methodologies for innovative digital tools to be developed under article 18a(5) relevant to electricity grid operation and optimisation.

3.2.5. *Overview of estimated impact on digital technology-related investments*

Compulsory: the best estimate of the digital technology-related investments entailed by the proposal/initiative should be included in the table below.

Exceptionally, when required for the implementation of the proposal/initiative, the appropriations under Heading 7 should be presented in the designated line.

The appropriations under Headings 1-6 should be reflected as “Policy IT expenditure on operational programmes”. This expenditure refers to the operational budget to be used to re-use/ buy/ develop IT platforms/tools directly linked to the implementation of the initiative and their associated investments (e.g. licences, studies, data storage etc). The information provided in this table should be consistent with details presented under Section 4 “Digital dimensions”.

TOTAL Digital and IT appropriations	Year 2024	Year 2025	Year 2026	Year 2027	TOTAL MFF 2021 - 2027
HEADING 7					
IT expenditure (corporate)	0.000	0.000	0.000	0.000	**0.000**
Subtotal HEADING 7	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
Outside HEADING 7					
Policy IT expenditure on operational programmes	0.000	0.000	0.000	0.000	**0.000**
Subtotal outside HEADING 7	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
TOTAL	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**

3.2.6. Compatibility with the current multiannual financial framework

The proposal/initiative:

☒ can be fully financed through redeployment within the relevant heading of the multiannual financial framework (MFF)

☐ requires use of the unallocated margin under the relevant heading of the MFF and/or use of the special instruments as defined in the MFF Regulation

☐ requires a revision of the MFF

3.2.7. Third-party contributions

The proposal/initiative:

☒ does not provide for co-financing by third parties

☐ provides for the co-financing by third parties estimated below:

Appropriations in EUR million (to three decimal places)

	Year **2024**	Year **2025**	Year **2026**	Year **2027**	Total
Specify the co-financing body					
TOTAL appropriations co-financed					

3.2.8. Estimated human resources and the use of appropriations required in a decentralised agency

Staff requirements (fulll-time equivalent units)

Agency: ACER	Year **2024**	Year **2025**	Year **2026**	Year **2027**	**MFF 2028-2034**
Temporary agents (AD Grades)					
Temporary agents (AST grades)					
Temporary agents (AD+AST) subtotal	***0***	***0***	***0***	***0***	***0***
Contract agents				2	2
Seconded national experts					
Contract agents and seconded national experts subtotal	***0***	***0***	***0***	***2***	***2***
TOTAL staff	**0**	**0**	**0**	**2**	**2**

Appropriations covered by the EU budget contribution in EUR million (to three decimal places)

Agency: ACER	Year **2024**	Year **2025**	Year **2026**	Year **2027**	**TOTAL 2021 - 2027**	**TOTAL 2028-2034**
Title 1: Staff expenditure				0.091[1]	**0.091**	1.379
Title 2: Infrastructure and operating expenditure					**0.000**	
Title 3: Operational expenditure				0.300	**0.300**	8.660
TOTAL of appropriations covered by the EU budget	**0.000**	**0.000**	**0.000**	**0.391**	**0.391**	**10.039[2]**

[1] Staff expenditure adapted to take into account the assumption that recruitment occurs in July. As such, only 50% of the average cost is taken into account in 2027.

[2] This figure includes the accumulated effect of 2% annual indexation.

Overview/summary of human resources and appropriations (in EUR million) required by the proposal/initiative in a decentralised agency

Agency: ACER	Year **2024**	Year **2025**	Year **2026**	Year **2027**	**TOTAL 2021 - 2027**	**TOTAL 2028-2034**
Temporary agents (AD+AST)	**0**	**0**	**0**	**0**	**0**	**0**
Contract agents	**0**	**0**	**0**	2	**2**	**2**
Seconded national experts	**0**	**0**	**0**	**0**	**0**	**0**
Total staff	**0**	**0**	**0**	**2**	**2**	**2**
Appropriations covered by the EU budget	0.000	0.000	0.000	0.391	**0.391**	**10.039**
Appropriations covered by fees (if applicable)	0.000	0.000	0.000	0.000	**0.000**	**0.000**
Appropriations co-financed (if applicable)	0.000	0.000	0.000	0.000	**0.000**	**0.000**
TOTAL appropriations	**0.000**	**0.000**	**0.000**	**0.391**	**0.391**	**10.039**

Description of the Tasks to be carried out by ACER:

Requirement 6: ACER is required, in close cooperation with transmission and distribution system operators and relevant stakeholders, to issue a recommendation addressed to regulatory authorities on smart grid indicators to measure the uptake of smart and innovative grid technologies and digital solutions in transmission and distribution networks (Article 18a(2)). This recommendation is to be issued by one year after the entry into force of the Regulation and constitutes a one-off task.

Requirement 7: ACER is required to publish a Union-level progress report assessing the development and uptake of smart grid solutions and the efficient use of electricity infrastructure (Article 18a(3)). This report is to be published at least every three years following the publication of ACER's recommendation on smart grid indicators and constitutes a recurring task.

For Requirements 6 and 7 combined ACER thus requires additional staff to lead and conduct the expert work including initial recommendation and regular monitoring on both TSOs and DSOs, as well as to assist on data collection and other clerical tasks inherent to this activity.

Requirement 8: ACER is tasked with assisting regulatory authorities in determining performance indicators (Article 18(7)).

Requirement 9: ACER is tasked with publishing a report with efficiency comparison among transmission system operators and their costs, by first day of the month following 12 months after the date of entry into force of this Regulation and every four years thereafter (Article 18(7)).

Requirement 10: ACER is tasked with issuing a recommendation addressed to the Commission on a proposal for a harmonised methodology on tariffs (Article 61(5a)). For Requirements 8, 9 and 10, ACER requires additional staff resources for horizontal support and overhead, as well as an operational budget for specialised consultancy and developments.

3.3. Estimated impact on revenue

☒ The proposal/initiative has no financial impact on revenue.

☐ The proposal/initiative has the following financial impact:

- ☐ on own resources
- ☐ on other revenue
- ☐ please indicate, if the revenue is assigned to expenditure lines

EUR million (to three decimal places)

Budget revenue line:	Appropriations available for the current financial year	Impact of the proposal/initiative[3]			
		Year **2024**	Year **2025**	Year **2026**	Year **2027**
Article …….					

For assigned revenue, specify the budget expenditure line(s) affected.

Other remarks (e.g. method/formula used for calculating the impact on revenue or any other information).

[3] As regards traditional own resources (customs duties, sugar levies), the amounts indicated must be net amounts, i.e. gross amounts after deduction of 20 % for collection costs.

4. DIGITAL DIMENSIONS

4.1. Requirements of digital relevance

High-level description of the requirements of digital relevance and related categories (data, process digitalisation & automation, digital solutions and/or digital public services)

Reference to the requirement	Requirement description	Actors affected or concerned by the requirement	High-level Processes	Categories
Requirement 1 (R1) – Article 18a(2), (3), (6) and Article 61.5a: Smart grid indicators and related governance framework	This requirement concerns the establishment of a Union-level framework for smart grid indicators, including an ACER recommendation, periodic Union-level progress reporting, and the possibility for the Commission to adopt implementing acts on a harmonised methodology. It is digitally relevant because it concerns the measurement and monitoring of the uptake of smart and innovative grid technologies and digital solutions in transmission and distribution networks.	ACER, The Commission, National regulatory authorities Transmission system operators and distribution system operators.	Monitoring, reporting, regulatory assessment and development of harmonised methodologies.	**Data**.
Requirement 2 (R2) – Article 18a(4): Management and exchange of grid data for smart grid operation	This requirement concerns the obligation for transmission system operators and distribution system operators to manage and exchange grid data in a harmonised manner so as to enable the development, deployment and effective use of smart electricity	Transmission system operators, distribution system operators and, indirectly, other relevant actors involved in system operation and flexibility integration.	Data exchange, network operation, monitoring, optimisation and coordination of electricity system operation.	**Data** **Process digitalisation and automation.**

	grids and of innovative data-driven solutions supporting the monitoring, optimisation and coordination of network operation. It is digitally relevant because it governs the exchange and use of network, market and operational data and supports the digitalisation of system operation.			
Requirement 3 (R3) – Article 18a(5) and Article 61.5b: Voluntary secure electricity grid data exchange framework for innovation	This requirement concerns the voluntary establishment of a secure electricity grid data exchange framework, jointly facilitated by the ENTSO for Electricity and the EU DSO Entity, to support the development, testing, integration and deployment of innovative technologies for grid operation and optimisation, as well as the related empowerment for the Commission to adopt implementing acts setting out guidelines on lawful, secure and controlled data reuse for research and innovation public-interest purposes. It is digitally relevant because it concerns structured data exchange, common data models, formats, ontologies and interfaces, as well as digital arrangements for testing, benchmarking, validation, interoperability and lifecycle management of digital tools.	Transmission system operators, distribution system operators, the ENTSO for Electricity, the EU DSO Entity, the Commission, and relevant participating stakeholders such as research and technology organisations and industrial solutions providers.	Data sharing, secure data access, testing and validation of digital tools, interoperability governance, and innovation support.	**Data**, **digital solutions**, and **process digitalisation and automation**.

4.2. Data

High-level description of the data in scope

Type of data	Reference to the requirement(s)	Standard and/or specification
The data concerned relate to the uptake of smart and innovative grid technologies and digital solutions in transmission and distribution networks, as well as to the efficient use of electricity infrastructure. These data are expected to build primarily on existing national reports under Article 59(l) of Directive (EU) 2019/944, complemented where necessary by additional data specified through ACER's recommendation and, where adopted, through Commission implementing acts on smart grid indicators.	Requirement 1 (smart grid indicators)	At this stage, no specific technical standard is prescribed in the legal text; any further harmonisation of methodology, indicators or reporting formats would be addressed in the recommendation and potentially in an implementing act.
The data concerned are electricity grid data necessary for the development, deployment and effective use of smart electricity grids and innovative data-driven solutions supporting network operation. Depending on the use case, these data may include network topology and asset data, operational measurements, load flows, voltage and congestion data, outage and maintenance data, dispatch and curtailment data, connection and capacity data, flexibility-related data, and operational forecasts and constraints relevant for transmission and distribution system operation.	Requirement 2 (grid data exchange for smart grid operation)	The legal text does not itself prescribe detailed technical standards. Existing sectoral specifications and models, including where relevant Common Grid Model Exchange Standard (CGMES) or other electricity-sector interoperability solutions, may be relevant at implementation stage.
The data concerned are electricity grid data and related technical information used within a voluntary secure framework for research and innovation public-interest purposes supporting the operation and optimisation of the electricity system. Depending on the concrete use case, such data may include operational, planning, asset, flexibility and	Requirement 3 (secure electricity grid data exchange framework for innovation)	The proposal provides that Commission implementing acts may specify or update the data models, formats, ontologies and interfaces relevant for the

system-performance data contributed by participating transmission system operators and distribution system operators, as well as metadata, benchmark data and outputs generated through testing and validation activities.		framework, together with conditions on transparency, accountability, cybersecurity and risk mitigation.

Alignment with the European Data Strategy

Explanation of how the requirement(s) are aligned with the European Data Strategy

The Requirement 1 (smart grid indicators) is aligned with the European Data Strategy insofar as it supports consistent and fair use of data for regulatory monitoring and policy development within the energy sector, while relying on existing sectoral reporting structures.

The Requirement 2 (grid data exchange for smart grid operation) is aligned with the European Data Strategy because it supports sector-specific data sharing and interoperability in a way that is consistent with Union rules on data protection, cybersecurity and fair access to data. It also complements the existing energy data framework without duplicating the Data Act, as it concerns regulated grid data and cooperation between regulated entities for system operation.

The Requirement 3 (secure electricity grid data exchange framework for innovation) is aligned with the European Data Strategy because it aims to enable lawful, secure and controlled data reuse within a sector-specific framework, while respecting EU rules on GDPR, the Data Act, the AI Act and other applicable legislation. In practice, this framework would also underpin the development and deployment of AI-based solutions supporting the operation and optimisation of the electricity system. Any such development and deployment should take place in compliance with Regulation (EU) 2024/1689 (AI Act) and other applicable Union legislation, in particular as regards risk management, data governance, transparency, human oversight, robustness and cybersecurity.

Alignment with the once-only principle

Explanation of how the once-only principle has been considered and how the possibility to reuse existing data has been explored

For Requirement 1 (smart grid indicators) the proposal follows the once-only principle by building, to the extent possible, on already existing national reporting obligations rather than creating a wholly new reporting system.

For Requirement 2 (grid data exchange for smart grid operation) the once-only principle is respected in that the provision builds on data already generated and used by system operators in the normal course of system operation; it does not create a general obligation to re-collect

the same information from new sources, but rather aims to improve the way existing data are exchanged and used. For Requirement 3 (secure electricity grid data exchange framework for innovation) the once-only principle should guide implementation of the framework, notably by reusing existing sectoral datasets, reporting channels and technical solutions where possible, and by avoiding unnecessary duplication of collection or transmission obligations.

Explanation of how newly created data is findable, accessible, interoperable and reusable, and meets high-quality standards

N/A.

Data flows

High-level description of the data flows

Type of data	**Reference(s) to the requirement(s)**	**Actors who provide the data**	**Actors who receive the data**	**Trigger for the data exchange**	**Frequency (if applicable)**
Data related to the uptake of smart and innovative grid technologies and digital solutions	Requirement 1 (smart grid indicators)	National regulatory authorities, and where relevant system operators,	ACER for the preparation of its recommendation and progress reports, and from ACER to the Commission in the form of those outputs.	The initial trigger would be the entry into force of the Regulation	followed by the preparation of ACER's recommendation within one year, and thereafter by the regular three-year reporting cycle
Data concerned are electricity grid data necessary for the development, deployment and effective use of smart electricity grids and innovative data-driven solutions supporting network operation	Requirement 2 (grid data exchange for smart grid operation)	Grid operators	Grid operators	operational system needs to be linked to monitoring, optimisation and coordination of network operation,	The frequency of such exchanges would depend on the operational use case and may range from near real-time

				including the integration of demand response, renewable energy sources and non-fossil flexibility	exchanges to periodic sharing of static or planning-related data.
Electricity grid data and related technical information used within a voluntary secure framework for research and innovation public-interest purposes supporting the operation and optimisation of the electricity system	Requirement 3 (secure electricity grid data exchange framework for innovation)	The main data flows would be from participating transmission system operators and distribution system operators into the coordinated arrangement, between participants within that framework under agreed governance rules, from the ENTSO for Electricity and the EU DSO Entity to the Commission when communicating the governance and technical arrangements, and from the Commission back to participants through its opinion and, where adopted, through implementing acts.		The trigger would be the voluntary establishment of the coordinated arrangement by interested operators, followed by the communication of the relevant governance and technical elements to the Commission.	Subsequent data exchanges would depend on participation in the framework and on the concrete research, testing, benchmarking and deployment activities carried out within it.

4.3. Digital solutions

High-level description of digital solutions

Digital solution	Reference(s) to the requirement(s)	Main mandated functionalities	Responsible body	How is accessibility catered for?	How is reusability considered?	Use of AI technologies (if applicable)
Digital solution #1 Existing reporting, monitoring and analytical systems for smart grid indicators	Requirement 1	The proposal does not create a standalone new Union digital platform. The relevant digital solutions are the existing reporting, monitoring and analytical systems used by ACER and national regulatory authorities to collect, process and assess information on network performance and on the uptake of smart and digital grid solutions. Depending on future implementing acts, those existing systems may need to be updated to support a more harmonised indicator methodology, common reporting structures and comparable analytical outputs.	ACER is responsible for the Union-level recommendation and progress report. National regulatory authorities are responsible for national monitoring and reporting.	No specific accessibility requirements are set, as these are primarily regulatory and expert-facing systems rather than public-facing digital services. Outputs such as ACER reports should nevertheless remain publicly accessible in line with existing transparency practices.	Reusability is ensured by building on existing regulatory reporting and analytical tools rather than creating a new solution from scratch.	At present, the proposal does not require the use of AI for this digital solution.

Digital solution #2 Grid data exchange interfaces, systems and interoperability components for smart grid operation	Requirement 2	The relevant digital solutions are the interfaces, systems and interoperability components used by transmission system operators and distribution system operators to exchange and process grid data in a harmonised manner. These may include machine-to-machine interfaces, data exchange gateways, shared semantic models, data management systems, and other digital tools supporting monitoring, optimisation and coordination of network operation.	Transmission system operators and distribution system operators, acting within their existing operational responsibilities.	The proposal does not establish a citizen-facing digital service and therefore does not raise specific accessibility issues for the general public. The digital solutions are intended to support interoperability and reuse of data and should, where possible, build on existing sectoral solutions and standards rather than require entirely new architectures.	The text envisages the development and operation of innovative data-driven solutions, which may include AI-enabled tools for forecasting, optimisation or system observability.
Digital solution #3 Secure electricity grid data exchange framework for innovation	Requirement 3	The relevant digital solution is the secure electricity grid data exchange framework established on a voluntary basis through a coordinated arrangement jointly facilitated by the ENTSO for Electricity	The participating transmission system operators and distribution system operators are primarily responsible, with the ENTSO for Electricity and the EU DSO Entity jointly facilitating the	The proposal does not prescribe a specific technological architecture, which preserves flexibility to build on existing or pilot infrastructures. Reusability is a central feature, since the framework is intended to enable developed innovative solutions to be used by other European transmission and	The framework is expressly designed to support innovative technologies and may include AI-

		and the EU DSO Entity. This framework may rely on digital platforms, secure processing environments, shared testing and benchmarking environments, validation tools, and other digital infrastructures necessary to support the development, testing, integration and deployment of innovative technologies for grid operation and optimisation.	coordinated arrangement. The Commission exercises oversight through its opinion on the communicated governance and technical arrangements and through possible implementing acts under Article 61.5b.	distribution system operators requesting access via the coordinated arrangement. No specific accessibility requirements arise, as this is not a public-facing service.	based tools, including for modelling, testing, optimisation or validation.

For each digital solution, explanation of how the digital solution complies with applicable digital policies and legislative enactments

Digital solution #1

Digital and/or sectorial policy (when these are applicable)	Explanation on how it aligns
AI Act	Any future use of AI-based analytical tools by ACER or national regulatory authorities would need to comply with the AI Act.
EU Cybersecurity framework	The solution must also remain consistent with the general Union framework on data protection and cybersecurity.
eIDAS	No specific link
Single Digital Gateway and IMI	No specific link
Others	

Digital solution #2 Grid data exchange interfaces, systems and interoperability components for smart grid operation

Digital and/or sectorial policy (when these are applicable)	Explanation on how it aligns
AI Act	Where such tools are used, they would need to comply with the applicable Union framework, in particular the AI Act where relevant
EU Cybersecurity framework	Where such tools are used, they would need to comply with the applicable Union framework, in particular the NIS2-related obligations applicable to the entities concerned, and other cybersecurity requirements under sectoral law
eIDAS	No specific link
Single Digital Gateway and IMI	No specific link

Others	

Digital solution #3 Secure electricity grid data exchange framework for innovation

Digital and/or sectorial policy (when these are applicable)	**Explanation on how it aligns**
AI Act	Where AI-based tools are used, compliance with the AI Act is expressly relevant, alongside GDPR, the Data Act, cybersecurity rules and other applicable Union legislation
EU Cybersecurity framework	Where AI-based tools are used, compliance with cybersecurity rules and other applicable Union legislation
eIDAS	No specific link
Single Digital Gateway and IMI	No specific link
Others	

4.4. Interoperability assessment

For this legislative initiative, the requirements concerning data exchange, smart grid indicators, the coordinated innovation framework and smart metering systems do not establish or affect a trans-European digital public service within the meaning of the Interoperable Europe Act. They primarily concern regulatory obligations, operational data exchange arrangements and digital infrastructures of regulated electricity sector entities, rather than digital services provided by Union entities or public sector bodies to one another or to citizens or businesses. No cross-border digital public service is affected by the policy initiative, and, therefore, the interoperability assessment section does not apply.

4.5. Measures to support digital implementation

High-level description of measures supporting digital implementation

Description of the measure	**Reference(s) to the requirement(s)**	**Commission role** (if applicable)	**Actors to be involved** (if applicable)	**Expected timeline** (if applicable)
For Requirement 1, an important implementation measure is the preparation by ACER of a recommendation on smart grid indicators, followed, where appropriate, by Commission implementing acts setting out a harmonised methodology. This measure supports the gradual development of a more coherent Union-level framework for measuring the uptake of smart and digital grid solutions and their contribution to the efficient use of electricity infrastructure.	Requirement 1 (smart grid indicators)	The Commission's role would be to assess the need for further harmonisation and, where appropriate, adopt implementing acts.	The actors involved would include ACER, the Commission, national regulatory authorities, transmission system operators, distribution system operators and relevant stakeholders.	The first milestone would be ACER's recommendation **within one year after entry into force**, followed by possible implementing acts at a later stage if needed.
For Requirement 2, the main implementation measure is the gradual adaptation by transmission system operators and distribution system operators of their data management, exchange and interoperability arrangements so that grid data can be used in a more harmonised way to support smart grid deployment and innovative data-driven solutions. This is	Requirement 2 (grid data exchange for smart grid operation)	The Commission's role would mainly consist of policy monitoring and follow-up in the context of implementation of the Regulation.	The actors involved would include transmission system operators, distribution system operators, national regulatory authorities and, where relevant, ENTSO for	Implementation would begin **from the date of application of the Regulation** and proceed progressively as operators adapt existing systems and processes.

primarily an operational implementation measure at sector level rather than a measure to be specified by a Commission act.			Electricity and the EU DSO Entity.	
For Requirement 3, a key implementation measure is the establishment of the coordinated arrangement jointly facilitated by ENTSO for Electricity and the EU DSO Entity, including the development of governance, participation, technical, operational and cybersecurity rules for the voluntary secure electricity grid data exchange framework. A further supporting measure is the adoption by the Commission of implementing acts under Article 61.5b, setting out common guidelines on data models, formats, ontologies, interfaces, transparency and risk-management requirements.	Requirement 3 (secure electricity grid data exchange framework for innovation)	The Commission's role would therefore include receiving the communicated arrangements, issuing an opinion on them, and, where appropriate, adopting implementing acts to support a more consistent and secure rollout.	The actors involved would include the Commission, ENTSO for Electricity, the EU DSO Entity, participating transmission system operators and distribution system operators, and relevant European stakeholders such as research and technology organisations and industrial solutions providers.	The coordinated arrangement would be expected to be developed **after entry into force of the Regulation**, while implementing acts would follow subsequently, depending on the progress of the framework and the need for further specification.

ANNEX
to the LEGISLATIVE FINANCIAL AND DIGITAL STATEMENT

Name of the proposal:

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

amending Regulation (EU) 2019/943, as regards future-proofing electricity bills in the European Union, through reducing system costs and fostering electrification and digitalisation

1. NUMBER and COST of HUMAN RESOURCES CONSIDERED NECESSARY
2. COST of OTHER ADMINISTRATIVE EXPENDITURE
3. TOTAL ADMINISTRATIVE COSTS
4. METHODS of CALCULATION USED for ESTIMATING COSTS

4.1. Human resources

4.2. Other administrative expenditure

1. Cost of human resources considered necessary

☐ The proposal/initiative does not require the use of human resources

☒ The proposal/initiative requires the use of human resources, as explained below:

1.1. Financed from voted budget

1.1.1 DG ENER

EUR million (to three decimal places)

HEADING 7 of the multiannual financial framework		2024		2025		2026		2027		TOTAL 2021-2027		TOTAL 2028-2034	
		FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	**FTE**	**Appropriations**	**FTE**	**Appropriations**
Establishment plan posts (officials and temporary staff)													
20 01 02 01 - Headquarters and Representation offices	AD		0.000		0.000		0.000	1	0.194	**1**	**0.194**	**1**	**0.194**
	AST		0.000		0.000		0.000		0.000	**0**	**0.000**	**0**	**0.000**
20 01 02 03 - Union Delegations	AD		0.000		0.000		0.000		0.000	**0**	**0.000**	**0**	**0.000**
	AST		0.000		0.000		0.000		0.000	**0**	**0.000**	**0**	**0.000**
External staff													
20 02 01 and 20 02 02 – External personnel – Headquarters and Representation offices	AC		0.000		0.000		0.000	2	0.210	**2**	**0.210**	**2**	**0.210**
	END		0.000		0.000		0.000		0.000	**0**	**0.000**	**0**	**0.000**
20 02 03 – External personnel - Union Delegations	AC		0.000		0.000		0.000		0.000	**0**	**0.000**	**0**	**0.000**
	AL		0.000		0.000		0.000		0.000	**0**	**0.000**	**0**	**0.000**
	END		0.000		0.000		0.000		0.000	**0**	**0.000**	**0**	**0.000**
	JPD		0.000		0.000		0.000		0.000	**0**	**0.000**	**0**	**0.000**

Other HR related budget lines (*specify*)	AC		0.000		0.000		0.000		0.000	**0**	**0.000**	**0**	**0.000**
	END		0.000		0.000		0.000		0.000	**0**	**0.000**	**0**	**0.000**
Subtotal HR – HEADING 7		**0**	**0.000**	**0**	**0.000**	**0**	**0.000**	**3**	**0.404**	**3**	**0.404**	**3**	**0.404**

Outside HEADING 7 of the multiannual financial framework		**2024**		**2025**		**2026**		**2027**		**TOTAL 2021-2027**		**TOTAL 2028-2034**	
		FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations
Establishment plan posts (officials and temporary staff)													
01 01 01 01 Indirect Research	AD		0.000		0.000		0.000		0.000	**0**	**0.000**		
	AST		0.000		0.000		0.000		0.000	**0**	**0.000**		
01 01 01 11 Direct Research	AD		0.000		0.000		0.000		0.000	**0**	**0.000**		
	AST		0.000		0.000		0.000		0.000	**0**	**0.000**		
Other (please specify)	AD		0.000		0.000		0.000		0.000	**0**	**0.000**		
	AST		0.000		0.000		0.000		0.000	**0**	**0.000**		
External staff													
External staff from operational appropriations – at Headquarters	AC		0.000		0.000		0.000		0.000	**0**	**0.000**		
	END		0.000		0.000		0.000		0.000	**0**	**0.000**		
External staff from operational appropriations – in Union delegations	AC		0.000		0.000		0.000		0.000	**0**	**0.000**		
	AL									**0**	**0.000**		
	END		0.000		0.000		0.000		0.000	**0**	**0.000**		
	JPD									**0**	**0.000**		

01 01 01 02 Indirect Research	AC		0.000		0.000		0.000		0.000	**0**	**0.000**		
	END		0.000		0.000		0.000		0.000	**0**	**0.000**		
01 01 01 12 Direct research	AC		0.000		0.000		0.000		0.000	**0**	**0.000**		
	END		0.000		0.000		0.000		0.000	**0**	**0.000**		
Other budget lines HR related (*specify*)	AC		0.000		0.000		0.000		0.000	**0**	**0.000**		
	END		0.000		0.000		0.000		0.000	**0**	**0.000**		
Subtotal HR – Outside HEADING 7		**0**	**0.000**	**0**	**0.000**	**0**	**0.000**	**0**	**0.000**	**0**	**0.000**		
Total HR (all MFF Headings)		**0**	**0.000**	**0**	**0.000**	**0**	**0.000**	**3**	**0.404**	**3**	**0.404**	**3**	**0.404**

1.1.2 DG JRC

EUR million (to three decimal places)

HEADING 7		2024		2025		2026		2027		TOTAL 2021-2027		TOTAL 2028-2034	
of the multiannual financial framework		FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	**FTE**	**Appropriations**	**FTE**	**Appropriations**
Establishment plan posts (officials and temporary staff)													
20 01 02 01 - Headquarters and Representation offices	AD		0.000		0.000		0.000		0.000	**0**	**0.000**		
	AST		0.000		0.000		0.000		0.000	**0**	**0.000**		
20 01 02 03 - Union Delegations	AD		0.000		0.000		0.000		0.000	**0**	**0.000**		
	AST		0.000		0.000		0.000		0.000	**0**	**0.000**		
External staff													
20 02 01 and 20 02 02 – External personnel – Headquarters and Representation offices	AC		0.000		0.000		0.000		0.000		**0.000**		
	END		0.000		0.000		0.000		0.000	**0**	**0.000**		
20 02 03 – External personnel - Union Delegations	AC		0.000		0.000		0.000		0.000	**0**	**0.000**		
	AL		0.000		0.000		0.000		0.000	**0**	**0.000**		
	END		0.000		0.000		0.000		0.000	**0**	**0.000**		
	JPD		0.000		0.000		0.000		0.000	**0**	**0.000**		
Other HR related budget lines	AC		0.000		0.000		0.000		0.000	**0**	**0.000**		

(*specify*)	END		0.000		0.000		0.000		0.000	**0**	**0.000**	**0**	**0.000**
Subtotal HR – HEADING 7		**0**	**0.000**	**0**	**0.000**	**0**	**0.000**	**0**	**0.000**	**0**	**0.000**	**0**	**0.000**

Outside HEADING 7 of the multiannual financial framework			**2024**		**2025**		**2026**		**2027**		**TOTAL 2021-2027**		**TOTAL 2028-2034**	
			FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations
Establishment plan posts (officials and temporary staff)														
01 01 01 01 Indirect Research		AD		0.000		0.000		0.000		0.000	**0**	**0.000**		
		AST		0.000		0.000		0.000		0.000	**0**	**0.000**		
01 01 01 11 Direct Research		AD		0.000		0.000		0.000	0.5	0.097	**0.5**	**0.097**	**0.5**	**0.679**
		AST		0.000		0.000		0.000		0.000	**0**	**0.000**		
Other (please specify)		AD		0.000		0.000		0.000		0.000	**0**	**0.000**		
		AST		0.000		0.000		0.000		0.000	**0**	**0.000**		
External staff														
External staff from operational appropriations	- at Headquarters	AC		0.000		0.000		0.000		0.000	**0**	**0.000**		
		END		0.000		0.000		0.000		0.000	**0**	**0.000**		
	- in Union delegations	AC		0.000		0.000		0.000		0.000	**0**	**0.000**		
		AL		0.000		0.000		0.000		0.000	**0**	**0.000**		
		END		0.000		0.000		0.000		0.000	**0**	**0.000**		
		JPD									**0**	**0.000**		

01 01 01 02 Indirect Research	AC		0.000		0.000		0.000		0.000	**0**	**0.000**		
	END		0.000		0.000		0.000		0.000	**0**	**0.000**		
01 01 01 12 Direct research	AC		0.000		0.000		0.000	1.5	0.158	**1.5**	**0.158**	**1.5**	**1.103**
	END		0.000		0.000		0.000		0.000	**0**	**0.000**		
Other budget lines HR related (*specify*)	AC		0.000		0.000		0.000		0.000	**0**	**0.000**		
	END		0.000		0.000		0.000		0.000	**0**	**0.000**		
Subtotal HR – Outside HEADING 7		**0**	**0.000**	**0**	**0.000**	**0**	**0.000**	**2**	**0.255**	**2**	**0.255**	**2**	**1.782**
Total HR (all MFF Headings)		**0**	**0.000**	**0**	**0.000**	**0**	**0.000**	**2**	**0.255**	**2**	**0.255**	**2**	**1.782**

1.1.3 Total

HEADING 7 of the multiannual financial framework		2024		2025		2026		2027		TOTAL 2021-2027		TOTAL 2028-2034	
		FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	**FTE**	**Appropriations**	**FTE**	**Appropriations**
Establishment plan posts (officials and temporary staff)													
20 01 02 01 - Headquarters and Representation offices	AD	0	0.000	0	0.000	0	0.000	1	0.194	**1**	**0.194**	1	1.358
	AST	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
20 01 02 03 - Union Delegations	AD	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
	AST	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
External staff													
20 02 01 and 20 02 02 – External personnel – Headquarters and Representation offices	AC	0	0.000	0	0.000	0	0.000	2	0.210	**2**	**0.210**	2	1.470
	END	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
20 02 03 – External personnel - Union Delegations	AC	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
	AL	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
	END	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
	JPD	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
Other HR related budget lines (*specify*)	AC	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
	END	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
Subtotal HR – HEADING 7		**0**	**0.000**	**0**	**0.000**	**0**	**0.000**	**3**	**0.404**	**3**	**0.404**	**3**	**2.828**

Outside HEADING 7 of the multiannual financial framework			2024		2025		2026		2027		TOTAL 2021-2027		TOTAL 2028-2034	
			FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations	FTE	Appropriations
Establishment plan posts (officials and temporary staff)														
01 01 01 01 Indirect Research		AD	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
		AST	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
01 01 01 11 Direct Research		AD	0	0.000	0	0.000	0	0.000	0.5	0.097	**0.5**	**0.097**	**0.5**	**0.679**
		AST	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
Other (please specify)		AD	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
		AST	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
External staff														
External staff from operational appropriations	- at Headquarters	AC	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
		END	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
	- in Union delegations	AC	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
		AL	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
		END	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
		JPD	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
01 01 01 02 Indirect Research		AC	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
		END	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
01 01 01 12 Direct research		AC	0	0.000	0	0.000	0	0.000	1.5	0.158	**1.5**	**0.158**	**1.5**	**1.103**

	END	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
Other budget lines HR related (*specify*)	AC	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
	END	0	0.000	0	0.000	0	0.000	0	0.000	**0**	**0.000**		
Subtotal HR – Outside HEADING 7		**0**	**0.000**	**0**	**0.000**	**0**	**0.000**	**2**	**0.255**	**2**	**0.255**	**2**	**1.782**
Total HR (all MFF Headings)		**0**	**0.000**	**0**	**0.000**	**0**	**0.000**	**5**	**0.659**	**5**	**0.659**	**5**	**4.610**

2. Cost of other administrative expenditure

☐ The proposal/initiative does not require the use of administrative appropriations

☒ The proposal/initiative requires the use of administrative appropriations, as explained below:

2.1. Financed from voted budget

2.1.1 DG ENER

EUR million (to three decimal places)

HEADING 7 of the multiannual financial framework	**2024**	**2025**	**2026**	**2027**	**TOTAL 2021-2027**	**TOTAL 2028-2034**
At headquarters or within EU territory:						
20 02 06 01 - Mission and representation expenses				0.018	**0.018**	**0.126**
20 02 06 02 - Conference and meeting costs					**0.000**	
20 02 06 03 - Committees					**0.000**	
20 02 06 04 - Studies and consultations					**0.000**	
20 04 – IT expenditure (corporate)[1]					**0.000**	
Other budget lines non-HR related (*specify where necessary*)					**0.000**	
In Union delegations						

1 The opinion of DG DIGIT – IT Investments Team is required (see the Guidelines on Financing of IT, C(2020) 6126 final of 10.9.2020, page 7).

20 02 07 01 - Missions, conferences and representation expenses					**0.000**	
20 02 07 02 - Further training of staff					**0.000**	
20 03 05 – Infrastructure and logistics					**0.000**	
Other budget lines non-HR related (*specify where necessary*)					**0.000**	
Subtotal Other - HEADING 7 of the multiannual financial framework	**0.000**	**0.000**	**0.000**	**0.018**	**0.018**	**0.126**

EUR million (to three decimal places)

Outside HEADING 7 of the multiannual financial framework	**2024**	**2025**	**2026**	**2027**	**TOTAL 2021-2027**	**POST 2027**
Expenditure on technical and administrative assistance (not including external staff) from operational appropriations (former 'BA' lines):	0.000	0.000	0.000	0.000	**0.000**	
- at Headquarters					**0.000**	
- in Union delegations					**0.000**	
Other management expenditure for research					**0.000**	
Policy IT expenditure on operational programmes[2]					**0.000**	
Corporate IT expenditure on operational programmes[3]					**0.000**	
Other budget lines non-HR related (*specify where necessary*)					**0.000**	
Sub-total Other – Outside HEADING 7 of the multiannual financial framework	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	
Total Other admin expenditure (all MFF Headings)	**0.000**	**0.000**	**0.000**	**0.018**	**0.018**	**0.126**

2 The opinion of DG DIGIT – IT Investments Team is required (see the Guidelines on Financing of IT, C(2020) 6126 final of 10.9.2020, page 7).

3 This item includes local administrative systems and contributions to the co-financing of corporate IT systems (see the Guidelines on Financing of IT, C(2020) 6126 final of 10.9.2020).

2.1.3. Total

HEADING 7 of the multiannual financial framework	2024	2025	2026	2027	TOTAL 2021-2027	POST 2027
At headquarters or within EU territory:						
20 02 06 01 - Mission and representation expenses	0.000	0.000	0.000	0.018	**0.018**	**0.126**
20 02 06 02 - Conference and meeting costs	0.000	0.000	0.000	0.000	**0.000**	
20 02 06 03 - Committees	0.000	0.000	0.000	0.000	**0.000**	
20 02 06 04 - Studies and consultations	0.000	0.000	0.000	0.000	**0.000**	
20 04 – IT expenditure (corporate)[4]	0.000	0.000	0.000	0.000	**0.000**	
Other budget lines non-HR related (*specify where necessary*)	0.000	0.000	0.000	0.000	**0.000**	
In Union delegations						
20 02 07 01 - Missions, conferences and representation expenses	0.000	0.000	0.000	0.000	**0.000**	
20 02 07 02 - Further training of staff	0.000	0.000	0.000	0.000	**0.000**	
20 03 05 – Infrastructure and logistics	0.000	0.000	0.000	0.000	**0.000**	
Other budget lines non-HR related (*specify where necessary*)	0.000	0.000	0.000	0.000	**0.000**	
Subtotal Other - HEADING 7 of the multiannual financial framework	**0.000**	**0.000**	**0.000**	**0.018**	**0.018**	**0.126**

4 The opinion of DG DIGIT – IT Investments Team is required (see the Guidelines on Financing of IT, C(2020) 6126 final of 10.9.2020, page 7).

Outside HEADING 7 of the multiannual financial framework	2024	2025	2026	2027	TOTAL 2021-2027	POST 2027
Expenditure on technical and administrative assistance (not including external staff) from operational appropriations (former 'BA' lines):	0.000	0.000	0.000	0.000	**0.000**	
- at Headquarters	0.000	0.000	0.000	0.000	**0.000**	
- in Union delegations	0.000	0.000	0.000	0.000	**0.000**	
Other management expenditure for research	0.000	0.000	0.000	0.000	**0.000**	
Policy IT expenditure on operational programmes[5]	0.000	0.000	0.000	0.000	**0.000**	
Corporate IT expenditure on operational programmes[6]	0.000	0.000	0.000	0.000	**0.000**	
Other budget lines non-HR related (*specify where necessary*)	0.000	0.000	0.000	0.000	**0.000**	
Sub-total Other – Outside HEADING 7 of the multiannual financial framework	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	
Total Other admin expenditure (all MFF Headings)	**0.000**	**0.000**	**0.000**	**0.018**	**0.018**	**0.126**

5 The opinion of DG DIGIT – IT Investments Team is required (see the Guidelines on Financing of IT, C(2020) 6126 final of 10.9.2020, page 7).

6 This item includes local administrative systems and contributions to the co-financing of corporate IT systems (see the Guidelines on Financing of IT, C(2020) 6126 final of 10.9.2020).

3. Total administrative costs (all Headings MFF)

3.1. Appropriations from voted budget

3.1.1. DG ENER

EUR million (to three decimal places)

Summary	2024	2025	2026	2027	TOTAL 2021-2027	TOTAL 2028-2034
Heading 7 - Human Resources	0.000	0.000	0.000	0,404	**0,404**	2,828
Heading 7 – Other administrative expenditure	0.000	0.000	0.000	0,180	**0,180**	0,126
Sub-total Heading 7	**0.000**	**0.000**	**0.000**	**0,584**	**0,584**	**2,954**
Outside Heading 7 – Human Resources	0.000	0.000	0.000	0,000	**0,000**	0,000
Outside Heading 7 – Other administrative expenditure	0.000	0.000	0.000	0,000	**0,000**	0,000
Sub-total Other Headings	**0.000**	**0.000**	**0.000**	**0,000**	**0,000**	**0,000**
TOTAL HEADING 7 and Outside HEADING 7	**0.000**	**0.000**	**0.000**	**0,584**	**0,584**	**2,954**

3.1.2. DG JRC

Summary	2024	2025	2026	2027	TOTAL 2021-2027	TOTAL 2028-2034
Heading 7 - Human Resources	0.000	0.000	0.000	0.000	**0.000**	0.000
Heading 7 – Other administrative expenditure	0.000	0.000	0.000	0.000	**0.000**	0.000
Sub-total Heading 7	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
Outside Heading 7 – Human Resources	0.000	0.000	0.000	0.255	**0.255**	1.782
Outside Heading 7 – Other administrative expenditure	0.000	0.000	0.000	0.000	**0.000**	0.000
Sub-total Other Headings	**0.000**	**0.000**	**0.000**	**0.255**	**0.255**	**1.782**
TOTAL HEADING 7 and Outside HEADING 7	**0.000**	**0.000**	**0.000**	**0.255**	**0.255**	**1.782**

3.1.3. TOTAL

Summary	2024	2025	2026	2027	TOTAL 2021-2027	TOTAL 2028-2034
Heading 7 - Human Resources	0.000	0.000	0.000	0.404	**0.404**	2.828
Heading 7 – Other administrative expenditure	0.000	0.000	0.000	0.018	**0.018**	0.126
Sub-total Heading 7	**0.000**	**0.000**	**0.000**	**0.422**	**0.422**	**2.954**
Outside Heading 7 – Human Resources	0.000	0.000	0.000	0.255	**0.255**	1.782
Outside Heading 7 – Other administrative expenditure	0.000	0.000	0.000	0.000	**0.000**	0.000
Sub-total Other Headings	**0.000**	**0.000**	**0.000**	**0.255**	**0.255**	**1.782**
TOTAL HEADING 7 and Outside HEADING 7	**0.000**	**0.000**	**0.000**	**0.677**	**0.677**	**4.736**

The other administrative appropriations required will be met by the appropriations which are already assigned to management of the action and/or which have been redeployed, together if necessary with any additional allocation which may be granted to the managing DG under the annual allocation procedure and in the light of existing budgetary constraints.

4. Methods of calculation used to estimate costs

4.1. Human resources

DG ENER has carefully assessed the human resources required for the implementation of this proposal and conducted an internal review to determine whether any of the new activities could be covered through redeployment within the Directorate-General. This assessment has confirmed that these tasks cannot be absorbed through internal redeployment without negatively affecting the delivery of existing core priorities, in particular given the already high workload related to the implementation of the Electricity Market Design reform, the Grids Package and the broader digitalisation agenda in the energy sector. The proposal therefore requires targeted additional resources to ensure effective and timely implementation. This assessment concluded that **internal redeployment is not a viable option**. The proposal gives rise to a substantial increase in workload, particularly under Requirements 1 to 5 (see section 1.5.1), without any corresponding reduction in existing activities. At the same time, the tasks linked to the proposal require specialised technical expertise and sustained input over the long term.

Existing staff are already operating at full capacity and are overextended by concurrent policy priorities and the energy crisis, leaving very limited scope to absorb additional responsibilities. Temporary arrangements would therefore not provide a credible or sustainable solution. In this context, the implementation of the legislative proposal requires dedicated reinforcement to ensure that DG ENER is properly equipped to manage the complexity and continuity of the new tasks.

To support the effective implementation of the proposal, the allocation of additional staff is therefore necessary, namely 1 additional official FTE for the data exchange framework, which will constitute a permanent, long-term activity, and 2 additional Contract Agent FTEs to support the development and preparation of the implementing acts. Through these roles, DG ENER will be able to meet the new legislative obligations in an effective and sustainable manner.

DG JRC has conducted a thorough evaluation of the additional human resources necessary for this proposal and has performed an internal review to ascertain whether the new activities could be managed through internal redeployment within the Directorate-General, also considering any synergies with ongoing activities. To implement these additional activities (with an effort of 2 FTEs), the **JRC will redeploy its internal resources**.

The staff required to implement the proposal (in FTEs):

	Internally redeployed		Exceptional additional staff		
	Within the implementing DGs*	**Exceptionally, from the Commission redeployment pool after orientation from the CMB****	**To be financed from Heading 7*** / Research**	**To be financed from BA line**	**To be financed from fees**
Establishment plan posts	0.5 AD JRC	1 DG ENER		N/A	
External staff (CA, SNEs, INT)	1.5 CA DG JRC	2 CA DG ENER			

HEADING 7 of the multiannual financial framework

NB: The average costs for each category of staff at Headquarters are available on BUDGpedia:
https://myintracomm.ec.europa.eu/corp/budget/financial-rules/budget-implementation/Pages/financial-statement.aspx

☒ Officials and temporary staff

The implementation of the provisions on network charges, smart grid indicators, electricity grid data exchange and the reuse of electricity grid data for research and innovation purposes introduces a set of new tasks for the Commission, which require resources to ensure effective and timely implementation. These tasks are of a cross-cutting nature, combining energy regulation, digital policy, data governance, cybersecurity and innovation support, and require sustained interaction with a wide range of actors at Union and national level.

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The allocation of **1 permanent official (AD) FTE** within DG ENER is required to ensure the long-term governance, coordination and regulatory oversight of the new framework established under Article 18a. This includes steering the implementation of the electricity grid data exchange framework, ensuring coherence with the broader Union legal framework (including the Data Act, AI Act and cybersecurity legislation), coordinating with ACER, ENTSO-E, the EU DSO Entity and Member States, and overseeing the follow-up to the Commission opinion on the coordinated arrangement.

These resources would be related to Requirement 1 and cover in particular:

Process steering and regulatory coordination

- Coordinate the overall implementation process with ACER, ENTSO for Electricity, the EU DSO Entity, TSOs, DSOs, Member States and other relevant stakeholders.
- Manage the preparation of a Commission opinion on the coordinated arrangement communicated under Article 18a(5), including the assessment of governance, participation, technical, operational, transparency and cybersecurity elements.
- Ensure coherence of the initiative with the broader Union framework on electricity markets, digitalisation, cybersecurity, data protection, AI and industrial policy.

Policy and legal follow-up

- Assess the regulatory implications of ACER recommendations and progress reports on

smart grid indicators.

- Follow up on the implementation of the voluntary electricity grid data exchange framework, including how the Commission opinion is taken into account.
- Coordinate with relevant Commission services, in particular on issues related to data governance, cybersecurity, AI, and critical infrastructure.

Stakeholder engagement and monitoring

- Organise and follow up meetings, expert workshops and targeted consultations with TSOs, DSOs, ENTSO-E, the EU DSO Entity, ACER, industry, research actors and other stakeholders.
- Monitor implementation progress and support future updates of the implementing framework where necessary.

These tasks are structural and long-term in nature, as they relate to the continuous monitoring, evolution and governance of the digitalisation of electricity networks at Union level. They go beyond the current scope of DG ENER's activities, which do not include the operational oversight of a Union-level framework for grid data exchange and innovation. Existing staff are already fully engaged in ongoing legislative implementation and policy development, and do not have the capacity to take on these additional horizontal and coordination-intensive responsibilities.

This would also include limited implementation follow-up related to Article 18b on smart metering systems.

☒ External staff

DG ENER

2 temporary Contract Agent (CA) FTEs are required to support the preparation, drafting and adoption of **implementing acts** under Article 61 (tariff methodology and smart grid indicators & data reuse) related to the following requirements:

- Requirement 2: The Commission is empowered to adopt implementing acts setting out guidelines to enable the lawful, secure and controlled reuse of electricity grid data for research and innovation public-interest purposes supporting the operation and optimisation of the electricity system pursuant to Article 18a (Article 61(5b)). This includes technical and legal preparation, stakeholder consultation, drafting and implementation follow-up. This task requires an estimated 0.5 FTE from DG ENER. These resources would cover in particular preparing, drafting and steering the adoption of implementing acts under Article 61.5a and 5b, including interservice consultation and consultation of Member States under the relevant comitology procedure.
- Requirement 3: The Commission may adopt implementing acts setting out guidelines on a harmonised methodology on tariffs pursuant to Article 18 (Article 61(5a)). This task requires additional analytical, regulatory and coordination capacity within DG ENER, including an estimated 1 FTE for the preparation of implementing acts. These resources would cover in particular policy and legal follow-up.
- Requirement 4: The Commission may adopt implementing acts on smart grid indicators pursuant to Article 18a (Article 61(5a)). This task requires additional analytical, regulatory and coordination capacity within DG ENER, including an estimated 0.5 FTE for the preparation of implementing acts. These resources would cover in particular policy and legal follow-up.

These activities are more concentrated in the initial phase of implementation and during periodic updates of the implementing framework. They require significant analytical and coordination capacity over a defined period, but are not expected to require permanent reinforcement once the main implementing framework is established.

Outside HEADING 7 of the multiannual financial framework
☒ Only posts financed from the research budget DG JRC DG JRC has conducted a detailed assessment of the technical and scientific support required to implement the proposal and has reviewed the possibility of internal redeployment. Considering that some synergies exist with ongoing activities in the areas of digitalisation of the energy system and cybersecurity, to implement these additional activities, with an effort of 0.5 AD FTE – redeployed from its internal resources - which will be dedicated to the support to the development of implementing acts. This includes providing technical input for the preparation of implementing acts under Article 61.5b, including on data models, ontologies, interfaces, interoperability architectures and technical specifications.
☒ External staff JRC DG JRC has conducted a detailed assessment of the technical and scientific support required to implement the proposal and has reviewed the possibility of internal redeployment. Considering that some synergies exist with ongoing activities in the areas of digitalisation of the energy system and cybersecurity, to implement these additional activities, with an effort of **1.5 CA FTEs, the JRC will redeploy its internal resources** to provide technical and scientific advice for the development of the voluntary secure electricity data exchange framework under Article 18a(5). This includes the provision of guidelines on testing and validation approaches, and essential cybersecurity requirements. Regarding the data exchange framework, the JRC support would focus in particular on: - Support the formulation of timely, policy relevant use cases related to electricity grid planning, operation and optimisation. - Supporting the voluntary secure electricity grid data exchange framework through providing methodologies for independent testing, benchmarking and validation methodologies for innovative digital tools to be developed under article 18a(5) relevant to electricity grid operation and optimisation.

4.2. Other administrative expenditure

HEADING 7 of the multiannual financial framework
DG Energy: The costs for missions and meetings for each post are foreseen to be around EUR 6 000 per person per year
Outside HEADING 7 of the multiannual financial framework