



# smartEn recommendations on the Electrification Action Plan

Position Paper

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**smartEn**  
SMART ENERGY EUROPE

## Introduction

The upcoming Electrification Action Plan is an important opportunity to step up efforts needed to accelerate the electrification of the EU's energy demand, especially considering recent years of stagnation.

However, the expected growth in the electrification of end-uses (now also including emerging sources of demand such as data centres), coupled with the intermittency of renewable energy sources and existing grid constraints, will substantially increase Europe's system flexibility needs across all timeframes, potentially raising system costs.

To achieve the Commission's target of 32% electrification by 2030 in a cost-efficient manner and remain on track towards the EU objective of carbon neutrality by 2050, the electrification of demand must be flexible wherever possible.

Therefore, **smart electrification should serve as the guiding principle for all measures included in the Electrification Action Plan.**



## smartEn recommendations

<b>Removing Regulatory Barriers to Mainstream Flexible Demand and Market Integration</b>	Launch an EU Consumers' Flexibility Accelerator Strategy to close regulatory gaps
	Create synergies with ongoing policy initiatives to maximise impact
	Introduce national smart-electrification milestones through the Governance Regulation
<b>Break Down Economic Barriers to Boost Smart Electrification</b>	Map all funding opportunities to support upfront costs for flexible electricity-based assets
	Allow system users to lower their energy costs thanks to cost-reflective network tariffs
	Ensure fair taxation and levies for electricity
	Tie the deployment of flexible assets to the activation of flexibility
<b>Tap the Full Potential of Flexible Buildings</b>	Train stakeholders in the building sector to champion flexible solutions
	Empower local public entities to lead by example
	Make District Self-Balancing (DSB) the norm for local energy communities
	Reiterate the importance of the Smart Readiness Indicator (SRI)
<b>Keep Transport Electrification Moving</b>	Leverage the upcoming Clean Corporate Vehicles Initiative to promote EVs uptake
	Require Member States to publish unified, annually updated mobility roadmaps
	Ensure the public sector leads by example in e-mobility
<b>Make EU Industry Competitive, Electrified, and Flexible</b>	Increase awareness of demand-response potential in industry
	Design funding opportunities to recognise and support flexible industries
	Promote monthly and ideally 24/7 Guarantees of Origin (GOs) in Power Purchase Agreements (PPAs) as well as geographic matching
	Harness flexibility support schemes to maximise industrial flexibility, including through storage deployment

## 1. Cross-sectoral measures: Removing Regulatory Barriers to Mainstream Flexible Demand and Market Integration

The Electrification Action Plan should drive the removal of persistent regulatory obstacles to the smart electrification of the energy system.

As a priority, it should commit to:

- **Launch an *EU Consumers' Flexibility Accelerator Strategy* to close regulatory gaps**

Many key levers to support the Flexible Demand Management Industry (FDMI) are already in place, but consistent and complete implementation of relevant provisions remains insufficient<sup>1</sup>. In its *Communication on Implementation and Simplification*<sup>2</sup>, the European Commission has identified several tools – such as implementation dialogues and strategies, expert groups, *ad hoc* task forces – that could be leverage to tackle such remaining regulatory barriers.

An *EU Consumers' Flexibility Accelerator Strategy* could centralise these efforts at the European level in close collaboration with Member States and relevant stakeholders<sup>3</sup>. Simultaneously, establishing *National Tripartite Dialogues on Flexible Demand*, involving national ministries, system operators, and market participants, could complement these efforts and further advance this objective at the national level<sup>4</sup>.

- **Create synergies with ongoing policy initiatives to maximise impact**

To deliver tangible results for the FDMI, the Electrification Action Plan should actively coordinate with, and when needed complement, other ongoing policy initiatives, notably the Grids Package and the revision of the Energy Security Framework.

Along with the Grids Package, the plan should ensure that grid connections for flex-ready consumers are prioritised. Connection times should be shortened for flex-ready consumers, proportionally to their potential contribution in providing flexible, behind-the-meter

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<sup>1</sup> This refers in particular to the implementation of the revised Electricity Market Design (2024), but also elements of the Clean Energy Package (2019) which have not been yet implemented and are further detailed in the forthcoming Network Codes for Demand Response (NC DR). Similarly, decarbonisation efforts in the building and transport sectors will slow down if the implementation of relevant Fitfor55 files is not accelerated. For more information, please see smartEn Implementation Guidebook (2024).

<sup>2</sup> EC Communication on *A Simpler and faster Europe: Communication on implementation and simplification* (February 2025).

<sup>3</sup> For more information, please see our smartEn position paper on *The Contribution of Demand-Side Flexibility to EU Competitiveness and Affordability* (February 2025).

<sup>4</sup> For more information, please see the *Flexible Demand Accelerator Pledge* (September 2025).

decentralised energy resources (DERs) volumes. This is justified by the fact that they can help alleviate network constraints rather than add to them.

Along with the revision of the Energy Security Framework, the plan should support the removal of barriers preventing DSF participation in Capacity Remuneration Mechanisms (CRM), which remain overly focused on supply-side resources. Additionally, current adequacy assessments should be improved to accurately capture the proactive contribution DSF can make in preventing crisis situations<sup>5</sup>.

- **Introduce national smart-electrification milestones through the Governance Regulation**

To ensure a cost-effective decarbonisation, Member States should strive ‘not only’ to electrify demand but also increase market-based volumes of flexible electrified demand whenever possible. The upcoming revision of the Governance Regulation is an opportunity to embed this approach. Member States should be required to include concrete milestones for smart electrification in their National Energy and Climate Plans (NECPs) and track progress through clear metrics (e.g., volumes of DR capacity and/or activation for each country). These milestones, reflecting Member States’ national circumstances and needs, should also align with the national targets for non-fossil flexibility, which Member States might define by 2027 under the revised Electricity Regulation (Art. 19e and 19f).

## 2. Cross-sectoral measures: Break Down Economic Barriers to Boost Smart Electrification

The Electrification Action Plan should streamline all funding opportunities available to tackle the economic barriers that are still hampering the electrification of end-uses.

Therefore, the Action Plan should:

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<sup>5</sup> In its recent report on *Security of the EU Electricity Supply (2025)*, ACER recommends removing barriers for DERs to participate in CRM and integrating flexibility measures into capacity measures or at least better aligning them.

- **Map all funding opportunities to support upfront costs for flexible electricity-based assets**

Upfront costs for deploying flexible electricity-based assets remain prohibitive for most consumers. The Electrification Action Plan should provide Member States with a comprehensive overview of possible measures to tackle this, including via public funding at EU or national level or through alternative mechanisms such as guarantees for low-interest loans or EU-led initiatives that mobilise private investment.

In addition to financial support, the European Commission should assess how social leasing programs (e.g., for EVs or HPs) have been implemented across the EU and promote the sharing of best practices among Member States. These programmes could help vulnerable households, as well as small businesses with limited investment capacity, to engage in the energy transition and benefit from participating in flexibility services, with initial costs recouped over time once the upfront investment barrier is overcome.

- **Allow system users to lower their energy costs thanks to cost-reflective network tariffs**

Cost-reflective network tariffs can complement time-varying energy pricing plans, allowing consumers to benefit more easily from electricity at low wholesale price periods and helping avoid unnecessary network overbuilding through better local coordination. Building on the recommendations by ACER and the European Commission on this issue<sup>6</sup>, the Electrification Action Plan should encourage Member States to explore ways to gradually improve tariff designs as electrification progresses.

Yet, two important considerations apply. First, network tariff design is a politically sensitive matter and requires careful stakeholder engagement, including an evaluation of how different tariff structures affect various stakeholders. Second, while cost-reflective tariffs can help unlock additional consumer flexibility, they should complement – not replace or discourage<sup>7</sup> – other flexibility mechanisms, notably market-based procurement of flexibility<sup>8</sup>.

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<sup>6</sup> ACER's principles for fair and cost-reflective electricity network tariffs ([March 2025](#)) and EC Communication on future proof network charges for reduced energy system costs ([July 2025](#)).

<sup>7</sup> For instance, in Belgium, installing a BESS on the high-voltage grid grants market operators exemptions from certain charges, enabling the business case for providing ancillary services. On the low-voltage network, however, these exemptions do not apply which – combined with additional burdens such as double taxation – create barriers that hinders the business case for certain flexibility market actors, such as Virtual Power Plant (VPP) providers.

<sup>8</sup> For more information, please see the FTI report on *A Roadmap for Cost-Reflective Electricity Network Tariffs in the EU* ([March 2025](#)).

- **Ensure fair taxation and levies for electricity**

Several outstanding issues related to electricity taxes and levies continue to hinder the electrification of end uses. For instance, electricity bills often remain high even when energy costs are falling, primarily due to elevated taxes and levies on electricity compared with other energy carriers<sup>9</sup>, including – in some Member States – non-electricity related taxes. Another example is the double charging for EV storage during both charging and discharging, which adds complexity and costs to the V2G business models. Progress on the revision of the Energy Taxation Directive should be accelerated to address this imbalance. In the absence of progress on the Directive and building on the EC’s recommendations on tax incentives published in July 2025<sup>10</sup>, Member States should be strongly encouraged to resolve these blockers unilaterally, as they already have the full competence to do so.

- **Tie the deployment of flexible assets to the activation of flexibility**

Financial support to roll out flexible assets is important, but additional consumer savings and system benefits are realised only when flexibility is activated. Whenever feasible, support for the installation of flexible assets or the ‘flexibilization’ of existing ones<sup>11</sup> should be complemented by proportionate requirements for their participation in flexibility markets, ensuring that public funding translates into tangible system-level benefits.

- **Keep investing in research and innovation**

Decarbonising the EU economy requires not only accelerating the deployment of existing solutions but also strong support for research, innovation, and testing to develop the technologies of tomorrow. Adequate funding in the upcoming Multiannual Financial Framework (MFF) should back these efforts, with programs like Horizon Europe, Innovation Fund and Digital Europe remaining essential to scale future-proof flexible solutions. To maximise effectiveness,

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<sup>9</sup> Fossil fuel subsidies in Europe remain high, slowing down the decarbonisation of the EU economy. Although these subsidies should be phased out by 2030, most Member States still lack concrete plans on how to do so. For more information, see data from the European Environment Agency ([January 2025](#)).

<sup>10</sup> EC Recommendations on tax incentives to accelerate the Clean Industrial Transition ([July 2025](#)).

<sup>11</sup> By ‘flexibilization’, we refer to upgrading existing assets so they can operate in a flexible way. For example, in the building sector, some installed devices might not be manufactured to provide flexibility, but can still do so through the use of Energy Management System (EMS), or other technical solutions (e.g., dedicated metering devices (DMDs) and/or smart meter). While this is possible in principle, it might involve additional costs for consumers.

the funding architecture should be kept simple and easy to access and manage, especially for smaller actors like smart-up and scale-up companies.

### 3. Sector-specific measures: Tap the Full Potential of Flexible Buildings

There remains a wide gap between the flexible assets already installed in buildings and the actual flexibility they deliver.

To unlock this untapped potential, the Electrification Action Plan should:

- **Train stakeholders in the building sector to champion flexible solutions**

Member States should establish mechanisms (e.g., training, public campaigns, capacity building activities) to enable all actors within the building ecosystem to help consumers make informed investment decisions. Among others, this includes: building managers, who should provide accurate guidance to multi-family building owners to invest into clean and flexible technologies; real estate managers, who should prioritise investments in DERs and flexibility schemes, improving the return on investment of installed assets.

- **Empower local public entities to lead by example**

Local public entities (regions, cities, municipalities) can play a pivotal role in advancing the smart electrification of the building stock. For example, they can facilitate bulk procurement of flexible devices for citizens or provide them with guidance on flexible solutions through one-stop shops (OSS). They can also ‘lead by example’ by deploying flexible assets in public buildings and/or actively participating in flexibility schemes to reduce the carbon footprint of the public building stock. Additionally, when defining local decarbonisation strategies, cities and municipalities could coordinate closely with local DSOs to develop joint local plans and support investments in smart electrification. Integrating flexibility potential into local planning will help reduce societal system costs and optimise the use of existing grid infrastructure, benefitting the broader local community.

- **Make District Self-Balancing (DSB) the norm for any local energy communities**

DSB schemes are a practical and already scalable solution that benefit system operators, consumers and market players within a clearly defined geographical area. They should be consistently implemented by market players in response to needs identified by DSOs, municipalities and local authorities to prevent local congestion in an increasingly electrified system – while ensuring adequate consumer protection<sup>12</sup>.

- **Reiterate the importance of the Smart Readiness Indicator (SRI)**

Despite its importance, limited awareness risks diminishing the SRI's perceived relevance in driving buildings' electrification on the ground. The Action Plan should encourage Member States to continue adopting and applying the SRI as a key tool to advance the smart electrification of the building stock, including by building on ongoing EU and national projects and initiatives.

#### **4. Sector-specific measures: Keep Transport Electrification Moving**

A stable and forward-looking regulatory framework is essential to sustain momentum in transport electrification. While Europe's mobility future is clearly electric, practical hurdles still prevent large-scale uptake of e-mobility.

To overcome these, the Electrification Action Plan should:

- **Leverage the upcoming Clean Corporate Vehicles Initiative to promote EVs uptake**

Corporate fleets make up six out of ten new car sales in the EU, giving them a pivotal role in transforming Europe's vehicle stock. The European Commission should consider setting binding targets for zero-emission vehicles and encourage the uptake of smart and bi-directional charging for corporate fleets, enabling fleet managers to reduce operational costs and ensuring long-term regulatory consistency for businesses. Achieving this, however, will require progress

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<sup>12</sup> For more information, see smartEn white paper on *District Self-Balancing* ([July 2023](#)).

on the remaining building blocks for the uptake of EVs and smart/bi-directional charging in corporate fleets – e.g., blockers in grid and network codes, taxation, lack of standardised communication protocols, fragmented connection requirements, type approval<sup>13</sup>.

- **Require Member States to publish unified, annually updated mobility roadmaps**

Reliable data is essential to identify existing challenges and propose solutions to accelerate the electrification of transport. Member States should provide such data through roadmaps linking vehicle targets, grid reinforcements, depot needs, and corridor sites, allowing DSOs and operators to sequence investments efficiently.

- **Ensure the public sector leads by example in e-mobility**

Like the corporate sector, public authorities can play a key role in driving e-mobility adoption. The Electrification Action Plan should explore the feasibility of creating lead markets for smart charging and V2X technology in public fleets. This would position public authorities as first movers, while public procurement at scale would help generate the volumes needed for industry to achieve economies of scale.

## 5. Sector-specific measures: Make EU Industry Competitive, Electrified and Flexible

The benefits of DSF are well recognised in buildings and mobility but less so in industry. This despite the fact that smart electrification is already happening on the ground, yielding significant results in reducing energy costs, creating new revenue streams for industries and enhancing their competitiveness<sup>14</sup>.

To unleash industrial flexibility, the Electrification Action Plan should:

- **Increase awareness of demand-response potential in industry**

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<sup>13</sup> For more information, see smartEn position paper on *Smart and V2X-ready Corporate Fleets* ([September 2025](#)).

<sup>14</sup> See some examples from our members Sympower ([here](#)) and EnergyPool ([here](#)).

Knowledge gaps about industrial smart electrification persist. This is partially due to a broader scepticism about the feasibility of transitioning from fossil fuels to electrification of industrial heat – even though existing direct electrification technologies can already cover more than 60% of the industrial demand that remains not electrified in Europe, rising to as much as 90% by 2035<sup>15</sup>. In practice, smart electrification is not only possible today for many industrial sectors but can also support cost-efficient decarbonisation by generating new revenue stream for them<sup>16</sup>. Public communication campaigns or the inclusion of flexibility requirements in energy audits can raise awareness and encourage adoption of flexibility solutions by industries.

- **Design funding opportunities to recognise and support flexible industries**

Industries should be supported when they provide flexibility, as reducing electricity consumption during peak demand periods avoids higher system costs and emissions. For example, the upcoming pilot auction on electrifying industrial heat under the Innovation Fund (*IF25 Heat Auction*) allows bidders to price flexibility solutions into their bids and receive higher support. This initiative should be expanded and made permanent, and this approach of rewarding flexibility when available should be replicated in other funding opportunities.

- **Promote monthly and (ideally) 24/7 Guarantees of Origin (GOs) in Power Purchase Agreements (PPAs) as well as geographic matching**

Increasing renewable-based generation is important, but not sufficient on its own. Policies should focus on incentivising the use of clean electricity when available and reduce curtailment through flexible consumption. Monthly and (ideally) 24/7 GOs in PPAs should be actively used to enable EU industrial customers to match variable clean generation with flexible consumption and storage. Geographic matching should also be encouraged to ensure not only temporal but also spatial alignment of production and consumption. Ignoring these locational aspects in PPAs risks undervaluing the benefits offered by flexibility providers who deploy local flexibility to address congestion and regional/national supply-demand imbalances.

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<sup>15</sup> For more information, see assessment by Agora Industry ([June 2024](#)). Moreover, a recent study by McKinsey ([April 2025](#)) points out that around 90% of the heat demand in sectors other than the 'big four' (i.e., cement, steel, plastics and ammonia) is low or medium-temperature heat, for which electrification technologies are already available today. The study also notes that the electrification of this demand will unlock further opportunities for industrial DSF.

<sup>16</sup> For more information, see Compass-Lexecon study on the *Business Case for Flexibility Provision in Energy Intensive Industries* ([September 2025](#)).

- **Harness flexibility support schemes to maximise industrial flexibility, including through storage deployment**

Member States should facilitate effective market access for industrial flexibility – not only by establishing the required legal provisions but also ensuring that technical requirements (e.g., ramping capabilities, prequalification criteria) are compatible with industrial assets. When necessary and to maximise industrial flexibility, Member States should introduce flexibility support schemes, as foreseen by the revised Electricity Market Design framework and the Clean Industrial Deal State Aid Framework (CISAF), guaranteeing that industrial DSF can participate in them.

The deployment of energy storage (electrical, process, and thermal storage), alongside DSF, is essential for a resilient decentralised energy system. Therefore, investments must be made to replace and deploy new flexible assets and create enabling frameworks to activate their flexibility in a market-based way.

To that extent, grid operators should attempt to procure flexibility services from a broad range of providers, such as batteries, storage technologies, DSF, aggregators – rather than prioritising the development of their own ‘grid booster’ batteries and solutions (i.e., in front of the meter). Grid operators developing and operating their own storage assets risks undermining trust and disrupting the business models of independent flexibility projects not backed by grid operators. It might also increase overall system costs as storage assets owned and operated by grid operators are typically unavailable for providing other system services, therefore raising the costs at which flexibility is provided.

## About smartEn - Smart Energy Europe

smartEn is the European association of the Flexible Demand Management Industry. We aim to create opportunities for every company, building, and car to support an increasingly renewable energy system.



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

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