

Questions and answers on the regulation on the deployment of alternative fuels Infrastructure (EU 2023/1804)

General

[Regulation \(EU\) 2023/1804](#) of the European Parliament and of the Council of 13 September 2023 on the deployment of alternative fuels infrastructure, and repealing Directive 2014/94/EU (AFIR) is a fundamental cornerstone to support the transition towards more sustainable modes of transport, and to put the Union on track for the full decarbonisation of the transport sector by 2050.

The uniform application of AFIR throughout the Union is essential to provide seamless passenger and freight zero-emission road transport, avoid barriers to trade and to allow manufacturers and operators of alternative fuels infrastructure to attain economies of scale.

To that end, the present Questions and Answers have been prepared by the European Commission services to address specific technical questions and comments asked by members in the context of the Sustainable Transport Forum, which is the main expert group of the European Commission in the field of alternative fuels infrastructure, and by other market actors.

These Questions and Answers were prepared by the services of the Directorate-General for Mobility and Transport of the European Commission and does not

commit the European Commission as such. Only the Court of Justice of the European Union is competent to authoritatively interpret Union law.

Article 2 - Definitions

Question 2.1: Article 2(8) Automatic authentication. What is meant by telematics?

Telematic means the digital exchange of information. In this case it could be understood as the digital exchange of information between the vehicle and the recharging point, for example through wireless communication.

Question 2.2: Article 2(17) digitally connected recharging point

Is bi-directional communication with the grid equivalent to bi-directional recharging? Can you clarify the meaning of 'to measure electricity flows' under Article 2(17)

- Bi-directional communication and bi-directional recharging refer to different aspects:
 - Bi-directional communication with the grid means that the recharging point can exchange information in both directions with the electricity grid. In the case of bi-directional communication with the vehicle, it means the recharging point can exchange information in both directions with the vehicle.
 - Bidirectional recharging refers to a smart recharging operation where the direction of the electricity flow can be reversed (see definition in Art 2(11)).
- 'to measure electricity flows' means the capability to quantify how much electric power is circulating through the recharging point.

Question 2.3: Does the definition in Art 2(17) on digitally connected recharging point implies that the Transmission System Operator (TSO) and Distribution System Operator (DSO) will have visibility of the real time electricity flows at each recharging point? Does this also imply that the operator will be able to initiate "start and stop" actions?

The definition only explains the term "digitally connected recharging point" while Article 5(7) stipulates that the operators of recharging points shall ensure that all publicly accessible recharging points have to be digitally connected by 14 October 2024. AFIR does not introduce a right for DSOs/TSOs to have accessibility to real time electricity flows from the recharging infrastructure. AFIR also does not grant the general right that DSOs/TSOs can "start and stop" a recharging session at any time.

Question 2.4: Which entity controls the recharging point?

It follows from the definition of "operator of a recharging point" (Art 2(39)) that it is the operator who is responsible for the management and operation of the recharging point.

Question 2.5: Article 2(36), (39) and (53): Could you differentiate between the services that are provided by a mobility service provider (MSP) and an operator of a recharging point (CPO)? Which entity provides the recharging service as defined in Art 2(53)?

The recharging service is provided by the operator of a recharging point. In case of contract-based payment, the recharging service is provided by the operator of a recharging point on behalf of a mobility service provider.

Question 2.6: Article 2(25) e-roaming. Does the definition of e-roaming remain the same / also apply to situations where the operator and the mobility service provider are affiliated (e.g. are part of the same vertically integrated company)?

The definition introduces the concept of e-roaming and refers to the roles of operators of recharging and refuelling points and mobility service providers. The operator of a recharging point and a mobility service provider may or may not be affiliated.

Question 2.7: Article 2(45) publicly accessible / Recital 11: Could you specify how the 'limited and determinate group of persons' is characterized? For example, do the persons have to be known by name/personally?

A limited and determinate group of persons is a group of identified persons that are specifically authorised by the owner or tenant of the property on which the recharging point is located to access that property for other purposes than using the parking area or the recharging infrastructure. Members of the group have to be identifiable for this purpose. Such a limited and determinate group of persons could for example be residents of an apartment building or employees at an office building.

Question 2.8: Which types of limitations or conditions in terms of access to a site should be disregarded when defining public accessibility (limitations of use, i.e. opening hours or limitations of user group, i.e. employees or customers)?

The opening hours are irrelevant when determining if a recharging point is accessible to the public. Only where the access to the property on which the recharging point is located is reserved for a "limited and determinate group of persons" [with a specific authorisation relating to other purpose than just parking or using the recharging infrastructure,] can the recharging point be considered as non-publicly accessible.

Limiting a parking area where recharging points are located to a limited and determinate group of persons requires that the parking area is not accessible to non-authorised users (see also answer to question 2.7). This includes cases where there is a legal prohibition to park (e.g. for bus or taxi stops).

An example of a "limited and determinate group of persons" are employees, as they are individually known to their employer and associated owner/tenant of the parking area and have received a specific long-term authorisation to use the parking area of that property. However, a general group of persons that can become customers at any moment cannot be considered a "limited and determinate group of persons".

Question 2.9: Are there any limitations in terms of time availability? For example, if a premise had a recharging point that was available to the public during the day (e.g. 8 am – 8 pm), would that be counted as within the scope of publicly accessible.

There are no limitations in terms of time availability. Limiting the operating hours (for example on supermarket parking areas that can only be used during the opening hours of the supermarket) does not affect the classifications of recharging points as “publicly accessible”.

Question 2.10: Does the concept of “publicly accessible” refer to the accessibility of the parking spot from which the recharging point can be used or to the decision of the owner/operator to only allow certain users to have access to the recharging point?

The concept of public accessibility refers to the possibility to have access to the parking area where the recharging or refuelling point is located. If that parking area is accessible to the general public and is not reserved to a “limited and determinate group of persons”, the recharging or refuelling point is therefore considered to be publicly accessible.

As follows from Article 2(45), a recharging point that is located at a site (such as parking area) which is open to the general public qualifies as a publicly accessible recharging point, irrespective of any limitations or conditions that may be imposed in terms of access to the site.

Question 2.11: Is it sufficient for a recharging point to be non-publicly accessible in case that the “determinate group of persons” is described via signs located directly at the parking area although this parking area remains accessible to the general public.

As long as the parking area is accessible to the general public, all recharging points located within this parking area are publicly accessible recharging points. Putting a sign has no influence on the assessment if the recharging point is accessible to the public in the meaning of the AFIR.

Question 2.12: Can a recharging point situated at a curbside parking spot in a public street which is open to the general public ever be restricted to a determinate group of users?

As long as the parking spot can be used by the general public, recharging points situated at this parking spot are always publicly accessible. Only when the curbside parking spot is restricted for the use of specific vehicles or a limited and determinate group of users can the recharging points be considered non publicly accessible, for example when the curbside parking is reserved for public transport vehicles, taxis, police cars or car sharing vehicles.

Question 2.13: Are recharging points in paid parking lots considered publicly accessible?

A recharging point is publicly accessible if the parking area where the recharging station is located is accessible to the general public. It is irrelevant if a parking fee has to be paid for entering the parking area for assessing if a recharging station is publicly accessible or not.

Question 2.14: In case of larger garages where parts of the parking spaces are accessible to the public while others are reserved for (rented to) individuals or companies: Are recharging points located at parking spots that are reserved for / rented to individuals/companies publicly accessible?

Recharging points that are located in areas of a larger parking lot that can only be used by a "limited and determinate group of persons" (e.g. employees of the company renting that parking spot) are not publicly accessible. This is independent of the existence of any physical separation of the private parking area from parking areas for the public.

Question 2.15: Are recharging points on (private) residential properties publicly accessible?

In general, parking spaces (indoor and outdoor) of a residential property are reserved to the owners/tenants (i.e. a limited and determinate group of persons) of the property and cannot be used by the general public. Therefore, recharging points located on such properties are not considered to be publicly accessible unless the owner makes the parking spaces accessible to the general public.

Question 2.16: Are recharging points located at a company car park publicly accessible?

As long as the parking area from where the recharging points can be used is reserved for employees only (i.e. a limited and determinate group of persons), the recharging points are not considered to be publicly accessible.

Question 2.17: Are recharging points at restaurant parking, or in the parking area of a shop, publicly accessible, if they are only accessible to the clients of that restaurant or shop?

The parking areas on the premises of restaurant, shops, or similar entities offering goods or services are usually open to the public that intends to become a customer. As provided for in recital 11 of the Regulation, a recharging or refuelling point located on private property that is accessible to the public should be considered to be publicly accessible also in cases where access is restricted to a certain general group of users, for example to clients.

Question 2.18: Are safe and secure parking areas certified in accordance with Commission Delegated Regulation (EU) 2022/1012 (*) to be considered sites or premises that are open to the general public? Safe and Secure Truck Parkings work with identification at the gate to only provide access to authorized vehicles, so does alternative fuels infrastructure at these locations fall within the scope of the definition of 'publicly accessible alternative fuels infrastructure'?

(*) [*Commission Delegated Regulation \(EU\) 2022/1012*](#) of 7 April 2022 supplementing Regulation (EC) No 561/2006 of the European Parliament and of the Council with regard to the establishment of standards detailing the level of service and security of safe and secure parking areas and to the procedures for their certification

Articles 4(1)(e) and (f) clearly stipulate that publicly accessible recharging points need to be deployed in safe and secure parking areas. Those recharging points therefore have to meet all requirements applicable to publicly accessible recharging points.

Furthermore, and more generally, when a parking area is available to any member of the public that intends to become a customer of the parking and/or recharging or refuelling services, requirements for pre-booking and identification at the gate do not in themselves determine the existence of a "limited and determinate group of persons" with exclusive right to access that parking area. Safe and secure parking areas are accessible to any operator intending to make use of their services (and therefore not to a limited and determinate group of persons), and are therefore considered publicly accessible, irrespective of any requirement to book in advance or to identify at the gate.

Question 2.19: Under the Energy Performance of Buildings Directive(EU) 2018/844 (EPBD) also non-residential buildings with parking spaces, such as supermarkets etc. will need to build charging infrastructure. How does this relate to AFIR?

(*) [*Directive \(EU\) 2018/844*](#) of the European Parliament and of the Council of 30 May 2018 amending Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency

AFIR does not include obligations to deploy recharging stations at specific locations. Recharging points at supermarkets are considered publicly accessible under AFIR and therefore have to meet the corresponding provisions under Article 5 of AFIR and can be counted towards the targets under Article 3(1) of AFIR. EPBD introduces targets for recharging points in certain buildings. If those recharging points are considered to be publicly accessible, they have to meet the corresponding requirements and can be counted towards the targets under Article 3(1) of AFIR.

Question 2.20: Could certain types of public transport recharging infrastructure, for example opportunity recharging for electric buses, considered to be publicly accessible? While the recharging points in question are often located at major bus stops, only registered vehicles are authorised to use the bus stop.

Bus stops are not sites open to the general public. They are only accessible to vehicles that are authorised to use the bus stop. Therefore, recharging points installed to serve vehicles parked at a bus stop are not publicly accessible.

Question 2.21: Could you please clarify what is meant by "the applicable" use conditions of the alternative fuels infrastructure in Article 2 (45)

the applicable use conditions of the alternative fuels infrastructure in the context of Article 2(45) can relate to all aspects of the exact operation of the infrastructure, for example the available power output, price structure or payment methods offered. The logic here is that an operator cannot apply certain conditions for the use of the infrastructure and thereby affect the categorisation as a publicly accessible recharging point.

Question 2.22: Article 2(48), (51) , (52): What is the definition of, and the relationship between, "recharging point", "recharging station" and "recharging pool"?

Recital 10 describes in detail the relations *between*, "recharging point", "recharging station" and "recharging pool".

A recharging station is a physical installation that includes one or more recharging points.

A recharging pool refers to a "cluster" with one or more recharging stations at a specific location. A recharging pool can consist of recharging stations operated by different operators as long as they are located at the same specific location, for example at a single motorway service station or rest area.

Question 2.23: Could all recharging stations located within 3 kilometers of the same motorway exit be counted in meeting the requirements for one recharging pool? Do two recharging pools both located within 3 km of the same exit, and each fulfilling the requirements of a single direction recharging pool, but both serving both directions, fulfill the requirements?

There are no clear rules defined as to the maximum distance between recharging stations that can be considered as one recharging pool. Normally, all recharging stations of a recharging pool would be located within one service or parking area. In any case, all recharging stations belonging to a recharging pool need to be located at a maximum distance of 3 km from the nearest exit as specified in Article 2(3)(a) in order to count towards the targets specified in Articles 3(4) and 4(1).

To which extent recharging stations that are not located within a clearly confined area, e.g. a service area, can be counted in meeting the requirements for one recharging pool will have to be decided on a case by case analysis.

Question 2.24: Does the operator of a mobile recharging point (e.g. a charging battery in a van) who enables the end user to carry out mobile, off-grid charging fall within the scope of AFIR?

Article 2(48) explicitly includes mobile and off grid recharging points into the definition of recharging points. Therefore, those recharging points – provided they fall under the definition of recharging point in Article 2(48) – and their operation fall under the scope of AFIR.

Question 2.25: Is the operator of a mobile recharging point who provides the end user with a mobile and network-independent charging process, whereby the charging process is only carried out proactively through a web-based app on the smartphone by entering personal data, vehicle data and the storage of payment data by the end user, to be classified as a Mobility Service Provider (MSP) within the meaning of Article 5(5) of the Alternative Fuels Infrastructure Ordinance (AFIR)?

The operator of a mobile recharging point remains an operator of a recharging point in the meaning of AFIR. However, in addition, he can also be a mobility service provider within the meaning of Article 5(5) of AFIR.

Question 2.26: Article 2(65): smart recharging. What are the minimum requirements for a smart recharging point in order to be compliant with Article 5 (8): Simple commands from a backend that enable the charging power of a recharging point to be adjusted? Static load management? Dynamic load management? More complex use cases?

The definition of 'smart recharging' only addresses the core functionality of a smart recharging point meaning that it must support recharging operations in which the intensity of electricity delivered to the battery is adjusted in real time. Additional functionalities that go beyond the functionality described in the definition are not necessary to comply with Art 5(8) of AFIR.

Articles 3 and 4 – Recharging infrastructure dedicated to light and heavy-duty electric vehicles

Question 3.1: Which indicator is decisive in cumulating the total power output? Is it the theoretical maximum power output of all recharging stations or is it the cumulated maximum power output, when considering the capacity of the grid connections and the simultaneous use of all recharging points at a certain recharging pool? (see also Recital 10; Article 2 (44))

The total power output of a recharging pool is the theoretical aggregated maximum power output of all recharging stations within that pool. AFIR does not require that all recharging stations or points within a recharging pool need to be capable of operating at maximum power simultaneously.

Question 3.2: Article 3(1): ‘for each light-duty battery electric vehicle registered in their territory, a total power output of at least 1.3 kW is provided through publicly accessible recharging stations’: can you confirm how the total power output in a Member State is calculated? Which is the data source and which assumptions are made?

The total aggregated power output provided by publicly accessible recharging stations in a Member State is calculated by adding the power output of each publicly accessible recharging station deployed in a Member State. The data has to be reported by each Member State following the provisions in Article 18 of AFIR. AFIR does not prescribe the data sources to be used for this reporting.

Question 3.3: Article 3(4) (i): What is the power specification of 150 kW for a recharging point to be understood if a charging station has two points, each of which can provide a maximum of 150 kW, but not at the same time, because the whole charging station has a maximum output of 150 kW?

As stipulated in the definitions (Article 2(52)), a recharging station can consist of one or more recharging points. A recharging station with a total power output of 150 kW can therefore consist of two recharging points of 150 kW. A recharging point with a power output of 150 kW means that a vehicle can charge at this recharging point with a power output of up to 150 kW. However, AFIR does not require that each recharging point needs to provide its maximum power at all times.

In the case described in the question, each recharging point has a power output of 150 kW, and the recharging station also has a power output of 150 kW. In this case the recharging station determines the maximum power output provided by the two recharging points when used simultaneously. A more detailed explanation of how the power output of a recharging station is determined is provided in question 3.4.

Question 3.4: How exactly is the power output of a recharging station to be determined?

Article 2(44) defines that "'power output' means the theoretical maximum power, expressed in kW, that a recharging point, station or pool, or a shore-side electricity supply installation can provide to vehicles or vessels connected to that recharging point, station, pool or installation".

For the recharging station this is to be understood as the theoretical maximum power expressed in kW when all recharging points of that recharging station are used.

This follows from recital (10) that states "A recharging station is a physical installation for the recharging of electric vehicles. Every recharging station has a theoretical maximum power output, expressed in kW, and has at least one recharging point that can serve only one vehicle at a time. The number of recharging points at a recharging station determines the number of vehicles that can be recharged at that station at any given time. Where more than one vehicle recharges at a recharging station at a given time, the maximum power output is distributed to the different recharging points in such a way that the power provided at each individual recharging point is lower than the power output of that recharging station."

This means for example that a recharging station with a theoretical maximum of 200 kW that can only provide 200 kW at any given moment when all recharging points are occupied counts as a recharging station with a power output of 200 kW; even if this station has two recharging points of a power output of 150 kW.

Question 3.5: Is the fleet-based target set in Article 3 (1) (a) and (b) to be calculated on the basis of the cumulated power output of all recharging points or recharging stations in each Member State?

Article 3(1) clearly stipulates that the power output per registered electric vehicle must be provided through publicly accessible recharging stations. The fleet-based target must therefore be calculated on the basis of the cumulated power output of the publicly accessible recharging stations deployed in each Member State.

Question 3.6: Article 3 and 4: Is the aggregated power output that needs to be provided at the recharging pools the aggregated power output' of recharging stations? In which way does this power output need to correspond to the connected or contracted grid capacity (e.g. can the contracted grid capacity be higher or lower than the power output)?

The AFIR provisions are limited to the total aggregated power output of the recharging stations within each recharging pool. The AFIR does not require a specific connected or contracted grid capacity in relation to the aggregated power output of the recharging stations.

Question 3.7: In what way are battery buffered charging stations considered in the provisions? Is there a minimum level that must be met? For example: All recharging infrastructure must be capable to provide their maximum rated power output continuously for at least 30 minutes.

The AFIR does not address the design of the recharging pools. It does not require that the recharging points or stations must be able to provide their maximum rated power at every moment in time or for a specific period.

Question 3.8: Article 3 (2) allows Member States to submit a request for authorisation to apply lower requirements in terms of level of total power output or to cease to apply such requirements, when the share of battery electric vehicles reaches 15% of the total fleet of light-duty vehicles registered in a Member State and the Member State demonstrates that the implementation of the requirements has adverse effects discouraging private investments, and is no longer justified. (...)

(...) Are plug-in hybrid vehicles counted towards reaching this 15% share? What could be an example of the "adverse effects" referred to in this article?

Article 3 (2) refers exclusively to battery electric vehicles, which are defined in Article 2 (10) as "an electric vehicle that runs exclusively on the electric motor, with no secondary source of propulsion". Plug-in hybrid vehicles do therefore not count towards the 15% threshold referred to in Article 3 (2).

"Adverse effects" are not defined in AFIR. It is up to the Member State applying for authorisation to describe and appropriately demonstrate the existence of such adverse effects, and their negative impacts in terms of discouraging private investment. The Commission will assess the reasoned request and take an appropriate decision, taking into account the demonstration of the adverse effects provided by the Member State, and verifying that the share of battery electric vehicles represents at least 15% of the total fleet of light-duty vehicles registered in that Member State.

Question 3.9: Can the same infrastructure contribute to the requirements set in Article 4 (1) for HDV recharging infrastructure in terms of distance-based targets (points (a) to (d)), targets for safe and secure parking areas (points (e) and (f)) and urban nodes targets (points (g) and (h)), or are those distinct, separate targets?

The same infrastructure can contribute to more than one of these targets, provided that it meets all the relevant requirements for each of the targets. For example, a recharging pool deployed in a safe and secure parking area along the TEN-T core road network in 2027 can contribute to both the targets set under Article 4(1) points (b) and (e), provided that it offers a power output of at least 2,800 kW and it includes at least two recharging points with an individual power output of at least 350 kW.

Question 3.10: Article 4 (1)(e): this article refers to “stations” instead of “points” – was this intentional?

The article clearly refers to stations. There is no indication in the legal text that this wording was not intentional.

Art 4(1)(e) provides for minimum recharging infrastructure in safe and secure parking areas. As clearly specified in the article, the minimum power output is determined by the power output of recharging stations, rather than by the power output of recharging points (see also question 3.4 and 3.5 and the definition of a recharging pool that refers to recharging stations at a specific location).

Articles 3 and 4: Targets along TEN-T

Question 4.1: How shall parts of TEN-T network that are still under construction be considered under Articles 3, 4 and 6? This is for example relevant to calculate the percentage coverage of the TEN-T network by charging stations according to Article 4 (periods 12/2025 and 12/2027).

All infrastructure deployment targets on the TEN-T road network shall only apply to those parts of the TEN-T network that have been completed. Equally, for calculating the total length of the TEN-T network, the completed parts have to be taken into account for each target year.

Question 4.2: How is the provision of Article 3 (11) to be understood, that requires Member States to ensure that the maximum distances between recharging pools are not exceeded for cross-border sections of the TEN-T network?

Article 3 (11) and Article 4(9) aim to prevent a situation where maximum distances are respected within the territory of individual Member States, but not in cross-border sections; an example of this would be the following:

- A section of the TEN-T road network crosses the border between Member State A and Member State B;
- The last recharging pool on the territory of Member State A is 50 km away from the border, and the first recharging pool in Member State B is also 50 km away from that border; In this example, both MSs meet the respective requirements (there is no section of the TEN-T road on their territory with more than 60km between recharging pools), but the total distance between the two successive recharging pools along the same TEN-T section is 100 km. Article 3 (11) requires the two Member States to prevent this and ensure that this cross-border section also respects the relevant maximum distances.

These provisions are not relevant for motorway sections that do not reach the Member State's border: these remain subject to the normal rules about maximum distance and minimum power output set out in paragraph 4 of Article 3 and paragraph 1 of Article 4 respectively.

Question 4.3: Will a Member State making use of derogations under Articles 3 (7), 3 (8), 3 (9), 4(4), 4(5), 4(6) and 6(4) need to stop using the derogation if the relevant annual average daily traffic changes?

Question 4.3: Will a Member State making use of derogations under Articles 3 (7), 3 (8), 3 (9), 4(4), 4(5), 4(6) and 6(4) need to stop using the derogation if the relevant annual average daily traffic changes?

Question 4.4: How are the "socio-economic cost-benefit terms" referred to in Articles 3(7), (8), 4(4), (5) and 6(4) to be defined, and what would be an appropriate justification for making use of the derogations foreseen under those articles?

Articles 3(7), 3(8), 4(4), 4(5) and 6(4) allow Member States to make use of certain derogations from the provisions setting maximum distances and minimum power output or hydrogen capacity, provided that two conditions are satisfied: the relevant average daily traffic is below the threshold specified in the respective article, and the deployment of infrastructure cannot be justified in socio-economic cost-benefit terms. Both conditions need to be met in order for the derogation to be applied. It is up to the Member State wishing to apply this derogation to demonstrate that both conditions are met.

Question 4.5: Can the same recharging infrastructure be counted for both the Light Duty Vehicles (LDVs) and Heavy Duty Vehicles (HDVs) targets?

Article 3 and Article 4 refer to publicly accessible recharging infrastructure dedicated respectively to LDVs and HDVs. Recharging infrastructure dedicated to LDVs cannot be counted for the HDV targets, and vice-versa.

Question 4.6: Can infrastructure “dedicated to HDVs” also serve LDVs? How should recharging infrastructure that serves both LDVs and HDVs be counted?

In most cases, especially in service areas along highways, physical limitations, safety requirements and operational needs prevent the same infrastructure from being used by both LDVs and HDVs. In those cases when the same infrastructure is accessible to and effectively serves both vehicle categories, and meets all relevant requirements in terms e.g. of power output, location, maximum distances, etc., so that it could be counted for either LDV or HDV targets, Member States can decide for which target (LDV or HDV) it is counted. However, the Member State cannot count the infrastructure for both targets.

Question 4.7: How should Member States calculate compliance with the targets in the case of a location serving multiple targets, for example in the case of a recharging pool or hydrogen refuelling station that is both along the TEN-T network and within an urban node?

If a recharging pool dedicated to HDVs or a hydrogen refuelling station is located along the TEN-T road network – i.e. within a driving distance of respectively 3km and 10km from the nearest exit – as well as within an urban node, and it meets the relevant requirements, it can be counted towards the targets for both the TEN-T road network and the target for urban nodes.

Question 4.8: Should a recharging pool for HDVs or hydrogen refuelling station that contributes to the targets for both the TEN-T road network and urban nodes provide twice the minimum required output or capacity in order to be counted?

No. As long as it meets the minimum capacity or power output requirement for the TEN-T – which are higher than those for urban nodes – it can be counted for both the TEN-T and urban node targets. If it meets the relevant requirements for infrastructure in urban nodes, but not for that on TEN-T, it can be counted for the urban nodes target, but not for the TEN-T target.

Question 4.9: What is the maximum distance a recharging pool can be away from the actual TEN-T road section for it to be still countable towards the targets referred to in Article 4 (1)?

In order to be counted towards the targets in Article 4(1) AFIR, a recharging pool needs to be deployed "along the TEN-T road network", meaning that it has to be on the TEN-T road network or within 3 km driving distance from the nearest exit of a TEN-T road; for hydrogen refuelling stations, the driving distance from the nearest exit of a TEN-T road can be up to 10km. These distances are provided for under the definition of "along the TEN-T road network", in Article 2 (3).

Question 4.10: What is the exact point on the exit of the TEN-T road from which the driving distance is actually calculated for recharging pools or hydrogen refuelling stations to be considered to be along the TEN-T road network?

The distance is calculated starting from the beginning of the road exit, i.e. the point where the exit ramp separates from the TEN-T road.

Question 4.11: Is the maximum driving distance meant to just reach the recharging pool or hydrogen refuelling station, or should it be considered in terms of the total length of the return trip, so that e.g. the hydrogen refuelling station should effectively be located within 5km distance from the TEN-T exit?

The driving distances set in article 2 (3) refer to the one-way travel from the TEN-T exit to the recharging point or hydrogen refuelling station. A hydrogen refuelling station located at 9km driving distance from the nearest TEN-T exit (thus requiring 18km total driving to get from the TEN-T exit to the refuelling station and then back on the TEN-T road) is "along the TEN-T road network".

Question 4.12: Should the TEN-T core network be counted for the purpose of the target of 50 % of the length of the TEN-T comprehensive road network' set under Article 3 (4) (b) (i)? In other words: if a Member State has achieved a full coverage of the TEN-T core road network and the core network represents 50 % of the total TEN-T network in that member state, has the member state fulfilled its targets, or does it still need to achieve an additional coverage of 50 % of the non-core TEN-T network?

In line with Article 6 of Regulation (EU) 2024/1679 on Union guidelines for the development of the trans-European transport network, the targets set for the comprehensive network under Article 3 (4) (b) AFIR are additional to the targets set for the core network under 3 (4) (a) AFIR. In the example presented above, by 31 December 2027 the Member State in question is required to ensure full coverage of the TEN-T core network in accordance with article 3 (4) (a) (ii) and in addition a coverage of 50% of the TEN-T comprehensive network which excludes the TEN-T core network in accordance with article 3 (4) (b) (i).

When setting targets for shares of the total TEN-T core and comprehensive network together, as is the case for HDV recharging infrastructure targets under Article 4 (1) (a) and (4) (1) (b), the AFIR refers to "the length of the TEN-T road network" which includes the TEN-T core and the TEN-T comprehensive network.

Question 4.13: How is the 50 % target under Article 4 (1) (b) calculated? For example, if the TEN-T road network is 3 000 km, of which 1 000 km of core network and 2 000 km of comprehensive network, is the target met if 1 500 km of the network comply with the requirements? Or do at least 500 km of core and at least 1 000 km of comprehensive network need to meet the requirement?

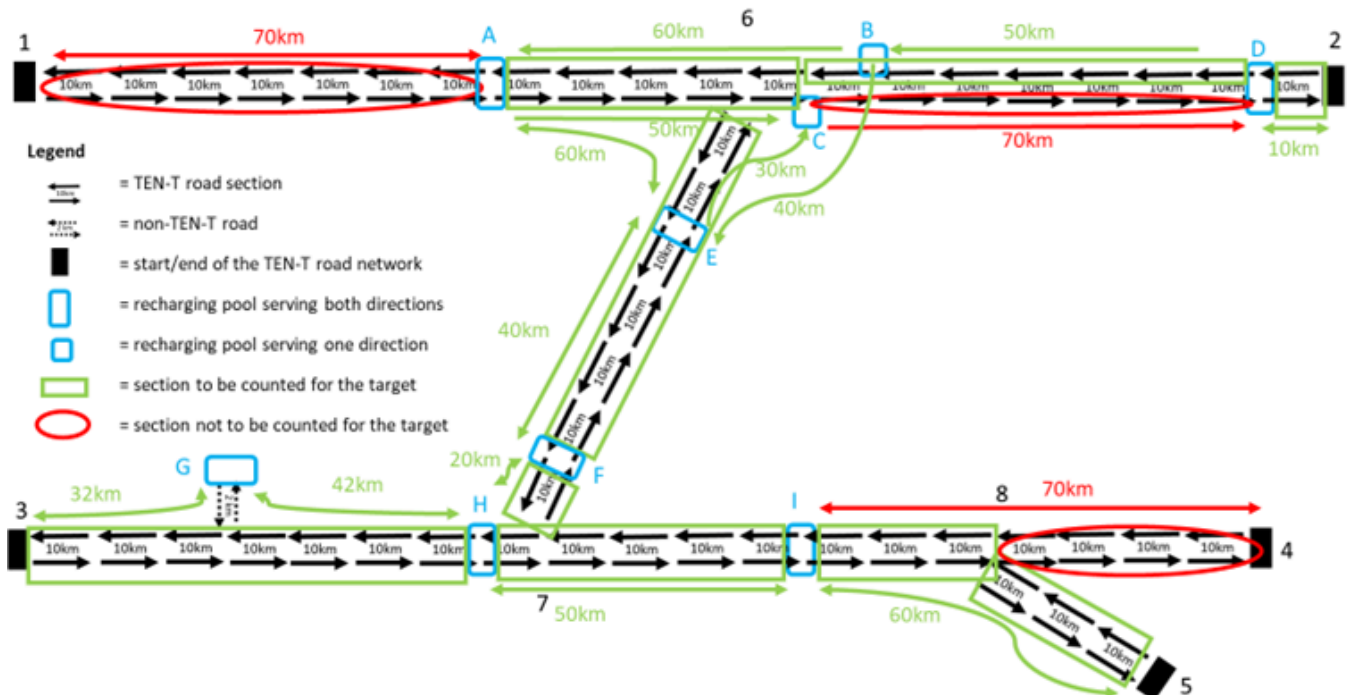
The targets under paragraphs (a), (b), (c) and (d) of Article 4 (1) are set for "the length of the TEN-T road network", including both core and comprehensive network. When a share of that network is mentioned, as is the case under paragraphs (a) and (b), this is calculated based on the total length of the network, without distinction between core and comprehensive. In the example above, therefore, the target is met if 1 500 km of the network comply with the relevant requirements, irrespective of whether they are part of the core or comprehensive network.

This is without prejudice to the fact that the requirements that a given segment of the network has to comply with for this purpose can be different depending on whether the segment is part of the core or comprehensive network; in particular, Article 4 (1) (b), sets different power output requirements for publicly accessible recharging pools on the core or comprehensive network.

Question 4.14: How should the percentages of the TEN-T network be calculated in accordance with Article 3 and Article 4? Should the calculation be made for both directions of travel? How should motorway junctions and the beginning/end of the motorway be considered?

For the calculation of the percentages of the length of the TEN-T network referred to in Article 3 and Article 4, the length of the network in both directions of travel should be used for both the numerator and the denominator (E.g. a TEN-T road with a length of 100 km in each direction would count as 200 km). The numerator can be calculated by dividing the network in segments, each one delimited by a recharging pool and/or by the beginning/end of the network. All segments between two recharging pools, or between a recharging pool and the beginning/end of the network, where the distance between the two is up to the specified maximum distance (60km for the purpose of article 3 (5), or 120 km for the purpose of Article 4 (2)) are counted for the numerator, for each direction of travel for which these conditions are met. Segments where the relevant maximum distance is exceeded are not counted. No segment can be counted more than once per direction of travel, so that the section of a road preceding a junction will only be counted once even though the recharging point will be used to calculate the distances along both arms of the junction.

A practical example of how the calculation can be performed is provided below.



Assuming that each recharging pool in this example meets the relevant requirements in terms of minimum power output, the calculation can be performed in this way:

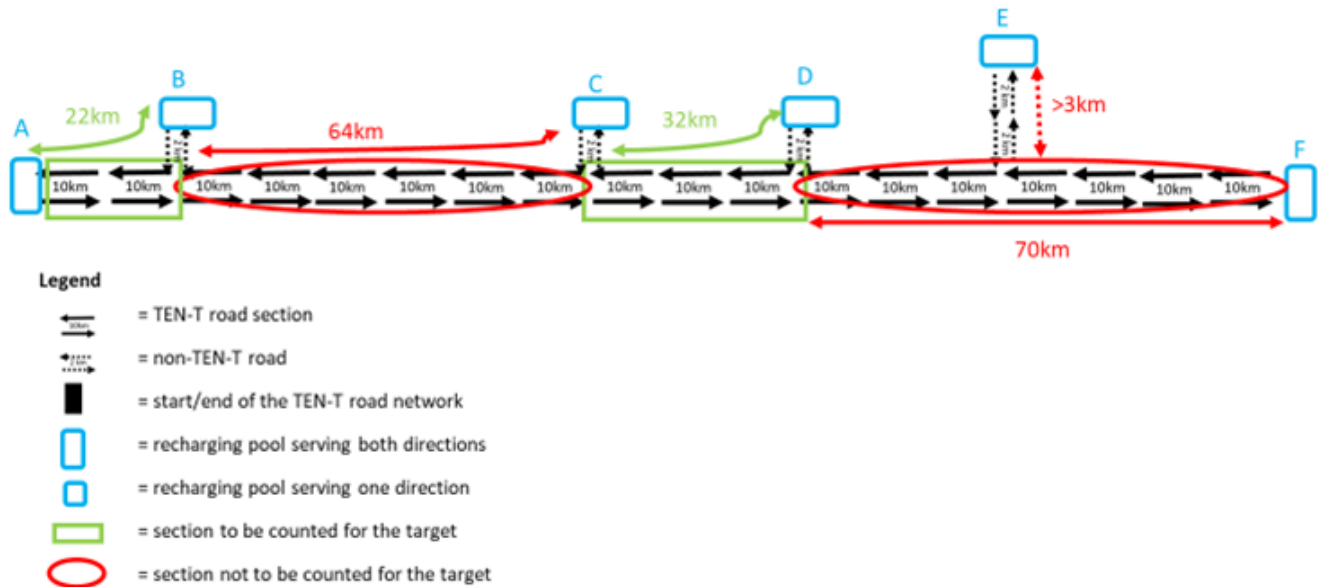
- The total length of the network in the example is 490 km in each direction, so the denominator is 980 (490 x 2)
- For the calculation of the numerator, the different sections are counted as follows:
 - The section between point 1 and recharging pool A is not to be counted, as the distance between the beginning/end of the network and the first recharging pool is more than 60km

- The sections between recharging pool A and E (through junction 6), between point 2 and recharging pool D and between recharging pool E and F, F and H (through junction 7), and H and I are all served by recharging pools serving both directions, with a maximum distance of up to 60km between recharging pools and/or the beginning/end of the network; therefore they are all to be counted twice (once per direction of travel). The section between recharging pool H and junction 7 is shared between sections F-H and H-I, and will only be counted once; the section between recharging pool A and junction 6 is also shared (see point below) Sections to be counted: A-6 = 40km x2 = 80; 6-E = 20km x2 = 40; 2-D = 10km x 2 = 20; E-F = 40km x2 = 80; F-7 = 10 km x2 = 20; H-7 = 10 km x2 = 20; 7-I = 40km x2 = 80. Total = 340
- The sections between recharging pool D and recharging pool B, between recharging pool B and recharging pool A (through junction 6), and between recharging pool A and recharging pool C (through junction 6) all meet the requirements in one direction of travel; however, when driving in the direction from C to D, this is a section of more than 60km not served by a recharging pool; the section from C to D should therefore not be counted for that direction of travel. Sections to be counted: D-B = 50km; B-6 = 20km (6-A = 40km, already counted as part of A-E above) 6-C = 10km (A-6 = 40km, already counted as part of A-E above). Total = 80
- The section between point 3 and recharging pool H is served by recharging pool G, which is 2 km driving distance from the nearest exit of the TEN-T road, and is therefore considered to be "along the TEN-T network". The sections between point 3 and recharging pool G, and between recharging pools G and H are therefore both shorter than 60km and served by recharging pools in both directions. The section between point 3 and recharging pool H is therefore to be counted twice (once per direction of travel): 3-H= 70km x 2 = 140
- The section between recharging pool I and point 5 is 60km and served by a recharging pool in both directions, and is to be counted; however, the section between recharging pool I and point 4 is longer than 60 km. The section between point 4 and junction 8 should therefore not be counted, while the sections between recharging pool I and junction 8, and between junction 8 and point 5 should be counted for both directions of travel: I-8 = 30km x 2 = 60; 8-5 = 30km x2 = 60. Total = 120
- The numerator is therefore 680, while the denominator is 980; the percentage of the network for the purposes of Article 3 AFIR is $680/980 = 69.3\%$

The example above is based on the provisions of Article 3 AFIR, for recharging pools dedicated to light-duty vehicles; the same approach can be used for the calculation of network percentages served by recharging pools dedicated to heavy-duty vehicles under Article 4 AFIR, provided that the maximum distance of 120 km (instead of 60km) and the relevant requirements in terms of minimum power output are applied.

Question 4.15: How should the maximum distances between recharging pools and hydrogen refuelling stations referred to in Article 3, Article 4 and Article 6 be calculated for stations located within the maximum driving distance from the TEN-T? Should the driving distance from the TEN-T be taken into account for the purpose of determining the distance between recharging pools or refuelling stations?

The driving distance between the recharging pool or hydrogen refuelling station and the nearest exit of the TEN-T road network is part of the distance between two recharging or refuelling stations, and therefore has to be taken into account. This is illustrated in the example below:



In this example, recharging pools A and F are located on the TEN-T network; recharging pools B, C and D are located within the maximum allowed driving distance from the nearest TEN-T exit, while recharging pool E is farther away (more than 3km driving distance from the nearest exit).

In this case, assuming that each recharging pool in this example meets the relevant requirements in terms of minimum power output, the maximum distance of 60km between recharging pools is respected by the segment between recharging pools A and B (20 km distance between A and the exit, 2km between the exit and B, for a total of 22 km), and between recharging pool C and D (2km driving distance between C and the exit, 30km between the two exits, 2km between the exit and D, for a total of 34 km). The distance between recharging pools B and C is 64 km (2km driving distance between B and the exit, 60km between the two exits, 2km between the exit and C, for a total of 64km), therefore this segment does not respect the maximum distance.

Finally, because recharging pool E is located at a driving distance of 4km from the nearest exit, it is not considered to be located along the TEN-T road network; the distance to be considered is therefore between recharging points D and F – since this is 72km (2km distance between D and the exit, 70 km distance between the exit and F), this segment does not respect the maximum distance.

The numerator in this example is therefore 100, while the denominator is 360; the percentage of the network for the purposes of article 3 is $100/360 = 27,8\%$

Question 4.16: When a recharging pool is required to include at least one recharging point with an individual power output of at least 350 kW, can this requirement be met through a recharging point with a higher power output, e.g. a megawatt charging system with individual power output of 1MW?

Yes. When the AFIR requires a minimum number of recharging points, each with a minimum individual power output, this requirement can be met with the same number of recharging points, each one providing the minimum individual power output required or a higher individual power output.

Question 4.17: How will the mapping of existing safe and secure parking areas be carried out?

The mapping of safe and secure parking areas will be performed in the context of the TEN-T Regulation (Regulation (EU) 2024/1679). Recharging points installed in those areas will be mapped in the context of AFIR, in the same way as other recharging points.

Question 4.18: Do articles 4 and 6 mean that publicly accessible recharging points and hydrogen refuelling points must be deployed in each urban node identified in Regulation (EU) 2024/1679?

Articles 4 and 6 set targets for the deployment of recharging and refuelling infrastructure in urban nodes. This applies to all urban nodes identified in the TEN-T Regulation in force at the time of application of the respective target. Regulation (EU) 2024/1679 repealed Regulation (EU) No 1315/2013 with effect from 18 July 2024 and therefore all AFIR targets with regards to urban nodes apply to the urban nodes identified in Regulation (EU) 2024/1679.

Question 4.19: Article 3(5)(b) states " for the calculation of the numerator: the cumulated length of the sections of the TEN-T comprehensive road network between two publicly accessible recharging pools dedicated to light-duty electric vehicles meeting the requirements set out in paragraph 4, point (b)(i), excluding any sections of the TEN-T comprehensive road network between two of those recharging pools that are more than 60 km apart." (...)

(...) Is the distance from the TEN-T road network to the recharging pool included in the maximum distance of 60 km between the recharging pools?

The maximum distance between recharging pools along the TEN-T road network is set in Article 3(4)(a) and (b) AFIR for LDV recharging infrastructure, and Article 4(1), (c) and (d) AFIR for HDV recharging infrastructure. In accordance with those articles, the driving distance between two consecutive recharging pools must not exceed 60km (or 100 km in case of recharging pools for HDV along the TEN-T comprehensive network). This should be calculated including the segments of up to 3 km between the recharging pool and the nearest exit of a TEN-T road that are allowed under the definition of "along the TEN-T road network" in Article 2(3) (a) AFIR.

Articles 3(5)(b) and 4(2)(b) AFIR also refer to the allowed maximum distance between recharging pools, to determine whether a given segment of the TEN-T network should be included in the numerator for the purpose of calculating the percentage of the TEN-T network that meets the requirements set out in Articles 3(4) and 4(1) AFIR respectively:

- When the distance between two recharging pools is up to 60 km (or 120 km for HDVs under article 4(2)(b) AFIR), including also the segments of up to 3 km between each recharging pool and the nearest exit of a TEN-T road, the corresponding segment of the TEN-T road network should be included in the numerator.
- When the distance between two consecutive recharging pools (including also the segments between each recharging pool and the nearest exit of a TEN-T road) is more than 60 km (or 120 km for HDVs under art. 4(2)(b) AFIR), the corresponding TEN-T road segment should be excluded from the numerator.

In all these cases, the TEN-T road segment will be shorter than the actual distance between the two recharging pools. While the distance between the two recharging pools is to be used to determine whether the segment in question meets the requirements, the value to be added to calculate the cumulated length of the sections of the TEN-T road network meeting the requirements is the length of the TEN-T road segment in question.

Question 4.20: How should the "total annual average daily traffic" referred to in Articles 3(7), (8) and (9) and Articles 4(4), (5) and (6) be determined between the pools when there may be a great variance in daily traffic values in the different sections of the road of the TEN-T network between the pools? (...)

(...) This question is related to questions on how the reduction of refuelling/recharging station capacity should be considered when the daily traffic values in the different sections of the road of the TEN-T network between the pools vary heavily?

When considering possible derogations based on total annual average daily traffic, Member States should make use of the most granular traffic data available.

The total annual average daily traffic of every section of a TEN-T road for which a derogation is granted must be below the relevant threshold. If there is significant variance in daily traffic values in the different sections of a TEN-T road, those sections should be considered separately, and derogations should only be granted where the total annual average daily traffic is below the relevant threshold.

If a recharging pool lies on a TEN-T road where the total annual average daily traffic of every segment is below the relevant threshold, that recharging pool may qualify for the corresponding derogation.

If there is a significant variation in traffic in the TEN-T road segments around a recharging pool, that recharging pool may only be considered to qualify for a derogation under Articles 3(7), (8) and (9) and Articles 4(4), (5) and (6) AFIR if the total annual average daily traffic is below the relevant threshold on all TEN-T road segments within 60km of that recharging pool in each direction of travel, or on all segments between the previous and following recharging pool along the same TEN-T road (or between the previous recharging pool and the end of the TEN-T road, if there is no further recharging pool).

Article 5 - Operation of Recharging Infrastructure

Article 5

Question 5.1: Can Member States establish additional national regulations related to alternative fuels infrastructure, for example by mandating that operators of publicly accessible recharging stations must participate in e-roaming schemes?

By virtue of the very nature of regulations, the provisions of regulations generally have immediate effect in the national legal systems without it being necessary for the national authorities to adopt implementing measures. The extent to which additional specific national legislation may exceptionally be allowed in the absence of a specific provision empowering the Member States to do so is to be assessed on a case-by-case basis, and to be ultimately decided by the Court of Justice of the European Union.

With respect to the possibility of imposing mandatory e-roaming, it is to be noted that this policy option was considered and addressed in the Commission's impact assessment, and it was discarded because laying down an obligation towards operators of recharging points to participate in roaming was deemed not to be a necessary or proportional interference with the contractual freedom of those operators. National measures aiming at achieving a similar objective should be assessed against that background and in light of the complete set of provisions laid down in AFIR and its objectives.

Question 5.2: Do the requirements laid down in Article 5 for recharging infrastructure apply to all publicly accessible recharging points, or only to those on the TEN-T network?

The requirements laid down in Article 5 apply to all publicly accessible recharging points, except where explicitly stated otherwise, for example Article 5(1), third sub paragraph only applies to recharging points above 50 kW deployed along the TEN-T network.

Question 5.3: VAT treatment: are all components to be treated the same as part of a 'charging session'? We would understand that each component can be treated the same from a VAT perspective.

AFIR does not address the different components of a recharging service with respect to its VAT treatment.

Article 5(1)

General context of the article: the obligations in Article 5(1) apply to the operator of the recharging point who needs to ensure recharging on an ad hoc basis at every recharging point operated by him. Recharging on an ad hoc basis means that an end user purchases a recharging service, without being required to register, conclude a written agreement or enter into a commercial relationship with the operator of the recharging point beyond the mere purchase of the recharging service (Article 2(47)), and without the need to enter into a contract with a mobility service provider (recital 36).

Question 5.4: What is meant with the term “deployed”, for example in “at publicly accessible recharging points deployed from 13 April 2024”?

“deployed” should be understood as being operational and available for use by end users. That means that the recharging point is installed and connected to the grid and capable of transmitting electricity to recharge electric vehicles.

Question 5.5: In Article 5 (1), what is the meaning of “payment instrument” and what is the standard for the requirement that a payment instrument is “widely used in the Union”?

‘Payment instrument’ is defined in Article 4(14) of the [Directive \(EU\) 2015/2366](#) of the European Parliament and of the Council as “a personalised device(s) and/or set of procedures agreed between the payment service user and the payment service provider and used in order to initiate a payment order”. ‘Payment service provider’ is defined in Article 4, point (11) of Directive (EU) 2015/2366 as “a body [as] referred to in Article 1(1) [of that Directive] or a natural or legal person benefiting from an exemption pursuant to Article 32 or 33 [of that Directive]. According to Union legislation, and in particular Directive (EU) 2015/2366 and [Directive 2009/110/CE](#), only credit institutions, payment institutions, and e-money institutions can issue payment instruments. The European Banking Authority (EBA) maintains an [exhaustive list of payment institutions and e-money institutions](#).

Examples of widely used payment instruments are debit cards, widely used credit cards and cash. A payment instrument can be considered “widely used in the Union” for the purposes of AFIR if it is used by a significant share of Union citizens that are of legal age for driving a vehicle. The payment instrument should moreover be supported in most, if not all Union Member States.

Question 5.6: What is the meaning of “payment card” as used in Article 5(1) (a) and (b)?

The term ‘payment card’ was not defined in AFIR, as it was considered to be a commonly understood notion. Payment cards include for example debit and credit cards.

Question 5.7: If end users can pay for their recharging session in cash, would this fulfil the requirements of Article 5(1)?

If end users can only pay in cash for an ad hoc recharging session, this would not meet the requirements of Article 5(1).

Article 5(1) requires that operators of recharging points shall accept electronic payments through terminals and devices used for payment services.

Article 5(1) then lists different types of terminals and devices that operators of recharging points can choose from, depending on the power output of the recharging point.

Operators of recharging points are at liberty to provide additional payment options to end users, including but not limited to the possibility to pay in cash.

Question 5.8: What is the difference between a “payment card reader” referred to in Article 5(1) (a) and a “device with a contactless functionality that is at least able to read payment cards” used in Article 5(1) (b)? Can you confirm that a “payment card reader” would require the terminal to be equipped with a PIN pad, while a “device with a contactless functionality” would only need to be equipped with an NFC reader (but no PIN pad)?

The purpose and functionalities of the terminals and devices referred to in Article 5(1) (a) and Article 5.1 (b) are essentially the same: they allow for payments to take place. Their main difference lies in the way they function.

A ‘payment card reader’ is a terminal or device that uses the chip embedded in a debit or credit card to exchange data and enable payments.

A ‘device with a contactless functionality that is at least able to read payment cards’, or Near Field Communication (NFC) reader, by contrast uses short-range wireless communication to exchange data and enable payments.

A ‘payment card reader’ will always require a physical payment card with a chip (debit or credit card) to enable payments, while a ‘device with a contactless functionality that is at least able to read payment cards’ could equally read physical payments cards but also communicate with other payment instruments such as a digital wallet on a mobile phone to enable payments.

The distinction between a “payment card reader” and a “device with a contactless functionality” has no relevance for the question whether such a terminal or device for payment services should be equipped with a PIN pad. Whether the presence of a PIN pad is required depends on the payment instrument that is used for the payment transaction, and the consumer authentication requirements applicable to that payment instrument.

Question 5.9: Does Article 5.1b) require that the device reads physical payment cards or does it include the possibility that this device reads payment cards embedded in an application, such as a mobile wallet application?

The regulation does not specifically require that the device reads physical payment cards meaning that a device that reads payment cards embedded in digital apps (e.g. a mobile wallet application) is equally sufficient to meet the requirement as long as other requirements of Article 5(1) are being met in particular with regards to the payment instrument being used and the requirements related to ad hoc recharging. Typically, current devices in the market with a contactless functionality are capable of reading both physical and digitally embedded payment cards.

However, the above explanation refers to payments through a digital wallet or mobile phone application issued for example by a credit institution, payment institution or e-money institution that in general is used for payment services. In contrast, devices that only accept a smartphone application of an operator of recharging point or a mobility service provider, even if it had a credit card embedded in it, would not appear to meet the requirements of Article 5(1). According to Recital 36 and Article 2(47) of AFIR ad hoc recharging must be possible without the need to enter into a contract with the operator of the recharging or a mobility service provider that goes beyond the mere purchase of the recharging service. An application operated by mobility service provider (MSP) or a charge point operator (CPO) would always require the registration of the end user and the acceptance of the terms of use which means a contract is being established between the end user and the CPO or MSP that goes beyond the mere purchase of a recharging service.

Question 5.10: Which additional ways of payments are included under Article 5.1c? Does this include for example: - Payments using a static QR-code placed on the recharging point, e.g. by means of a sticker? - Payments via Plug'n'Charge (communication through ISO15118-20)?

Article 5(1) of AFIR stipulates that the operator must accept electronic payment through devices using an internet connection and allowing for secure payment transactions. That includes all devices that meet those requirements, including those built into the recharging station as well as mobile devices of the end user.

In principle a static or dynamic QR code referring the user to a website through which secure payment transactions are carried out through a mobile phone could be in line with this provision. However, no matter which technical solution is adopted it must ensure a secure payment transaction. Therefore, a static QR code could be in line with AFIR as long as it is readable and the security of the payment transaction is ensured.

Payments via Plug and Charge (communication through ISO 15118-2 or -20) are not relevant in the context of Article 5(1), as this Article relates to 'recharging on an ad hoc basis'. Plug and Charge, by contrast, is a technology to enable automatic authentication and authorisation of a recharging session based on a contract-based payment established between an end user and a mobility service provider.

Question 5.11: How should charging at public chargers below 50 kW be considered when one must sign a contract with a parking operator before being able to park and pay for charging? Is it considered to be a contract-based payment then, rather than an AD-hoc payment, since one must have a contract/pay for parking in order to charge? (The parking operator can in this case also be the CPO, but it can also be two different actors.)

Parking fees (fees charged for parking a car irrespective of the presence of a recharging point or the purchase of a recharging service) are not under the scope of AFIR and neither is the contract between the end user and the operator of the parking area. Therefore, ad hoc payments must be available in line with Art 5(1) at all publicly accessible recharging points within that parking area, also in cases where the user has to pay a parking fee and where the operator of the recharging point and the operator of the parking area are the same entity.

Article 5(3)

Question 5.12: What does it mean that prices charged by operators of publicly accessible recharging points shall be "reasonable"?

This requirement is further clarified in recital (33) of AFIR, which holds that "prices should be reasonable and should not exceed the costs incurred plus a reasonable profit margin".

Whether or not prices charged by operators of publicly accessible recharging points are reasonable will have to be evaluated on a case-by-case basis.

Question 5.13: which elements/criteria are to be considered, when making the evaluation of whether a specific price is to be considered reasonable, easily and clearly comparable, transparent and non-discriminatory?

AFIR does not provide specific thresholds or criteria for assessing if prices charged are reasonable, easily and clearly comparable, transparent and non-discriminatory.

Compliance has to be assessed on a case by case basis and it is ultimately up to the European Court of Justice to assess compliance with this provision.

Question 5.14: The second sentence of Article 5(3) provides that "operators of publicly accessible recharging points shall not discriminate, through the prices charged, between end users and mobility service providers or between different mobility service providers." Can the Commission confirm that Art 5(3) addresses a) At B2C level: the ad hoc price, on the one hand, and contract-based prices on the other hand? And b) At B2B level: prices charged by a CPO to different MSPs, including affiliated

Article 5(3) addresses the operators of publicly accessible recharging points and their price setting towards the end user (B2C level) and towards different mobility service providers (B2B level).

Question 5.15: Could the Commission provide further guidance on the last sentence of this paragraph, namely that “the level of prices may be differentiated, but only if the differentiation is proportionate and objectively justified”?

This sentence is meant to clarify the preceding sentence of Article 5(3), which prohibits price discrimination between end users and mobility service providers or between different mobility service providers.

Price discrimination refers typically to situations where different ‘customers’ that are in the same or similar legal and factual situation are charged on the basis of a different price structure.

The last sentence of Article 5(3) intends to distinguish such price discrimination from normal practices of differentiating prices between customers that are not in the same legal or factual situation. Such price differentiation would be allowed on condition that it is proportionate and objectively justified.

Objective justification of the price differentiation between the ad hoc price and the price charged to a mobility service provider would depend on the circumstances of each case.

Whether or not prices charged by operators comply with Art 5(3) will have to be evaluated on a case-by-case basis and it is ultimately up to the European Court of Justice to assess compliance with this provision.

Article 5(4)

Question 5.16: While the first paragraph of Article 5(4) requires that, in case of publicly accessible recharging points with a power output equal to or more than 50 kW, the ad hoc price must be based on the price per kWh for the electricity delivered, its third paragraph requires that, in case of publicly accessible recharging points with a power output of less than 50 kW, the applicable price components must be presented in a certain order. In other words, AFIR appears to (...)

(...) leave discretion to market actors to determine the price components for ad hoc prices applied at publicly accessible recharging points with a power output of less than 50 kW. In this context, would it still be possible for Member States to adopt more stringent price requirements (e.g. mandating that prices must be based on the price kWh) in relation to the ad hoc price applied at publicly accessible recharging points with a power output of less than 50 kW?

By virtue of the very nature of regulations, the provisions of regulations generally have direct effect in the national legal systems without it being necessary for the national authorities to adopt implementing measures. The extent to which additional specific national legislation may exceptionally be allowed in the absence of a specific provision empowering the Member States to do so is to be assessed on a case by case basis, and to be ultimately decided by the European Court of Justice.

Article 5(4) of AFIR regulates the price setting by operators of publicly accessible recharging points. As regards operators of recharging points of less than 50 kW, it requires that information on all price components must be clearly and easily available. It also explicitly provides in which order certain price components must be communicated to end users.

Question 5.17: The first sentence of the first subparagraph of Article 5(4) provides that "at publicly accessible recharging points with a power output equal to or more than 50 kW, the ad hoc price charged by the operator shall be based on the price per kWh for the electricity delivered". Is the obligation to charge a "price per kWh for the electricity delivered" only applicable to transactions with end users (B2C) or for all transactions (incl. CPO to MSPs)?

Article 5(4) clearly specifies that "the ad hoc price charged by the operator shall be based on the price per kWh for the electricity delivered". The ad hoc price is the price charged by operators of recharging stations to end users to allow them to recharge on an ad hoc basis. The obligation in the first sentence of the first subparagraph of Article 5(4), to base the ad hoc price on the price per kWh for the electricity delivered, is therefore only applicable to transactions concerning ad hoc recharging.

Question 5.18: The second sentence of the first subparagraph of Article 5(4) provides that the operators of publicly accessible recharging points with a power output equal to or more than 50 kW “can charge an occupancy fee as a price per minute to discourage long occupancy of the recharging point”. Can such an occupancy fee be applied from the start of the recharging session, or only after a certain period of time, to avoid unnecessarily long occupation of the EV-enabled (...)

(...) parking lot (i.e. a parking lot equipped with a recharging point, EVPL)?

Article 5(4) does not specify from what moment onwards an occupancy fee can be applied by the operator of a publicly accessible recharging point with a power output equal to or more than 50 kW. By contrast, Article 5(4) does specify the objective of the occupancy fee that may be applied, i.e. to discourage long occupancy of the recharging point. Any fee applied pursuant to that article must be proportionate and suitable to achieve that objective.

That assessment must be carried out on a case by case basis. However, an occupancy fee that is applied from the start of a recharging session *prima facie* does not appear to be proportional to the objective of discouraging long occupancy of the recharging point as it would apply also to situations where the recharging point is used only for the time necessary to recharge the vehicle.

Question 5.19: Is there a difference between the obligation in the second subparagraph of Article 5(4) to “show the ad hoc price” at publicly accessible recharging points with a power output equal to or more than 50 kW, and the obligation in the third subparagraph of Article 5(4) to “make the information on the ad hoc price clearly and easily available” at publicly accessible recharging points with a power output of less than 50 kW? The wording reads very similar.

Since the co-legislators used two different terms in these sentences, it implies that they have a different meaning.

The term “show” indicates that the price has to be visibly present at the recharging station (e.g. on a screen or on a sticker). A mere reference at the recharging station that the price is available digitally is not sufficient in this case.

The expression “making the information available” is used elsewhere in the Regulation: in particular in Article 5(5) and 7(4), which both refer to the obligation to make information available “through freely available, widely supported electronic means”.

Therefore, when the terminology “make available” is used, it means that the information on prices may be made available through electronic means. In that case, “making the information available at the recharging stations” could consist in a link to the electronic means (e.g. a QR code leading to a website, or the URL code of the website with the pricing information) that should be clearly and easily available to consumers at the recharging station so that they can consult the price information before initiating their recharging session.

Question 5.20: The fourth subparagraph of Article 5(4) states that: “The first and second subparagraphs shall apply to all recharging points deployed from 13 April 2024”. What does this mean, and what is in particular the impact for the obligations in the third subparagraph of Article 5(4)?

The first and second subparagraphs of Article 5(4) set out obligations that likely have an impact on the design of recharging stations, so the co-legislators decided that it was sensible to allow the market to adapt to these new requirements. They therefore agreed to require that these new rules should only apply to publicly accessible recharging points with a power output equal to or more than 50 kW deployed from 13 April 2024.

The obligations in the third subparagraph of Article 5(4) apply from the date of application of the Regulation (13 April 2024) to **all** publicly accessible recharging points with a power output of less than 50 kW.

Question 5.21: Is it allowed to set a (limited) fixed transaction fee (x EUR/payment transaction) on top and independent of the total fee for the recharging service (based on x EUR/kWh), this to cover transaction costs for working with payment solution providers? Both the transaction fee and EUR/kWh price would be made transparent upfront.

AFIR does not address transaction fees. However, for recharging points with a power output of more than 50 kW the regulation clearly stipulates that prices must be based on kWh and that only an occupancy fee can be charged in addition. This excludes the possibility to charge transaction fees at those recharging points.

Question 5.22: How other services offered by truck CPOs, e.g. reservation fee to book a charging bay for a certain time period, will have to be treated. Such services are not directly linked to the electricity delivered, and since the article specifically mentions that the ad-hoc price shall be based “for the electricity delivered” we assume that these kinds of services do not have to be included in the ‘kWh’ price.

AFIR does not specifically regulates reservation services, which therefore in principle fall outside the scope of application of the regulation.

Question 5.23: When the driver charges on an ad hoc basis and wants to receive an invoice, would they need to download the Application and access the invoicing service with this tool?

AFIR does not specifically regulates the issuing of invoices, which therefore in principle falls outside the scope of application of the regulation.

Article 5(5)

Question 5.24: What is the meaning of the last sentence of Article 5.5: "Mobility service providers shall not apply any extra charges for cross-border e-roaming." Does this mean that no additional fee can be charged to consumers for the mere fact that they are recharging in a foreign country? Or does it mean that, in principle, mobility service providers must apply the same prices to consumers for recharging in different EU Member States?

Art.5(5) states that mobility services providers (MSPs) shall make available to end users, prior to the start of an intended recharging session, all relevant price components, including applicable e-roaming fees if they are charged by the MSP. In that context, the last sentence means that the end user is subject to the same roaming fees – if those fees are charged by the MSP - no matter in which Member State he charges.

Question 5.25: Article 5(5) does not specify a date of application of these obligations. Does this mean they are immediately applicable?

No, except if explicitly provided otherwise, all obligations in AFIR apply from the date of application of AFIR specified in Article 26, being 13 April 2024.

Question 5.26: Article 5(5) obliges mobility service providers to make available to end users all price information prior to the start of a recharging session. However, unlike Article 5(4), Article 5(5) does not regulate in any way the price components that mobility service providers can apply. In this context, would it still be possible for Member States to adopt more stringent price requirements, e.g. to limit mobility service providers in their freedom to apply certain price components (...)

(...) and mandate that prices must for example be charged in kWh?

Article 5(5) of AFIR regulates the price setting of mobility service providers (MSPs). This article allows mobility service providers to apply different price components (see also Art 5(4) of possible price components), including e-roaming costs and other fees or charges applied by the mobility service provider.

The extent to which additional specific national legislation – for example by setting more stringent price requirements - may exceptionally be allowed in the absence of a specific provision empowering the Member States to do so is to be assessed on a case by case basis, and to be ultimately decided by the European Court of Justice.

Question 5.27: The second sentence of Article 5(5) provides that ‘mobility service providers shall make available to end users, prior to the start of an intended recharging session, all price information specific to that recharging session, through freely available, widely supported electronic means, clearly distinguishing all price components, including applicable e-roaming costs and other fees or charges applied by the mobility service provider.’ What is the meaning of price components (...)

(...) in this paragraph; does this refer to the same type of price components listed in Article 5(4) or does this also encompass other price elements such as CPO prices, personnel costs, taxes, profit margins, etc.?

The objective of Article 5(5) is to ensure that end users can easily compare the ad hoc price with the price that is being charged by the mobility service provider (MSP) before starting the session.

Therefore, in accordance with Article 5(5), the MSP must at least provide the following information:

- The price for the recharging service charged to the end user clearly listing all the different applicable price components charged.
- If applicable, the MSP also has to communicate additional applicable e-roaming costs as well as any other additional fees or charges it applies.

Question 5.28: Article 5(5) requires that mobility service providers shall make available to end users all applicable price information, prior to the start of the recharging session, and specific to their intended recharging session, through freely available, widely supported electronic means. What kind of electronic means are intended here: would mobile phone applications or publicly available websites be considered sufficient?

Mobile phone applications and publicly accessible websites that are freely available and can thus be downloaded and installed without cost, could be sufficient.

Question 5.29: Does the regulation require operators and mobility service providers to reveal internal cost structures and expenditures (e.g. procurement prices).

AFIR requires operators of a recharging point and the mobility service providers to ensure full price transparency on all the price components the end user is charged. This does not include any information on internal cost structures or purchase costs.

Article 5(6)

Question 5.30: Article 5(6) provides that “Member States shall ensure that their authorities regularly monitor the recharging infrastructure market, and in particular, that they monitor the compliance of operators of recharging points and mobility service providers with paragraphs 3 and 5. Member States shall also seek to ensure that their authorities regularly monitor possibly unfair commercial practices affecting consumers.” How “regularly” must such monitoring take place? (...)

(...) How will the Commission in turn monitor the compliance by Member States of these monitoring obligations?

AFIR does not specify specific timeframes or formats for the monitoring. The Commission may assess, on a case by case basis, whether Member States comply with this obligation. It can for example do so on the basis of a complaint.

Article 5(8)

Question 5.31: What should be understood as ‘renovated’ in Article 5(8)? Are only complete replacements considered as a renovated charge point? If we only replace one or several parts of a charging point, is that renovation or just minor work?

AFIR does not clearly define what has to be understood by ‘renovated’. Therefore, such an assessment must be carried out on a case by case basis. Depending on the exact situation, maintenance work requiring the replacement of certain parts may fall outside the scope of application of that provision.

Article 5(9)

Question 5.32: Article 5(9) does not specify a date of application of these obligations. Does this mean they are immediately applicable?

Except if explicitly provided otherwise, all obligations in AFIR apply from the date of application specified in Article 26, being 13 April 2024.

Question 5.33: Do the signposting obligations of Article 5(9) apply to all recharging infrastructure within parking and rest areas along the TEN-T road network, or only to those deployed after this AFIR obligation become applicable?

The signposting obligations apply to all recharging infrastructure within parking and rest areas along the TEN-T road network, also to those pre-existing the date of application of AFIR.

Article 12 – Electricity supply to stationary aircraft

Question 12.1: Article 12(4) stipulates that from 1 January 2030 electricity to stationary aircraft must originate from electricity grid or is generated on site without using fossil fuels. However, Article 2 (4) (c) defines 'non-renewable alternative fuels and transitional fossil fuels' under one single definition. Therefore, it needs to be clarified whether it is allowed to generate electricity to stationary aircraft from 1 January 2030 using 'non-renewable alternative fuels' or not.

Article 12(4) states that if electricity is generated on site it must have been produced without the use of fossil fuels. The wording of "Electricity produced without the use of fossil fuels" is does not coincide with the definition of alternative fuels under Article 2(4) (c) referring to 'non-renewable alternative fuels and transitional fossil fuels'. The provision of electricity to stationary aircraft from 1 January 2030 under Article 12(4) may include electricity generated from 'non-renewable alternative fuels' only to the extent that it is produced without the use of fossil fuels.

Question 12.2: Scope of AFIR: Regarding airports, it should be confirmed that recharging and refuelling points located in airports' airside areas are not in the scope of the regulation since their infrastructures are not accessible to the public.

Recharging and refuelling infrastructure located on the airport apron within the security restricted area are considered not to be accessible to the public. They do not have to comply with provisions in Articles 5 and 7 that only apply to publicly accessible recharging and refuelling points within the meaning of Article 2(45) AFIR, i.e. an alternative fuels infrastructure which is located at a site or premises that are open to the general public. However, certain technical specifications established under AFIR apply to publicly accessible and private recharging points, including those located airside.

Question 12.3: Captive fleet (Recital 64, Article 14(2)(d)): what is a captive fleet ? We understand that it only applies to public transport services and shall not concerns vehicles operated within a restricted area (such as airports airside areas).

Captive fleets are fleets of vehicles that are operated by one private or public entity, in particular within a confined geographic area and/or according to a predictable movement pattern. The concept of captive fleets is therefore not limited to public transport operators and also includes fleets operated by airport operators.

Question 12.4: Recital 54: Which criteria can be used to determine that the operational needs are met when not all stands are equipped with a fixed or mobile ground power unit?

The recital provides that not every stand needs to be equipped with a fixed or mobile ground power unit each as one power unit can serve multiple stands. However, pursuant to Article 12, every plane that is parked at a contact (from 1 January 2025) or remote stand (from 1 January 2030) used for commercial air transport operations must be enabled to connect to external electricity supply when needed.

Question 12.5: Recital 55: When introducing the principle of cooperation within the Airport Users' Committee, please clarify that it is for information purpose only and doesn't involve an oversight or supervisory function from this body (Airport Users committees were created as a consultative body only, it should not deviate from its original functions).

Recital 55 provides that the Member States should, where appropriate, promote cooperation of the airport managing body with suppliers of ground-handling services, as well as, where relevant, with self-handling airport users, in particular through the Airport Users' Committee set up pursuant to Council Directive 96/67/EC. Such cooperation does not imply any oversight or supervisory function by the Airport Users' Committee under AFIR.

Question 12.6: Article 12(1)(b) and Recital 55: Whose responsibility is it to provide electricity at remote stands. Is it the airports responsibility or the ground handlers to provide electricity at remote stands?

(For background, in practice, depending on the technology used, airport operators are not the only stakeholder to ensure compliance with the target. While airport operators usually provide fixed electrical ground power to aircraft, ground handling companies in most cases operate mobile Ground Power Units (GPUs) which may be leased from dedicated suppliers.)

The obligation to ensure the electricity supply to stationary aircraft is on Member States. AFIR does not prescribe which entity has to provide the service.

Question 12.7: Groundhandling services: Can the provision of electricity supply to stationary aircraft be considered a groundhandling service within the meaning of Directive 96/67/EC?

The provision of electricity to stationary aircraft can be done either through a fixed centralised infrastructure or mobile equipment. Electricity supply can be provided directly by the airport itself or it can be delegated to a third party. This provides for operational and organisation flexibility as to the most efficient way of discharging the obligation. The provision of electricity to stationary aircraft is not considered as a ground handling service provided to airport users at airports in the meaning of Directive 96/67. However, when a centralised infrastructure is managed by the managing body of the airport and is also used for the supply of ground handling services it is subject to Article 8 of Directive 96/67.

Question 12.8: Use of Auxiliary Power Units (APU's): Can you please clarify whether the use of external electricity supply when aircraft are stationary entails the prohibition of the use of APU, even for a short period of time (a few minutes before aircraft departure for instance).

The requirements of the AFIR apply to the external supply of electricity to stationary aircraft. the generation of power on board of aircraft is not within the scope of the Regulation and remains at the discretion of *inter alia* airlines, airport management bodies and member states.

Question 12.9: Article 12(2): Does the term "commercial flight movement" refer to Eurostat-term [Commercial aircraft movements (passenger, freight and mail, commercial general aviation operations)]? Or, if they do differ in terms of definition, what would be the appropriate source for commercial flight movement statistics?

The term "commercial flight movement" is to be understood in the meaning of commercial air service as defined in point 4, Annex II COMMISSION REGULATION (EC) No 1358/2003 i.e. A scheduled or non-scheduled air transport flight or series of flights for the public transport of passengers and/or freight and mail, for remuneration or for hire.

Article 21 - Common technical specifications

Question 21.1: Commission del. regulation (EU) 2025/656 sets interoperability requirements for normal and high-power recharging points by requiring compliance with standard EN 62196-2:2022 for interoperability purposes. Is the standard EN 62196-2:2022 mandated in its entirety or is it only mandated with regard to those technical elements related to the interoperability of sockets outlets and vehicle connectors, and not to other aspects of the standard, such as, for example, safety requirements?

The question concerns the provisions of Annex II to AFIR that specify certain standards "for interoperability purposes".

According to recital 71 of AFIR all technical specifications for interoperability of recharging and refuelling points should be specified in European or international standards.

Article 21(3)(a) of AFIR requires that the technical specifications to be introduced in Annex II by delegated act are to "enable full technical interoperability of the recharging and refuelling infrastructure in terms of physical connections, communication exchanges and access for persons with reduced mobility to those areas".

Points 1.1 and 1.2 of Annex II of AFIR, as amended by Commission Delegated Regulation (EU) 2025/656, require that from 8 January 2026, alternating current (AC) normal-power and high-power recharging points for light-duty electric vehicles installed or renovated shall be equipped, for interoperability purposes, at least with socket- outlets or vehicle connectors of Type 2 for Mode 3 recharging as described in standard EN IEC 62196-2:2022.

It follows from the above that the application of the standard is only mandated with regards to those technical elements that are relevant for interoperability purposes of socket outlets and vehicle connectors. This means that sections or chapters of the standard not related to interoperability, such as those addressing safety or other non-interoperability aspects, are not mandatory under AFIR.

AFIR does not specify which sections or chapters of EN IEC 62196-2:2022 apply but rather requires all technical specifications within that standard that address interoperability of socket outlets and vehicle connectors. It is for manufacturers to assess which technical specifications within that standards must be complied with to ensure interoperability .