



Brussels, 17.11.2017  
C(2017) 7348 final

**COMMISSION DELEGATED REGULATION (EU) .../...**

**of 17.11.2017**

**supplementing Directive 2014/94/EU of the European Parliament and of the Council as regards recharging points for L-category motor vehicles, shore-side electricity supply for inland waterway vessels and refuelling points for LNG for waterborne transport, and amending that Directive as regards connectors for motor vehicles for the refuelling of gaseous hydrogen**

(Text with EEA relevance)

## EXPLANATORY MEMORANDUM

### 1. CONTEXT OF THE COMMISSION DELEGATED REGULATION

The Communication on Union strategy for low-emission mobility<sup>1</sup> states that ‘Standardisation and interoperability are crucial to make the most of the scale of the internal market, especially for electro-mobility and barriers to charging of electric vehicles across the EU need to be eliminated’.

This initiative is aligned with the political priorities of the Commission and in particular Climate Action, the Internal Market, and boosting Jobs, Growth, and Investment. It responds to the objectives of the Energy Union. Thus, the initiative aims to boost the use of alternatively fuelled vehicles, reducing the EU's dependence on oil and cutting greenhouse house gas emissions. It also aims to avoid the development in the European Union of non-harmonised and even incompatible (non-interoperable) infrastructures that could have a negative impact on the mobility conditions and on the development of the internal market. Finally, it will enhance the global competitiveness of the vehicle and vessel industries, with positive impacts on growth and employment.

As part of its agenda for a socially fair transition towards clean, competitive and connected mobility presented in the Communication<sup>2</sup> from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, "Europe on the Move", the Commission intends to adopt a number of measures to support the market development of alternative fuel-powered vehicles and the deployment of the necessary infrastructure. One of these measures concerns the adoption of common standards for alternative fuels infrastructure.

The technology necessary for the construction of a network to distribute alternative fuels is substantially mature for all types of recharging and refuelling systems included in Directive 2014/94/EU on the deployment of alternative fuels infrastructure. However, common European standards for alternative fuel infrastructures ensuring the interoperability between the infrastructures and vehicles with different technology such as electric vehicles, hydrogen and fuel cell vehicles and natural gas vehicles and vessels are still missing or not applied consistently in the Union. The lack of common European standards is the main technical barrier to creating a single market for alternative fuel infrastructure and to achieving the relevant scale economies.

#### 1.1. The requirements of Directive 2014/94/EU

Directive 2014/94/EU empowers the Commission to adopt delegated acts in accordance with Article 8 in order to:

- (a) supplement Article 4 and points 1.3, 1.4, 1.5, 1.6 and 1.8 of Annex II in order to require compliance of the infrastructures to be deployed or renewed with the technical specifications contained in the European standards to be developed under Article 4(13), where the relevant

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<sup>1</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *A European Strategy for Low-Emission Mobility*, COM(2016) 501 final.

<sup>2</sup> COM(2017) 283 final

European Standardisation Organisations (ESOs) - the European Committee for Standardisation (CEN), and the European Committee for Electrotechnical Standardisation (CENELEC) - have recommended a single technical solution with technical specifications as described in a relevant European standard;

- (b) update the references to the standards referred to in the technical specifications set out in point 1 of Annex II where those standards are replaced by new versions adopted by the relevant standardisation organisations;
- (c) update the references to the standards referred to in the technical specifications set out in point 2 of Annex II where those standards are replaced by new versions adopted by the relevant standardisation organisations;
- (d) supplement Article 6 and points 3.1, 3.2, 3.3 and 3.4 of Annex II, in order to require compliance of the infrastructures to be deployed or renewed with the technical specifications contained in the standards to be developed under points (a) and (b) of paragraph 10 of Article 6, where the relevant ESOs have recommended only one technical solution with technical specifications as described in a relevant European standard compatible with the relevant international standards, where applicable;
- (e) update the references to the standards referred to in the technical specifications set out or to be set out in point 3 of Annex II where those standards are replaced by new versions adopted by the relevant European or international standardisation organisations.

Different delegated acts are to be adopted after the ESOs adopt the relevant standards. The delegated acts are to provide for transitional periods of at least 24 months before the relevant technical specifications or their amended versions become binding on infrastructure to be deployed or renewed.

## 1.2. Commission Implementing Decision C(2015) 1330 (M/533)

Pursuant to Article 10(1) of Regulation (EU) No 1025/2012<sup>3</sup>, the European Commission has given a a mandate to the ESOs<sup>4</sup> to develop and adopt appropriate European standards (ENs), or to amend the existing ones, establishing technical specifications for interoperability with a single solution, if applicable based on existing international standards, for each of the following:

- the electricity supply for transport, concerning the technical specifications given in point 1 of Annex II of the Directive.
- the hydrogen supply for road transport, concerning the technical specifications given in point 2 of Annex II of the Directive.
- the natural gas supply for transport, taking into account for waterborne transport the ongoing work at the International Maritime Organisation, the Central Commission for the Navigation on the Rhine, the Danube

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<sup>3</sup> OJ L 316, 14.11.2012, p. 12.

<sup>4</sup> M/533 Commission Implementing Decision C(2015) 1330 of 12.3.2015.

Commission and other relevant international fora, concerning the technical specifications given in point 3 of Annex II of the Directive.

### 1.3. Preparatory Process

EU action on adopting common standards for alternative fuels infrastructure is necessary to remove technical and regulatory barriers across the EU and thereby facilitate the development of a single market for alternative fuel infrastructure and alternatively fuelled vehicles and vessels, so as to create the proper conditions for market actors to fulfil their respective functions. The measure will ensure free movement of goods and persons using alternatively fuelled vehicles and vessels. Industry will benefit from economies of scale from the wide-scale deployment of alternative fuel infrastructure and increase its competitiveness from being a global first-mover in this type of investment. Environmental and economic benefits will be derived from the gradual substitution of oil-based fuels with alternative fuels.

The impact assessment<sup>5</sup> accompanying the Commission's proposal<sup>6</sup> for "A Directive on the deployment of alternative fuels recharging and refuelling infrastructure", which this initiative is part of, stated that the building up of a minimum alternative fuels infrastructure network with common standards in the European Union would have an impact on the reduction of oil consumption by about 2.3% by 2020. The benefits in terms of lower oil consumption could amount to about 84.9 bn € (with corresponding additional energy security benefit of 18.9 bn €), while lower impact on the environment could be monetised to be around 15.4 bn €. In addition, NOx emissions would decrease by 2.8% and particle matter emissions by 2.1% by 2020. Finally, employment, with a wide range of job qualifications, would be created for a long period of co-existence of alternative and conventional fuels, through investment into alternative fuel infrastructure sectors, in particular in the areas of construction, manufacturing, electricity, information and communication technology, advanced materials and computer applications. These impacts would be significantly higher at the horizon 2050.

In addition, to comply with the principle of proportionality, the proposed action is addressed only to standards developed and adopted by the European Organizations for Standardization on its own initiative or transposing the relevant international standards as European standards.

The CEN-CENELEC has suggested to the Commission by letter<sup>7</sup> of 13 July 2017 to supplement Directive 2014/94/EU with the following requirements for publicly accessible alternating current (a.c.) recharging points for future dedicated L category motor vehicles, belonging to the technical specifications category provided for in point 1.5 (Recharging points for L-category motor vehicles) of Annex II to that Directive:

Publicly accessible alternating current (a.c.) recharging points that have up to 3.7 kilovolt ampere (kVA) reserved for L- category electric vehicles should be equipped with at least one of the following charging systems as defined in the

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<sup>5</sup> SWD/2013/05 final

<sup>6</sup> COM ( 2013) 18

<sup>7</sup> Ares(2017)3592930

EN 61851-1:2011 'Electric vehicle conductive charging system - Part 1: General requirements' standard:

- Type 3a socket-outlets as per EN 62196-2 'Plugs, socket-outlets, vehicle connectors and vehicle inlets - Conductive charging of electric vehicles - Part 2: Dimensional compatibility and interchangeability requirements for a.c. pin and contact- tube accessories' (for Mode 3 charging)
- Socket-outlets compliant with IEC 60884 series 'Plugs and socket-outlets for household and similar purposes' including protective conductor (for Mode 1 or Mode 2 charging).

For publicly accessible alternating current (a.c.) recharging points above 3.7 kVA, the solution should be the same as the one defined for M-category vehicles, i.e. "the Type 2 vehicle connectors and socket outlets". Publicly accessible alternating current (a.c.) recharging points above 3.7 kVA reserved for L-category electric vehicles should be equipped, for interoperability purposes, with at least one socket-outlet as described above.

The standard EN 15869-2 "Inland navigation vessels - Electrical shore connection, three phase current 400 V, up to 63 A, 50 Hz - Part 2: Onshore unit, safety requirements" was adopted by CEN-CENELEC in December 2009 and published by the same organization in February 2010. This standard contains electrical safety requirements for preventing hazards when making, using and breaking the shore connection.

The standard EN ISO 17268 for "Gaseous hydrogen land vehicle refuelling connection devices" was adopted by CEN-CENELEC in July 2016 and published by the same organization in November 2016. This standard defines the design, safety and operational characteristics of gaseous hydrogen land vehicle (GHLV) refuelling connectors consisting of, as applicable, a receptacle and a protective cap (mounted on the vehicle), and a nozzle.

The standard EN ISO 20519 "Ships and marine technology - Specification for bunkering of liquefied natural gas fuelled vessels" was adopted by CEN-CENELEC and published by the same organization in February 2017. This standard sets the requirements for LNG bunkering transfer systems and the equipment used to bunker LNG fuelled vessels not covered by the IGC Code<sup>8</sup>.

This delegated act supplements the following provisions of Directive 2014/94/EU: Article 4 and points 1.5 and 1.8 of Annex II; Article 6 and point 3.1 of Annex II; and amends point 2.4 of Annex II to that Directive. This delegated act is adopted in accordance with Article 8 of Directive 2014/94/EU.

## 2. CONSULTATIONS PRIOR TO THE ADOPTION OF THE ACT

The "Expert Group Sustainable Transport Forum" was consulted during the Forum's meeting on 18 July 2017 and by e-mail on 5 September 2017. Before CEN-CENELEC adopted the standards referred to in the delegated act, the CEN-CENELEC carried out a survey of their members for their views.

In 2015, following the adoption of Directive 2014/94/EU, the members of the "Expert Group of the Sustainable Transport Forum" and the "European Sustainable

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<sup>8</sup> International Code of the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk

Shipping Forum" (Member States and stakeholders) were informed at different stages about the ongoing works for developing the standards to be included in the delegated act.

Moreover, these standards were presented at the workshop on alternative fuels infrastructure held in Brussels on 8 September 2017. In addition, the Commission presented the proposed standards as developed by CEN/CENELEC to be adopted in the delegated act in different meetings and conferences.

### **3. LEGAL ELEMENTS OF THE DELEGATED ACT**

This delegated act supplements and amends Directive 2014/94/EU in accordance with its Article 8.

A Regulation is the most appropriate legal instrument for this delegated act as it does not call for national transposition measures therefore ensuring a higher degree of harmonisation and swift entry into force.

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(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2014/94/EU of the European Parliament and of the Council of 22 October 2014 on the deployment of alternative fuels infrastructure<sup>9</sup>, and in particular Article 4(14), Article 5(3) and Article 6(11) thereof,

Whereas:

- (1) Commission standardisation work aims to ensure that technical specifications for the interoperability of recharging and refuelling points are specified in European or international standards by identifying the required technical specifications taking into account existing European standards and related international standardisation activities.
- (2) Pursuant to Article 10(1) of Regulation (EU) No 1025/2012 of the European Parliament and of the Council<sup>10</sup>, the Commission requested<sup>11</sup> the European Committee for Standardisation (CEN) and the European Committee for Electrotechnical Standardisation (CENELEC) to develop and adopt appropriate European standards (ENs), or to amend existing European standards, for: electricity supply for road, maritime transport and inland navigation; hydrogen supply for road transport; natural gas, including biomethane supply for road, maritime transport and inland navigation.
- (3) The standards developed by CEN and CENELEC have been accepted by the European industry, in order to ensure Union-wide mobility with vehicles and vessels running on different fuels.

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<sup>9</sup> OJ L 307, 28.10.2014, p.1.

<sup>10</sup> Regulation (EU) No 1025/2012 of the European Parliament and of the Council of 25 October 2012 on European standardisation, amending Council Directives 89/686/EEC and 93/15/EEC and Directives 94/9/EC, 94/25/EC, 95/16/EC, 97/23/EC, 98/34/EC, 2004/22/EC, 2007/23/EC, 2009/23/EC and 2009/105/EC of the European Parliament and of the Council and repealing Council Decision 87/95/EEC and Decision No 1673/2006/EC of the European Parliament and of the Council (OJ L 316, 14.11.2012, p. 12).

<sup>11</sup> M/533 Commission Implementing Decision C(2015) 1330 final of 12 March 2015 on a standardisation request addressed to the European standardisation organisations, in accordance with Regulation (EU) No 1025/2012 of the European Parliament and of the Council, to draft European standards for alternative fuels infrastructure.

- (4) By letter of 13 July 2017, CEN and CENELEC informed the Commission of the standards to be applied for publicly accessible alternating current (a.c.) recharging points for L-category motor vehicles.
- (5) The standard EN ISO 17268 for "Gaseous hydrogen land vehicle refuelling connection devices" was adopted by CEN and CENELEC in July 2016 and published in November 2016.
- (6) The standard EN ISO 20519 "Ships and marine technology - Specification for bunkering of liquefied natural gas fuelled vessels" was adopted by CEN and CENELEC and published in February 2017.
- (7) Prior to that, the standard EN 15869-2 "Inland navigation vessels - Electrical shore connection, three phase current 400 V, up to 63 A, 50 Hz - Part 2: Onshore unit, safety requirements" was already adopted in December 2009 and published in February 2010.
- (8) The "Expert Group Sustainable Transport Forum" was consulted and provided its advice on the standards that are the subject of this delegated act.
- (9) The Commission should supplement and amend Directive 2014/94/EU accordingly with the references to the European standards developed by CEN and CENELEC.
- (10) When new technical specifications identified in Annex II to Directive 2014/94/EU are to be established, updated or supplemented through delegated acts, a transition period of 24 months is to apply. The dates for publishing standards were agreed after discussion with CEN-CENELEC and taking into account the date when new refuelling and recharging points become available, as established by Directive 2014/94/EU, the maturing of the relevant technologies, and the current work of international standardisation organisations.

HAS ADOPTED THIS REGULATION:

#### *Article 1*

The publicly accessible alternating current (a.c.) recharging points reserved for L-category electric vehicles up to 3.7 kVA shall be equipped, for interoperability purposes, with at least one of the following:

- (a) socket-outlets or vehicle connectors of Type 3a as described in standard EN 62196-2 (for Mode 3 charging);
- (b) socket-outlets and connectors compliant with IEC 60884 (for Mode 1 or Mode 2 charging).

The publicly accessible alternating current (a.c.) recharging points reserved for L-category electric vehicles above 3.7 kVA shall be equipped, for interoperability purposes, with at least socket-outlets or vehicle connectors of Type 2 as described in standard EN 62196-2.

#### *Article 2*

The shore-side electricity supply for inland waterway vessels shall comply with standard EN 15869-2 "Inland navigation vessels - Electrical shore connection, three phase current 400 V, up to 63 A, 50 Hz - Part 2: Onshore unit, safety requirements".

### *Article 3*

The refuelling points for LNG for inland waterway vessels or sea-going ships, which are not covered by the International Code of the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code), shall comply with standard EN ISO 20519.

### *Article 4*

In Annex II to Directive 2014/94/EU, point 2.4 is replaced by the following:

"2.4. Connectors for motor vehicles for the refuelling of gaseous hydrogen shall comply with standard EN ISO 17268 'Gaseous hydrogen land vehicle refuelling connection devices'".

### *Article 5*

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

It shall apply from [*OP: Please insert the date 24 months after the date of entry into force*].

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 17.11.2017

*For the Commission  
On behalf of the President,  
Violeta BULC  
Member of the Commission*