



Proposal for amendments to the ‘Fit for 55’ package

smartEn Position Paper

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The present document outlines smartEn’s proposal for Amendments in view of the inter-institutional negotiations of crucial file in the Fit for 55 package, including the revisions of the Energy Efficiency Directive, the Renewables Energy Directive, the Alternative Fuels Infrastructure Regulation, the Energy Taxation Directive and ETS Directive.

It builds on our [comprehensive assessment](#) of the Fit for 55 package presented by the European Commission in 2021.

THE RENEWABLES ENERGY DIRECTIVE

	Amendment to the Renewable Energy Directive proposal from the Commission (2021/0218)	smartEn Amendments (in bold and italic)	smartEn justification
Recital 5	(5) The rapid growth and increasing cost-competitiveness of renewable electricity production can be used to satisfy a growing share of energy demand, for instance using heat pumps for space heating or low-temperature industrial processes, electric vehicles for transport, or electric furnaces in certain industries. Renewable electricity can also be used to produce synthetic fuels for consumption in hard-to-decarbonise transport sectors such as aviation and maritime transport. A framework for	(5) The rapid growth and increasing cost-competitiveness of renewable electricity production can be used to satisfy a growing share of energy demand, for instance using heat pumps for space heating or low-temperature industrial processes, electric vehicles for transport, or electric furnaces in certain industries. Renewable electricity can also be used to produce synthetic fuels for consumption in hard-to-decarbonise transport sectors such as aviation and maritime transport. A framework for	Demand-side flexibility is central to support higher electrification levels of end-use sectors and the cost-effective penetration of more variable renewables in the system. The power system must switch from a world where demand is forecasted and supply is scheduled, to a world where supply will be forecasted, and demand scheduled.

	<p>electrification needs to enable robust and efficient coordination and expand market mechanisms to match both supply and demand in space and time, stimulate investments in flexibility, and help integrate large shares of variable renewable generation. Member States should therefore ensure that the deployment of renewable electricity continues to increase at an adequate pace to meet growing demand. For this, Member States should establish a framework that includes market-compatible mechanisms to tackle remaining barriers to have secure and adequate electricity systems fit for a high level of renewable energy, as well as storage facilities, fully integrated into the electricity system.</p>	<p>electrification needs to enable robust and efficient coordination and expand market mechanisms to match both supply and demand in space and time, stimulate investments in flexibility, and help integrate large shares of variable renewable generation. Member States should therefore ensure that the deployment of renewable electricity continues to increase at an adequate pace to meet growing demand <i>while ensuring that demand flexibly adapts to the variability of renewable energy sources</i>. For this, Member States should establish a framework that includes market-compatible mechanisms to tackle remaining barriers to have secure and adequate electricity systems fit for a high level of renewable energy, as well as renewable self-consumption, storage facilities <i>and demand response</i>, fully integrated into the electricity system.</p>	<p>This Directive should consider the uptake of renewable energy being primarily achieved by clean electrification, as already recognised by the Commission in its Energy System Integration Strategy. An EU framework supporting the direct and renewable based electrification of end-use sectors (buildings, transport, industry, H&C) will only be successful if it sets clear measures and targets for the flexible consumption of renewable electricity in all these sectors. Renewable electricity deployment must go hand in hand in with the promotion of demand-side flexibility.</p>
<p>Recitals 11</p>	<p>(11) Buildings have a large untapped potential to contribute effectively to the reduction in greenhouse gas emissions in the Union. The decarbonisation of heating and cooling in this sector through an increased share in production and use of renewable energy will be needed to meet the ambition set in the Climate Target Plan to achieve the Union objective of climate neutrality.</p>	<p>(11) Buildings have a large untapped potential to contribute effectively to the reduction in greenhouse gas emissions in the Union. The decarbonisation of heating and cooling in this sector through an increased share in production and <i>time-dependent, flexible</i> use of renewable energy will be needed to meet the ambition set in the Climate Target Plan to achieve the Union</p>	<p>Electrification of buildings and residential heating is essential for achieving at least the 55% greenhouse gas emission reductions goals for 2030. It also comes with multiple benefits to households and quality of life.</p> <p>The Renewable Energy Directive should set requirements and incentives for the</p>

	<p>However, progress on the use of renewables for heating and cooling has been stagnant in the last decade, largely relying on increased use of biomass. Without the establishment of targets to increase the production and use of renewable energy in buildings, there will be no ability to track progress and identify bottlenecks in the uptake of renewables. Furthermore, the creation of targets will provide a long-term signal to investors, including for the period immediately after 2030. This will complement obligations related to energy efficiency and the energy performance of buildings. Therefore, indicative targets for the use of renewable energy in buildings should be set to guide and incentivise Member States' efforts to exploit the potential of using and producing renewable energy in buildings, encourage the development of and integration of technologies which produce renewable energy while providing certainty for investors and local level engagement.</p>	<p>objective of climate neutrality. However, progress on the use of renewables and for heating and cooling has been stagnant in the last decade, largely relying on increased use of biomass. Without the establishment of targets to increase the production and use of renewable energy in buildings, there will be no ability to track progress and identify bottlenecks in the uptake of renewables. Furthermore, the creation of targets will provide a long-term signal to investors, including for the period immediately after 2030. This will complement obligations related to energy efficiency and the energy performance of buildings. Therefore, indicative targets for the use of renewable energy, <i>including renewable electricity consumed, stored and traded in a flexible way</i> in buildings should be set to guide and incentivise Member States' efforts to exploit the potential of using and producing renewable energy in buildings, encourage the development of and integration of technologies which produce renewable energy while providing certainty for investors and local level engagement <i>and contributing to system efficiency</i>.</p>	<p>decarbonisation of buildings including through their flexible consumption, storage and peer-to-peer and community trading of renewable electricity produced on-site and/or from the grid.</p> <p>This will support the cost-effective transition towards zero-emission buildings while contributing to energy system efficiency and resiliency.</p>
<p>Recital 19</p>	<p>(19) Distributed storage assets, such as domestic batteries and batteries of electric vehicles have the potential to offer</p>	<p>(19) <i>Decentralised energy resources connected to the system below 1MW, such as distributed renewable generation,</i></p>	<p>This recital should be completed to ensure that national regulatory frameworks support the participation of all decentralised energy</p>

	<p>considerable flexibility and balancing services to the grid through aggregation. In order to facilitate the development of such services, the regulatory provisions concerning connection and operation of the storage assets, such as tariffs, commitment times and connection specifications, should be designed in a way that does not hamper the potential of all storage assets, including small and mobile ones, to offer flexibility and balancing services to the system and to contribute to the further penetration renewable electricity, in comparison with larger, stationary storage assets.</p>	<p><i>demand response and distributed storage assets, such as domestic batteries and batteries of electric vehicles and thermal storage</i> have the potential to offer considerable flexibility and balancing services to the grid through aggregation. In order to facilitate the development of such services, the regulatory provisions concerning connection and operation of <i>decentralised energy resources the-storage-assets</i>, such as tariffs, commitment times and connection specifications, should be designed in a way that does not hamper the potential of all <i>these storage</i> assets, including small and mobile ones, to offer flexibility and balancing services to the system and to contribute to the further penetration <i>of</i> renewable electricity, in <i>particular in</i> comparison with larger, stationary storage assets.</p>	<p>resources below 1MW, beyond solely EVs and batteries.. The same requirements should be introduced in article 20a§4.</p>
<p>Article 2 - Definitions</p>		<p><i>(new) “Energy System efficiency” means the application of the Energy Efficiency First principle at system level to ensure a cost-effective decarbonisation, and integration of variable renewables through the optimal use of energy efficient solutions and the activation of the demand-side flexibility from smart decentralised energy resources.</i></p> <p><i>Energy system efficiency shall be measured in reductions in system investment and</i></p>	<p>A new definition for energy system efficiency is introduced to valorise the contribution of flexible, time-dependent, dynamic and data-driven consumption, storage and trade of renewable energy by all energy end-use sectors. The concept of system efficiency should be introduced both in the Renewable and Energy Efficiency Directives.</p> <p>Energy system efficiency goes beyond the concept of energy efficiency at individual level. A system made of energy efficient assets is not</p>

		<p><i>operational costs, carbon emissions and fossil fuels in each national energy mix.</i></p> <p><i>(New) “Demand-side flexibility” means the capability of any active customer to react to external signals and adjust their energy generation and consumption in a dynamic time-dependent way, individually as well as through aggregation.</i></p> <p><i>Demand-side flexibility can be provided by smart decentralised energy resources, including demand management, energy storage, and distributed renewable generation to support a more reliable, sustainable and efficient energy system.</i></p>	<p>necessarily efficient if the efficiency of the whole has not been considered. The on-site optimisation of energy consumption should be pursued and complemented at the same time by a flexible, time-dependent consumption, storage and peer-to-peer and community trading of variable renewable energy sources supplemented by behavioural change and other types of demand response. Energy system efficiency is not only about efficient energy use but also about using the right energy at the right time, in the right way to ensure not only minimal operational cost (OPEX) at the overall system level but also minimal investment costs (CAPEX).</p> <p>An efficient system will ensure the cost-effective achievement of the increased renewable energy target in 2030.</p> <p>Similarly, a new definition of demand-side flexibility is needed to ensure that flexibility can be provided by different sources. Currently, flexibility comes from thermal and hydro generation, pumped storage plants and <u>too marginally</u> from demand. The latter should increase to cater for the increasing flexibility of the energy system which will increase by 4 times between 2020 and 2050 as highlighted by ACER.</p> <p>Demand-side flexibility can come in different forms and can be linked to different assets and end-use sectors, from pure loads reacting to</p>
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			price signals to self-generation, storage and EVs assets. Clarity should be given to the flexibility that can be provided by demand side assets and such definition is currently lacking from the EU legislative framework leading to some confusion. Hence, we need to have a definition for demand-side flexibility in the legislation building on the Electricity Directive's definition of an active customer.
Article 3 – Binding overall Union target for 2030	<p>'1. Member States shall collectively ensure that the share of energy from renewable sources in the Union's gross final consumption of energy in 2030 is at least 40%.'</p> <p>'4a. Member States shall establish a framework, which may include support schemes and facilitating the uptake of renewable power purchase agreements, enabling the deployment of renewable electricity to a level that is consistent with the Member State's national contribution referred to in paragraph 2 and at a pace that is consistent with the indicative trajectories referred to in Article 4(a)(2) of Regulation (EU) 2018/1999. In particular, that</p>	<p>'1. Member States shall collectively ensure that the share of energy from renewable sources in the Union's gross final consumption of energy in 2030 is at least 40%.</p> <p><i>To support the cost-effective achievement of this target and the achievement of system efficiency, Member States shall set a binding national minimum target for the reduction of at least 10% of peak demand by 2030. This target should be achieved through the activation of demand-side flexibility in all end-use sectors, including smart and active residential and non-residential buildings, electric vehicles through smart and bidirectional charging and industrial sites as</i></p>	<p>The integration of variable renewable electricity in all end-use sectors should be achieved through an efficient and flexible demand otherwise system costs for the clean energy transition will increase.</p> <p>The RED revision should accompany any increase in renewable target for 2030 with increased demand-side flexibility efforts to support the cost-efficient penetration of renewables, avoid stress to the (local) grid and increase system efficiency.</p> <p>Enshrining in EU law a target for demand-side flexibility would give political visibility to the contribution of demand-side flexibility to the cost-effective penetration of more variable</p>

	<p>framework shall tackle remaining barriers, including those related to permitting procedures, to a high level of renewable electricity supply. When designing that framework, Member States shall take into account the additional renewable electricity required to meet demand in the transport, industry, building and heating and cooling sectors and for the production of renewable fuels of non-biological origin.’</p>	<p><i>well as by active customers and energy communities, capable of a flexible, time-dependent adjustment of their energy consumption, storage and trade to the variability of renewable energy generation and external signals received from the electricity markets.</i></p> <p><i>This national target for the reduction of peak demand shall be included in the national objectives set out by Member States in their integrated energy and climate plans to increase system flexibility, in accordance with article 4(d)(3) of the Governance Regulation. Member States shall specify the trajectory for achieving this target by 2030, with intermediate milestones.</i></p> <p>‘4a. Member States shall establish a framework, which may include support schemes and facilitating the uptake of renewable power purchase agreements, enabling the deployment of renewable electricity to a level that is consistent with the Member State’s national contribution referred to in paragraph 2 and at a pace that is consistent with the indicative trajectories referred to in Article 4(a)(2) of Regulation</p>	<p>renewables in the system supporting the achievement of the EU RES target and system efficiency. It would ensure a no-regret option to start developing and adapting markets and mechanisms for a more efficient, consumer-centric clean energy system in Europe.</p> <p>As the power system is designed and sized to meet the peak demand, setting a reduction target on the peak demand will ensure an optimal sizing and avoid excessive investments.</p> <p>A roadmap with milestones should be set by national governments to clarify how to achieve the 2030 target, ideally starting from a minimum reduction of 5% of peak demand through demand-side flexibility in 2025. Such levels are already realised in the United States today where a demand-side flexibility capacity of 20% of US peak load by 2030 has been estimated to be cost-effective and could even be worth more than \$15 billion annually in avoided system costs.</p> <p>Member States should identify the sectors and shares to contribute to the overarching national target for demand-side flexibility. Member States are encouraged first to focus efforts on the non-dedicated assets which represent an</p>
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		<p>(EU) 2018/1999. In particular, that framework shall tackle remaining barriers, including those related to permitting procedures <i>and establishment of community energy initiatives</i>, to a high level of renewable electricity supply.</p> <p>When designing that framework, Member States shall take into account the additional renewable electricity required to meet demand in the transport, industry, building and heating and cooling sectors and for the production of renewable fuels of non-biological origin. <i>In conformity with the Energy Efficiency First Principle, Member States should ensure the flexible and time-dependent consumption, trade and storage of renewable electricity in these end-use sectors to help its penetration in the most cost-effective way.</i></p>	<p>important – yet untapped – flexibility potential. This covers the appliances, installations, electric vehicles and equipment already present at the end-user site and connected to the system that can constitute distributed flexibility sources, but which have not been deployed with the initial purpose of providing grid services.</p> <p>The contribution of a flexible, time-dependent energy consumption, trade and storage in the transport, industry, building and heating and cooling sectors to reduce the overall investment needs and costs associated with energy production, infrastructure and use, should be valorised as this contributes to the energy system integration and cost-effective integration of renewable electricity in all these end-use sectors.</p> <p>In line with the Commission’s Recommendations for the implementation of the Energy Efficiency First principle adopted in 2021, the EE1st principle should look at efficiency improvements at the system level. It means that energy system optimisation and efficient integration of clean energy solutions are at the centre of the principle’s application.</p>
Article 15a –	1. In order to promote the production and use of renewable energy in the building	1. In order to promote the production and use of renewable energy in the building	The Renewable Energy Directive should set requirements and incentives for the

<p>Mainstreaming renewable energy in buildings</p>	<p>sector, Member States shall set an indicative target for the share of renewables in final energy consumption in their buildings sector in 2030 that is consistent with an indicative target of at least a 49 % share of energy from renewable sources in the buildings sector in the Union’s final consumption of energy in 2030. The national target shall be expressed in terms of share of national final energy consumption and calculated in accordance with the methodology set out in Article 7. Member States shall include their target in the updated integrated national energy and climate plans submitted pursuant to Article 14 of Regulation (EU) 2018/1999 as well as information on how they plan to achieve it.</p> <p>2. Member States shall introduce measures in their building regulations and codes and, where applicable, in their support schemes, to increase the share of electricity and heating and cooling from renewable sources in the building stock, including national measures relating to substantial increases in renewables self-consumption, renewable energy communities and local energy storage, in combination with energy efficiency improvements relating to cogeneration and passive, nearly zero-energy and zero-energy buildings.</p>	<p>sector, Member States shall set an indicative target for the share of renewables in final energy consumption <i>including an indicative sub-target for the share of renewable electricity in final energy consumption</i> in the buildings sector in 2030 that is consistent with an indicative target of at least a 49 % share of energy from renewable sources in the buildings sector in the Union’s final consumption of energy in 2030. The national targets shall be expressed in terms of share of national final energy consumption and calculated in accordance with the methodology set out in Article 7. Member States shall include their targets in the updated integrated national energy and climate plans submitted pursuant to Article 14 of Regulation (EU) 2018/1999 as well as information on how they plan to achieve it.</p> <p>2. <i>To support the achievement of the national indicative sub-targets</i>, Member States shall introduce measures in their building regulations and codes and, where applicable, in their support schemes, to increase the share of electricity, <i>EV charging</i> and heating and cooling from renewable sources <i>both produced on-site and coming from the grid</i> in the building stock, including national measures relating to substantial increases in renewables self-consumption,</p>	<p>decarbonisation of grid-integrated, active buildings.</p> <p>This requires promoting the clean electrification of buildings through a specific sub-target for the flexible, time-dependent consumption of renewable electricity in buildings both produced on-site and from the grid. This specific requirement complements the general target described above to accelerate electrification of buildings and will contribute to the achievement of the 10% reduction of peak demand to be achieved through the activation of demand-side flexibility.</p> <p>This will support the integration of buildings in the energy system, while contributing to energy system efficiency and resiliency.</p> <p>Member States should support all type of prosumer business models, including the collective sharing of renewable electricity produced by consumers, beyond the building and multi-apartment blocks premises.</p> <p>The smart management of all decentralised resources in buildings through Building Energy Management Systems (BEMS) interacting with</p>
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	<p>To achieve the indicative share of renewables set out in paragraph 1, Member States shall, in their building regulations and codes and, where applicable, in their support schemes or by other means with equivalent effect, require the use of minimum levels of energy from renewable sources in buildings, in line with the provisions of Directive 2010/31/EU. Member States shall allow those minimum levels to be fulfilled, among others, through efficient district heating and cooling.</p> <p>4. In order to achieve the indicative share of renewable energy set out in paragraph 1, Member States shall promote the use of renewable heating and cooling systems and equipment. To that end, Member States shall use all appropriate measures, tools and incentives, including, among others, energy labels developed under Regulation (EU) 2017/1369 of the European Parliament and of the Council²⁶, energy performance certificates pursuant to Directive 2010/31/EU, or other appropriate certificates or standards developed at national or Union level, and shall ensure the provision of</p>	<p>renewable energy communities, <i>local renewable energy trade and sharing as well as local energy storage and smart and bidirectional charging, in combination with demand-side flexibility measures and energy efficiency improvements relating to cogeneration and passive, nearly zero-energy and zero-emission energy buildings, and the smart management of all decentralised energy resources in buildings according to the energy efficiency first principle. Such measures shall contribute to the achievement of the national minimum target for the reduction of peak demand by 2030 set in article 3 of this Directive.</i></p> <p>To achieve the indicative shares of renewables set out in paragraph 1, Member States shall, in their building regulations and codes and, where applicable, in their support schemes or by other means with equivalent effect, require the use of minimum levels of energy from renewable sources in buildings, in line with the provisions of Directive 2010/31/EU, <i>including minimum levels of electricity from renewable sources produced both on-site and from the grid.</i> Member States shall allow those minimum levels to be fulfilled, among others, through efficient district heating and cooling <i>and demand-side flexibility measures.</i></p>	<p>the grid should be promoted by Member States since this represents an important flexibility resources to support a cost-effective energy system. Likewise, the smart and flexible electrification of heating and cooling system should be promoted given the significant demand-side flexibility potential of this sector.</p> <p>Electric Vehicles in the garage or parking lot of buildings will account for a significant share of the building's load and consumption. They will also be an important flexibility resource, especially if they are capable of bidirectional charging. They must be considered as an integral energy resource of buildings when setting and assessing targets.</p> <p>The EC Energy System Integration strategy outlines that 40% of all residential buildings and 65% of all buildings in the services sector should be heated by electricity by 2030. This is a challenge that requires attention given the 11% electric heat pump share in the residential building stock today. The smart and flexible electrification of heating and cooling system would allow for the electricity system to cope in a cost-effective way, with such increase in demand.</p>
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	<p>adequate information and advice on renewable, highly energy efficient alternatives as well as on financial instruments and incentives available to promote an increased replacement rate of old heating systems and an increased switch to solutions based on renewable energy.’;</p>	<p>4. In order to achieve the indicative shares of renewable energy set out in paragraph 1, Member States shall promote the use of renewable heating and cooling systems and equipment, <i>including smart and renewable-based electrified heating and cooling systems and equipment, as well as the smart management of all decentralised energy resources in buildings, including electric vehicles parked in their garage or parking lots, through Building and Home Energy Management Systems capable of interacting with the energy grid.</i> To that end, Member States shall use all appropriate measures, tools and incentives, including, among others, energy labels developed under Regulation (EU) 2017/1369 of the European Parliament and of the Council, energy performance certificates pursuant to Directive 2010/31/EU, or other appropriate certificates or standards developed at national or Union level, and shall ensure the provision of adequate information and advice on renewable, highly energy efficient alternatives as well as on financial instruments and incentives available to promote an increased replacement rate of old heating systems and an increased switch to solutions based on renewable energy.’;</p>	
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<p>Article 19 – Guarantees of Origin</p>	<p>2(i) 'To that end, Member States shall ensure that a guarantee of origin is issued in response to a request from a producer of energy from renewable sources. Member States may arrange for guarantees of origin to be issued for energy from non-renewable sources. Issuance of guarantees of origin may be made subject to a minimum capacity limit. A guarantee of origin shall be of the standard size of 1 MWh. No more than one guarantee of origin shall be issued in respect of each unit of energy produced.'</p>	<p>2(i) 'To that end, Member States shall ensure that a guarantee of origin is issued in response to a request from a producer of energy from renewable sources. Member States may arrange for guarantees of origin to be issued for energy from non-renewable sources. Issuance of guarantees of origin may be made subject to a minimum capacity limit. A guarantee of origin shall be of the standard size of <i>maximum 1 MWh and can be issued for several small installations pooled together. Simplified registration process and reduced registration fees should be introduced for small installations (<50kW).</i> No more than one guarantee of origin shall be issued in respect of each unit of energy produced.'</p> <p><i>Member States shall allow for guarantees of origin to be issued on at least an hourly basis to allow matching the supply of renewable energy with flexible demand, and with the aim to reach 15 minute intervals. When applied, Member States shall ensure that such real-time guarantee of origin is issued in response to a request from a producer of energy from renewable sources as well as all energy storage facilities providing that this does not create double counting when feeding renewable electricity to the grid or the building it is connected to.</i></p>	<p>Currently, the standard size of guarantee of origin is of 1MWh. It should be opened to smaller producers of renewable energy.</p> <p>The issuance of real-time GOs to storage facilities and EV batteries feeding renewable electricity to the grid or the building they are connected to should be made possible. This will provide consumers with evidence that energy was produced from renewable sources covering all types of decentralised energy resources.</p> <p>The current system does not allow matching the supply of renewable energy with demand for that energy on an hourly basis. Without sufficient precision, energy consumers lack visibility on the source of their energy and carbon emissions, and there is no incentive for demand-side flexibility. A solid real-time GO scheme would increase the confidence of consumers in the nature of the real instantaneous source of the electricity they consume and reduce risks of greenwashing.</p> <p>A more dynamic approach to GOs that considers the flexibility of consumption and actual usage patterns support a more efficient energy system.</p>
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<p>Article 20a – Facilitating system integration of renewable electricity</p>	<p>1. Member States shall require transmission system operators and distribution system operators in their territory to make available information on the share of renewable electricity and the greenhouse gas emissions content of the electricity supplied in each bidding zone, as accurately as possible and as close to real time as possible but in time intervals of no more than one hour, with forecasting where available. This information shall be made available digitally in a manner that ensures it can be used by electricity market participants, aggregators, consumers and end-users, and that it can be read by electronic communication devices such as smart metering systems, electric vehicle recharging points, heating and cooling systems and building energy management systems.</p>	<p>1. Member States shall require transmission system operators and distribution system operators in their territory to make available information on the share of renewable electricity and the greenhouse gas emissions content of the electricity supplied in each bidding zone, as accurately as possible and as close to real time as possible but in time intervals of no more than one hour <i>and with the aim to reach 15 minute intervals</i>, with forecasting where available. <i>For distribution system operators, this information should also include anonymised and aggregated data on the renewable electricity generated by consumers with on-site generation and injected into the distribution grid.</i></p> <p><i>Member States shall require transmission system operators and distribution system operators in their territory to make also available information on network constraints and capacity, as accurately as</i></p>	<p>The new obligation for TSO/DSO to make digitally available to third parties close to real-time information on the share of renewable electricity and the greenhouse gas emission content supplied can contribute to increase transparency and give more accurate information to market participants, aggregators, consumers and end-users on the energy system’s carbon footprint and implications on their own consumption. This will strengthen transparency and allow new prosumers business models.</p> <p>By providing a sort of real-time locational marginal carbon/green intensity information, this provision could support the activation of demand-side flexibility and favour the use of renewable electricity and incentivise the absorption of RES generation in real-time. This could also support the calculation of the carbon</p>

	<p>2. In addition to the requirements in [the proposal for a Regulation concerning batteries and waste batteries, repealing Directive 2006/66/EC and amending Regulation (EU) No 2019/1020], Member States shall ensure that manufacturers of domestic and industrial batteries enable real-time access to basic battery management system information, including battery capacity, state of health, state of charge and power set point, to battery owners and users as well as to third parties acting on their behalf, such as building energy management companies and electricity market participants, under non-discriminatory terms and at no cost.</p> <p>Member States shall ensure that vehicle manufacturers make available, in real-time, in-vehicle data related to the battery state of health, battery state of charge, battery power setpoint, battery capacity, as well as the location of electric vehicles to electric vehicle owners and users, as well as to third parties acting on the owners' and users' behalf, such as electricity market participants and electromobility service providers, under non-discriminatory terms and at no cost, in</p>	<p><i>possible and as close to real time as possible but in time intervals of no more than one hour, with forecasting where available. Flexibility markets should be established in priority to offset network constraints, while grid reinforcement should be considered in second steps when economically justified.</i></p> <p>This information shall be made <i>interoperable</i> and available digitally in a manner that ensures it can be used by electricity market participants, aggregators, consumers, and end-users, and that it can be read by electronic communication devices such as smart metering systems, electric vehicle <i>publicly accessible and non-publicly accessible</i> recharging points, heating and cooling systems and building energy management systems. <i>Both transmission system operators and distribution system operators shall establish the necessary coordination to harmonise data format and align their datasets taking best advantage of the data harmonisation already established through the ENTSO-E transparency platform including the CIM standards. Any changes in data formats need appropriate transition scenarios accompanied by adequate incentive schemes.</i></p>	<p>footprint of an asset, such as a grid-integrated building.</p> <p>DSO's own data on decentralised RES-E production from self-generation going through their grid (e.g. solar rooftop, storage) should also be made available as this contributes to provide accurate data on the share of RES-electricity and the GHG content of the electricity supplied in each bidding zone. Such obligation should apply to DSOs' own data and should not create additional obligations for end-users.</p> <p>The lack of visibility on network constraints and spare network capacity prevents the introduction of new innovative services and the efficient operation of markets open to demand-side resources. Data on current and future grids congestion areas and curtailments needs to be shared by system operators – both at transmission and distribution levels - for market participants to propose flexibility offers as alternatives to grid reinforcement. Such data should be shared in a secure way to avoid endangering the operational security of the system, especially in case of a cyberattack.</p>
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	<p>addition to further requirements in the type approval and market surveillance regulation.</p> <p>3. In addition to the requirements in [the proposal for a Regulation concerning the deployment of alternative fuel infrastructure, repealing Directive 2014/94/EU], Member States shall ensure that non–publicly accessible normal power recharging points installed in their territory from [the transposition deadline of this amending Directive] can support smart charging functionalities and, where appropriate based on assessment by the regulatory authority, bidirectional charging functionalities.</p> <p>4. Member States shall ensure that the national regulatory framework does not discriminate against participation in the electricity markets, including congestion management and the provision of flexibility and balancing services, of small or mobile systems such as domestic batteries and electric vehicles, both directly and through aggregation.’;</p>	<p>2. added:</p> <p><i>In order to maximise the value of demand-side flexibility for the integration of renewable energy, Member States shall ensure consumers have access to ‘read-only’ data associated with their own decentralised energy resources.</i></p> <p><i>Data shall be made available to consumers and to eligible parties following consumers’ consent, such as energy service providers, building energy management companies and electromobility service providers, through a standardised communication interface.</i></p> <p><i>No additional costs shall be charged to final customers for access to their data or for a request to make their data available to eligible parties. Member States shall be responsible for setting the relevant charges for access to data by eligible parties.</i></p> <p><i>The Commission shall adopt implementing acts detailing interoperability requirements and non-discriminatory and transparent procedures for access to the data.</i></p> <p>3. In addition to the requirements in [the proposal for a Regulation concerning the</p>	<p>Information on network constraints, share of renewable electricity and greenhouse gas content should be shared with all market participants in an interoperable manner in order to ensure and facilitate access to such data by market parties. This should be achieved through harmonised open data formats.</p> <p>Consumers’ access to data by third parties is key to allow prosumer business models and the provision of flexibility services from all decentralised energy resources such as renewable energy sources, demand-response, building systems beyond storage and EVs. This is key to boost consumers’ participation contributing to the integration of renewable energy, while supporting system integration across all end-use sectors. Data sharing obligations should cover data that are relevant and needed for providing energy services. Access to data should be in a ‘read-only’ mode which implies that third parties cannot modify the parameters of these data. The relevant data parameters should be based on harmonised prequalification requirements, defined for instance by means of flexibility service APIs to facilitate the participation of decentralised energy resources, such as storage assets, to electricity markets both directly or through aggregation. This will ensure that data access</p>
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		<p>deployment of alternative fuel infrastructure, repealing Directive 2014/94/EU], Member States shall ensure that <i>all new or upgraded</i> non–publicly accessible normal power recharging points installed in their territory from [the transposition deadline of this amending Directive] can support smart charging functionalities and, where appropriate based on assessment by the relevant stakeholders, bidirectional charging functionalities.</p> <p><i>Member States shall require their regulatory authority to assess the potential contribution of bidirectional charging as set in article 14.4 of the Alternative Fuel Infrastructure Regulation. Member States shall take measures to improve the availability, geographical distribution and integration of bidirectional charging infrastructure, The assessment and measures shall be made publicly available.</i></p> <p><i>In order to support smart sector integration, Member States may apply support schemes such as financial support, no upfront-cost financing, repayable advances, tax rebates or rebate payments for bidirectional public</i></p>	<p>requirements to distributed energy resources are reflective of the value available on the markets.</p> <p>Investor certainty should be guaranteed. Requirements for smart charging functionalities and obligations for battery data sharing should not lead to costly and disproportionate retrofits and should concern only new or upgraded normal power recharging points and battery energy storage systems.</p> <p>It is crucial that national regulatory authorities assess the potential of bidirectional charging with the involvement of all relevant stakeholders, including operators of recharging points, electrical equipment manufacturers, vehicle manufacturers, fleet operators and energy solution providers. It would ensure a fair assessment based on a substantial collection of data. As bidirectional charging knows a constant development, it is crucial that the national energy authorities assess their contribution on a regular basis. It would help Member States updating their bidirectional charging points stock, and to take the appropriate measures to extend it.</p>
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		<p><i>and private charging, when foreseen as an additional functionality contributing to the cost-effective penetration of renewable electricity in transport and the electricity system.</i></p> <p><i>In the case that consumers with energy storage facilities, including electric vehicles with bidirectional capability, have opted for dynamic tariffs, Member States may encourage the adoption of symmetrical dynamic tariffs when exporting electricity to the grid.</i></p> <p>4. Member States shall ensure that the national regulatory framework does not discriminate against participation in the electricity markets, including congestion management and the provision of flexibility and balancing services, of small or mobile systems such as domestic batteries and electric vehicles <i>as well as other decentralised energy resources below 1MW participating to the system</i>, both directly and through aggregation. <i>. Market access processes and fees for small assets and bids of small assets shall be updated, as necessary, to ensure fair and reasonably</i></p>	<p>Support mechanisms should be made available for bidirectional charging when foreseen as an additional functionality contributing to system efficiency, in particular in work and residential home charging, for instance through subsidies or rebate payments to accelerate the industry's journey down the learning curve that will significantly reduce the costs. The parallel revision of the Energy Performance of Buildings Directive should also be aligned with these recommendations.</p> <p>Setting symmetrical dynamic tariffs when exporting electricity to the grid has the potential to foster both the deployment of bidirectional charging in the residential sector and the deployment of on-site renewable generation units, as this can create an additional incentives to activate their flexibility potential and participate in electricity markets, in reaction to dynamic price signals. Overall, Member States should accelerate the adoption of dynamic tariffs to achieve a higher system efficiency.</p> <p>The paragraph 4 of this article reinforces the requirements under the Electricity Directive, and it should be completed to ensure that national</p>
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		<p><i>easy market registration processes and market access for small assets.</i></p> <p><i>5. Member States shall ensure that the national regulatory framework allows final customers entering into contractual agreements with electricity market participants and electromobility service providers to receive information and explanations on the terms of the agreement and its implications for the consumers. Electricity market participants and electromobility service providers should explain clearly to the final customer how they will be remunerated for the flexibility, balancing and storage services provided to the electricity system and market by the use of decentralised energy resources. Electricity market participants and electromobility service providers should explain clearly to final customers how their personal data will be used. Final customers' rights shall be secured when entering into such agreements, in particular regarding the protection of their personal data, in line with applicable data protection rules.</i></p>	<p>regulatory frameworks support the participation of all decentralised energy resources (including distributed renewable generation, demand response and energy storage) connected to the system and providing flexibility, notably the ones below 1MW (such as thermal storage, domestic and electric vehicle batteries and smart appliances in general), beyond solely EVs and batteries. This will also ensure that the overall article 20a is fostering system integration of all end-use sectors, beyond the transport sector.</p> <p>The proposed new paragraph 5 is based on the provisions foreseen in recital 18 that sets principles for a consumer-centric energy system, in particular where consumer information, rights and protection of data is ensured in order to truly empower them to foster willingness to participate in electricity markets by activating their flexibility potential from electric vehicles.</p>
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<p>Article 22a - Mainstreaming renewable energy in industry</p>	<p>1. 'Member States shall endeavour to increase the share of renewable sources in the amount of energy sources used for final energy and non-energy purposes in the industry sector by an indicative average minimum annual increase of 1.1 percentage points by 2030.</p> <p>Member States shall include the measures planned and taken to achieve such indicative increase in their integrated national energy and climate plans and progress reports submitted pursuant to Articles 3, 14 and 17 of Regulation (EU) 2018/1999.'</p>	<p>1. 'Member States shall endeavour to increase the share of renewable sources in the amount of energy sources used for final energy and non-energy purposes in the industry sector by an indicative average minimum annual increase of 1.1 percentage points by 2030.</p> <p>Member States shall include the measures planned and taken to achieve such indicative increase in their integrated national energy and climate plans and progress reports submitted pursuant to Articles 3, 14 and 17 of Regulation (EU) 2018/1999. <i>Such measures should include the renewable-based electrification of industrial processes when it constitutes a cost-effective option, and the activation of the demand-side flexibility potential of decentralised energy resources of such industrial processes.'</i></p>	<p>This article lacks incentives for the flexible and clean electrification of the industry despite the recognition in recital 21 of the potential of electrification in industry, in particular where heating and cooling demand is low-temperature.</p> <p>Member States should set measures aiming at the smart and clean electrification of the industry sector in order to contribute to achieve the average minimum increase referred to in paragraph 1. This will promote the integration of renewables in the electricity system by activating the demand-side flexibility potential of all decentralised energy resources of industrial processes (including distributed renewable generation, demand response and energy storage). This will support smart system integration, while ensuring system efficiency. It will also contribute to the achievement of the target of 10% reduction of peak demand to be achieved through the activation of demand-side flexibility.</p>
<p>Article 23 – mainstreaming renewable</p>	<p>'1. In order to promote the use of renewable energy in the heating and cooling sector, each Member State shall, increase the share of renewable energy in that sector by at least 1.1 percentage points as an annual average</p>	<p>'1. In order to promote the use of renewable energy in the heating and cooling sector, each Member State shall, increase the share of renewable energy in that sector by at least 1.1 percentage points as an annual average</p>	<p>A smart and electrified heating sector can improve system efficiency while benefitting consumers once its significant demand-side flexibility potential is activated. For instance, households can save up to 25% of their heating</p>

<p>e energy in heating and cooling</p>	<p>calculated for the periods 2021 to 2025 and 2026 to 2030, starting from the share of renewable energy in the heating and cooling sector in 2020, expressed in terms of national share of gross final energy consumption and calculated in accordance with the methodology set out in Article 7.</p> <p>4. To achieve the average annual increase referred to in paragraph 1, first subparagraph, Member States may implement one or more of the following measures:</p> <p>(a) physical incorporation of renewable energy or waste heat and cold in the energy sources and fuels supplied for heating and cooling;</p> <p>(b) installation of highly efficient renewable heating and cooling systems in buildings, or use of renewable energy or waste heat and cold in industrial heating and cooling processes;</p>	<p>calculated for the periods 2021 to 2025 and 2026 to 2030, starting from the share of renewable energy in the heating and cooling sector in 2020, expressed in terms of national share of gross final energy consumption and calculated in accordance with the methodology set out in Article 7.</p> <p>4. To achieve the average annual increase referred to in paragraph 1, first subparagraph, Member States may implement one or more of the following measures:</p> <p><i>(a) set a target for direct and renewable-based electrification of heating and cooling</i></p> <p><i>(b) prioritise and set targets for the flexible and time-dependent consumption and storage of renewable electricity in heating and cooling systems in line with the increased electrification objectives in buildings and industries in articles 15a.1 and 22a.1.</i></p>	<p>costs between 2025 and 2040 thanks to smart heating system capable to interact with the energy system¹.</p> <p>However, this article lacks incentives for the flexible and clean electrification of heating and cooling systems despite their significant potential.</p> <p>To achieve the average annual increase of renewable energy in the heating and cooling sector in a cost-effective way, while supporting smart system integration, Member States should prioritise the flexible and clean electrification of the heating and cooling sector, to unlock significant demand-side flexibility potential of this sector. This will contribute to the achievement of the target of 10% reduction of peak demand to be achieved through the activation of demand-side flexibility.</p>
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¹ BEUC study [‘Goodbye gas: why your next boiler should be a heat pump’](#)

	<p>(c) measures covered by tradable certificates proving compliance with the obligation laid down in paragraph 1, first subparagraph, through support to installation measures under point (b) of this paragraph, carried out by another economic operator such as an independent renewable technology installer or an energy service company providing renewable installation services; (d) capacity building for national and local authorities to plan and implement renewable projects and infrastructures;</p> <p>(e) creation of risk mitigation frameworks to reduce the cost of capital for renewable heat and cooling projects;</p> <p>(f) promotion of heat purchase agreements for corporate and collective small consumers;</p> <p>(g) planned replacement schemes of fossil heating systems or fossil phase-out schemes with milestones;</p> <p>(h) renewable heat planning, encompassing cooling, requirements at local and regional level;</p> <p>(i) other policy measures, with an equivalent effect, including fiscal measures, support schemes or other financial incentives.</p>	<p>(c) physical incorporation of renewable energy or waste heat and cold in the energy sources and fuels supplied for heating and cooling;</p> <p>(d) installation of highly efficient renewable heating and cooling systems in buildings, or use of renewable energy or waste heat and cold in industrial heating and cooling processes;</p> <p>(e) measures covered by tradable certificates proving compliance with the obligation laid down in paragraph 1, first subparagraph, through support to installation measures under point (b) of this paragraph, carried out by another economic operator such as an independent renewable technology installer or an energy service company providing renewable installation services; (f) capacity building for national and local authorities to plan and implement renewable projects and infrastructures;</p> <p>(g) creation of risk mitigation frameworks to reduce the cost of capital for renewable heat and cooling projects;</p> <p>(h) promotion of heat purchase agreements for corporate and collective small consumers;</p>	
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		<p>(i) planned replacement schemes of fossil heating systems or fossil phase-out schemes with milestones;</p> <p>(j) renewable heat planning, encompassing cooling, requirements at local and regional level;</p> <p>(k) other policy measures, with an equivalent effect, including fiscal measures, support schemes or other financial incentives.</p>	
<p>Article 24- District heating & Cooling</p>	<p>8. Member States shall establish a framework under which electricity distribution system operators will assess, at least every four years, in cooperation with the operators of district heating and cooling systems in their respective areas, the potential for district heating and cooling systems to provide balancing and other system services, including demand response and thermal storage of excess electricity from renewable sources, and whether the use of the identified potential would be more resource- and cost-efficient than alternative solutions.</p> <p>Member States shall ensure that electricity transmission and distribution system operators take due account of the results of the assessment required under the first subparagraph in grid planning, grid</p>	<p>8. Member States shall establish a framework under which electricity distribution system operators will assess, at least every two four years, in cooperation with the operators of district heating and cooling systems alongside other decentralised sources in their respective areas, the potential for district heating and cooling systems to provide balancing and other system services, including demand response and thermal storage of excess electricity from renewable sources at both centralised and decentralised level, and whether the use of the identified potential would be more resource- and cost-efficient than alternative solutions. The assessment shall consider in priority alternatives to network development in compliance with the Energy Efficiency First Principle.</p>	<p>Since this assessment done by electricity DSOs on the potential for district heating and cooling is used to inform system operators' decision for grid planning, grid investment and infrastructure development, the periodicity of this assessment should be aligned with the one (at least every 2 years) of network development plans required under article 32(2) of the Electricity Directive 2019/944.</p> <p>In line with the Commission's Recommendations for the implementation of the Energy Efficiency First principle and with the Energy Efficiency Directive, the electricity DSOs' assessment of the potential for district and heating systems used for grid planning, grid investment and infrastructure development, should apply the energy efficiency first principle where demand side resources, both centralised and</p>

	<p>investment and infrastructure development in their respective territories.</p> <p>Member States shall facilitate coordination between operators of district heating and cooling systems and electricity transmission and distribution system operators to ensure that balancing, storage and other flexibility services, such as demand response, provided by district heating and district cooling system operators, can participate in their electricity markets.</p> <p>Member States may extend the assessment and coordination requirements under the first and third subparagraphs to gas transmission and distribution system operators, including hydrogen networks and other energy networks'</p>	<p>Member States shall ensure that electricity transmission and distribution system operators take due account of the results of the assessment required under the first subparagraph in grid planning, grid investment and infrastructure development in their respective territories.</p> <p>Member States shall facilitate coordination between operators of district heating and cooling systems and electricity transmission and distribution system operators to ensure that balancing, storage and other flexibility services, such as demand response, provided by district heating and district cooling system operators, can participate in their electricity markets <i>on a non-discriminatory basis</i>.</p> <p>Member States may extend the assessment and coordination requirements under the first and third subparagraphs to gas transmission and distribution system operators, including hydrogen networks and other energy networks'</p>	<p>decentralised such as demand-side flexibility and demand response should be considered as viable alternatives to infrastructure.</p>
Article 25 -	2. Member States shall establish a mechanism allowing fuel suppliers in their	2. Member States shall establish a mechanism allowing fuel suppliers in their	Credits should be provided to operators of both private and public charging infrastructure to

<p>Greenhouse gas intensity reduction in the transport sector from the use of renewable energy</p>	<p>territory to exchange credits for supplying renewable energy to the transport sector. Economic operators that supply renewable electricity to electric vehicles through public recharging stations shall receive credits, irrespectively of whether the economic operators are subject to the obligation set by the Member State on fuel suppliers, and may sell those credits to fuel suppliers, which shall be allowed to use the credits to fulfil the obligation set out in paragraph 1, first subparagraph.’;</p>	<p>territory to exchange credits for supplying renewable energy to the transport sector. Economic operators that supply renewable electricity to electric vehicles through public <i>and non-public</i> recharging stations shall receive credits, irrespectively of whether the economic operators are subject to the obligation set by the Member State on fuel suppliers, and may sell those credits to fuel suppliers, which shall be allowed to use the credits to fulfil the obligation set out in paragraph 1, first subparagraph.’;</p> <p><i>The allocation of credits should be based on accurate and as close to real time as possible information relying when available on information shared by system operators on the share of renewable electricity supplied in each bidding zone as per article 20a §a of this Directive.</i></p>	<p>support electromobility and additional revenue stream for all e-mobility service providers while guaranteeing a level playing field for all charging solutions.</p> <p>The credit mechanisms that Member States shall establish, should support the flexible and cost-effective integration of renewables in the transport sector, using real-time guarantees of origin and relying on the real-time data shared by system operators on the energy mix.</p>
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THE ENERGY EFFICIENCY DIRECTIVE

	Energy Efficiency Directive recast proposal from the Commission (2021/0203)	smartEn Amendments (in bold and italic)	smartEn justification
TITLE	DIRECTIVE ON ENERGY EFFICIENCY	<i>DIRECTIVE ON ENERGY AND SYSTEM EFFICIENCY</i>	<p>A new title would give the necessary political signal to support system efficiency beyond energy savings.</p> <p>System integration requires a shift from a silo approach where all sectors are assessed and optimised individually to an approach where the optimisation of the whole system is sought, by maximising the value of each end-use sector and their contribution in supporting a decarbonised, cost-efficient and secure energy system.</p> <p>As per the Commission's recommendations and guidelines on the Energy Efficiency first principle, such principle aims to achieve efficiency improvements at system level cost-efficiently. It means that energy system optimisation and efficient integration of clean energy solutions are at the centre of the principle's application.</p>

			<p>This requires that the whole energy chain is considered (production, transport, distribution, consumption, end of life).</p> <p>To complement the new title and scope, a new definition for system efficiency is introduced to valorise the contribution of flexible, time-dependent, dynamic and data-driven consumption and storage of renewable energy by all energy end-use sectors.</p>
Recital 11	<p>(2)</p> <p>[...]While the energy efficiency first principle should be applied without prejudice to other legal obligations, objectives and principles, they should also not hamper its application or exempt from applying the principle. The Commission should ensure that energy efficiency and demand-side response can compete on equal terms with generation capacity.</p> <p>Energy efficiency improvements need to be made whenever they are more cost-effective than equivalent supply-side solutions. That should help exploit the multiple benefits of energy efficiency for the Union, in particular for citizens and businesses. Implementing energy</p>	<p>(2)</p> <p>[...]While the energy efficiency first principle should be applied without prejudice to other legal obligations, objectives and principles, they should also not hamper its application or exempt from applying the principle. The Commission should ensure that energy efficiency and demand-side response can compete on equal terms with generation capacity.</p> <p>Energy efficiency improvements need to be made whenever they are more cost-effective than equivalent supply-side solutions. <i>Demand-side flexibility including consumer load participation - based upon consumers' consent and reward - shall be considered.</i> That should help exploit the multiple benefits of energy efficiency for the</p>	<p>The Directive should better reflect the necessity for the EU institutions to duly consider demand side flexibility especially in the light of the energy efficiency first principle definition.</p>

	efficiency improvement measures should also be a priority in alleviating energy poverty."	Union, in particular for citizens and businesses. Implementing energy efficiency improvement measures should also be a priority in alleviating energy poverty."	
Recital 14	<p>(14) In order to have an impact, the energy efficiency first principle needs to be consistently applied by decision makers in all relevant policy, planning and major investment decisions – that is to say large-scale investments with a value of more than 50 euro million each or 75 euro million for transport infrastructure projects – affecting energy consumption or supply. The proper application of the principle requires using the right cost-benefit analysis methodology, setting enabling conditions for energy efficient solutions and proper monitoring. (...)</p> <p>Member States should take into account potential benefits from demand side flexibility in applying the energy efficiency first principle and where relevant consider demand response, energy storage and smart solutions as part of their efforts to increase efficiency of the integrated energy system.</p>	<p>(14) In order to have an impact, the energy efficiency first principle needs to be consistently applied by decision makers in all relevant policy, planning and major investment decisions —that is to say large-scale investments with a value of more than 50 euro million each or 75 euro million for transport infrastructure projects— affecting energy consumption, transmission, distribution, trade, storage or supply. The proper application of the principle requires using the right cost-benefit analysis methodology, setting enabling conditions for energy efficient and demand-side solutions and proper monitoring. (...)</p> <p>Member States shall take into account potential benefits from demand side flexibility in applying the energy efficiency first principle and where relevant consider demand response, energy storage, both at centralised and decentralised level, and smart solutions as part of their efforts to increase efficiency of the integrated energy system.</p>	<p>The Energy Efficiency First principle should be applied for every policy, planning and investment decisions, regardless of their size and cost. Decision-makers at all levels should be applying this principle for the benefit of the entire society.</p> <p>All decentralised energy resources (DERs), including distributed renewable generation, demand response and energy storage and their contribution to a smart, efficient and integrated energy system should be contemplated in the CBA methodology used for the proper application of the EE1st principle.</p> <p>Limiting the application of the Energy Efficiency First principle to on-site energy savings will undermine its potential to increase the efficiency of the whole energy system which should strive to integrate more variable renewables in all end-use sectors with very low consumption needs.</p>

Recital 54	<p>Member States and obligated parties should make use of all available means and technologies, except regarding the use of direct fossil fuel combustion technologies, to achieve the cumulative end-use energy savings required, including by promoting sustainable technologies in efficient district heating and cooling systems, efficient heating and cooling infrastructure and energy audits or equivalent management systems, provided that the energy savings claimed comply with the requirements laid down in Article 8 and Annex V to this Directive. Member States should aim for a high degree of flexibility in the design and implementation of alternative policy measures. Member States should encourage actions resulting in energy savings over the long lifetimes.</p>	<p>Member States and obligated parties should make use of all available means and technologies, except regarding the use of direct fossil fuel combustion technologies, to achieve the cumulative end-use energy savings required, including by promoting <i>smart and</i> sustainable technologies in efficient district heating and cooling systems, efficient heating and cooling infrastructure, <i>and efficient and smart buildings, electric vehicles and industries</i>, and energy audits or equivalent management systems <i>interoperable with the grid</i>, provided that the energy savings claimed comply with the requirements laid down in Article 8 and Annex V to this Directive. Member States should aim for a high degree of flexibility in the design and implementation of alternative policy measures. Member States should encourage actions resulting in energy savings over the long lifetimes.</p>	<p>Obligated parties should explicitly be able to achieve energy savings thanks to the activation of the demand-side flexibility potential of all electrified end-users. This will also be in line the Commission’s Recommendation on the Energy Efficiency First principle which recognises demand-side flexibility as an energy efficiency solution.</p>
Recital 72	<p>(72) Taking advantage of new business models and technologies, Member States should endeavour to promote and facilitate the uptake of energy efficiency measures , including through innovative energy services for large and small customers.</p>	<p>(72) Taking advantage of new business models and technologies, Member States should endeavour to promote and facilitate the uptake of energy efficiency measures <i>and demand-side solutions such a demand response, energy trade, storage, smart and bidirectional charging and smart energy solutions enabling a time-dependent and flexible consumption</i>, including through innovative energy services for large and small customers.</p>	<p>By adding the promotion and facilitation of a ‘flexible’ energy use alongside an ‘efficient use of energy’, this directive will ensure that all types of energy efficiency solutions as described in the Commission Recommendation on the implementation of the Energy Efficient first principle are being supported. It will also encourage the uptake of prosumer business models that facilitate the participation of end-users in the energy transition.</p>

Article 2 - Definitions	<p>(7) ‘energy savings’ means an amount of saved energy determined by measuring and/or estimating consumption before and after implementation of an energy efficiency improvement measure, whilst ensuring normalisation for external conditions that affect energy consumption;</p> <p>(14) ‘energy management system’ means a set of interrelated or interacting elements of a plan which sets an energy efficiency objective and a strategy to achieve that objective, including monitoring of actual energy consumption, actions taken to increase energy efficiency and measurement of progress;</p>	<p><i>(new) “Energy System efficiency” means the application of the Energy Efficiency First principle at system level to ensure a cost-effective decarbonisation, and integration of variable renewables through the optimal use of energy efficient solutions and the activation of the demand-side flexibility from smart decentralised energy resources.</i></p> <p><i>Energy system efficiency shall be measured in reductions in system investment and operational costs, carbon emissions and fossil fuels in each national energy mix.</i></p> <p>(7) ‘energy savings’ means an amount of saved energy determined by measuring and/or estimating consumption before and after implementation of an energy efficiency improvement measure <i>or in reaction to signals received by the system in a specific timeframe</i>, whilst ensuring normalisation for external conditions that affect energy consumption;</p>	<p>The concept of energy efficiency is a static metric that does not contemplate and incentivise flexible usage patterns contributing to energy system integration.</p> <p>To complement it, a new definition for energy system efficiency is introduced to valorise the contribution of flexible, time-dependent, dynamic and data-driven consumption, storage and trade of renewable energy by all energy end-use sectors. The concept of system efficiency should be introduced both in the Renewable and Energy Efficiency Directives.</p> <p>Energy system efficiency goes beyond the concept of energy efficiency. A system made of energy efficient assets is not necessarily an efficient one if the efficiency of the whole has not been considered. The asset-specific optimisation of energy consumption should be pursued and complemented at the same time by a flexible, time-dependent consumption and storage of variable renewable energy sources. Energy system efficiency is not only about efficient energy use but also about using the right energy at the right time, in the right way to ensure not only minimal operational cost</p>

		<p>(14) ‘energy management system’ means a set of interrelated or interacting elements of a plan <i>interoperable with the energy grid</i> which sets an energy efficiency objective and a strategy to achieve that objective, including monitoring of actual energy consumption, actions taken to increase energy efficiency and <i>demand-side flexibility</i> and measurement of progress;</p> <p><i>(new) ‘Investment decisions’ means all investments affecting energy consumption, transmission, distribution, storage or supply’</i></p> <p><i>(new) ‘stranded assets’ means existing and new energy network infrastructure assets that are at risk of devaluation due to regulatory change that aims to achieve the Union’s climate and energy targets and can be substituted by investment deferrals or deployment of alternative, innovative solutions.</i></p> <p><i>(new) “Demand-side flexibility” means the capability of any active customer to react to external signals and adjust their energy generation and consumption in a dynamic time-dependent way, individually as well as through aggregation.</i></p>	<p>(OPEX) at the overall system level but also minimal investment costs (CAPEX).</p> <p>An efficient system will ensure the cost-effective achievement of the increased renewable energy target in 2030.</p> <p>In this light, also the concept of energy savings should be expanded to account also reductions in peak-demand following the activation of demand-side flexibility and recognising their contribution to system efficiency in particular in terms of reliability as well as avoided costs and greenhouse gas emissions.</p> <p>Energy management systems should be interoperable with the grid, i.e. capable to react to external signals. This is key to ensure the achievement of dynamic improvements replying to the needs of the energy system and to improve system efficiency beyond individual efficiency improvement at end-user level.</p> <p>It is crucial to clarify the meaning of ‘investment decisions’ and safeguard its all-encompassing scope to maintain the Union’s energy efficiency targets within reach.</p>
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			<p>EVs assets. Clarity should be given to the flexibility that can be provided by demand side assets and such definition is currently lacking from the EU legislative framework leading to some confusion. Hence, we need to have a definition for demand-side flexibility in the legislation building on the Electricity Directive's definition of an active customer.</p>
<p>Article 3 – Energy efficiency First principle</p>	<p>1. In conformity with the energy efficiency first principle, Member States shall ensure that energy efficiency solutions are taken into account in the planning, policy and major investment decisions related to the following sectors:</p> <p>(a) energy systems, and</p> <p>(b) non-energy sectors, where those sectors have an impact on energy consumption and energy efficiency.</p> <p>(...)</p> <p>3. In applying the energy efficiency first principle, Member States shall:</p> <p>(a) promote and, where cost-benefit assessments are required, ensure the application of cost-benefit methodologies that</p>	<p>1. In conformity with the energy efficiency first principle, Member States shall ensure that energy efficiency solutions <i>and demand-side flexibility solutions aiming to increase system efficiency</i> are taken into account in the planning, policy and major investment decisions related to the following sectors:</p> <p>(a) energy systems, and</p> <p>(b) non-energy sectors, where those sectors have an impact on energy consumption and energy efficiency.</p> <p>(...)</p> <p>3. In applying the energy efficiency first principle, Member States shall:</p> <p>(a) promote and, where cost-benefit assessments are required, ensure the application of cost-</p>	<p>Similar to the proposed amendment to recital 14, the Energy Efficiency First principle should be applied for every policy, planning and investment decisions, regardless of their size and cost.</p> <p>In line with recital 12 and the Commission Recommendation C(2021)7014 on the implementation of the EE1st principle, the energy efficiency first principle should be applied taking primarily the system efficiency approach and societal perspective into consideration. The EE1st should look also at efficiency improvements at the system level. Consequently, it should help increase the efficiency of individual end-use sectors and of the whole energy system.</p> <p>The contribution of all decentralised energy sources (including distributed renewable generation, demand-response and energy storage) should be valorised and recognised as</p>

	<p>allow proper assessment of wider benefits of energy efficiency solutions from the societal perspective;</p> <p>(b) identify an entity responsible for monitoring the application of the energy efficiency first principle and the impacts of planning, policy and investment decisions on energy consumption and energy efficiency; (c) report to the Commission, as part of the integrated national energy and climate progress reports in accordance with Article 17 of Regulation (EU) 2018/1999 on how the principle was taken into account in the national and regional planning, policy and major investment decisions related to the national and regional energy systems.</p>	<p>benefit methodologies that allow proper assessment of wider benefits of energy efficiency solutions <i>including demand-side flexibility solutions</i> from <i>the system approach and</i> societal perspective;</p> <p>(b) identify an entity responsible for monitoring the application of the energy efficiency first principle and the impacts of planning, policy and investment decisions on energy consumption and energy efficiency; (c) report to the Commission, as part of the integrated national energy and climate progress reports in accordance with Article 17 of Regulation (EU) 2018/1999 on how the principle was taken into account in the national and regional planning, policy and <i>major</i> investment decisions related to the national and regional energy systems.</p>	<p>cost-effective alternatives to supply-side resources (fossil fuels, infrastructure)</p>
<p>Article 6 - exemplary role of public tertiary buildings</p>	<p>1. Without prejudice to Article 7 of Directive 2010/31/EU of the European Parliament and of the Council, each Member State shall ensure that at least 3 % of the total floor area of heated and/or cooled buildings owned by public bodies is renovated each year to at least meet be transformed into nearly zero-energy building.</p>	<p>1. Without prejudice to Article 7 of Directive 2010/31/EU of the European Parliament and of the Council, each Member State shall ensure that at least 3 % of the total floor area of heated and/or cooled <i>non-residential buildings, both buildings owned by public entities and private ones</i>, is renovated each year to at least meet be transformed into nearly zero-energy building. <i>The rate of at least 3% shall be calculated on the total floor area of buildings owned and occupied by public entities, and private non-residential</i></p>	<p>Tertiary buildings (i.e. non-residential buildings), both public and private, are the low-hanging fruits to reach a 60% emissions cut in the building sector. In the EU, tertiary buildings represent 25% of the building floor space, 32% of the final energy use in buildings, and about 13% of CO2 emissions. Public and private tertiary buildings present similar consumption patterns, and in many cases the distinction between private and public is quite blurry (i.e. administrative and office buildings, private and public hospitals, private and public museums, etc.). Requiring a mandatory renovation rate</p>

		<p><i>buildings, with a total useful floor area over 250 m2.</i></p> <p><i>(new) 2. As an alternative to ensuring 3% of the total floor area of heated and/or cooled non-residential buildings is renovated each year under this Directive, it should be possible for Member States, to require buildings to achieve milestones for final energy consumption reduction. Those milestones should be introduced on a mandatory basis, at least every 5 years.</i></p>	<p>for public buildings only would be insufficient to reach the target. While the EPBD recast is expected to introduce Minimum Energy Performance Standards, there is no “silver bullet” for buildings decarbonisation. Several options to bolster energy renovations should be introduced. Therefore, in order to capture the full potential of tertiary buildings, the scope of article 6 of the EED should be extended to cover all tertiary buildings, both public and private.</p> <p>The yearly deep energy efficiency renovation rate barely reaches 0.2% for both residential and non-residential buildings. Based on this current renovation rate, it would take centuries to renovate the building sector in a way that complies with the EU’s climate objective. Therefore, we need long-term energy consumption reduction milestones for the building sector to establish a clear direction and to accelerate the renovation market in Europe. The EU should use all options at hands. To do so, the article 6 should offer more flexibility to deliver energy savings results, with two options: either an obligation of means (the current 3% renovation rate, applied to all public buildings) or an obligation of results (milestones for energy consumption reduction, based on existing scheme such as the French Tertiary Decree). The French Tertiary Decree, which requires tertiary buildings to reduce</p>
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			their final energy consumption by 40% 2030, 50% by 2040 and 60% by 2050, could be used as a benchmark to achieve the obligation of results.
Article 8 – Energy savings obligation	<p>1. Member States shall achieve cumulative end-use energy savings at least equivalent to:</p> <p>(...)</p> <p>(c) new savings each year from 1 January 2024 to 31 December 2030 of 1,5 % of annual final energy consumption, averaged over the three-year period prior to 1 January 2020.</p> <p>(...)</p> <p>8. Subject to paragraph 9, each Member State may:</p> <p>[...]</p> <p>(c) count towards the amount of required energy savings in point (a) and (b) of the first subparagraph of paragraph 1, energy savings achieved in the energy transformation, distribution and transmission sectors, including efficient district heating and cooling infrastructure, as a result of implementing the requirements set out in Articles 23(4), point (b) of Article 24(4), and Article 25(1) to (10). Member States shall inform the Commission</p>	<p>1. Member States shall achieve cumulative end-use energy savings at least equivalent to:</p> <p>(...)</p> <p>(c) new savings each year from 1 January 2024 to 31 December 2030 of 1,5 % of annual final energy consumption, averaged over the three-year period prior to 1 January 2020.</p> <p>(...)</p> <p>8. Subject to paragraph 9, each Member State may:</p> <p>[...]</p> <p>(c) count towards the amount of required energy savings in point (a), and (b) and (c) of the first subparagraph of paragraph 1, energy savings achieved in the energy transformation, distribution and transmission sectors, including efficient district heating and cooling infrastructure, as a result of implementing the requirements set out in Articles 23(4), point (b) of Article 24(4), and Article 25(1) to (10). Member States shall inform the Commission about their</p>	<p>In the Commission’s proposal, Member States can no longer as of January 2024 include in the calculation of the savings obligations, the savings achieved in the energy distribution and transmission sectors. Such sunset clause appears in contradiction with the EE1st principle as it cancels an incentive to ensure efficiency improvements in electricity networks.</p> <p>In addition, in the Commission’s proposal, Member States can no longer as of January 2024 exclude from the calculation of the savings obligations 30% of the RES-based energy generated on or in buildings for own use. Such sunset clause disincentivises the uptake of renewable energy installation in buildings, limiting clean electrification of buildings and energy system efficiency supported by clean and flexible buildings. This also undermines consistency with the Renewable Energy Directive (art. 15a on mainstreaming renewables in buildings).</p>

	<p>about their intended policy measures under this point for the period from 1 January 2021 to 31 December 2030 as part of their integrated national energy and climate plans. The impact of those measures shall be calculated in accordance with Annex V and included in those plans;</p> <p>(f) exclude from the calculation of the amount of required energy savings pursuant to point (a) and (b) of the first subparagraph of paragraph 1, 30 % of the verifiable amount of energy generated on or in buildings for own use as a result of policy measures promoting new installation of renewable energy technologies;</p>	<p>intended policy measures under this point for the period from 1 January 2021 to 31 December 2030 as part of their integrated national energy and climate plans. The impact of those measures shall be calculated in accordance with Annex V and included in those plans;</p> <p>(f) exclude from the calculation of the amount of required energy savings pursuant to point (a), and (b) <i>and (c)</i> of the first subparagraph of paragraph 1, 30 % of the verifiable amount of energy generated on or in buildings for own use as a result of policy measures promoting new installation of renewable energy technologies;</p> <p><i>(g) count towards the amount of required energy savings, energy savings obtained in particular during peak-demand by the activation of the demand-side flexibility in all end-use sectors, including smart and active buildings, electric vehicles through smart charging and industrial sites capable of adjusting their energy consumption, storage and generation patterns to external signals.</i></p> <p><i>Member States shall allow obligated parties to count such savings through certified digital carbon and energy performance metering systems and pay-for performance schemes.</i></p>	<p>When counting energy savings, Member States should also count the dynamic energy savings achieved during peak time, meaning when the system needs it the most to relieve a potential stress on the grid. This is key to guarantee the system efficiency approach of the EE1st principle.</p> <p>Focusing on peak-demand reductions achieved through the activation of flexible loads can help identify inefficient and non-essential energy uses, thus resulting in broader energy and demand savings.</p> <p>For the sake of simplicity, here a few examples:</p> <ul style="list-style-type: none"> • if an occupant can switch off his/her heating system in a moment of peak demand without impacting negatively on comfort, he/she will save energy while supporting the system, • if an industry can keep producing goods while reducing consumption of some industrial processes in a moment of peak demand, it will save energy while reducing the stress to the system. <p>The emergence of cost effective and scalable digital metering systems can provide highly accurate information on the actual carbon and energy performance. They are the foundation</p>
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			<p>for Pay4Performance (P4P) approaches. Member States should consider ringfencing a portion of their energy efficiency obligation for pay-for performance approaches.</p> <p>Member States should be encouraged to develop innovative policy approaches that increase the credibility of the energy savings obligations and drive building renovation taking inspiration from the ongoing reform to the Energy Companies Obligations programme in the UK to increase reliability of monitoring and measuring of carbon and energy performance². This amendment will create a strong incentive to do so.</p>
Article 9 – Energy and System Efficiency obligation schemes	<p>2. Member States shall designate, on the basis of objective and non-discriminatory criteria, obligated parties among transmission system operators, energy distributors, retail energy sales companies and transport fuel distributors or transport fuel retailers operating in their territory. The amount of energy savings needed to fulfil the obligation shall be achieved by the obligated parties among final customers, designated by the Member State, independently of the calculation made pursuant to Article 8(1) or, if Member States so decide, through certified savings stemming from other parties as</p>	<p>2. Member States shall designate, on the basis of objective and non-discriminatory criteria, obligated parties among transmission system operators, energy distributors, retail energy sales companies and transport fuel distributors or transport fuel retailers operating in their territory. The amount of energy savings needed to fulfil the obligation shall be achieved by the obligated parties among final customers <i>in line with the energy efficiency first principle</i>, designated by the Member State, independently of the calculation made pursuant to Article 8(1) or, if Member States so decide, through certified savings stemming</p>	<p>With energy efficiency obligations schemes the obligated parties need to achieve annual energy savings among their clients through energy efficiency improvement. However, as it stands, only savings resulting from static energy efficiency measures can be counted for and the current scheme does not value the activation of (implicit and explicit) demand-side flexibility, including storage, despite contributing to system efficiency.</p> <p>Counting energy savings resulting from the activation of the demand-side flexibility that</p>

² https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1010366/eco4-consultation.pdf

	<p>described in point (a) of paragraph 10 of this Article.</p> <p>[...]</p> <p>10. Within the energy efficiency obligation scheme, Member States may authorise obligated parties to carry out the following:</p> <p>(a) count towards their obligation certified energy savings achieved by energy service providers or other third parties, including when obligated parties promote measures through other State-approved bodies or through public authorities that may involve formal partnerships and may be in combination with other sources of finance. Where Member States so permit, they shall ensure that the certification of energy savings follows an approval process that is put in place in the Member States, that is clear, transparent, and open to all market participants, and that aims to minimise the costs of certification;</p> <p>(b) count savings obtained in a given year as if they had instead been obtained in any of the four previous or three following years as long as this is not beyond the end of the obligation periods set out in Article 87(1)</p>	<p>from other parties as described in point (a) of paragraph 10 of this Article.</p> <p>[...]</p> <p>10. Within the energy efficiency obligation scheme, Member States may authorise obligated parties to carry out the following:</p> <p>[...]</p> <p><i>(c) count energy savings resulting from the activation of the demand-side flexibility of energy end-users achieved:</i></p> <p><i>(i) by responding to CO2 or emissions content signals, real-time guarantees of origin and price signals and in particular through the uptake of dynamic price contracts in line with art. 11 of the Electricity Directive 2019/944 ;</i></p> <p><i>(ii) by responding to market incentives, directly or indirectly through the support of third parties, such as market participant engaged in aggregation, which should prove their performance to allow obligated parties to account for the achieved energy savings:</i></p> <p><i>(iii) by the installation of renewable energy systems and the adequate operation at the end user's site in a way that ensures interoperability with</i></p>	<p>save energy at peak demand times as double their value, would provide an additional incentives to activate demand-side flexibility when contributing to system efficiency by alleviating stress on the system, specifically during peak times. This will ensure that the energy system is optimised, making the best use of available energy, while reducing the need for further investment in grid reinforcement or additional generation capacity.</p> <p>Furthermore, the installation of decentralised energy sources such as solar and storage systems near the end-customer and their adequate operation contribute to system efficiency as well as avoiding energy losses resulting from energy transportation. It is also important to ensure the assets interoperability with demand response services such as aggregation and community trading to enable further efficiencies and avoid vendor lock-in.</p> <p>Member States should also ensure that transmission and distribution system operators consider the energy efficiency first principle. That would help transmission and distribution system operators to account in the ESOS system, savings that could be achieved from the procurement of demand-side solutions</p>
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<p>Article 11 - Energy management system and energy audits</p>	<p>1. Member States shall ensure that enterprises with an average annual consumption higher than 100TJ of energy over the previous three years and taking all energy carriers together, implement an energy management system. The energy management system shall be certified by an independent body according to the relevant European or International Standards.</p> <p>2. The results of the energy audits including the recommendations from these audits shall be transmitted to the management of the enterprise. Member States shall ensure that the results and the implemented recommendations are published in the enterprise’s annual report, where applicable</p> <p>5. Member States shall develop programmes to encourage non-SMEs that are not subject to paragraph 1 or 2 to undergo energy audits and</p>	<p>1. Member States shall ensure that enterprises with an average annual consumption higher than 100TJ of energy over the previous three years and taking all energy carriers together, implement an energy management system. The energy management system shall <i>be interoperable with the energy grid and</i> certified by an independent body according to the relevant European or International Standards.</p> <p>2. The results of the energy audits including the recommendations from these audits shall be transmitted to the management of the enterprise. Member States shall <i>ensure that the implementation of the recommendations is mandatory and include recommendations to improve energy and system efficiency through demand-side flexibility. Member States shall ensure that</i> the results and the implemented recommendations are published in the enterprise’s annual report, where applicable</p> <p>5. Member States shall develop programmes to encourage non-SMEs, <i>whether</i> or not they are</p>	<p>Energy management systems should be interoperable with the grid, i.e., capable to react to external signals.</p> <p>Article 11 should be accompanied by an improved definition of energy management systems as proposed under article 2. This is key to ensure the achievement of dynamic energy efficiency improvements replying to the needs of the energy system.</p> <p>EU companies have been heavily affected by the economic crisis resulting from the COVID-19 outbreak. The COVID-19 pandemic resulted in an unprecedented economic contraction in 2020, with EU real GDP falling by 6.1%, more than during the global financial crisis. Companies have been heavily affected by the pandemic: firms delayed investment, to an extent. In 2020, the number of firms carrying out investment declined from 86% to 79%. Faced with declining sales, 23% of firms revised future investment plans downward, with only 3% planning to invest more (source: EIB). While</p>

	<p>the subsequent implementation of the recommendations from these audits.</p>	<p>subject to paragraph 1 or 2, <i>to implement energy management systems</i> or to undergo energy audits and the subsequent implementation of the recommendations from these audits. <i>In this regard and on the basis of transparent and non-discriminatory criteria and without prejudice to Union State aid law, Member States may set up support schemes for SMEs and non-SMEs, such as tax reliefs, including if they have concluded voluntary agreements, to cover the costs of the implementation of an energy management system and/or cost-effective recommendations from the energy audits, if the proposed measures are implemented. The recommendation should be considered as cost-effective when the return of investment is less than five years.</i></p>	<p>the EU economy is bouncing back, companies have also to invest in their energy transition. Energy efficiency actions through energy management systems and/or energy audits are vital to help companies' energy transition. Yet many companies still consider these audits an administrative burden rather than a useful tool for improving efficiency. Most of them (subject to the obligation) carry out a low-quality audit without taking any further action. It is a missed opportunity – not only from an efficiency perspective but also from a cost-saving one. To provide both economical and decarbonisation values, support schemes such as tax reliefs are key incentives to help companies implementation energy efficiency measures, either energy management systems or energy audits recommendations. For instance, in Germany, the Federal government has included a clause in the Renewable Energy Sources Act (EEG) which allows energy-intensive companies to enjoy a tax reduction when proving that they have implemented an energy management system in accordance with ISO 50001. In the Netherlands, in 2019, in addition to the energy savings requirement, an information requirement was also introduced. Installations that use 50,000 kWh of electricity or 25,000 m³ of natural gas (or an equivalent thereof) per year or more must not only take all energy-saving measures with a five-year</p>
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			payback period but must also report before 1 July on the measures they have taken.
Article 21 - Information and awareness raising	<p>1. Member States shall ensure that information on available energy efficiency improvement measures, individual actions and financial and legal frameworks is transparent and widely disseminated to all relevant market actors, such as final customers, final users,, consumer organisations, civil society representatives, renewable energy communities, citizen energy communities, local and regional authorities, energy agencies, social service providers, builders, architects, engineers, environmental and energy auditors, and installers of building elements as defined in by Article 2(9) of Directive 2010/31/EU.</p> <p>2. Member States shall take appropriate measures to promote and facilitate an efficient use of energy by final customers and final users. These measures shall be part of a national strategy such as the integrated national energy and climate plan in accordance with Regulation (EU) 2018/1999, or the long term renovation strategy as defined in Directive 2010/31/EU.</p> <p>For the purposes this Article, these measures shall include:</p> <p>[...]</p>	<p>1. Member States shall ensure that information on available energy efficiency improvement measures, including demand-side solutions, individual actions and financial and legal frameworks is transparent and widely disseminated to all relevant market actors, such as final customers, final users, consumer organisations, civil society representatives, renewable energy communities, citizen energy communities, local and regional authorities, energy agencies, social service providers, builders, architects, engineers, environmental and energy auditors, and installers of building elements as defined in by Article 2(9) of Directive 2010/31/EU.</p> <p>2. Member States shall take appropriate measures to promote and facilitate an efficient and flexible use of energy by final customers and final users.</p> <p>These measures shall be part of a national strategy such as the integrated national energy and climate plan in accordance with Regulation (EU) 2018/1999, or the long term renovation strategy as defined in Directive 2010/31/EU.</p> <p>For the purposes this Article, these measures shall include:</p> <p>[...]</p>	<p>By adding the promotion and facilitation of a 'flexible' energy use alongside an 'efficient use of energy', this article will ensure that all type of energy efficiency solutions - as described in the Commission Recommendation on the implementation of the Energy Efficient first principle - are being supported and promoted across all market actors, including end-users. It will also support the uptake smart solutions providing demand-side flexibility in reaction to external signals and the development of prosumer business models that facilitate the participation of end-users in the energy transition.</p>

	<p>(i) creation of one-stop shops or similar mechanisms for the provision of technical, administrative and financial advice and assistance on energy efficiency, including energy renovations of buildings and the take-up of renewable energy for buildings to final customers and final users, especially household and small non-household ones.</p>	<p>(i) creation of one-stop shops or similar mechanisms for the provision of technical, administrative and financial advice and assistance on energy efficiency, including <i>establishment of energy communities and</i> energy renovations of buildings and the take-up of renewable energy for buildings to final customers and final users, especially household and small non-household ones, <i>as well as demand-side solutions such a demand-response, energy storage and the take-up of smart energy solutions enabling a time-dependent and flexible, trade, storage and consumption.</i></p>	
<p>Article 25 - Energy transformation, transmission and distribution</p>	<p>2. Member States shall ensure that gas and electricity transmission and distribution network operators apply the energy efficiency first principle in accordance with Article 3 of this Directive in their network planning, network development and investment decisions. While taking security of supply and market integration into account, Member States shall ensure that transmission system operators and distribution system operators do not invest in stranded assets to contribute to climate change mitigation. National regulatory authorities should provide methodologies and guidance on how to assess alternatives in the cost-benefit analysis, taking into account wider benefits, and verify the implementation of the energy efficiency first principle by the transmission</p>	<p>2. Member States shall ensure that gas and electricity transmission and distribution network operators apply the energy efficiency first principle in accordance with Article 3 of this Directive in their network planning, network development and investment decisions. While taking security of supply and market integration into account, Member States shall ensure that transmission system operators and distribution system operators do not invest in stranded assets to contribute to climate change mitigation <i>and prioritise cost-efficient alternatives such as demand-side flexibility, energy-efficient technologies or smart grids.</i> National regulatory authorities shall <i>should</i> provide methodologies and guidance on how to assess alternatives <i>such as the procurement of flexibility services</i> in the</p>	<p>Apart from covering network losses, the Directive must make sure that the reduction of grid-contingent renewable electricity curtailment is considered as an efficiency improvement measure taken by network operators on all voltage levels. By providing appropriate incentive-based solutions for network investments necessary to stem renewable electricity curtailments, such as digitalisation of the grid, energy storage and the aggregation of distributed generation, the Directive will ensure that the waste of hundreds of megawatt-hours of green electricity over the next decade is avoided.</p> <p>The procurement of flexibility services to increase system efficiency should be explicitly included as part of the energy efficiency</p>

	<p>system operators or distribution system operators when approving, verifying or monitoring the projects submitted by the transmission system operators or distribution system operators.</p> <p>3. Member States shall ensure that transmission and distribution network operators map network losses and take cost-effective measures to reduce network losses. Transmission and distribution network operators shall report those measures and expected energy savings through the reduction of network losses to the national energy regulatory authority. National energy regulatory authorities shall limit the possibility for transmission and distribution network operators to recover avoidable network losses from tariffs paid by consumers. Member States shall ensure that transmission and distribution operators assess energy efficiency improvement measures with regard to their existing gas or electricity transmission or distribution systems and improve energy efficiency in infrastructure design and operation. Member States shall encourage transmission and distribution network operators to develop innovative solutions to improve the energy efficiency of existing systems through incentive-based regulations.</p> <p>4. National energy regulatory authorities shall include a specific section on the progress</p>	<p>cost-benefit analysis, taking into account wider <i>system efficiency, environmental and societal</i> benefits, and verify the implementation of the energy efficiency first principle by the transmission system operators or distribution system operators when approving, verifying or monitoring the projects submitted by the transmission system operators or distribution system operators. <i>TSOs and DSOs should make available in a non-discriminatory and transparent way information on the energy efficiency achieved through the procurement of alternative flexibility services.</i></p> <p>3. Member States shall ensure that transmission and distribution network operators map network losses <i>and renewable electricity curtailments</i> and take cost-effective measures to reduce network losses <i>and renewable electricity curtailments</i>. Transmission and distribution network operators shall report those measures and expected energy savings through the reduction of network losses <i>and renewable electricity curtailments</i> to the national energy regulatory authority. National energy regulatory authorities shall limit the possibility for transmission and distribution network operators to recover avoidable network losses <i>and renewable electricity curtailments</i> from tariffs paid by consumers. Member States shall ensure that transmission and distribution operators assess energy efficiency improvement</p>	<p>improvement measures needed to apply the Energy efficiency first principle.</p> <p>The Directive should tighten up monitoring of the application of EE1st to transmission and distribution system operators. National regulatory authorities must ensure that demand-side flexibility is identified as an intrinsic part of the assessment of network planning and operation and is valorised as a viable alternative in the CBA. The demand-side flexibility potential of prosumers (including RES self-consumption) and efficiency gains associated with it should be properly modelled in the relevant methodologies. The CBA should also rely on transparent TSO and DSO data for the procurement of flexibility.</p> <p>National regulatory authorities must ensure the uptake of dynamic network tariffs (paragraph 7) with a view to improving energy efficiency also in the existing network infrastructure. This will reinforce economic incentives to optimise consumption and network operation. The Commission's EE1st Guidelines address dynamic pricing in detail and provide a solid benchmark on which paragraph 7 can be based on.</p>
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	<p>achieved in energy efficiency improvements regarding the operation of the gas and electricity infrastructure in the annual report drawn up pursuant Article 59(I) of Directive (EU) 2019/944 and pursuant to Article 41 of Directive (EU) 2009/73/EC. In these reports, national energy regulatory authorities shall provide an assessment of network losses in the operation of the gas and electricity infrastructure, the measures carried out by transmission and distribution network operators, and, where applicable, provide recommendations for energy efficiency improvements</p> <p>7. National regulatory authorities shall ensure the removal of those incentives in transmission and distribution tariffs that are detrimental to energy efficiency of the generation, transmission, distribution and supply of electricity and gas.</p>	<p>measures, <i>including the procurement of flexibility services from providers of distributed generation and demand response, electric vehicle bidirectional charging and included storage</i> with regard to their existing gas or electricity transmission or distribution systems and improve energy efficiency in infrastructure design and operation, <i>reduce their peak capacity or minimise network congestions</i>. Member States shall encourage transmission and distribution network operators to develop innovative solutions to improve the energy efficiency of existing systems through incentive-based regulations.</p> <p>4. National energy regulatory authorities shall include a specific section on the progress achieved in energy efficiency improvements, <i>including the procurement of flexibility services</i> regarding the operation of the gas and electricity infrastructure in the annual report drawn up pursuant Article 59(I) of Directive (EU) 2019/944 and pursuant to Article 41 of Directive (EU) 2009/73/EC. In these reports, national energy regulatory authorities shall provide an assessment of network losses <i>and congestions, renewable electricity curtailments as well as the reduction of system peak capacity</i> in the operation of the gas and electricity infrastructure, the measures carried out by transmission and distribution network operators, and, where applicable, provide recommendations</p>	
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		<p>for energy efficiency improvements, <i>including the procurement of flexibility services</i>.</p> <p>7. National regulatory authorities shall ensure the removal of those incentives in transmission and distribution tariffs that are detrimental to energy efficiency of the generation, transmission, distribution, <i>trade</i> and supply of electricity and gas. <i>National regulatory authorities shall ensure the adoption of dynamic pricing and flexible network tariffs. Member States shall ensure efficiency in infrastructure design and the operation of the existing infrastructure and, within the framework of Directive EU 2019/944, that tariffs allow suppliers to improve consumer participation in system efficiency.</i></p>	
<p>Article 27 – Energy services</p>	<p>4. Member States shall encourage public bodies to use energy performance contracting for renovations of large buildings. For renovations of large non-residential buildings with a useful floor area above 1000 m², Member States shall ensure that public bodies assess the feasibility of using energy performance contracting.</p> <p>Member States may encourage public bodies to combine energy performance contracting with expanded energy services including demand response and storage.</p>	<p>4. Member States shall encourage public bodies to use energy performance contracting for renovations of large buildings. For renovations of large non-residential buildings with a useful floor area above 1000 m², Member States shall ensure that public bodies assess the feasibility of using energy performance contracting <i>and participating in community trading</i>.</p> <p>Member States shall <i>may</i> encourage public bodies to combine energy performance contracting with expanded energy services including demand response and storage.</p>	<p>Energy performance contracting from public bodies shall be combined with demand-side solutions such as storage and demand-response. This should not be left optional as these energy services greatly contribute to enhance energy performance by ensuring both an efficient and flexible use of energy in reaction to external signal, thus improving system efficiency.</p>

Article 31 - Delegated acts (Data centre sustainability indicators)	<p>3. The Commission is empowered to adopt delegated acts in accordance with Article 32 to supplement this Directive by establishing, after having consulted the relevant stakeholders, a common Union scheme for rating the sustainability of data centres located in its territory. The scheme shall establish the definition of data centre sustainability indicators, and, pursuant to paragraph 9 of Article 10 of this Directive, define the minimum thresholds for significant energy consumption and set out the key indicators and the methodology to measure them.</p>	<p>3. The Commission is empowered to adopt delegated acts in accordance with Article 32 to supplement this Directive by establishing, after having consulted the relevant stakeholders, a common Union scheme for rating the sustainability of data centres located in its territory. The scheme shall establish the definition of data centre sustainability indicators <i>including indicators on how efficiently the data centre uses energy both coming from the grid and generated on-site and on how much of that energy comes from renewable energy sources</i>, and, pursuant to paragraph 9 of Article 10 of this Directive, define the minimum thresholds for significant energy consumption and set out the key indicators and the methodology to measure them.</p>	<p>The development of Data Centre Sustainability Indicators which reflect the use of energy and the renewable electricity consumption in data centres, has the potential to promote business model for data centre supporting their participation in the energy system and the provisions of flexibility services, based on their actual energy performance.</p>
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THE ALTERNATIVE FUELS INFRASTRUCTURE REGULATION

	Alternative Fuels Infrastructure Regulation Revision proposal from the Commission (2021/0223)	smartEn Amendments (in bold and italic)	smartEn justification
Recital 10	<p>(10) National fleet based targets should be established on the basis of the total number of registered electric vehicles in that Member State following a common methodology that accounts for technological developments such as the increased driving range of electric vehicles or the increasing market penetration of fast-charging points which can recharge a greater number of vehicles per recharging point than at a normal recharging point. The methodology also has to take into account the different recharging patterns of battery electric and plug-in hybrid vehicles. A methodology that norms national fleet based targets on the total maximum power output of the publicly accessible recharging infrastructure should allow flexibility for the implementation of different recharging technologies in Member States.</p>	<p>(10) National fleet based targets should be established on the basis of the total number of registered electric vehicles in that Member State following a common methodology that accounts for technological developments such as the increased driving range of electric vehicles or the increasing market penetration of fast-charging points which can recharge a greater number of vehicles per recharging point than at a normal recharging point <i>or the increasing market penetration of smart and bi-directional recharging capabilities in particular for publicly accessible long-parking duration and for home environments</i>. The methodology also has to take into account the different recharging patterns of battery electric and plug-in hybrid vehicles. A methodology that norms national fleet based targets on the total maximum power output of the publicly accessible recharging infrastructure should allow</p>	<p>The electricity system cannot cope with the increased uptake of electric vehicles (EVs) unless their electricity consumption is smartly managed. If charging is not managed smartly, EVs could become a burden to the energy system, jeopardising the stability of the electricity system, particularly in congested zones and during peak hours.</p> <p>Smart and bidirectional recharging are key for grid congestion management. These technologies enable the consumption of clean electricity at the right time while rewarding the consumer.</p> <p>Therefore, it is key to link the national fleet-based targets methodology with the uptake of these technologies and their contribution to the effective and reliable decarbonisation of the energy system.</p>

		flexibility for the implementation of different recharging technologies in Member States.	
Recital 20	(20) Smart metering systems as defined in Directive (EU) 2019/944 of the European Parliament and of the Council ¹² enable real-time data to be produced, which is needed to ensure the stability of the grid and to encourage rational use of recharging services. By providing energy metering in real time and accurate and transparent information on the cost, they encourage, in combination with smart recharging points, recharging at times of low general electricity demand and low energy prices. The use of smart metering systems in combination with smart recharging points can optimise recharging, with benefits for the electricity system and for the end user. Member States should encourage the use of smart metering system for the recharging of electric vehicles at publicly accessible recharging stations, where technically feasible and economically reasonable, and ensure that these systems comply with the requirements laid down in Article 20 of Directive (EU) 2019/444	<i>(removed)</i>	Smart meters should not be a prerequisite for smart charging although the two could work together. The incentive to rollout smart meters in combination with smart charging would send the wrong signal to the market uptake of EV and smart/bidirectional charging point. Many Member States have a low rate of smart meters, and this requirement would deter their will to deploy smart chargers.
New recital (55a)	<i>(55a) (new)</i>	<i>(55a) (new) Battery electric vehicles are currently the most energy efficient zero emission technology for road transport. For the implementation of the Regulation, the Energy Efficiency First principle shall be</i>	It is key to ensure the consideration of the Energy Efficiency First Principle across the different EU environmental and energy legislations. Currently, the AFIR proposal does not refer to the Energy Efficiency First principle despite the clear

		<p><i>consistently applied on all relevant policy, planning and investment decisions, including siting of smart charging infrastructure, and where appropriate bidirectional charging, in view of optimal and cost-effective integration of the road transport sector into the electricity grid.</i></p>	<p>recognition in the Commission Recommendation C(2021)7014 on the implementation of the EE1st principle about the role smart charging of EV can play in stabilising and optimising the energy system by providing demand-side flexibility.</p> <p>Recognising the EE1st principle in AFIR would also ensure that battery electric vehicles (BEVs), when they are smartly recharged, or when they can store then feedback energy thanks to bidirectional capability, are considered in priority as the most cost-efficient zero-emission technology in the transport sector.</p>
New recital		<p><i>Contract-based payments play a very large and important role in electric vehicle recharging, in terms of ensuring best prices and high quality of service for end users, and notably in enabling system integration and flexibility services.</i></p> <p><i>Ensuring that users can roam and use their subscription at different charging points of different operators is vital to the</i></p>	<p>The charging subscription model is critical to the growth of the EV market. It constitutes the majority of the electric vehicle charging payments and provides substantial benefits to consumers. The subscription model offers the possibility for the electric vehicle to provide flexibility, balancing and storage services to the electricity system and market. Moving forward, these services will play an important role in ensuring low emission, system integration and system efficiency.</p>

		<p><i>development of the EU market for users, in line with the principles of a consumer-centric and prosumer-based energy system. To enable this, operators of publicly accessible charging infrastructure should ensure that all publicly accessible charging infrastructure they operate is roaming capable and has a functioning connection with at least one external roaming hub or mobility service provider.</i></p>	<p>It allows the electric vehicle user's service provider of choice to optimally integrate the electric vehicle in the electricity system, through predictable planning and incentives based on the electric vehicle user's preferences. This is also in line with the principles of a consumer-centric and prosumer-based energy system, and the right of supplier choice of electric vehicle users as final customers as per the provisions of Directive (EU) 2019/944.</p> <p>For the above reasons, it is important that the subscription model is promoted and enabled through the revised Regulation.</p> <p>Ensuring that users can roam and use their subscription at different charging points of different operators is vital in this process. Roaming agreements enable the driver to access as many stations as possible through interoperability and contractual agreements between e-mobility services providers.</p>
<p>Article 2 - definitions</p>	<p>(14) 'digitally-connected recharging point' means a recharging point that can send and receive information in real time, communicate bi-directionally with the electricity grid and the electric vehicle, and that can be remotely monitored and controlled, including to start and stop the</p>	<p>(14) 'digitally-connected recharging point' means a recharging point that can send and receive information in real time communicate bi-directionally with the electricity grid, the electric vehicle and the building and home energy management system, and that can be remotely monitored and controlled, including to start and stop the recharging session and to measure</p>	<p>The definition proposed by the Commission is confusing and overlaps with the smart charging and bidirectional definitions. smartEn proposes to limit it to data communication, notably on availability status and payment methods, to make the distinction clearer. This should also cover bidirectional communication with the Building</p>

	<p>recharging session and to measure electricity flows;</p> <p>(21) “e-roaming means the exchange of data and payments between the operator of a recharging or refuelling point and a mobility service provider from which an end-user purchases a recharging service</p>	<p>electricity flows in particular for availability status and payments methods;</p> <p>(21) “e-roaming” means the exchange of data and payments between the different operators of a recharging or refuelling point and/or a different mobility service provider from which an end-user purchases a recharging service. In the case that the operator and mobility service provider are the same entity, this shall not be considered.</p>	<p>Energy Management System (BEMS) the EV charging point is connected to.</p> <p>Only definitions for smart and bi-directional recharging should keep aspects related to the control of recharging sessions.</p> <p>To ensure a coherent and safe energy system integration, it is essential that EV charging, in particular in building, is integrated into the wider energy system, through smart charging and bidirectional functionalities.</p> <p>Such functionalities can help balance the grid in times of peak demand and provide valuable flexibility services to network operators, thus reducing households’ electricity bills and EV user’s total costs of ownership while facilitating the integration of renewable energy into the EV recharging infrastructure.</p> <p>The definition of e-roaming should be clarified to make it clear that roaming is the possibility for the consumer to benefit from other operators or mobility service providers’ infrastructure through one single subscription.</p>
<p>Article 3 - Targets for electric recharging</p>	<p>1. Member States shall ensure that:</p> <ul style="list-style-type: none"> – publicly accessible recharging stations for light-duty vehicles are deployed 	<p>1. Member States shall ensure that:</p> <ul style="list-style-type: none"> – publicly accessible recharging stations for light-duty vehicles are deployed 	<p>Smart and bidirectional recharging are the best technologies enabling the system integration of transport. If chargers remain ‘dumb’ i.e. without smart functionalities the electricity network would</p>

<p>infrastructure dedicated to light-duty vehicles</p>	<p>commensurate to the uptake of light-duty electric vehicles;</p> <ul style="list-style-type: none"> – in their territory, publicly accessible recharging stations dedicated to light-duty vehicles are deployed that provide sufficient power output for those vehicles. <p>[...]</p> <p>2. Member States shall ensure a minimum coverage of publicly accessible recharging points dedicated to light-duty vehicles on the road network in their territory.</p>	<p>commensurate to the uptake of light-duty electric vehicles;</p> <ul style="list-style-type: none"> – in their territory, publicly accessible recharging stations dedicated to light-duty vehicles are deployed that provide sufficient power output for those vehicles. <p><i>– a sufficient number of publicly accessible recharging stations for light-duty vehicles is enabled for smart charging and where appropriate bi-directional charging.</i></p> <p>[...]</p> <p>2. Member States shall ensure a minimum coverage of publicly accessible recharging points dedicated to light-duty vehicles on the road network in their territory, <i>including the deployment of smart and bidirectional recharging in particular for publicly accessible long-parking duration of light-duty vehicles in line with the obligations set by article 5.8 of this regulation.</i></p> <p><i>5. When foreseen as an additional functionality contributing to the cost-effective penetration of renewable electricity in transport and the electricity system, Member States shall ensure that bi-directional charging capability is developed</i></p>	<p>likely experience major disturbances. Without bidirectional capability, EV owners will be prevented from monetizing the flexibility of their vehicle’s battery.</p> <p>Therefore, an incentive to deploy a sufficient number of smart and bidirectional chargers should be considered in the coverage of publicly accessible recharging points dedicated to light-duty vehicles.</p> <p>Smart and bidirectional recharging are particularly relevant when used in parking spaces for long duration. New targets should reflect this specific case.</p>
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		<i>in publicly accessible long duration parking spaces.</i>	
Article 4 - Targets for electric recharging infrastructure dedicated to heavy-duty vehicles	<p>1. Member States shall ensure a minimum coverage of publicly accessible recharging points, dedicated to heavy-duty vehicles in their territory. To that end, Member States shall ensure that:</p> <p>(...)</p> <p>(c) by 31 December 2030, in each safe and secure parking area at least one recharging station dedicated to heavy-duty vehicles with a power output of at least 100 kW is installed;</p> <p>(d) by 31 December 2025, in each urban node publicly accessible recharging points dedicated to heavy-duty vehicles providing an aggregated power output of at least 600 kW are deployed, provided by recharging stations with an individual power output of at least 150 kW;</p>	<p>1. Member States shall ensure a minimum coverage of publicly accessible recharging points, dedicated to heavy-duty vehicles in their territory, <i>including the deployment of smart and bidirectional recharging in particular for publicly accessible long-parking duration of heavy-duty vehicles in line with the obligations set by article 5.8 of this regulation.</i> To that end, Member States shall ensure that:</p> <p>(...)</p>	<p>The amendment of article 3 for light-duty vehicles should be replicated in article 4, as smart and bidirectional recharging can play a valuable role for heavy-duty vehicles. It is especially relevant when parked for a long period as this the moment where they can provide key services to the grid.</p> <p>Heavy duty vehicles may also park for long durations at publicly accessible charging points, e.g., on logistic platforms, harbours, overnight along motorways etc.</p>
Article 5 – Recharging infrastructure	<p>2. Operators of recharging points shall, at the publicly accessible recharging points operated by them, provide end users with the possibility to recharge their electric vehicle on an ad hoc basis using a payment instrument that is widely used in the Union. To that end:</p>	<p>2. Operators of recharging points shall, at the publicly accessible recharging points operated by them, provide end users with the possibility to recharge their electric vehicle on an ad hoc basis using a payment instrument that is widely used in the Union. <i>To that end:</i></p>	<p>The Regulation should not prescribe the use of specific payment technologies and must remain technology neutral and future proof. This might also have an impact on the costs of charging stations by making them more expensive while priority should be given to a speedy deployment of EV charging infrastructures across Europe.</p>

	<p>(a) operators of recharging points shall, at publicly accessible recharging stations with a power output below 50 kW, deployed from the date referred to in Article 24, accept electronic payments through terminals and devices used for payment services, including at least one of the following:</p> <p>(i) payment card readers;</p> <p>(ii) devices with a contactless functionality that is at least able to read payment cards;</p> <p>(iii) devices using an internet connection with which for instance a Quick Response code can be specifically generated and used for the payment transaction;</p> <p>(b) operators of recharging points shall, at publicly accessible recharging stations with a power output equal to or more than 50 kW, deployed from the date referred to in Article 24, accept electronic payments through terminals and devices used for payment services, including at least one of the following:</p> <p>(i) payment card readers;</p> <p>(ii) devices with a contactless functionality that is at least able to read payment cards.</p> <p>From 1 January 2027 onwards, operators of recharging points shall ensure that all publicly</p>	<p>(a) operators of recharging points shall, at publicly accessible recharging stations with a power output below 50 kW, deployed from the date referred to in Article 24, accept electronic payments through terminals and devices used for payment services, including at least one of the following:</p> <p>(i) payment card readers;</p> <p>(ii) devices with a contactless functionality that is at least able to read payment cards;</p> <p>(iii) devices using an internet connection with which for instance a Quick Response code can be specifically generated and used for the payment transaction;</p> <p>(b) operators of recharging points shall, at publicly accessible recharging stations with a power output equal to or more than 50 kW, deployed from the date referred to in Article 24, accept electronic payments through terminals and devices used for payment services, including at least one of the following:</p> <p>(i) payment card readers;</p> <p>(ii) devices with a contactless functionality that is at least able to read payment cards.</p> <p>From 1 January 2027 onwards, operators of recharging points shall ensure that all</p>	<p>Other technologies exist such as digital payment options (e.g., RFID card, App, etc.) that should be supported in times of digitalisation. Smart technologies will also be essential to support the use of the electric vehicle as provider of flexibility for the electricity system. It should also be considered along with charging subscription models (see below on e-roaming).</p> <p>The charging subscription model is critical to the growth of the EV market. It constitutes the majority of the electric vehicle charging payment system and provides substantial benefits to consumers. The subscription model support smart charging and offers the possibility to utilize the electric vehicle to provide flexibility, balancing and storage services to the electricity system and market. However, this is not yet possible during an anonymous, ad-hoc charging session because a driver must give certain approvals and instructions to their mobility service providers. Moving forward, barriers to the charging subscription model should be removed as these services will play an important role in ensuring low emission and more efficient energy systems.</p> <p>It allows the electric vehicle user's service provider of choice to optimally integrate the electric vehicle in the electricity system, through predictable planning and incentives based on the electric vehicle user preferences. This is also in line with the principles of a consumer-centric and</p>
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	<p>accessible recharging stations with a power output equal to or more than 50 kW operated by them comply with the requirement in point (b). The requirements laid down in points (a) and (b) shall not apply to publicly accessible recharging points that do not require payment for the recharging service.</p> <p>7. From the date referred to in Article 24, operators of recharging points shall ensure that all publicly accessible recharging points operated by them are digitally-connected recharging points.</p> <p>8. From the date referred to in Article 24, operators of recharging points shall ensure that all publicly accessible normal power recharging points operated by them are capable of smart recharging.</p>	<p>publicly accessible recharging stations with a power output equal to or more than 50 kW operated by them comply with the requirement in point (b). The requirements laid down in points (a) and (b) shall not apply to publicly accessible recharging points that do not require payment for the recharging service.</p> <p><i>(new) 3. Subscription and Roaming</i></p> <p><i>Operators of recharging points shall, at publicly accessible recharging points operated by them, offer the possibility to pay for a recharging session via a mobility service provider subscription.</i></p> <p><i>Operators of recharging points shall ensure that e-roaming is available at the publicly accessible recharging points operated by them with a minimum of one functioning connection with an external roaming service platform or mobility service provider.</i></p> <p><i>When reviewing the Regulation, the Commission shall take actions where required by market developments such as limitations of services for end users or</i></p>	<p>prosumer-based energy system, and the right of supplier choice of electric vehicle users as final customers as per the provisions of Directive (EU) 2019/944.</p> <p>In light of article 20a§1 of the revised Renewable Energy Directive on data sharing by system operators of their carbon and energy mix, operators of recharging point shall ensure that such information they receive can be displayed and shared with consumers or energy service providers acting on their behalf. This amendment is also included in the ITRE draft opinion on AFIR and will support the provision of flexibility services from EV charging points.</p> <p>Bidirectional charging functionalities enable electric vehicle users to send back electricity to the grid (V2G) and to other assets such as buildings (V2B) or homes (V2H). It goes one step further than smart charging contributing to grid optimisation while providing the financial reward of consumers for their active participation in the energy system.</p> <p>For example, a study conducted by the Imperial College of London shows that the annual system savings in the UK for smart charging could be of 100 million £, while for bidirectional charging it</p>
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		<p><i>business practices that may limit competition.</i></p> <p><i>6a. When available, operators of recharging points shall make accessible all data they receive from transmission system operators, distribution system operators in line with article 20a. 1 of the Renewable Energy Directive, as well as from electricity suppliers on the share of renewable electricity supplied at recharging points operated by them.</i></p> <p><i>The information should be provided accurately, based on real time Guarantees of Origins, when the charging point interface allows it, in time intervals of no more than one hour, with forecasting, where available.</i></p> <p><i>This information shall be made available to end users digitally including through on board computers and apps or on the recharging point.</i></p> <p>7. Operators of recharging points shall ensure that all <i>new and refurbished publicly</i> accessible recharging points deployed from the date referred in Article 24 and operated</p>	<p>would be in a range between 400 and 900 millions £.</p> <p>Monetizing the value of bidirectional charging should not be limited to the owners of EVs that have off-street parking. This would be discriminative against those that don't.</p> <p>Hence, recharging points should carefully consider this technology and allow for its development, complementing smart charging which should be a mandatory functionality for all new and refurbished publicly accessible normal power recharging points.</p> <p>This provision should complement amendments to article 3 and 4 that set targets for light and heavy-duty vehicles.</p>
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		<p>by them are digitally-connected recharging points.</p> <p>8. Operators of recharging points shall ensure that all <i>new and refurbished</i> publicly accessible normal power recharging points deployed from the date referred in Article 24 and operated by them are capable of smart recharging and <i>allow for the future introduction of bidirectional charging functionalities</i>.</p> <p><i>(new) 8bis. The provisions set in paragraphs 7 and 8 shall apply as a general mandatory obligation whose development should be contemplated and monitored in the context of the mandatory minimum targets set in articles 3 & 4.</i></p>	
Article 13 - - National policy frameworks	<p>1. By 1 January 2024, each Member State shall prepare and send to the Commission a draft national policy framework for the development of the market as regards alternative fuels in the transport sector and</p>	<p>1. By 1 January 2024, each Member State shall prepare and send to the Commission a draft national policy framework for the development of the market as regards alternative fuels in the transport sector and</p>	<p>Article 13 does not include the obligation for MS to include in their national policy framework, policies and measures to achieve the obligations for all normal power recharging points to be smart as set in article 5.8. We consider that this gap should be addressed.</p>

	<p>the deployment of the relevant infrastructure.</p> <p>That national policy framework shall contain at least the following elements:</p> <p>(b) national targets and objectives pursuant to Articles 3, 4, 6, 8, 9, 10, 11 and 12 for which mandatory national targets are set out in this Regulation;</p> <p>(c) national targets and objectives for the deployment of alternative fuels infrastructure related to points (l), (m), (n), (o) and (p) of this paragraph for which no mandatory targets are set out in this Regulation;</p> <p>(d) policies and measures necessary to ensure that the mandatory targets and objectives referred to in points (b) and (c) of this paragraph are reached;</p> <p>(f) measures to encourage and facilitate the deployment of recharging stations for light-</p>	<p>the deployment of the relevant infrastructure.</p> <p>That national policy framework shall contain at least the following elements:</p> <p>(b) national targets and objectives pursuant to Articles 3, 4, 5, 6, 8, 9, 10, 11 and 12 for which mandatory national targets are set out in this Regulation;</p> <p>(c) national targets and objectives for the deployment of alternative fuels infrastructure related to points (l), (m), (n), (o) and (p) of this paragraph for which no mandatory targets are set out in this Regulation;</p> <p>(d) policies and measures necessary to ensure that the mandatory targets and objectives referred to in points (b) and (c) of this paragraph are reached;</p> <p>(f) measures to encourage and facilitate the deployment of recharging stations for light-</p>	<p>According to the Commission’s proposal the contribution of smart and bidirectional charging is left to an assessment under article 14 on reporting while it should be already included in the national policy framework.</p>
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	<p>duty and heavy-duty vehicles at private locations that are not accessible to the public;</p> <p>(i) measures necessary to ensure that the deployment and operation of recharging points, including the geographical distribution of bidirectional charging points, contribute to the flexibility of the energy system and to the penetration of renewable electricity into the electric system;</p>	<p>duty and heavy-duty vehicles at private locations that are not accessible to the public;</p> <p>(i) measures necessary to ensure that the deployment and operation of recharging points, including the geographical distribution of <i>smart and</i> bidirectional charging points, <i>enable electric vehicles to</i> contribute to the flexibility of the energy system, and to the penetration of renewable electricity into the electric system, <i>taking into account all types of recharging points, whether public or private, on the basis of the assessment under article 14.3;</i></p>	
<p>Article 14 - Reporting</p>	<p>3. The regulatory authority of a Member States shall assess, at the latest by 30 June 2024 and periodically every three years thereafter, how the deployment and operation of recharging points could enable electric vehicles to further contribute to the flexibility of the energy system, including their participation in the balancing market, and to the further absorption of renewable electricity. That assessment shall take into account all types of recharging points, whether public or private, and provide recommendations in terms of type, supporting technology and geographical distribution in order to facilitate the ability of</p>	<p>3. The regulatory authority of a Member States shall assess, at the latest by 30 June 2024 and periodically every three years thereafter, how the deployment and operation of recharging points could enable electric vehicles to further contribute to the flexibility of the energy system, including their participation in the balancing market <i>and local flexibility markets</i>, and to the further absorption of renewable electricity. That assessment shall take into account all types of recharging points whether public or private, and provide recommendations in terms of type, supporting technology and geographical distribution in order to facilitate</p>	<p>It is crucial to ensure investments in recharging infrastructure are market-based following the rules set in article 33 of the Electricity Directive limiting DSOs to own, develop, manage or operate recharging points for electric vehicles.</p> <p>As stated previously, Member States should include the assessment of smart and bidirectional recharging in the national policy framework setting specific requirements to support the deployment of V1X/V2X as well as the o the progress report in 2027.</p>

	<p>users to integrate their electric vehicles in the system. It shall be made publicly available. On the basis of the results of the assessment, Member States shall, if necessary, take the appropriate measures for the deployment of additional recharging points and include them in their progress report referred to in paragraph 1. The assessment and measures shall be taken into account by the system operators in the network development plans referred to in Article 32(3) and Article 51 of Directive (EU) 2019/944.</p> <p>4. On the basis of input from transmission system operators and distribution system operators, the regulatory authority of a Member States shall assess, at the latest by 1 30 June 2024 and periodically every three years thereafter, the potential contribution of bidirectional charging to the penetration of renewable electricity into the electricity system. That assessment shall be made publicly available. On the basis of the results of the assessment, Member States shall take, if necessary, the appropriate measures to adjust the availability and geographical distribution of bidirectional recharging points, in both public and private areas and</p>	<p>the ability of users to integrate their electric vehicles in the system. It shall be made publicly available. On the basis of the results of the assessment, Member States shall, if necessary, take the appropriate measures for the deployment of additional recharging points <i>in line with rules set in article 33 of Directive (EU) 2019/944</i>, and include them in their <i>national policy framework</i> referred to in <i>article 13 and</i> in their progress report referred to in paragraph 1. The assessment and measures shall be taken into account by the system operators in the network development plans referred to in Article 32(3) and Article 51 of Directive (EU) 2019/944.</p> <p>4. On the basis of input from transmission system operators and distribution system operators, <i>as well as from all relevant stakeholders including consumers, operators of recharging points, energy service providers, vehicle manufacturers, electrical contractors, charge manufacturers</i> the regulatory authority of a Member States shall assess, at the latest by 30 June 2024 and periodically every three years thereafter, the potential contribution of bidirectional charging <i>to the flexibility of the energy system including their participation in the balancing market and local flexibility</i></p>	<p>The expertise to assess the potential of bidirectional recharging should not be left only to System Operators. Market players such as recharging points operators, automakers, charger manufacturers, electrical contractors, aggregators, or energy service providers should participate in this exercise as they can provide key inputs on the market needs. Leaving this evaluation to system operators would endanger bidirectional recharging development, hence limiting its uptake. This requirement should be replicated in article 20a of the Renewable Energy Directive, that deals with the non-publicly accessible recharging points.</p>
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	<p>include them in their progress report referred to in paragraph 1.</p> <p>5. The Commission shall adopt guidance and templates concerning the content, structure and format of the national policy frameworks and the content of the national progress reports to be submitted by the Member States in accordance with Article 13(1) and six months after the date referred to in Article 24. The Commission may adopt guidance and templates to facilitate the effective application across the Union of any other provisions of this Regulation.</p>	<p><i>markets, system efficiency, self-consumption, the dampening of price fluctuations, and to</i> the penetration of renewable electricity into the electricity system. That assessment shall be made publicly available. On the basis of the results of the assessment, Member States shall take, if necessary, the appropriate measures to adjust the availability and geographical distribution of bidirectional recharging points, in both public and private areas and include them in their <i>national policy framework referred to in article 13 and</i> in their progress report referred to in paragraph 1.</p> <p>5. The Commission shall adopt guidance and <i>binding</i> templates concerning the content, structure and format of the national policy frameworks and the content of the national progress reports to be submitted by the Member States in accordance with Article 13(1) and six months after the date referred to in Article 24. The Commission may adopt guidance and templates to facilitate the effective application across the Union of any other provisions of this Regulation.</p>	
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<p>Article 16 – Progress tracking</p>	<p>1. By 28 February of the year following the entry into force of this Regulation and every year thereafter by the same date, Member States shall report to the Commission the total aggregated recharging power output, the number of publicly accessible recharging points and the number of registered battery electric and plug-in hybrid vehicles deployed on their territory on 31 December of the previous year, in accordance with the requirements of Annex III.</p>	<p>1. By 28 February of the year following the entry into force of this Regulation and every year thereafter by the same date, Member States shall report to the Commission the total aggregated recharging power output, the number of publicly accessible recharging points, <i>the total number of smart and bidirectional recharging points in both public and private environments</i>, and the number of registered battery electric and plug-in hybrid vehicles deployed on their territory on 31 December of the previous year, in accordance with the requirements of Annex III.</p>	<p>Member States shall include the total number of smart and bidirectional chargers on their territory in their annual reporting, to the Commission in order to get an accurate overview of their development.</p>
<p>Article 18 – Data provisions</p>	<p>2. Operators of publicly accessible recharging and refuelling points or, in accordance with the arrangement between them, the owners of those points, shall ensure the availability of static and dynamic data concerning alternative fuels infrastructure operated by them and allow accessibility of that data through the National Access Points at no cost. The following data types shall be made available:</p> <p>(b) further static data for publicly accessible recharging points operated by them:</p> <p>(i) identification (ID) codes, at least of the operator of the recharging point and mobility service providers offering services at that</p>	<p>2. Operators of publicly accessible recharging and refuelling points or, in accordance with the arrangement between them, the owners of those points, shall ensure the availability of static and dynamic data concerning alternative fuels infrastructure operated by them and allow accessibility of that data through the National Access Points at no cost <i>at least for static data</i>. The following data types shall be made available:</p> <p>(b) further static data for publicly accessible recharging points operated by them:</p> <p>(i) identification (ID) codes, at least of the operator of the recharging point and mobility service providers offering services at that</p>	<p>Data on smart and bidirectional recharging capabilities should be made available to third parties, in particular to energy service providers.</p> <p>Static data e.g. location, characteristic, accessibility for people with reduced mobility of public charging points etc. should be made available at no cost also in the light of the expected benefit from CPOs, e-mobility actors to end users, to have more reliable recharging point and station related data accessible. With specific reference to dynamic data, players involved in the e-mobility ecosystem are currently selling their data, to RTTI service providers and data aggregators. Hence, it could be expected a similar monetisation model when they would provide</p>

	<p>recharging point, as referred to in paragraph 1,</p> <ul style="list-style-type: none"> (ii) type of connector, (iii) type of current (AC/DC), (iv) power output (kW) 	<p>recharging point, as referred to in paragraph 1,</p> <ul style="list-style-type: none"> (ii) type of connector, (iii) type of current (AC/DC), (iv) power output (kW) (v) smart and bi-directional capabilities of recharging points 	<p>such data via the NAPs as already foreseen in the delegated acts of ITS directive as well.</p> <p>In general any additional or future measures proposed by European Commission through delegated acts should reflect the cost related to for instance data collection, management, storage and sharing data over certain data exchange formats etc. and the sharing of potentially commercial sensitive data should be carefully assessed and avoided.</p>
ANNEX I – Reporting	<p>The progress report referred to in Article 14(1) of the Regulation shall include at least the following elements:</p> <ul style="list-style-type: none"> 1. target setting <p>(b) targets for 31 December 2025, 2030 and 2035 for:</p> <ul style="list-style-type: none"> – electric recharging infrastructure for light-duty vehicles: number of recharging stations and power output (classification of recharging stations following Annex III to this Regulation); – development of recharging stations for light-duty vehicles not accessible to the public; 	<p>The progress report referred to in Article 14(1) of the Regulation shall include at least the following elements:</p> <ul style="list-style-type: none"> 1. target setting <p>(b) targets for 31 December 2025, 2030 and 2035 for:</p> <ul style="list-style-type: none"> – electric recharging infrastructure for light-duty vehicles: number of recharging stations, including smart and bidirectional charging points, and power output (classification of recharging stations following Annex III to this Regulation); – development of recharging stations, including smart and bidirectional charging points, for light-duty vehicles not accessible to the public; 	<p>These added references ensure the consideration of smart and bidirectional recharging in the Member States’ reporting in article 14.</p>

	<ul style="list-style-type: none"> – electric recharging infrastructure for heavy-duty vehicles: number of recharging stations and power output; – development of recharging stations for heavy-duty vehicles not accessible to the public; 	<ul style="list-style-type: none"> – electric recharging infrastructure for heavy-duty vehicles: number of recharging stations, <i>including smart and bidirectional charging points</i>, and power output; – development of recharging stations, <i>including smart and bidirectional charging points</i>, for heavy-duty vehicles not accessible to the public; – development of recharging stations, <i>including smart and bidirectional charging points</i>, for heavy-duty vehicles not accessible to the public; 	
ANNEX II – technical specifications	<p>2. Technical specifications for communication exchange in the electric vehicle recharging ecosystem</p> <p>2.1. Technical specifications regarding communication between the electric vehicle and the recharging point (vehicle-to-grid communication).</p>	<p>2. Technical specifications for communication exchange in the electric vehicle recharging ecosystem</p> <p>2.1. Technical specifications regarding communication between the electric vehicle and the recharging point (vehicle-to-grid communication) <i>included in the ISO 15118-20 standard</i>.</p>	<p>The technical specifications for V2G are already encompassed in the ISO 15118-20 standard currently under development. The Delegated Acts that the Commission is empowered to adopt under article 19.7 on common technical specifications should seek to translate the ISO standard 15118-20 for V2G into EN standard. It would support the regulatory and technical requirements to integrate EVs as flexible assets and ensure an interoperable, seamless and secure charging system.</p>

THE ENERGY TAXATION DIRECTIVE

	Energy Taxation Directive recast proposal from the Commission (2021/0213)	smartEn Amendments (in bold and italic)	smartEn justification
<p>Article 16</p>	<p>Without prejudice to other Union provisions, Member States <i>may</i> apply under fiscal control total or partial exemptions or reductions in the level of taxation to:</p> <p>(a) taxable products used under fiscal control in the field of pilot projects for the technological development of more environmentally-friendly products or in relation to fuels from renewable resources;</p> <p>(b) electricity:</p> <ul style="list-style-type: none"> – of solar, wind, wave, tidal or geothermal origin; – of hydraulic origin produced in hydroelectric installations; – generated from sustainable biomass or from products produced from sustainable biomass; – generated from methane emitted by abandoned coalmines; – generated from fuel cells; 	<p>Without prejudice to other Union provisions, Member States <i>shall</i> apply under fiscal control total or partial exemptions or reductions in the level of taxation to:</p> <p>(a) taxable products used under fiscal control in the field of pilot projects for the technological development of more environmentally-friendly products or in relation to fuels from renewable resources;</p> <p>(b) electricity:</p> <ul style="list-style-type: none"> – of solar, wind, wave, tidal or geothermal origin; – of hydraulic origin produced in hydroelectric installations; – generated from sustainable biomass or from products produced from sustainable biomass; – generated from methane emitted by abandoned coalmines; 	<p>Clean electricity is the most cost-efficient energy carrier to decarbonise the energy system. It is the energy that will help the European Union to reach its ambitious climate objectives. Therefore, renewable-based electricity shall be taxed at the lowest level compared to other more polluting sources of energy.</p> <p>Active customers and energy communities shall be considered as producers as they generate renewable energy which is then consumed or sold back to the grid. Hence, they should benefit from this refund as any other producer.</p>

	Member States may also refund to the producer some or all of the amount of tax paid by the consumer on electricity produced from products specified in this paragraph.	– generated from fuel cells; Member States may also refund to the producer, <i>including active customers, energy communities or power purchase agreements supplying active customers</i> , some or all of the amount of tax paid by the consumer on electricity produced from products specified in this paragraph.	
Article 17	Without prejudice to Article 5, as applicable as single uses, Member States may apply under fiscal control:	<i>(f) (new) reductions in either the energy taxation or in the purchase of energy products for final customers participating in demand side flexibility.</i>	The revision should take into consideration the contribution of active consumers to the efficiency of the energy system by including in the proposal a taxation system that would reward consumers for activating their demand side flexibility.
Article 22	4. For the purpose of applying Articles 2 and 7 of Directive 2008/118/EC, electricity, natural gas and hydrogen shall be subject to taxation and shall become chargeable at the time of supply by the distributor or redistributor. Where the delivery to consumption takes place in a Member State where the distributor or redistributor is not established, the tax of the Member States of delivery shall be chargeable to a company that has to be registered in the Member State of delivery. Tax shall in all cases be levied and collected according to procedures laid down by each Member State.	4. For the purpose of applying Articles 2 and 7 of Directive 2008/118/EC, electricity, natural gas and hydrogen shall be subject to taxation and shall become chargeable at the time of supply by the distributor or redistributor. Where the delivery to consumption takes place in a Member State where the distributor or redistributor is not established, the tax of the Member States of delivery shall be chargeable to a company that has to be registered in the Member State of delivery. Tax shall in all cases be levied and collected according to procedures laid down by each Member State.	Currently, energy storage facilities, including from electric vehicles, are either undefined or classified as consumption in certain Member States. They shall not be taxed twice, or subject to levies, since the energy is not “used” but back-fed into the grid, and in order not to create barriers to active consumers behaviours and models. This provision would complement the elimination of double network charges in the Electricity Directive. Similarly, it should be made explicit that active customers owning a storage facility and when providing flexibility services to system operators are not subject to double taxation, complementing the elimination of double network charges in the Electricity Directive.

	<p>For the purposes of the first subparagraph, electricity storage facilities and transformers of electricity may be considered as redistributors when they supply electricity.</p>	<p>For the purposes of the first subparagraph, electricity storage facilities, <i>including from electric vehicles, or active customers that own a storing facility and providing flexibility services to system operators</i> and transformers of electricity may be considered as redistributors when they supply electricity <i>and shall not be subject to any double taxation.</i></p>	
<p>Article 31</p>	<p>Every five years and for the first time five years after 1 January 2023, the Commission shall submit to the Council a report on the application of this Directive. The report by the Commission shall, inter alia, examine the minimum levels of taxation, the impact of innovation and technological developments, in particular as regards energy efficiency, the use of electricity in transport and the justification for the exemptions, reductions and differentiations laid down in this Directive. The report shall take into account the proper functioning of the internal market, environmental and social considerations, the real value of the minimum levels of taxation and the relevant wider objectives of the Treaties.</p>	<p>Every five years and for the first time five years after 1 January 2023, the Commission shall submit to the Council a report on the application of this Directive. The report by the Commission shall, inter alia, examine the minimum levels of taxation, the impact of innovation and technological developments, in particular as regards energy efficiency, the use of electricity in transport, <i>buildings and industry</i> and the justification for the exemptions, reductions and differentiations laid down in this Directive. The report shall take into account the proper functioning of the internal market, environmental and social considerations, the real value of the minimum levels of taxation and the relevant wider objectives of the Treaties.</p> <p><i>Considering articles 5 and 29 of this directive, this report shall inform delegated</i></p>	<p>The Commission's report needs to have a complete overview and look at all sectors when assessing the minimum of energy taxation. In its proposal, the Commission looks only at transport while the use of electricity in buildings and industry are also important.</p> <p>In light of articles 5 and 29, the Commission is empowered to adopt Delegated Acts to amend the minimum levels of taxation. The report on the application of the Directive referred to in article 31 should inform these Delegated Acts.</p>

		<i>acts empowering the Commission to amend the minimum levels of taxation.</i>	
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EU ETS REVISION – A NEW SCHEME FOR BUILDINGS AND ROAD TRANSPORT

	European Emissions Trading System Revision (2021/0211)	smartEn Amendments (in bold and italic)	smartEn justification
<p>Article 30d – Auctioning of allowances</p>	<p>1. From 2026, allowances covered by this Chapter shall be auctioned, unless they are placed in the Market Stability Reserve established by Decision (EU) 2015/1814. The allowances covered by this Chapter shall be auctioned separately from the allowances covered by Chapters II, IIa and III.</p> <p>5. Member States shall determine the use of revenues generated from the auctioning of allowances referred to in paragraph 4, except for the revenues established as own resources in accordance with Article 311(3) TFEU and entered in the Union budget. Member States shall use their revenues for one or more of the activities referred to in Article 10(3) or for one or more of the following:</p> <p>(a) measures intended to contribute to the decarbonisation of heating and cooling of buildings or to the reduction of the energy</p>	<p>1. From 2026, <i>and once the Social Climate Fund is operational</i>, allowances covered by this Chapter shall be auctioned, unless they are placed in the Market Stability Reserve established by Decision (EU) 2015/1814. The allowances covered by this Chapter shall be auctioned separately from the allowances covered by Chapters II, IIa and III.</p> <p>5. Member States shall determine the use of revenues generated from the auctioning of allowances referred to in paragraph 4, except for the revenues established as own resources in accordance with Article 311(3) TFEU and entered in the Union budget. Member States shall use their revenues for one or more of the activities referred to in Article 10(3) or for one or more of the following:</p> <p>(a) measures intended to contribute to the decarbonisation of heating and cooling of buildings or to the reduction of the energy needs</p>	<p>The auctioning of allowances should start once the Social Climate Fund is in place. It would ensure socially fair introduction of this new ETS for buildings and road transport, in line with recital 44.</p> <p>Also, the activation of the demand-side flexibility and the clean, time-dependant and flexible consumption of electricity in the transport and buildings sectors should be eligible for the allocation of these revenues. This would support the smart integration of buildings and transport in the energy system, enhance their role in the clean energy transition, while contributing to increase system efficiency.</p>

	<p>needs of buildings, including the integration of renewable energies and related measures according to Articles 7(11), 12 and 20 of Directive 2012/27/EU [references to be updated with the revised Directive], as well as measures to provide financial support for low-income households in worst-performing buildings;</p> <p>(b) measures intended to accelerate the uptake of zero-emission vehicles or to provide financial support for the deployment of fully interoperable refuelling and recharging infrastructure for zero-emission vehicles or measures to encourage a shift to public forms of transport and improve multimodality, or to provide financial support in order to address social aspects concerning low and middle-income transport users.</p>	<p>of buildings, including the integration of renewable energies <i>both produced on-site and coming from the grid through the activation of their demand-side flexibility potential, local storage or bidirectional charging of electric vehicles in their garage, and the smart management of technical building systems and all decentralised energy resources in buildings</i> and related measures according to Articles 7(11), 12 and 20 of Directive 2012/27/EU [references to be updated with the revised Directive], as well as measures to provide financial support for low-income households in worst-performing buildings;</p> <p>(b) measures intended to accelerate the uptake of zero-emission vehicles or to provide financial support for the deployment of fully interoperable <i>smart and bidirectional</i> refuelling and recharging infrastructure for zero-emission vehicles or measures to encourage a shift to public forms of transport and improve multimodality, or to provide financial support in order to address social aspects concerning low and middle-income transport users.</p>	
	<p>Amendment to Decision 2015/1814 concerning the establishment and operation of a market stability reserve</p>	<p>smartEn Amendments (in bold and italic)</p>	<p>smartEn justification</p>

<p>Article 10d – Modernisation Fund</p>	<p>“2. At least 80 % of the financial resources from the Modernisation Fund shall be used to support investments in the following:</p> <p>(a) the generation and use of electricity from renewable sources;</p> <p>(b) heating and cooling from renewable sources;</p> <p>(c) the improvement of demand side energy efficiency, including in transport, buildings, agriculture and waste;</p> <p>(d) energy storage and the modernisation of energy networks, including district heating pipelines, grids for electricity transmission and the increase of interconnections between Member States;</p> <p>(e) the support of low-income households, including in rural and remote areas, to address energy poverty and to modernise their heating systems; and</p> <p>(f) a just transition in carbon-dependent regions in the beneficiary Member States, so as to support the redeployment, re-skilling and up-skilling of workers, education, job-seeking initiatives and start-ups, in dialogue with the social partners.”;</p>	<p>“2. At least 80 % of the financial resources from the Modernisation Fund shall be used to support investments in the following:</p> <p>(a) the generation and use of electricity from renewable sources;</p> <p>(b) heating and cooling from renewable sources;</p> <p>(c) the improvement of demand side energy efficiency, including in transport, buildings, agriculture and waste;</p> <p>(d) energy storage and the modernisation of energy networks, including district heating pipelines, grids for electricity transmission and the increase of interconnections between Member States;</p> <p><i>(e) the smartening of building and transport sectors to increase their demand-side flexibility potential and integration in the electricity system;</i></p> <p><i>(f) the support of low-income households, including in rural and remote areas, to address energy poverty, to modernise their heating systems, switch to electric mobility and reap the benefits of monetizing the flexibility of smart and bidirectional charging; and</i></p> <p><i>(g) a just transition in carbon-dependent regions in the beneficiary Member States, so as to support the redeployment, re-skilling and up-</i></p>	<p>Demand-side flexibility, as the most cost-efficient mean to achieve climate neutrality, shall be explicitly supported along with renewable and energy efficiency investments. This support scheme should go hand in hand with the deployment of renewable energy in the 10 lower-income EU Member States supported by the Modernisation Fund as it contributes to the penetration of more renewable electricity in these sectors.</p>
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		skilling of workers, education, job-seeking initiatives and start-ups, in dialogue with the social partners.”;	
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ENERGY PERFORMANCE OF BUILDINGS DIRECTIVE – (PLACEHOLDER)

The EPBD is part of 'Fit for 55' package and the coherence and alignment of the various pieces of legislation within the Fit for 55 need to be safeguarded.

About smartEn - Smart Energy Europe

smartEn is the European business association integrating the consumer-driven solutions of the clean energy transition. We create opportunities for every company, building and car to support an increasingly renewable energy system. Our membership consists of the following companies:



The positions expressed in this document represent the views of smartEn as an association, but not necessarily the opinion of each specific smartEn member.

For further information about smartEn, please visit www.smarten.eu