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ANNEXES 1 to 4

ANNEXES

to the

Proposal for a Regulation of the European Parliament and of the Council

on the deployment of alternative fuels infrastructure, and repealing Directive 2014/94/EU of the European Parliament and of the Council

{SEC(2021) 560 final} - {SWD(2021) 631 final} - {SWD(2021) 632 final} - {SWD(2021) 637 final} - {SWD(2021) 638 final}

ANNEX I

Reporting

The progress report referred to in Article 14(1) of the Regulation shall include at least the following elements:

1. target setting
   (a) vehicle uptake projections for 31 December of the years 2025, 2030 and 2035 for:
      – light-duty road vehicles separately for battery electric, plug in hybrid, and hydrogen;
      – heavy-duty road vehicles, separately for battery electric and hydrogen;
   (b) targets for 31 December 2025, 2030 and 2035 for:
      – electric recharging infrastructure for light-duty vehicles: number of recharging stations and power output (classification of recharging stations following Annex III to this Regulation);
      – development of recharging stations for light-duty vehicles not accessible to the public;
      – electric recharging infrastructure for heavy-duty vehicles: number of recharging stations and power output;
      – development of recharging stations for heavy-duty vehicles not accessible to the public;
      – hydrogen refuelling stations: number of refuelling stations, capacity of the refuelling stations and connector provided;
      – LNG road refuelling stations: number of refuelling stations and capacity of stations;
      – LNG refuelling points at maritime ports of the TEN-T core and TEN-T comprehensive network, including location (port) and capacity per port;
      – Shore side electricity supply at maritime ports of the TEN-T core and TEN-T comprehensive network, including exact location (port) and capacity of each installation within the port;
      – shore-side electricity supply at inland waterway ports of the TEN-T core and TEN-T comprehensive network including location (port) and capacity;
      – electricity supply for stationary aircraft, number of installations per airport of the TEN-T core and TEN-T comprehensive network;
      – other national targets and objectives for which no EU wide mandatory national targets exist. For alternative fuels infrastructure in ports, airports and for rail the location and capacity/size of the installation has to be reported;
2. utilisation rates: for the categories under point 1(b), reporting the utilisation of that infrastructure;
3. the level of achievement of the national objectives reported for the deployment of alternative fuels in the different transport modes (road, rail, water and air):

– level of achievement of the infrastructure deployment targets as referred to in point 1(b) for all transport modes, in particular for electric recharging stations, electric road system (if applicable), hydrogen refuelling stations, shore-side electricity supply in maritime and inland waterway ports, LNG bunkering at TEN-T core maritime ports, other alternative fuels infrastructure in ports, electricity supply to stationary aircrafts, as well as for hydrogen refuelling points and electric recharging points for trains;

– for recharging points, specifying the ratio of public to private infrastructure;

– alternative fuels infrastructure deployment within urban nodes;

4. legal measures: information on legal measures, which may consist of legislative, regulatory or administrative measures to support the build-up of alternative fuels infrastructure, such as building permits, parking lot permits, certification of the environmental performance of businesses and fuel stations concessions;

5. information on the policy measures supporting the implementation of the national policy framework, including:

– direct incentives for the purchase of means of transport using alternative fuels or for building the infrastructure;

– availability of tax incentives to promote means of transport using alternative fuels and the relevant infrastructure;

– use of public procurement in support of alternative fuels, including joint procurement;

– demand-side non-financial incentives, for example preferential access to restricted areas, parking policy and dedicated lanes;

6. public deployment and manufacturing support, including:

– annual public budget allocated for alternative fuels infrastructure deployment, broken down by alternative fuel and by transport mode (road, rail, water and air);

– annual public budget allocated to support manufacturing plants for alternative fuels technologies, broken down by alternative fuel and by transport mode;

– consideration of any particular needs during the initial phase of the deployment of alternative fuels infrastructures;

7. research, technological development and demonstration (RTD&D): annual public budget allocated to support alternative fuels RTD&D, broken down by fuel and its origin, differentiating between fossil and renewable forms, and by transport mode.

ANNEX II

Technical specifications

1. Technical specifications for electricity supply for road transport

1.1. Normal power recharging points for motor vehicles: alternating current (AC) normal power recharging points for electric vehicles shall be equipped, for interoperability purposes, at least with socket outlets or vehicle connectors of Type 2 as described in standard EN 62196-2:2017.

1.2. High power recharging points for motor vehicles:

– alternating current (AC) high power recharging points for electric vehicles shall be equipped, for interoperability purposes, at least with connectors of Type 2 as described in standard EN 62196-2:2017;

– direct current (DC) high power recharging points for electric vehicles shall be equipped, for interoperability purposes, at least with connectors of the combined charging system 'Combo 2' as described in standard EN 62196-3:2014.

1.3. Wireless recharging points for motor vehicles as specified by Commission Delegated Regulation (EU) 2021/ […/…] supplementing Directive 2014/94 EU of the European Parliament and of the Council with regards standards for wireless recharging points for motor vehicles .

1.4. Recharging points for L-category motor vehicles as specified by Commission Delegated Regulation (EU) 2019/1745.

1.5. Recharging points for electric buses as specified by Commission Delegated Regulation (EU) 2021/ […/…] supplementing Directive 2014/94 EU of the European Parliament and of the Council with regards standards for wireless recharging points for motor vehicles .

1.6. Technical specifications for battery swapping for motor vehicles.

1.7. Technical specifications regarding the connector for recharging heavy-duty vehicles (DC charging).

1.8. Technical specifications for inductive static wireless recharging for passenger cars and light-duty commercial vehicles.

1.9. Technical specifications for inductive static wireless recharging for heavy-duty vehicles.

1.10. Technical specifications for inductive dynamic wireless recharging for passenger cars and light-duty vehicles.

1.11. Technical specifications for inductive dynamic wireless recharging for heavy-duty-vehicles.

1.12. Technical specifications for inductive static wireless recharging for electric buses.

1.13. Technical specifications for inductive dynamic wireless recharging for electric buses.

1.14. Technical specifications for electric road system (ERS) for dynamic overhead power supply via a pantograph for heavy-duty vehicles.

1.15. Technical specifications for electric road system (ERS) for dynamic ground level power supply through conductive rails for passenger cars, light-duty vehicles and heavy-duty vehicles.

1.16. Technical specifications for battery swapping for L-category vehicles.

1.17. If feasible, technical specifications for battery swapping for passenger cars and light-duty vehicles.

1.18. If feasible, technical specifications for battery swapping for heavy-duty vehicles.

1.19. Technical specifications for recharging stations to ensure access to users with disabilities.

2. Technical specifications for communication exchange in the electric vehicle recharging ecosystem

2.1. Technical specifications regarding communication between the electric vehicle and the recharging point (vehicle-to-grid communication).

2.2. Technical specifications regarding communication between the recharging point and the recharging point management system (back-end communication).

2.3. Technical specifications regarding communication between the recharging point operator, electromobility service providers and e-roaming platforms.

2.4. Technical specifications regarding communication between the recharging point operator and the distributed system operators.

3. Technical specifications for hydrogen supply for road transport

3.1. Outdoor hydrogen refuelling points dispensing gaseous hydrogen used as fuel on board motor vehicles shall comply with the technical specifications of the ISO/TS 20100 gaseous hydrogen fuelling specification.

3.2. The hydrogen purity dispensed by hydrogen refuelling points shall comply with the technical specifications included in the ISO 14687:2019standard.

3.3. Hydrogen refuelling points shall employ fuelling algorithms and equipment complying with the ISO 19880-1:2020 Gaseous Hydrogen Fuelling specification.

3.4. Connectors for motor vehicles for the refuelling of gaseous hydrogen shall comply with the ISO 17268:2020 gaseous hydrogen motor vehicle refuelling connection devices standard.

3.5. Technical specifications for connectors for refuelling points dispensing gaseous (compressed) hydrogen for heavy-duty vehicles.

3.6. Technical specifications for connectors for refuelling points dispensing liquefied hydrogen for heavy-duty vehicles.

4. Technical specifications for electricity supply for maritime transport and inland navigation

4.1. Shore-side electricity supply for seagoing ships, including the design, installation and testing of the systems, shall comply with the technical specifications of the IEC/IEEE 80005-1:2019 standard, for high-voltage and low-voltage shore connections respectively.

4.2. Shore-side electricity supply for inland waterway vessels shall comply with Commission Delegated Regulation (EU) 2019/1745.

4.3. Technical specifications for shore-side battery recharging points for maritime vessels, featuring interconnectivity and system interoperability for maritime vessels.

4.4. Technical specifications for shore-side battery recharging points for inland navigation vessels, featuring interconnectivity and system interoperability for inland navigation vessels.

4.5. Technical specifications for port-to-grid communication interface in automated onshore power supply (OPS) and battery recharging systems for maritime vessels.

4.6. Technical specifications for port-to-grid communication interface in automated onshore power supply (OPS) and battery recharging systems for inland navigation vessels.

4.7. If feasible, technical specifications for battery swapping and recharging at onshore stations for inland navigation vessels.

5. Technical specifications for hydrogen bunkering for maritime transport and inland navigation

5.1. Technical specifications for refuelling points and bunkering for gaseous (compressed) hydrogen for maritime hydrogen-fuelled vessels.

5.2. Technical specifications for refuelling points and bunkering for gaseous (compressed) hydrogen inland navigation hydrogen-fuelled vessels.

6. Technical specifications for methanol bunkering for maritime transport and inland navigation

6.1. Technical specifications for refuelling points and bunkering for renewable methanol for maritime methanol-fuelled vessels.

6.2. Technical specifications for refuelling points and bunkering for renewable methanol for inland navigation methanol-fuelled vessels.

7. Technical specifications for ammonia bunkering for maritime transport and inland navigation

7.1. Technical specifications for refuelling points and bunkering for renewable ammonia for maritime ammonia-fuelled vessels.

7.2. Technical specifications for refuelling points and bunkering for renewable ammonia for inland navigation ammonia-fuelled vessels.

8. Technical specifications for natural gas refuelling points

8.1. Refuelling points for compressed natural gas (CNG) for motor vehicles shall comply with Commission Delegated Regulation (EU) 2019/1745.

8.2. CNG connectors/receptacles shall comply with UNECE Regulation No 110 (referring to ISO 14469:2017).

8.3. Refuelling points for LNG for motor vehicles shall comply with Commission Delegated Regulation (EU) 2019/1745.

8.4. Refuelling points for LNG for inland waterway vessels or sea-going ships shall comply with Commission Delegated Regulation (EU) 2019/1745.

9. Technical specifications related to fuel labelling

9.1. The ‘Fuels - Identification of vehicle compatibility - Graphical expression for consumer information’ label shall comply with standard EN 16942:2016+A1:2021.

9.2. The ‘Identification of vehicles and infrastructures compatibility - Graphical expression for consumer information on EV power supply’ shall comply with standard EN 17186.

9.3. The common methodology for alternative fuels unit price comparison set out by Commission Implementing Regulation (EU) 2018/732.

ANNEX III

Reporting requirements on deployment of electric vehicles and recharging infrastructure

1. Member States must categorise their reporting on electric vehicles deployment as follows:

   – battery electric vehicles, separately for categories M1, N1, M2/3 and N2/3

   – plug in hybrid electric vehicles, separately for categories M1, N1, M2/3 and N2/3

2. Member States must categorise their reporting on deployment of recharging points as follows:

Category	Sub-category	Maximum power output	Definition pursuant to Article 2 of this Regulation
Category 1 (AC)	Slow AC recharging point, single-phase	$P < 7.4$ kW	Normal power recharging point
	Medium-speed AC recharging point, triple-phase	$7.4 \text{ kW} \leq P \leq 22$ kW	
	Fast AC recharging point, triple-phase	$P > 22$ kW	High power recharging point
Category 2 (DC)	Slow DC recharging point	$P < 50$ kW	
	Fast DC recharging point	$50 \text{ kW} \leq P < 150$ kW	
	Level 1 - Ultra-fast DC recharging point	$150 \text{ kW} \leq P < 350$ kW	
	Level 2 - Ultra-fast DC recharging point	$P \geq 350$ kW	

3. The following data must be provided separately for recharging infrastructure dedicated to light-duty vehicles and heavy-duty vehicles:

   – number of recharging points, to be reported for each of the categories under point 2;

   – number of recharging stations following the same categorisation as for the recharging point;

   – total aggregated power output of the recharging stations;

   – number of stations not operational on 50% of the available days in a given year.

ANNEX IV

Correlation table

Directive 2014/94/EU	This Regulation
Article 1	Article 1
Article 2(1)	Article 2(3)
Article 2	Article 2
-	Article 3
-	Article 4
Article 4	Article 5
-	Article 6
-	Article 7
Article 6(4)	Article 8
-	Article 9
-	Article 10
Article 6(1)	Article 11
-	Article 12
Article 3	Article 13
Article 10	Articles 14, 15, 16
Article 7	Article 17
	Article 18
	Article 19
Article 8	Articlle 20
Article 9	Article 21
	Article 22
Article 11	Article 23
_	Article 24
Article 12	Article 25

Article 13	