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# Policy recommendations on The Alternative Fuels Infrastructure Regulation trilogue negotiations

smartEn comparative analysis of the positions of the 3  
European institutions

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## Introduction

The current document aims to provide a comparative analysis on the co-legislators positions for the Alternative Fuels Infrastructure Regulation (AFIR), giving recommendations for the trilogue negotiations<sup>1</sup>.

To guide policymakers during the negotiations, smartEn adopted **policy recommendations** based on **three principles** and classified in provisions to **SUPPORT**, **IMPROVE**, **OPPOSE** for the following key, selected articles:

- Art. 2 (Definitions)
- Art. 3 (Targets for Light-Duty Vehicles)
- Art. 4 (Targets for Heavy-Duty Vehicles)
- Art. 5 (Recharging Infrastructure)
- Art. 13 (National Policy Frameworks)
- Art. 14 (Reporting)
- Art. 16 (Progress tracking)
- Art. 18 (Data provisions)
- Annex I (Reporting)
- Annex II (Technical specifications)
- Annex III (Reporting requirements on deployment of Electric Vehicles and recharging infrastructure)

AFIR is a crucial piece of legislation to implement an ambitious rollout of publicly-accessible EV charging infrastructure required to enable EVs to support Europe's energy and climate objectives in a cost-effective way.

AFIR should help transform EVs in energy assets capable of supporting the integration of variable renewable electricity into an efficient energy system and the electrification of uses. This can be achieved by **unlocking their flexibility potential thanks to smart and bidirectional charging**. This would ensure EVs can increase, lower or shift their electricity consumption in a time-dependent way to adapt to the renewable electricity generation while shielding EV drivers from volatile energy prices, avoiding unnecessary grid reinforcements and reducing the EU energy dependency towards gas imports.

As calculated by DNV for smartEn in the context of the full activation of consumers' flexibility in the EU in 2030<sup>2</sup>, the contribution of EVs would be the following:

- smart and bidirectional charging could amount up to €10 billion of direct financial benefits per year for consumers.
- smart charging could provide 106,3 TWh in a year for both upward<sup>3</sup> and downward<sup>4</sup> flexibility
- bidirectional charging could provide another 21 TWh of upward flexibility and 23,7 of downward flexibility in the year 2030

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<sup>1</sup> This document builds on smartEn previous [position](#) and [amendments suggestions](#) on the Commission's proposal.

<sup>2</sup> [https://smarten.eu/wp-content/uploads/2022/09/SmartEN-DSF-benefits-2030-Report\\_DIGITAL.pdf](https://smarten.eu/wp-content/uploads/2022/09/SmartEN-DSF-benefits-2030-Report_DIGITAL.pdf)

<sup>3</sup> Reducing consumption or increasing production

<sup>4</sup> Increasing consumption or decreasing production

## TWO KEY PRINCIPLES TO GUIDE SMARTEN POLICY RECOMMENDATIONS

The following principles inspire smartEn recommendations in view of the finalisation of the AFIR revision:

### PRIORITISE THE SMART ELECTRIFICATION OF THE TRANSPORT SECTOR AND INCENTIVISE EVs TO ACTIVATE THEIR DEMAND-SIDE FLEXIBILITY

While the direct electrification of road transport is the most cost-effective way to achieve Europe's energy and climate objectives, the accelerated uptake of EVs will significantly impact electricity consumption patterns and create an overall increase in electricity demand, that must not happen during peak-time periods. It is therefore essential to manage charging smartly so that EVs do not jeopardise the stability of the electricity system and can contribute to its optimisation, in particular in congested zones and during peak hours.

smartEn supports **mandating smart recharging for charging points** in art 5. This is a first step to unleash the flexibility of EVs. This should apply to all new and refurbished normal charging points, especially for long-duration parking. Both the Parliament and Council support this ambition which is very welcome. **Such requirements should be replicated in the targets for Light-Duty Vehicles and Heavy-Duty Vehicles in art 3 & 4** for the sake of consistency.

**Further incentives should be dedicated to support the introduction of bidirectional charging** functionalities in article 5. Bidirectional charging goes one step further than smart charging by contributing to grid optimisation while enabling consumers to be rewarded for their active participation in the energy system.

The rollout of these two technologies would also result in the most cost-effective way to apply the Energy Efficiency First Principle at system-level where EVs can help integrate cost-effectively a growing share of renewable energy while contributing to reducing the consumers' energy bills. With smart and bidirectional charging, EVs become 'battery on wheels' able to respond to external signals from the system.

### RECOGNISE AND VALORISE THE CONTRIBUTION OF SMART AND BIDIRECTIONAL CHARGING IN SUPPORTING AN EFFICIENT ENERGY SYSTEM

smartEn acknowledges the requirement from Member States to report to the Commission in art 13, 14 and 16 on progress made regarding the charging infrastructure rollout. This assessment shall take into account **inputs gathered from all relevant stakeholders through a consultation**, as they are the ones which know the best the state of the market. This would ensure an **appropriate evaluation of smart and bidirectional charging functionalities**, fully considering their uptake and associated benefits.

**Access to transparent, relevant and secured data** coming from the EV or the energy system, in line with the cybersecurity requirements, is a prerequisite to fully unlock and recognise the benefits of smart and bidirectional charging provided to the energy system and to ensure consumers are well informed when charging their vehicles.. **Data sharing** should therefore be ensured in art 18 to **enable consumers and third parties** such as energy services providers to access relevant data for flexibility to optimise charging operations in a way that benefits the system and consumers. Consumers and relevant stakeholders should have access to data regarding the **carbon content and renewable share of the electricity they are charging** their cars with, in line with article 20a§1 of the revised Renewable Energy Directive.

AFIR is one of the pieces of legislation addressing charging infrastructure, hence enabling EVs to become flexible assets. It needs to be consistent with the Energy Performance of Buildings Directive (EPBD) and the Renewable Energy Directive (RED) to ensure that all EVs, regardless of where they are charged, can provide benefits for the system, consumers and the environment thanks to the activation of their flexibility potential.

## **Article 2: definitions**

*It is important to keep a simple definition of smart charging, aligned with RED and the EPBD, based on real-time response to external signals and on consumer's consent.*

- **SUPPORT** the definition of 'smart charging' (14l) from the European Commission
- **OPPOSE** the definition of 'smart charging' (14l) from the Council, as it risks to water down the real-time adjustment of the smart charging operation

## **Article 3: Targets for Light-Duty Vehicles (LDVs)**

*The decarbonisation of road transport needs to be done through targets that safeguard an ambitious rollout of charging points. This ambition needs to be accompanied with provisions incentivising the integration of EVs into the grid to avoid 1) additional stress and congestion to the energy system and 2) non-smart chargers to become stranded assets that prevent drivers from unleashing the flexibility of their vehicle. Smart and bidirectional recharging are the best technologies enabling the system integration of transport. Hence, the deployment of smart and bidirectional chargers should be incentivised for publicly accessible recharging points dedicated to LDVs, especially for long-duration parking*

- **SUPPORT** §1.1 2a (AM85) from the European Parliament which requires a sufficient number of public charging points in residential areas where vehicles typically park for extended periods of time
- **SUPPORT** §1.1(b) (AM86) from the European Parliament which ensures that a significant number of publicly-accessible recharging stations are enabled for smart and bidirectional charging as part of the LDVs vehicles targets.

## **Article 4: Targets for Heavy-Duty Vehicles (HDVs)**

*As for LDVs, smart and bidirectional recharging can play a valuable role for heavy-duty vehicles, especially since they represent 25% of the EU road transport CO2 emissions. It is particularly relevant when HDVs are parked for a long period as this is the moment where they can provide key services to the grid. HDVs vehicles may park for long durations at publicly accessible charging points, e.g., on logistic platforms, harbours, overnight along motorways etc.*

- **IMPROVE** §1c (AM122) from the Parliament by requiring System Operators to ensure grid connection and grid capacity by taking full account of the procurement of flexibility services
- **SUPPORT** §1.4(c) (AM116) from the European Parliament which ensures that by 2028, 2 recharging stations dedicated to HDVs in each parking area with a power output of at least 100kW are installed and enabled for smart and bidirectional charging
- **SUPPORT** §1(c a) (AM117) from the European Parliament which ensures that by 2031, 4 recharging stations dedicated to HDVs in each parking area with a power output of at least 100kW are installed and enabled for smart and bidirectional charging

## **Article 5: Recharging infrastructure**

*This article is key in providing consumers further incentives for a smooth recharging process. They should be able to receive information on the electricity content used for their charging process, in line with article 20a§1 of the revised Renewable Energy Directive on data sharing by system operators. Furthermore, the smart recharging mandate would ensure additional benefits for consumers, the stability of the grid, and the environment.*

- **SUPPORT** §6a (AM141) from the European Parliament which mandates Operators of smart and bidirectional recharging points to make available information received from Transmission System Operators, energy suppliers or via their own electricity on the share of renewables and greenhouse gas content in the transmission system, at real-time intervals. **SPECIFY** that such information shall not create disproportionate and burdensome costs to the Charging Point Operator, and shall not apply to Operators that already offer real-time Guarantees of Origins.

- **SUPPORT** §8 (AM143) from the Parliament which mandates smart recharging for all newly built or renovated normal recharging points but **IMPROVE** by ensuring additional support to bidirectional charging functionalities under the assessment of relevant stakeholders, as they provide an additional set of benefits compared to smart recharging and reward consumers for their active participation in the energy system.

### **Article 13: National Policy Framework (NPF)**

*National policy frameworks allow Member States to report on and further assess the impact of the recharging infrastructure deployment. Such consultation should involve all relevant stakeholders to holistically assess the benefits of bidirectional charging for the system, the environment and EV drivers, while applying the Energy Efficiency First Principle at system-level. It also needs to keep consistency with the targets set in articles 3 & 4 as well as the requirements in article 5.*

- **SUPPORT** §1.2(a a) (AM180) from the European Parliament which indicates that measures taken in the NPF shall be in accordance with the Energy Efficiency First Principle, mandating Member States to provide an account for how the principle has been applied when making planning and investment decisions related to the deployment of recharging infrastructure
- **SUPPORT** §1.2 (k c) (AM194) from the European Parliament which inserts measures as part of the NPF for Citizen and Renewable Energy Communities in deploying recharging points
- **SUPPORT** §3a from the European Parliament mandating Member States to assess and report on the implementation by Charging Point Operators of article 5, which mandates smart recharging. Member States are empowered to take the appropriate measures based on the assessment
- **SUPPORT** §1i from the European Commission which requires 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. **COMPLEMENT** by including the provision set in art 14.3 which provides better information and set a detailed timeline for assessing the bidirectional charging deployment. **OPPOSE** §1 (7a) from the Council which specifies ‘where such measures are planned or have been adopted by the Member State’ as it waters down measures necessary for the deployment of bidirectional recharging points

### **Article 14: Reporting**

*In line with article 13, this article should allow for a broader consultation of stakeholders when assessing the benefits of smart and bidirectional charging. Several positive provisions set in article 14 shall be replicated in article 13, in order to be consistent with article 5.*

- **SUPPORT** §3 (AM216) from the European Parliament which reduces the timeline to a year to assess how the deployment and operation of recharging points could enable EVs to further contribute to the flexibility of the energy system, specifying that all types of recharging points including smart and bidirectional recharging points, of all outputs should be covered. The assessment shall also include now inputs from all relevant stakeholders including Charging Point Operators, System Operators, consumer organisations and solutions providers. **IMPROVE** by including this provision under article 13.1i as the NPF already sets some specific requirements supporting the deployment of smart and bidirectional charging
- **SUPPORT** §4 (AM217) from the European Parliament which reduces the timeline to a year and adds ‘peak shaving’ as part of the assessment that SOs shall conduct for the contribution of bidirectional charging but **IMPROVE** by involving all relevant stakeholders i.e., flexibility and digital solution providers, aggregators, CPOs in this assessment.
- **OPPOSE** §4 from the Council which restricts the assessment of bidirectional charging from SOs to private areas

### **Article 16: Progress tracking**

*As of now, Member States are not mandated to report on the number of smart and bidirectional chargers in their territory. It results in a lack of awareness for stakeholders (System Operators, aggregators, flexibility and digital solution providers etc.) concerning the number of EVs which can provide grid services.*

- **IMPROVE** §1 by specifying that Member States shall also report to the Commission the total number of smart and bidirectional recharging points in both public and private environments by 28 February of the year following the entry into force of this Regulation

### **Article 18: Data provisions**

*Data sharing to third parties is a prerequisite to harness the EV's flexibility. This includes data on smart and bidirectional charging, as well as on the renewable and GHG content should be shared, in order to be consistent with provisions set in article 5 and also with article 20a of the revised Renewable Energy Directive 2021/0218.*

- **SUPPORT** §2.c (iii a) (AM245) from the European Parliament which requires the share of renewables and GHG content to be shared, if available, as part of the dynamic data
- **IMPROVE** §2.c (iii b) (AM246) from the European Parliament by specifying that the requirement on recharging points to indicate whether or not they are enabled for bidirectional charging, is part of the static data and not of the dynamic data
- **IMPROVE** §2.c (iii c) (AM247) from the European Parliament by specifying that the requirement on recharging points to indicate whether or not they have the capability of smart charging, should be part of the static data and not of the dynamic data

### **Annex I – Reporting**

*Annex I specifies the elements that should be included in the national progress report that Member States shall submit as required in article 14. These elements should be made consistent with the provisions sets in article 14 to ensure the consideration of smart and bidirectional recharging in the Member States' reporting*

- **SUPPORT** §1.1.b indent 11b (AM267) from the Parliament, which specifies that targets for 2025, 2030, and 2035, and data on the vehicle update projections as part of the progress report should be disaggregated for normal, smart and bidirectional charging capability as this allows to account for the deployment and progress for each type of charging capability.
- **SUPPORT** §1.7a (AM272) from the Parliament which requires an explanation of how the Energy Efficiency First Principle has been taken into account for vehicle uptake projections, target setting, estimation of utilisation rates, the development and implementation of policy measures supporting the NPF and the associated public investments.

### **Annex II – Technical specifications**

*The technical specifications for V2G are already encompassed in the ISO 15118-20 standard already published in April 2022. 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. This would support the regulatory and technical requirements to integrate EVs as flexible assets and ensure an interoperable, seamless and secure charging system.*

- **IMPROVE** §2.1 by specifying that technical communications regarding the communication between the electric vehicle and the recharging point for the V2G communication shall be based on the ISO 15118-20 standard.

### **Annex III – Reporting requirements on deployment of Electric Vehicles and recharging infrastructure**

*A reporting from Member States based on the disaggregation of charging points i.e., depending on their power outputs, their category, should also encompass the number of smart and bidirectional charging points.*

- **SUPPORT** point 3 indent 4a (AM273) from the Parliament which requires the disclosure by Member States of the number of bidirectional charging points divided in AC or DC recharging points categories based on their power outputs

## 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.

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