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From:	General Secretariat of the Council
To:	Delegations
Subject:	Proposal for a Directive of the European Parliament and of the Council amending Directive 2014/32/EU as regards electric vehicle supply equipment, compressed gas dispensers, and electricity, gas and thermal energy meters - 3-column document

Delegations will find attached the initial-3-column document for the above-mentioned proposal, containing the initial positions of the institutions.

Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2014/32/EU as regards electric vehicle supply equipment, compressed gas dispensers, and electricity, gas and thermal energy meters (Text with EEA relevance)

2024/0311(COD)

	COM proposal	EP Mandate	Council Mandate
Formula			
1	2024/0311 (COD)	2024/0311 (COD)	2024/0311 (COD)
Document Stage			
2	Proposal for a	Proposal for a	Proposal for a
Document Type			
3	DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL	DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL	DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
Document Purpose			
4	amending Directive 2014/32/EU as regards electric vehicle supply equipment, compressed gas dispensers, and electricity, gas and thermal energy meters	amending Directive 2014/32/EU as regards electric vehicle supply equipment, compressed gas dispensers, and electricity, gas and thermal energy meters	amending Directive 2014/32/EU as regards electric vehicle supply equipment, compressed gas dispensers, and electricity, gas and thermal energy meters
EEA Relevance			
5	(Text with EEA relevance)	(Text with EEA relevance)	(Text with EEA relevance)
Formula			
6	THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,	THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,	THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,
Citation 1			

	COM proposal	EP Mandate	Council Mandate
7	Having regard to the Treaty on the Functioning of the European Union, and in particular Article 114 thereof,	Having regard to the Treaty on the Functioning of the European Union, and in particular Article 114 thereof,	Having regard to the Treaty on the Functioning of the European Union, and in particular Article 114 thereof,
Citation 2			
8	Having regard to the proposal from the European Commission,	Having regard to the proposal from the European Commission,	Having regard to the proposal from the European Commission,
Citation 3			
9	After transmission of the draft legislative act to the national Parliaments,	After transmission of the draft legislative act to the national Parliaments,	After transmission of the draft legislative act to the national Parliaments,
Citation 4			
10	Having regard to the opinion of the European Economic and Social Committee ¹ , 1. OJ C , , p. .	Having regard to the opinion of the European Economic and Social Committee ¹ , 1. OJ C , , p. .	Having regard to the opinion of the European Economic and Social Committee ¹ , 1. OJ C , , p. .
Citation 5			
11	Acting in accordance with the ordinary legislative procedure,	Acting in accordance with the ordinary legislative procedure,	Acting in accordance with the ordinary legislative procedure,
Formula			
12	Whereas:	Whereas:	Whereas:
Recital 1			
13	(1) One of the objectives of Directive 2014/32/EU of the European Parliament and of the Council ¹ on measuring instruments is to guarantee the proper functioning of the internal market. Pursuant to Article 6 of Directive 2014/32/EU, measuring instruments falling within the scope of that Directive are to meet the essential requirements set out in Annex I	(1) One of the objectives of Directive 2014/32/EU of the European Parliament and of the Council ¹ on measuring instruments is to guarantee the proper functioning of the internal market. Pursuant to Article 6 of Directive 2014/32/EU, measuring instruments falling within the scope of that Directive are to meet the essential requirements set out in Annex I	(1) One of the objectives of Directive 2014/32/EU of the European Parliament and of the Council ¹ on measuring instruments is to guarantee the proper functioning of the internal market. Pursuant to Article 6 of Directive 2014/32/EU, measuring instruments falling within the scope of that Directive are to meet the essential requirements set out in Annex I

	COM proposal	EP Mandate	Council Mandate
	and in the relevant instrument-specific Annexes. 1. Directive 2014/32/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of measuring instruments (OJ L 96, 29.3.2014, p. 149, ELI: http://data.europa.eu/eli/dir/2014/32/oj).	and in the relevant instrument-specific Annexes. 1. Directive 2014/32/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of measuring instruments (OJ L 96, 29.3.2014, p. 149, ELI: http://data.europa.eu/eli/dir/2014/32/oj).	and in the relevant instrument-specific Annexes. 1. Directive 2014/32/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of measuring instruments (OJ L 96, 29.3.2014, p. 149, ELI: http://data.europa.eu/eli/dir/2014/32/oj).
Recital 2			
14	(2) The scope and the associated essential requirements covered by Directive 2014/32/EU were already established by Directive 2004/22/EC¹, of which Directive 2014/32/EU is a recast. Thus, they have remained unchanged for more than 20 years. In the meantime, new measuring instruments have appeared on the market that are not covered by Directive 2014/32/EU. That is notably the case for electric vehicle supply equipment and compressed gas dispensers, which are important for the successful rollout of clean mobility. Moreover, Directive 2014/32/EU does not cover thermal energy meters for cooling applications. In addition, as far as electricity and gas meters are concerned, Directive 2014/32/EU neither covers the use of hydrogen and other gases that can be used as alternatives to more traditional gases, nor enables to take full advantage of smart metering which plays an important role in achieving the Union climate objectives. Therefore, it is appropriate to amend the scope of Directive 2014/32/EU and the essential	(2) The scope and the associated essential requirements covered by Directive 2014/32/EU were already established by Directive 2004/22/EC¹, of which Directive 2014/32/EU is a recast. Thus, they have remained unchanged for more than 20 years. In the meantime, new measuring instruments have appeared on the market that are not covered by Directive 2014/32/EU. That is notably the case for electric vehicle supply equipment and compressed gas dispensers, which are important for the successful rollout of clean mobility. Moreover, Directive 2014/32/EU does not cover thermal energy meters for cooling applications. In addition, as far as electricity and gas meters are concerned, Directive 2014/32/EU neither covers the use of hydrogen and other gases that can be used as alternatives to more traditional gases, nor enables to take full advantage of smart metering which plays an important role in achieving the Union climate objectives. Therefore, it is appropriate to amend the scope of Directive 2014/32/EU and the essential	(2) The scope and the associated essential requirements covered by Directive 2014/32/EU were ~~already~~ established by Directive 2004/22/EC¹, of which Directive 2014/32/EU is a recast. ~~Thus, they~~ <u>Technical requirements</u> have remained unchanged for more than 20 years. In the meantime, new measuring instruments have appeared on the market that are not covered by Directive 2014/32/EU. That is notably the case for electric vehicle supply equipment and compressed gas dispensers, which are important for the successful rollout of clean mobility. Moreover, Directive 2014/32/EU does not cover <u>requirements for</u> thermal energy meters for cooling applications. In addition, as far as electricity and gas meters are concerned, Directive 2014/32/EU ~~is~~ neither ~~covers~~ <u>adapted to</u> the use of <u>direct current</u>, hydrogen and other gases that can be used as alternatives to more traditional gases, nor enables to take full advantage of smart metering which plays an important role in achieving the Union climate objectives. Therefore, it is appropriate to amend the scope

	COM proposal	EP Mandate	Council Mandate
	requirements set out in the Annexes to that Directive in order to take into account technological progress. 1. Directive 2004/22/EC of the European Parliament and of the Council of 31 March 2004 on measuring instruments (OJ L 135, 30.4.2004, p. 1, ELI: http://data.europa.eu/eli/dir/2004/22/oj).	requirements set out in the Annexes to that Directive in order to take into account technological progress. <u>Further amendments, particularly in response to technological developments such as those affecting water meters, should be considered in a future revision of Directive 2014/32/EU. Such a revision should aim to assess whether the essential requirements for these measuring instruments remain appropriate to ensure high metrological performance and their compatibility with evolving digital infrastructures.</u> 1. Directive 2004/22/EC of the European Parliament and of the Council of 31 March 2004 on measuring instruments (OJ L 135, 30.4.2004, p. 1, ELI: http://data.europa.eu/eli/dir/2004/22/oj).	of Directive 2014/32/EU and the essential requirements set out in the Annexes to that Directive in order to take into account technological progress. 1. Directive 2004/22/EC of the European Parliament and of the Council of 31 March 2004 on measuring instruments (OJ L 135, 30.4.2004, p. 1, ELI: http://data.europa.eu/eli/dir/2004/22/oj).
Recital 3			
15	(3) Annexes I, IV, V and VI to Directive 2014/32/EU are no longer technology neutral as they do not provide essential requirements corresponding to new technologies, which provide improved protection to consumers, and should thus be amended.	(3) Annexes I, IV, V and VI to Directive 2014/32/EU are no longer technology neutral as they do not provide essential requirements corresponding to new technologies, which provide improved protection to consumers, and should thus be amended.	(3) Annexes I, IV, V and VI to Directive 2014/32/EU are no longer technology neutral as they do not provide essential requirements corresponding to new technologies, which provide improved protection to consumers, and should thus be amended.
Recital 4			
16	(4) Annex I to Directive 2014/32/EU should be amended in order to take into account the roll out of smart gas and electricity meters and the new measuring instruments covered by the new instrument-specific Annexes.	(4) Annex I to Directive 2014/32/EU should be amended in order to take into account the roll out of smart gas and electricity meters and the new measuring instruments covered by the new instrument-specific Annexes.	(4) Annex I to Directive 2014/32/EU should be amended in order to take into account the roll out of smart gas and electricity meters and the new measuring instruments covered by the new instrument-specific Annexes.
Recital 5			

	COM proposal	EP Mandate	Council Mandate
17	(5) Annex IV to Directive 2014/32/EU should be amended to take into account the growing use of hydrogen and other gases that can be used as alternatives to more traditional gases and the rollout of smart gas meters.	(5) Annex IV to Directive 2014/32/EU should be amended to take into account the growing use of hydrogen and other gases that can be used as alternatives to more traditional gases and the rollout of smart gas meters.	(5) Annex IV to Directive 2014/32/EU should be amended to take into account the growing use of hydrogen and other <u>fuel</u> gases that can be used as alternatives to more traditional <u>fuel</u> gases and the ~~rollout~~ <u>roll-out</u> of smart gas meters.
Recital 6			
18	(6) Annex V to Directive 2014/32/EU should be amended to take account of the rollout of smart electricity meters.	(6) Annex V to Directive 2014/32/EU should be amended to take account of the rollout of smart electricity meters.	(6) Annex V to Directive 2014/32/EU should be amended to take account of the rollout of smart electricity meters <u>and to fit with the applications using direct current.</u>
Recital 7			
19	(7) A new Annex Va to Directive 2014/32/EU should be inserted in order to address the need for harmonised essential requirements with regard to measuring systems for electric vehicle supply equipment.	(7) A new Annex Va to Directive 2014/32/EU should be inserted in order to address the need for harmonised essential requirements with regard to measuring systems for electric vehicle supply equipment.	(7) A new Annex Va to Directive 2014/32/EU should be inserted in order to address the need for harmonised essential requirements with regard to measuring systems for electric vehicle supply equipment.
Recital 7a			
19a		<u>(7a) The improvement of electric vehicle charging infrastructure is in the common interest of all stakeholders. This Directive does not aim to impose retrofitting obligations on existing charging stations, but to establish a harmonised framework for newly installed electric vehicle supply equipment.</u>	
Recital 8			
20	(8) Annex VI to Directive 2014/32/EU should be amended to include thermal energy meters for cooling applications in order to	(8) Annex VI to Directive 2014/32/EU should be amended to include thermal energy meters for cooling applications in order to	(8) Annex VI to Directive 2014/32/EU should be amended to include thermal energy meters for cooling applications in order to

	COM proposal	EP Mandate	Council Mandate
	avoid additional certification of such products at national level.	avoid additional certification of such products at national level.	avoid additional certification of such products at national level.
Recital 9			
21	(9) The increased use of compressed gases, such as hydrogen and natural gas requires the insertion of a new Annex VIIa to Directive 2014/32/EU on measuring systems for compressed gas dispensers.	(9) The increased use of compressed gases, such as hydrogen and natural gas requires the insertion of a new Annex VIIa to Directive 2014/32/EU on measuring systems for compressed gas dispensers.	(9) The increased use of compressed gases, such as hydrogen and natural gas, requires the insertion of a new Annex VIIa to Directive 2014/32/EU on measuring systems for compressed gas dispensers.
Recital 10			
22	(10) Since the objective of this Directive, namely to ensure that measuring instruments on the market fulfil the requirements providing for a high level of protection of the public interests covered by this Directive while guaranteeing the functioning of the internal market, cannot be sufficiently achieved by the Member States but can rather, by reason of its scale and effects, be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve that objective.	(10) Since the objective of this Directive, namely to ensure that measuring instruments on the market fulfil the requirements providing for a high level of protection of the public interests covered by this Directive while guaranteeing the functioning of the internal market, cannot be sufficiently achieved by the Member States but can rather, by reason of its scale and effects, be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve that objective.	(10) Since the objective of this Directive, namely to ensure that measuring instruments on the market fulfil the requirements providing for a high level of protection of the public interests covered by this Directive while guaranteeing the functioning of the internal market, cannot be sufficiently achieved by the Member States but can rather, by reason of its scale and effects, be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve that objective.
Recital 11			
23	(11) In order to enable distributors to supply stock of measuring instruments that have been placed on the market before the date of application of the national measures transposing this Directive, it is necessary to	(11) In order to enable distributors to supply stock of measuring instruments that have been placed on the market before the date of application of the national measures transposing this Directive, it is necessary to	(11) In order to enable distributors to supply stock of measuring instruments that ~~have been placed on the market before the date of application of the national measures transposing this~~ <u>are in conformity with</u>

	COM proposal	EP Mandate	Council Mandate
	provide for reasonable transitional arrangements that allow the making available on the market and putting into use of measuring instruments that have already been placed on the market in accordance with Directive 2014/32/EU before the date of application of the national measures transposing this Directive.	provide for reasonable transitional arrangements that allow the making available on the market and putting into use of measuring instruments that have already been placed on the market in accordance with Directive 2014/32/EU before the date of application of the national measures transposing this Directive.	<u>Directive 2014/32/EU or fall within the scope of that Directive, as amended</u> , it is necessary to provide for reasonable transitional arrangements that allow the making available on the market and putting into use of measuring instruments that have already been placed on the market ~~in accordance with Directive 2014/32/EU before~~ <u>no later than 60 months after</u> the date of ~~application of the national measures transposing~~ <u>entry into force</u> of this Directive.
Recital 12			
24	(12) Moreover, in order to provide sufficient time for manufacturers to adapt their products to the essential requirements set out in the Annexes to this Directive, it is also necessary to provide for reasonable transitional arrangements that allow the making available on the market and putting into use of measuring instruments that have been placed on the market in accordance with national certificates or for which a certificate was issued under Directive 2014/32/EU before the date of application of the national measures transposing this Directive, and that will fall in the scope of Directive 2014/32/EU as of the date of entry into force of this Directive.	(12) Moreover, in order to provide sufficient time for manufacturers to adapt their products to the essential requirements set out in the Annexes to this Directive, it is also necessary to provide for reasonable transitional arrangements that allow the making available on the market and putting into use of measuring instruments that have been placed on the market in accordance with national certificates or for which a certificate was issued under Directive 2014/32/EU before the date of application of the national measures transposing this Directive, and that will fall in the scope of Directive 2014/32/EU as of the date of entry into force of this Directive.	(12) Moreover, in order to provide sufficient time for manufacturers to adapt their products to the essential requirements set out in the Annexes to this Directive, it is also necessary to provide for reasonable transitional arrangements that allow the making available on the market and putting into use of measuring instruments that have been placed on the market in accordance with national certificates or for which a certificate was issued under Directive 2014/32/EU before the date of application of the national measures transposing this Directive, and that will fall in the scope of Directive 2014/32/EU as of the date of entry into force of this Directive.
Recital 13			
25	(13) Directive 2014/32/EU should therefore be amended accordingly,	(13) Directive 2014/32/EU should therefore be amended accordingly,	(13) Directive 2014/32/EU should therefore be amended accordingly,
Formula			

	COM proposal	EP Mandate	Council Mandate
26	HAVE ADOPTED THIS DIRECTIVE:	HAVE ADOPTED THIS DIRECTIVE:	HAVE ADOPTED THIS DIRECTIVE:
Article 1			
27	Article 1	Article 1	Article 1
Article 1, first paragraph			
28	Directive 2014/32/EU is amended as follows:	Directive 2014/32/EU is amended as follows:	Directive 2014/32/EU is amended as follows:
Article 1, first paragraph, point (1)			
29	(1) in Article 2, paragraph 1 is replaced by the following:	(1) in Article 2, paragraph 1 is replaced by the following:	(1) in Article 2, paragraph 1 is replaced by the following:
Article 1, first paragraph, point (1), amending provision, numbered paragraph (1)			
30	‘ 1. This Directive applies to the measuring instruments defined in the instrument-specific Annexes III to XII (‘instrument-specific Annexes’) concerning water meters (MI-001), gas meters and conversion devices (MI-002), active electrical energy meters (MI-003), measuring systems for electric vehicle supply equipment (MI-003a), thermal energy meters (MI-004), measuring systems for continuous and dynamic measurement of quantities of liquids other than water (MI-005), measuring systems for compressed gas dispensers (MI-005a), automatic weighing instruments (MI-006), taximeters (MI-007), material measures (MI-008), dimensional measuring instruments (MI-009) and exhaust gas analysers (MI-010).; ’	‘ 1. This Directive applies to the measuring instruments defined in the instrument-specific Annexes III to XII (‘instrument-specific Annexes’) concerning water meters (MI-001), gas meters and conversion devices (MI-002), active electrical energy meters (MI-003), measuring systems for electric vehicle supply equipment (MI-003a), thermal energy meters (MI-004), measuring systems for continuous and dynamic measurement of quantities of liquids other than water (MI-005), measuring systems for compressed gas dispensers (MI-005a), automatic weighing instruments (MI-006), taximeters (MI-007), material measures (MI-008), dimensional measuring instruments (MI-009) and exhaust gas analysers (MI-010).; ’	‘ 1. This Directive applies to the measuring instruments defined in the instrument-specific Annexes III to XII (‘instrument-specific Annexes’) concerning water meters (MI-001), gas meters and conversion devices (MI-002), active electrical energy meters (MI-003), measuring systems for electric vehicle supply equipment (MI-~~003a~~<u>011</u>), thermal energy meters (MI-004), measuring systems for continuous and dynamic measurement of quantities of liquids other than water (MI-005), measuring systems for compressed gas dispensers (MI-~~005a~~<u>012</u>), automatic weighing instruments (MI-006), taximeters (MI-007), material measures (MI-008), dimensional measuring instruments (MI-009) and exhaust gas analysers (MI-010).; ’

	COM proposal	EP Mandate	Council Mandate
Article 1, first paragraph, point (2)			
31	(2) Annex I is amended in accordance with Annex I to this Directive;	(2) Annex I is amended in accordance with Annex I to this Directive;	(2) Annex I is amended in accordance with Annex I to this Directive;
Article 1, first paragraph, point (3)			
32	(3) Annex IV is amended in accordance with Annex II to this Directive;	(3) Annex IV is amended in accordance with Annex II to this Directive;	(3) Annex IV is amended in accordance with Annex II to this Directive;
Article 1, first paragraph, point (4)			
33	(4) Annex V is amended in accordance with Annex III to this Directive;	(4) Annex V is amended in accordance with Annex III to this Directive;	(4) Annex V is amended in accordance with Annex III to this Directive;
Article 1, first paragraph, point (5)			
34	(5) Annex Va is inserted as set out in Annex IV to this Directive;	(5) Annex Va is inserted as set out in Annex IV to this Directive;	(5) Annex Va is inserted as set out in Annex IV to this Directive;
Article 1, first paragraph, point (6)			
35	(6) Annex VI is amended in accordance with Annex V to this Directive;	(6) Annex VI is amended in accordance with Annex V to this Directive;	(6) Annex VI is amended in accordance with Annex V to this Directive;
Article 1, first paragraph, point (7)			
36	(7) Annex VIIa is inserted as set out in Annex VI to this Directive.	(7) Annex VIIa is inserted as set out in Annex VI to this Directive.	(7) Annex VIIa is inserted as set out in Annex VI to this Directive.
Article 2			
37	Article 2	Article 2	Article 2
Article 2(1)			
38	1. By way of derogation from Article 7(2) of Directive 2014/32/EU, Member States shall not impede the making available on the market and putting into use of measuring instruments that are in conformity with	1. By way of derogation from Article 7(2) of Directive 2014/32/EU, Member States shall not impede the making available on the market and putting into use of measuring instruments that are in conformity with	1. By way of derogation from Article 7(2) of Directive 2014/32/EU, Member States shall not impede the making available on the market and putting into use of measuring instruments that are in conformity with <u>that</u>

	COM proposal	EP Mandate	Council Mandate
	Directive 2014/32/EU in the version in force on [OP please insert the date = the date of 1 day before of entry into force of this Directive] and that have been placed on the market before [OP please insert the date = [24 months] after the date of entry into force of this Directive].	Directive 2014/32/EU in the version in force on [OP please insert the date = the date of 1 day before of entry into force of this Directive] and that have been placed on the market before [OP please insert the date = [24 months] after the date of entry into force of this Directive].	Directive ~~2014/32/EU in the version in force~~ <u>or fall within the scope of that Directive, as amended</u> , on [OP please insert the date = the date of ~~1 day before of~~ entry into force of this <u>amending</u> Directive] and that have been placed on the market before [OP please insert the date = [~~24~~ <u>60</u> months] after the date of entry into force of this <u>amending</u> Directive].
Article 2(2)			
39	2. By way of derogation from Article 7(2) of Directive 2014/32/EU, certificates issued under Directive 2014/32/EU and national certificates, covering measuring instruments that fall in the scope of Directive 2014/32/EU from [OP please insert the date = date of entry into force of this Directive] and that have been placed on the market before [OP please insert the date = 24 months after the date of entry into force of this Directive], shall remain valid until the expiry of their validity, and in any case no longer than until [OP please insert the date = 12 years from the date of entry into force of this Directive].	2. By way of derogation from Article 7(2) of Directive 2014/32/EU, certificates issued under Directive 2014/32/EU and national certificates, covering measuring instruments that fall in the scope of Directive 2014/32/EU from [OP please insert the date = date of entry into force of this Directive] and that have been placed on the market before [OP please insert the date = 24 months after the date of entry into force of this Directive], shall remain valid until the expiry of their validity, and in any case no longer than until [OP please insert the date = 12 years from the date of entry into force of this Directive].	2. By way of derogation from Article 7(2) of Directive 2014/32/EU, certificates ~~issued under Directive 2014/32/EU and national certificates~~ , covering measuring instruments that fall ~~in~~ <u>within</u> the scope of Directive 2014/32/EU, ~~as amended on~~ <u>from</u> [OP please insert the date = date of entry into force of this <u>amending Directive</u>] ~~whether these are issued nationally or under~~ Directive ~~and that have been placed on the market~~ <u>2014/32/EU</u> , before [OP please insert the date = ~~24 months after the~~ date of ~~entry into~~ <u>force</u> <u>application</u> of this <u>amending</u> Directive], shall remain valid until the expiry of their validity, and in any case no longer than until [OP please insert the date = 12 years from the date of entry into force of this <u>amending</u> Directive].
Article 3			
40	Article 3	Article 3	Article 3
Article 3(1), first subparagraph			

	COM proposal	EP Mandate	Council Mandate
41	1. Member States shall adopt and publish, by [Note to PO: insert exact date – [12 months] after entry into force of this Directive] at the latest, the laws, regulations and administrative provisions necessary to comply with this Directive. They shall forthwith communicate to the Commission the text of those provisions.	1. Member States shall adopt and publish, by [Note to PO: insert exact date – [12 months] after entry into force of this Directive] at the latest, the laws, regulations and administrative provisions necessary to comply with this Directive. They shall forthwith communicate to the Commission the text of those provisions.	1. Member States shall adopt and publish, by [Note to PO: insert exact date – [~~12~~ 24 months] after entry into force of this Directive] ~~at the latest~~ , the laws, regulations and administrative provisions necessary to comply with this Directive. They shall forthwith communicate to the Commission the text of those provisions.
Article 3(1), second subparagraph			
42	They shall apply those provisions from [Note to PO: insert exact date – [24 months] after entry into force of this Directive].	They shall apply those provisions from [Note to PO: insert exact date – [24 months] after entry into force of this Directive].	They shall apply those provisions from [Note to PO: insert exact date – [~~24~~ 30 months] after entry into force of this Directive].
Article 3(1), third subparagraph			
43	When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.	When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.	When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.
Article 3(2)			
44	2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.	2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.	2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.
Article 4			
45	Article 4	Article 4	Article 4
Article 4, first paragraph			

	COM proposal	EP Mandate	Council Mandate
46	This Directive shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.	This Directive shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.	This Directive shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.
Article 5			
47	Article 5	Article 5	Article 5
Article 5, first paragraph			
48	This Directive is addressed to the Member States.	This Directive is addressed to the Member States.	This Directive is addressed to the Member States.
Formula			
49	Done at Brussels,	Done at Brussels,	Done at Brussels,
Formula			
50	For the European Parliament	For the European Parliament	For the European Parliament
Formula			
51	The President	The President	The President
Formula			
52	For the Council	For the Council	For the Council
Formula			
53	The President	The President	The President
Annex I			
54	Annex I	Annex I	Annex I
Annex I, first paragraph			
55	Annex I to Directive 2014/32/EU is amended as follows:	Annex I to Directive 2014/32/EU is amended as follows:	Annex I to Directive 2014/32/EU is amended as follows:
Annex I, second paragraph			

	COM proposal	EP Mandate	Council Mandate
56	(1) in part 'DEFINITIONS', in the seventh row of the table, the definition of 'Direct sales' is replaced by the following:	(1) in part 'DEFINITIONS', in the seventh row of the table, the definition of 'Direct sales' is replaced by the following:	(1) in part 'DEFINITIONS', in the <u>table</u> , seventh row ~~of the table, the definition of 'Direct sales'~~ , <u>second column, third indent</u> is replaced by the following:
Annex I, second paragraph, amending provision, first paragraph			
57	' A trading transaction is direct sales if:	' A trading transaction is direct sales if:	' ~~A trading transaction is direct sales if:~~
Annex I, second paragraph, amending provision, first paragraph, first indent			
58	- the measurement result serves as the basis for the price to pay; and	- the measurement result serves as the basis for the price to pay; and	- ~~the measurement result serves as the basis for the price to pay; and~~
Annex I, second paragraph, amending provision, first paragraph, second indent			
59	- at least one of the parties involved in the transaction related to measurement is a consumer or any other party requiring a similar level of protection; and	- at least one of the parties involved in the transaction related to measurement is a consumer or any other party requiring a similar level of protection; and	- ~~at least one of the parties involved in the transaction related to measurement is a consumer or any other party requiring a similar level of protection; and~~
Annex I, second paragraph, amending provision, first paragraph, third indent			
60	- all the parties in the transaction accept the measurement result at the time the measurement is concluded.; ,	- all the parties in the transaction accept the measurement result at the time the measurement is concluded.; ,	- <u>all the parties in the transaction accept the measurement result at that time and place; for measuring systems for compressed gas dispensers and for measuring systems for electric vehicle supply equipment</u> , all the parties in the transaction accept the measurement result at the time the measurement is concluded.; ,
Annex I, 2 paragraph			
61	(2) point 10.2. is replaced by the following:	(2) point 10.2. is replaced by the following:	<i>deleted</i>

	COM proposal	EP Mandate	Council Mandate
Annex I, 2 paragraph, amending provision, numbered paragraph (10.2)			
62	10.2. The indication of any result shall be clear and unambiguous, protected against accidental deletion, and accompanied by such marks and inscriptions necessary to inform the user of the significance of the result. Easy reading of the presented result shall be permitted under normal conditions of use. Additional indications may be shown provided they cannot be confused with the metrologically controlled indications.;	10.2. The indication of any result ~~shall~~ <u>be must be unequivocally</u> clear and unambiguous, protected against accidental deletion <u>or modification</u>, and accompanied by ~~such~~ <u>all necessary</u> marks and inscriptions necessary to inform the user of the significance of the result. ~~Easy~~ <u>Effortless</u> reading of the presented result shall be permitted under normal conditions of use. Additional indications may be shown provided they <u>under any circumstances</u>, cannot be confused with the metrologically controlled indications.;	deleted
Annex I, 3 paragraph			
63	(3) the following points 10.6., 10.7., and 10.8. are added:	(3) the following points 10.6., 10.7., and 10.8. are added:	(3) the following points ~~10.6., 10.7., and 10.8.~~ are added:
Annex I, 3 paragraph, amending provision, numbered paragraph (10.6), first subparagraph			
64	10.6. By way of derogation from points 10.1. and 10.5., for gas and electricity meters, measuring systems for electric vehicle supply equipment ('EVSE') and measuring systems for compressed gas dispensers the following shall apply:	10.6. By way of derogation from points 10.1. and 10.5., for gas and electricity meters, measuring systems for electric vehicle supply equipment ('EVSE') and measuring systems for compressed gas dispensers the following shall apply:	10.6. By way of derogation from points 10.1. and 10.5., for gas <u>meters</u> and electricity meters, ~~measuring systems for electric vehicle supply equipment ('EVSE') and measuring systems for compressed gas dispensers~~ the following shall apply:
Annex I, 3 paragraph, amending provision, numbered paragraph (10.6), second subparagraph			

	COM proposal	EP Mandate	Council Mandate
65	The measuring instruments shall use one or more of the following technical solutions to indicate the measurement results:	The measuring instruments shall use one or more of the following technical solutions to indicate the measurement results:	<u>Indication of the measurement result and other data relevant to that result</u> ~~The measuring instruments shall use~~ <u>be accessible without tools by</u> one or more of the following ~~technical solutions to indicate the measurement results~~ <u>means:</u>
Annex I, 3 paragraph, amending provision, numbered paragraph (10.6), second subparagraph, point (a)			
66	(a) be fitted with a metrologically controlled display, readout and/or printer accessible without tools to present the relevant data;	(a) be fitted with a metrologically controlled display, readout and/or printer accessible without tools to present the relevant data;	(a) ~~be fitted with~~ a metrologically controlled <u>local</u> display, ~~readout and/or printer accessible without tools to present the relevant data~~ <u>print or record</u> ;
Annex I, 3 paragraph, amending provision, numbered paragraph (10.6), second subparagraph, point (b)			
67	(b) present the relevant data on a remote display accessible without tools or on a device of the consumer or end-user.	(b) present the relevant data on a remote display accessible without tools or on a device of the consumer or end-user.	(b) ~~present the relevant data on~~ a remote display ~~accessible without tools or on a device of the consumer or end-user.~~
Annex I, 3 paragraph, amending provision, numbered paragraph (10.6), second subparagraph a			
67a			<u>By way of derogation from points 10.1. and 10.5., for measuring systems for electric vehicle supply equipment ('EVSE') and measuring systems for compressed gas dispensers, the following shall apply:</u>
Annex I, 3 paragraph, amending provision, numbered paragraph (10.6), second subparagraph b			
67b			<u>Indication of the measurement result and other data relevant to this result shall be accessible without tools by one or more of the following means:</u>
Annex I, 3 paragraph, amending provision, numbered paragraph (10.6), second subparagraph b, point (a)			
67c			<u>(a) a metrologically controlled local display, print or record;</u>

	COM proposal	EP Mandate	Council Mandate
Annex I, 3 paragraph, amending provision, numbered paragraph (10.6), second subparagraph b, point (b)			
67d			<u>(b)</u> <u>a remote display;</u>
Annex I, 3 paragraph, amending provision, numbered paragraph (10.6), second subparagraph b, point (c)			
67e			<u>(c)</u> <u>a device of the consumer or end-user.</u>
Annex I, 3 paragraph, amending provision, numbered paragraph (10.6), third subparagraph			
68	The presented results shall be traceable to the measuring instrument under metrological control. Security measures shall provide evidence of tampering.	The presented <u>metrologically controlled</u> results, <u>as referred to in point b</u> , shall be traceable to the measuring instrument ~~under metrological control~~ . Security measures shall provide evidence of tampering.	The presented ~~results~~ <u>measurement result</u> shall be traceable to the measuring instrument under metrological control. Security measures shall provide evidence of tampering.
Annex I, 3 paragraph, amending provision, numbered paragraph (10.6), fourth subparagraph			
69	The measurement result presented by the respective technical solution shall serve as the basis for the price to pay, when applicable.	The measurement result presented by the respective technical solution shall ~~serve only~~ <u>be used</u> as the basis for <u>calculating</u> the price to ~~pay~~ <u>be paid</u> , when applicable.	The <u>presented</u> measurement result ~~presented by the respective technical solution~~ shall serve as the basis for the price to pay, ~~when~~ <u>if</u> applicable.
Annex I, 3 paragraph, amending provision, numbered paragraph (10.6), fifth subparagraph			
70	The data may be made available, in addition, by means of metrologically controlled remote channel.	The <u>metrologically controlled</u> data may be made available, in addition, by means of ~~metrologically controlled~~ remote channel.	<i>deleted</i>
Annex I, 3 paragraph, amending provision, numbered paragraph (10.7)			
71	10.7. By way of derogation from point 10.4., for measuring systems for EVSE and measuring systems for compressed gas dispensers, the measurement data shall be fully established in a device or a system so that it can be immediately presented to the consumer.	10.7. By way of derogation from point 10.4., for measuring systems for EVSE <u>used for direct sales</u> and measuring systems for compressed gas dispensers, the measurement data shall be fully established in a device or a system, <u>including cloud-based systems</u> , so that	<i>deleted</i>

	COM proposal	EP Mandate	Council Mandate
		it can be immediately presented to the consumer.	
<i>Annex I, 3 paragraph, amending provision, numbered paragraph (10.8)</i>			
72	10.8. By way of derogation from point 10.4., measuring systems for EVSE shall be designed to present the measurement result to all parties in the transaction when installed as intended..	10.8. By way of derogation from point 10.4., measuring systems for EVSE <u>used for direct sales</u> shall ~~be designed to~~ present the measurement result to all parties in the transaction when installed as intended.?	<i>deleted</i>
<i>Annex II</i>			
73	<i>Annex II</i>	<i>Annex II</i>	<i>Annex II</i>
<i>Annex II, first paragraph</i>			
74	Annex IV to Directive 2014/32/EU is amended as follows:	Annex IV to Directive 2014/32/EU is amended as follows:	Annex IV to Directive 2014/32/EU is amended as follows:
<i>Annex II, second paragraph</i>			
75	(1) the title is replaced by the following:	(1) the title is replaced by the following:	(1) the title is replaced by the following:
<i>Annex II, second paragraph, amending provision, first paragraph</i>			
76	‘ GAS METERS AND CONVERSION DEVICES (MI-002); ’,	‘ GAS METERS AND CONVERSION DEVICES (MI-002); ’,	‘ <u>GAS METERS AND CONVERSION DEVICES (MI-002)</u> ; ’,
<i>Annex II, 2 paragraph</i>			
77	(2) the first paragraph is replaced by the following:	(2) the first paragraph is replaced by the following:	(2) the first paragraph is replaced by the following:
<i>Annex II, 2 paragraph, amending provision, first paragraph</i>			

	COM proposal	EP Mandate	Council Mandate
78	‘ The relevant requirements of Annex I, the specific requirements of this Annex and the conformity assessment procedures listed in this Annex apply to gas meters and conversion devices defined in this Annex, intended for residential, commercial and light industrial use.; ’,	‘ The relevant requirements of Annex I, the specific requirements of this Annex and the conformity assessment procedures listed in this Annex apply to gas meters and conversion devices defined in this Annex, intended for residential, commercial and light industrial use.; ’,	‘ The relevant requirements of Annex I, the specific requirements of this Annex and the conformity assessment procedures listed in this Annex apply to gas meters and conversion devices defined in this Annex, intended for residential, commercial and light industrial use.; ’,
Annex II, 3 paragraph			
79	(3) in part ‘DEFINITIONS’, the table is amended as follows:	(3) in part ‘DEFINITIONS’, the table is amended as follows:	(3) in part ‘DEFINITIONS’, the table is amended as follows:
Annex II, 3 paragraph, point (a)			
80	(a) in the first row, the definition of ‘Gas meter’ is replaced by the following:	(a) in the first row, the definition of ‘Gas meter’ is replaced by the following:	(a) in the first row, the ~~definition of ‘Gas meter’~~ <u>wording in the second column</u> is replaced by the following:
Annex II, 3 paragraph, point (a), amending provision, first paragraph			
81	‘ An instrument designed to measure, memorise and display the quantity of fuel gas (volume or mass) and/or energy of that gas that has passed it.; ’,	‘ An instrument designed to measure, memorise and display the quantity of fuel gas (volume or mass) ~~and/or energy of that gas that has passed it.~~ ; ’,	‘ An instrument designed to measure, ~~memorise~~ <u>and to ensure the memorisation</u> and display <u>of</u> the quantity of fuel gas (volume or mass) ~~and/or energy of that gas~~ that has passed <u>through it and, if applicable, the quantity of its energy</u> ~~it.~~ ; ’,
Annex II, 3 paragraph, point (b)			

	COM proposal	EP Mandate	Council Mandate
82	(b) in the second row, first column, the term 'Conversion device' is replaced by the following:	(b) in the second row, first column, the term 'Conversion device' is replaced by the following:	(b) in the second row, <u>the wording in the</u> first column, ~~the term 'Conversion device'~~ is replaced by the following:
Annex II, 3 paragraph, point (b), amending provision, first paragraph			
83	‘ Volume conversion device; ,	‘ Volume conversion device; ,	‘ Volume conversion device; ,
Annex II, 3 paragraph, point (c)			
84	(c) the following rows are added:	(c) the following rows are added:	(c) the following rows are added:
Annex II, 3 paragraph, point (c), amending provision, first paragraph			
85	‘		‘
Annex II, 3 paragraph, point (c), amending provision, Table			
86	Table (row 86)	‘Table (row 86)	Table (row 86)
Annex II, 3 paragraph, point (c), amending provision, second paragraph			
87	,		,
Annex II, 4 paragraph			
88	(4) Part I is amended as follows:	(4) Part I is amended as follows:	(4) Part I is amended as follows:
Annex II, 4 paragraph, point (a)			
89	(a) point 1.1. is replaced by the following:	(a) point 1.1. is replaced by the following:	(a) point 1.1. is replaced by the following:
Annex II, 4 paragraph, point (a), amending provision, first paragraph			
90	‘	‘	‘

	COM proposal	EP Mandate	Council Mandate
	The flowrate range of the gas shall fulfil at least the following conditions:	The flowrate range of the gas shall fulfil at least the following conditions:	The flowrate range of the gas shall fulfil at least the following conditions:
Annex II, 4 paragraph, point (a), amending provision, first paragraph, Table			
91	Table (row 91)	Table (row 91)	Table (row 91)
Annex II, 4 paragraph, point (a), amending provision, second paragraph			
92	If a gas meter has multiple gas application-dependent flow rate ranges, all of those shall be inscribed on the meter, accompanied by a clear description of the gas application.;	If a gas meter has multiple gas application-dependent flow rate ranges, all of those shall be inscribed on the meter, accompanied by a clear description of the gas application.;	If a gas meter has multiple gas application-dependent flow rate ranges, all ~~of those~~ <u>such flow rate ranges</u> shall be inscribed on the meter, accompanied by a clear description of the gas application.;
Annex II, 4 paragraph, point (b)			
93	(b) the introductory sentence of point 3.1.1. is replaced by the following:	(b) the introductory sentence of point 3.1.1. is replaced by the following:	(b) <u>in point 3.1.1.</u> , the introductory sentence ~~of point 3.1.1.~~ is replaced by the following:
Annex II, 4 paragraph, point (b), amending provision, first paragraph			
94	‘ The effect of an electromagnetic disturbance on a gas meter, conversion device or gas calorific value determining device shall be such that;; ’	‘ The effect of an electromagnetic disturbance on a gas meter, conversion device or gas calorific value determining device shall be such that;; ’	‘ The effect of an electromagnetic disturbance on a gas meter, conversion device or gas calorific value determining device shall be such that;; ’
Annex II, 4 paragraph, point (c)			
95	(c) in point 6, the following paragraph is added :	(c) in point 6, the following paragraph is added :	(c) in point 6, the following paragraph is added :
Annex II, 4 paragraph, point (c), amending provision, first paragraph			

	COM proposal	EP Mandate	Council Mandate
96	‘ Quantity of energy shall be displayed in joules or in watt-hours.; ,	‘ Quantity of energy shall be displayed in joules or in watt-hours.; ,	‘ Quantity of energy shall be displayed in joules or in watt-hours <u>or their decimal multiples</u> .; ,
Annex II, 5 paragraph			
97	(5) Part II is amended as follows:	(5) Part II is amended as follows:	(5) Part II is amended as follows:
Annex II, 5 paragraph, point (a)			
98	(a) the title is replaced by the following:	(a) the title is replaced by the following:	(a) the title is replaced by the following:
Annex II, 5 paragraph, point (a), amending provision, first paragraph			
99	‘ SPECIFIC REQUIREMENTS	‘ SPECIFIC REQUIREMENTS	‘ SPECIFIC REQUIREMENTS
Annex II, 5 paragraph, point (a), amending provision, second paragraph			
100	CONVERSION DEVICES; ,	CONVERSION DEVICES; ,	CONVERSION DEVICES; ,
Annex II, 5 paragraph, point (b)			
101	(b) the first paragraph and the introductory sentence of the second paragraph are replaced by the following:	(b) the first paragraph and the introductory sentence of the second paragraph are replaced by the following:	(b) the first ~~paragraph and the introductory sentence of the~~ <u>and</u> second ~~paragraph~~ <u>paragraphs</u> are replaced by the following:
Annex II, 5 paragraph, point (b), amending provision, first paragraph			
102	‘ A conversion device constitutes a sub-assembly when it is together with a measuring instrument with which it is compatible.	‘ A conversion device constitutes a sub-assembly when it is together with a measuring instrument with which it is compatible.	‘ A conversion device constitutes a sub-assembly when it is together with a measuring instrument with which it is compatible.
Annex II, 5 paragraph, point (b), amending provision, second paragraph			

	COM proposal	EP Mandate	Council Mandate
103	For a conversion device, the essential requirements for the gas meter shall apply, if applicable.;	For a conversion device, the essential requirements for the gas meter shall apply, if applicable.;	For a conversion device, the essential requirements for the gas meter shall apply, if applicable. ~~;~~ <u>In addition, the following requirements shall apply.;</u>
Annex II, 5 paragraph, point (c)			
104	(c) point 8 is amended as follows:	(c) point 8 is amended as follows:	(c) point 8 is amended as follows:
Annex II, 5 paragraph, point (c)(i)			
105	(i) the title is replaced by the following:	(i) the title is replaced by the following:	(i) the title is replaced by the following:
Annex II, 5 paragraph, point (c)(i), amending provision, first paragraph			
106	‘ MPE for volume conversions devices; ’	‘ MPE for volume conversions devices; ’	‘ MPE for volume ~~conversions~~ <u>conversion</u> devices; ’
Annex II, 5 paragraph, point (c)(ii)			
107	(ii) the note to point 8 is replaced by the following:	(ii) the note to point 8 is replaced by the following:	(ii) the note to point 8 is replaced by the following:
Annex II, 5 paragraph, point (c)(ii), amending provision, first paragraph			
108	‘ Note: ’	‘ Note: ’	‘ Note: ’
Annex II, 5 paragraph, point (c)(ii), amending provision, first paragraph, first paragraph			
109	The errors of the gas meter and, if applicable, of the gas calorific value determining device are not taken into account.	The errors of the gas meter and, if applicable, of the gas calorific value determining device are not taken into account.	The errors of the gas meter and, if applicable, of the gas calorific value determining device are not taken into account.
Annex II, 5 paragraph, point (c)(ii), amending provision, first paragraph, second paragraph			

	COM proposal	EP Mandate	Council Mandate
110	The conversion device shall not exploit the MPEs or systematically favour any party.;	The conversion device shall not exploit the MPEs or systematically favour any party.;	The conversion device shall not exploit the MPEs or systematically favour any party.;
Annex II, 5 paragraph, point (ca)			
110a			<u>(ca) the following point is inserted:</u>
Annex II, 5 paragraph, point (ca), amending provision, first paragraph			
110b			‘ <u>8a. MPE for energy conversion devices</u>
Annex II, 5 paragraph, point (ca), amending provision, second paragraph			
110c			<u>The MPE of the conversion calculation of energy is equal to 0,05 %.</u> ;
Annex II, 6 paragraph			
111	(6) the following Part IIa is inserted:	(6) the following Part IIa is inserted:	(6) the following Part IIa is inserted:
Annex II, 6 paragraph, amending provision, first paragraph			
112	‘ PART IIa	‘ PART IIa	‘ PART IIa
Annex II, 6 paragraph, amending provision, second paragraph			
113	SPECIFIC REQUIREMENTS	SPECIFIC REQUIREMENTS	SPECIFIC REQUIREMENTS
Annex II, 6 paragraph, amending provision, third paragraph			
114	GAS CALORIFIC VALUE DETERMINING DEVICES	GAS CALORIFIC VALUE DETERMINING DEVICES	GAS CALORIFIC VALUE DETERMINING DEVICES
Annex II, 6 paragraph, amending provision, fourth paragraph			

	COM proposal	EP Mandate	Council Mandate
115	A gas calorific value determining device is either of the following:	A gas calorific value determining device is either of the following:	A gas calorific value determining device ~~is either of the following:~~ <u>sends, locally or remotely, signals to the energy conversion device.</u>
Annex II, 6 paragraph, amending provision, fourth paragraph, point (a)			
116	(a) it is locally installed and sends signals directly to the energy conversion device;	(a) it is locally installed and sends signals directly to the energy conversion device;	<i>deleted</i>
Annex II, 6 paragraph, amending provision, fourth paragraph, point (b)			
117	(b) it is not locally installed and is considered as an external transducer.	(b) it is not locally installed and is considered as an external transducer.	<i>deleted</i>
Annex II, 6 paragraph, amending provision, fifth paragraph			
118	For a gas calorific value determining device, the essential requirements for the gas meter shall apply, where applicable. In addition, the following requirements shall apply:	For a gas calorific value determining device, the essential requirements for the gas meter shall apply, where applicable. In addition, the following requirements shall apply:	For a gas calorific value determining device, the essential requirements for the gas meter shall apply, where applicable. In addition, the following requirements shall apply:
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9a)			
119	9a. Base conditions for converted quantities	9a. Base conditions for converted quantities	9a. Base conditions for converted quantities
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9a), first paragraph			
120	The manufacturer shall specify the following:	The manufacturer shall specify the following:	The manufacturer shall specify the following:
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9a), first paragraph, first indent			
121	- the range for gas chemical composition;	- the range for gas chemical composition;	- the range for gas chemical composition;
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9a), first paragraph, second indent			

	COM proposal	EP Mandate	Council Mandate
122	- the base conditions for calorific value and converted quantities.	- the base conditions for calorific value and converted quantities.	- the base conditions for calorific value and converted quantities.
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9b)			
123	9b. MPE	9b. MPE	9b. MPE
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9b), Table			
124	Table (row 124)	Table (row 124)	Table (row 124)
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9b), first paragraph			
125	The gas calorific value determining device shall not exploit the MPEs or systematically favour any party.	The gas calorific value determining device shall not exploit the MPEs or systematically favour any party.	The gas calorific value determining device shall not exploit the MPEs or systematically favour any party.
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9c), first subparagraph			
126	9c. Permissible effect of disturbances	9c. Permissible effect of disturbances	9c. Permissible effect of disturbances
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9c), second subparagraph			
127	The critical change value is the greater of the two following values:	The critical change value is the greater of the two following values:	The critical change value is the greater of the two following values:
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9c), second subparagraph, first indent			
128	- one fifth of the magnitude of the MPE for the calorific value;	- one fifth of the magnitude of the MPE for the calorific value;	- one fifth of the magnitude of the MPE for the calorific value;
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9c), second subparagraph, second indent			
129	- two scale intervals of the gas calorific value determining device.	- two scale intervals of the gas calorific value determining device.	- two scale intervals of the gas calorific value determining device.
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9d), first subparagraph			
130	9d. Durability	9d. Durability	9d. Durability
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9d), second subparagraph			

	COM proposal	EP Mandate	Council Mandate
131	After an appropriate test, taking into account the period of time estimated by the manufacturer, has been performed, the following two criteria shall be satisfied:	After an appropriate test, taking into account the period of time estimated by the manufacturer, has been performed, the following two criteria shall be satisfied:	After an appropriate test, taking into account the period of time estimated by the manufacturer, has been performed, the following two criteria shall be satisfied:
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9d), second subparagraph, first indent			
132	- the variation of the measurement result after the durability test when compared with the initial measurement result shall not exceed half of the magnitude of the MPE;	- the variation of the measurement result after the durability test when compared with the initial measurement result shall not exceed half of the magnitude of the MPE;	- the variation of the measurement result after the durability test when compared with the initial measurement result shall not exceed half of the magnitude of the MPE; <u>and</u>
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9d), second subparagraph, second indent			
133	- the error of indication after the durability test shall not exceed the MPE.	- the error of indication after the durability test shall not exceed the MPE.	- the error of indication after the durability test shall not exceed the MPE.
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9e), first subparagraph			
134	9e. Suitability	9e. Suitability	9e. Suitability
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9e), second subparagraph			
135	A gas calorific value determining device shall be capable of detecting when it is operating outside the operating ranges stated by the manufacturer for parameters that shall be registered for measurement accuracy. In such a case, the gas calorific value determining device shall register the following:	A gas calorific value determining device shall be capable of detecting when it is operating outside the operating ranges stated by the manufacturer for parameters that shall be registered for measurement accuracy. In such a case, the gas calorific value determining device shall register the following:	A gas calorific value determining device shall be capable of detecting when it is operating outside the operating ranges stated by the manufacturer for parameters that shall be registered for measurement accuracy. In such a case, the gas calorific value determining device shall register the following:
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9e), second subparagraph, point (a)			
136	(a) that the gas calorific value is not relevant;	(a) that the gas calorific value is not relevant;	(a) that the gas calorific value is not relevant;
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9e), second subparagraph, point (b)			
137	(b) that the gas calorific value determining device operates outside the operating range.	(b) that the gas calorific value determining device operates outside the operating range.	(b) that the gas calorific value determining device operates outside the operating range.

	COM proposal	EP Mandate	Council Mandate
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9f), first subparagraph			
138	9f. Units	9f. Units	9f. Units
Annex II, 6 paragraph, amending provision, fifth paragraph, point (9f), second subparagraph			
139	Calorific value shall be displayed in joules and/or watt-hours per unit of mass or volume at base conditions..	Calorific value shall be displayed in joules and/or watt-hours per unit of mass or volume at base conditions..	Calorific value shall be displayed in joules and/or watt-hours, <u>or their decimal multiples</u> , per unit of mass or volume at base conditions..
Annex III			
140	Annex III	Annex III	Annex III
Annex III, first paragraph			
141	Annex V to Directive 2014/32/EU is amended as follows:	Annex V to Directive 2014/32/EU is amended as follows:	Annex V to Directive 2014/32/EU is amended as follows:
Annex III, second paragraph			
142	(1) in part ‘DEFINITIONS’, the introductory sentence is replaced by the following:	(1) in part ‘DEFINITIONS’, the introductory sentence is replaced by the following:	(1) in part ‘DEFINITIONS’, the introductory sentence is replaced by the following:
Annex III, second paragraph, amending provision, first paragraph			
143	‘ An active electrical energy meter is an instrument which measures the active electrical energy consumed in a circuit or transferred between circuits.;’	‘ An active electrical energy meter is an instrument ~~which measures~~ <u>measuring</u> the active electrical energy consumed <u>and delivered in an electrical</u> ~~in a circuit or transferred between circuits.~~ ’	‘ An active electrical energy meter is an instrument ~~which measures~~ <u>designed to measure and to ensure the memorisation and display of</u> the active electrical energy consumed in a circuit or transferred between circuits.;’
Annex III, 2 paragraph			

	COM proposal	EP Mandate	Council Mandate
144	(2) in part 'DEFINITIONS', in the table, the last three rows are replaced by the following:	(2) in part 'DEFINITIONS', in the table, the last three rows are replaced by the following:	(2) in part 'DEFINITIONS', in the table, <u>row three and four, and</u> the last three rows are replaced by the following:
Annex III, 2 paragraph, amending provision, first paragraph			
145	‘		‘
Annex III, 2 paragraph, amending provision, Table			
146	Table (row 146)	‘Table (row 146)	Table (row 146)
Annex III, 2 paragraph, amending provision, second paragraph			
147	’		’
Annex III, 3 paragraph			
148	(3) in point 2, the last two paragraphs are replaced by the following:	(3) in point 2, the last two paragraphs are replaced by the following:	(3) in point 2, the last two paragraphs are replaced by the following:
Annex III, 3 paragraph, amending provision, first paragraph			
149	‘ The operating ranges within which the meter shall satisfy the MPE requirements are specified in Table 2.	‘ The operating ranges within which the meter shall satisfy the MPE requirements are specified in Table 2.	‘ ~~The operating ranges within which~~ <u>MPE requirements that</u> the meter shall satisfy <u>depending on the operating ranges</u> ~~the MPE requirements~~ are specified in Table 2.
Annex III, 3 paragraph, amending provision, second paragraph			
150	For AC electrical energy meters, the voltage, frequency and power factor ranges shall be:	For AC electrical energy meters, the voltage, frequency and power factor ranges shall be:	For AC electrical energy meters, the voltage, frequency and power factor ranges shall be:
Annex III, 3 paragraph, amending provision, second paragraph, first indent			
151	-	-	-

	COM proposal	EP Mandate	Council Mandate
	$0,9 \bullet U_n \leq U \leq 1,1 \bullet U_n$;	$0,9 \bullet U_n \leq U \leq 1,1 \bullet U_n$;	$0,9 \bullet U_n \leq U \leq 1,1 \bullet U_n$;
Annex III, 3 paragraph, amending provision, second paragraph, second indent			
152	- $0,98 \bullet f_n \leq f \leq 1,02 \bullet f_n$;	- $0,98 \bullet f_n \leq f \leq 1,02 \bullet f_n$;	- $0,98 \bullet f_n \leq f \leq 1,02 \bullet f_n$ -;
Annex III, 3 paragraph, amending provision, second paragraph, third indent			
153	- $0,5_{inductive} \leq PF \leq 0,8_{capacitive}$.	- $0,5_{inductive} \leq PF \leq 0,8_{capacitive}$.	- $0,5_{inductive} \leq PF \leq 0,8_{capacitive}$ $0,5_{inductive} \leq PF \leq 1 \text{ and } 0,8_{capacitive} \leq P$.
Annex III, 3 paragraph, amending provision, third paragraph			
154	For direct current ('DC') electrical energy meters, the voltage range shall be between the lowest and the highest output voltage.;	For direct current ('DC') electrical energy meters, the voltage range shall be between the lowest and the highest output voltage.;	For direct current ('DC') electrical energy meters, the voltage range shall be between the lowest and the highest ~~output~~ voltage <u>of the meter</u> .;
Annex III, 4 paragraph			
155	(4) in point 3, the second paragraph is replaced by the following:	(4) in point 3, the second paragraph is replaced by the following:	(4) in point 3, the second paragraph is replaced by the following:
Annex III, 4 paragraph, amending provision, first paragraph			
156	‘	‘	‘

	COM proposal	EP Mandate	Council Mandate
	When the meter is operating within rated operating conditions, the percentage errors shall not exceed the limits given in Table 2.;	When the meter is operating within rated operating conditions, the percentage errors shall not exceed the limits given in Table 2.;	When the meter is operating within rated operating conditions, the percentage errors shall not exceed the limits given in Table 2.;
Annex III, 4 paragraph a			
156a			<u>(4a) in table 2, in the fifth row, the wording ‘Single phase meter; polyphase meter if operating with balanced loads’ is replaced by ‘Single phase meter; polyphase meter if operating with balanced loads; DC electrical energy meter’;</u>
Annex III, 5 paragraph			
157	(5) in Table 2, in the third row, fifth column, the wording ‘– 40 °C ... – 25 °C or + 55 °C ... + 70 °C’ is replaced by the following:	(5) in Table 2, in the third row, fifth column, the wording ‘– 40 °C ... – 25 °C or + 55 °C ... + 70 °C’ is replaced by the following:	(5) in Table 2, in the third row, fifth column, the wording ‘– 40 °C ... – 25 °C or + 55 °C ... + 70 °C’ is replaced by the following:
Annex III, 5 paragraph, amending provision, first paragraph			
158	‘ below – 25 °C or above + 55 °C; ’,	‘ below – 25 °C or above + 55 °C; ’,	‘ below – 25 °C or above + 55 °C; ’,
Annex III, 6 paragraph			
159	(6) in point 4.1., the second and third paragraphs are replaced by the following:	(6) in point 4.1., the second and third paragraphs are replaced by the following:	(6) in point 4.1., ~~the first and~~ second ~~and third~~ paragraphs are replaced by the following:
Annex III, 6 paragraph, amending provision, first paragraph -a			
159a			‘ <u>As electrical energy meters are directly connected to the electrical supply and as current is also one of the measurands, a</u>

	COM proposal	EP Mandate	Council Mandate
			<u>special electromagnetic environment is used for electrical energy meters.</u>
Annex III, 6 paragraph, amending provision, first paragraph			
160	‘ The meter shall comply with the electromagnetic environment E2 for AC electrical energy meters and E1 for DC electrical energy meters, as well as with the additional requirements in points 4.2. and 4.3.	‘ The meter shall comply with the electromagnetic environment E2 for AC electrical energy meters and E1 for DC electrical energy meters, as well as with the additional requirements in points 4.2. and 4.3.	The meter shall comply with the electromagnetic environment E2 for AC electrical energy meters and ~~E1 for~~ DC electrical energy meters, as well as with the additional requirements <u>set out</u> in points 4.2. and 4.3.;
Annex III, 6 paragraph, amending provision, second paragraph			
161	The electromagnetic environment and permissible effects reflect the situation that there are disturbances which shall not affect the accuracy beyond the critical change values and transient disturbances, which may cause a temporary degradation or loss of function or performance but from which the meter shall recover and shall not affect the accuracy beyond the critical change values;	The electromagnetic environment and permissible effects reflect the situation that there are disturbances which shall not affect the accuracy beyond the critical change values and transient disturbances, which may cause a temporary degradation or loss of function or performance but from which the meter shall recover and shall not affect the accuracy beyond the critical change values;	<i>deleted</i>
Annex III, 7 paragraph			
162	(7) point 4.2. is amended as follows:	(7) point 4.2. is amended as follows:	(7) point 4.2. is amended as follows:
Annex III, 7 paragraph, point (a)			
163	(a) in the fifth row, first column, of Table 3, the wording ‘Harmonic contents in the current circuits ⁽²⁾ ’ is replaced by the following:	(a) in the fifth row, first column, of Table 3, the wording ‘Harmonic contents in the current circuits ⁽²⁾ ’ is replaced by the following:	(a) in the fifth row, first column, of Table 3, the wording ‘Harmonic contents in the current circuits ⁽²⁾ ’ is replaced by the following:

	COM proposal	EP Mandate	Council Mandate
Annex III, 7 paragraph, point (a), amending provision, first paragraph			
164	‘ Harmonic contents in the current circuits ⁽²⁾ , for alternating current (‘AC’) electrical energy meters; ’,	‘ Harmonic contents in the current circuits ⁽²⁾ , for alternating current (‘AC’) electrical energy meters; ’,	‘ Harmonic contents in the current circuits ⁽²⁾ , for ~~alternating current (‘AC’)~~ <u>AC</u> electrical energy meters’; ’,
Annex III, 7 paragraph, point (b)			
165	(b) in the sixth row, first column, of Table 3, the wording ‘DC and harmonics in the current circuit ⁽²⁾ ’ is replaced by the following:	(b) in the sixth row, first column, of Table 3, the wording ‘DC and harmonics in the current circuit ⁽²⁾ ’ is replaced by the following:	(b) in the sixth row, first column, of Table 3, the wording ‘DC and harmonics in the current circuit ⁽²⁾ ’ is replaced by the following:
Annex III, 7 paragraph, point (b), amending provision, first paragraph			
166	‘ DC and harmonics in the current circuit ⁽²⁾ , for alternating current (‘AC’) electrical energy meters; ’,	‘ DC and harmonics in the current circuit ⁽²⁾ , for alternating current (‘AC’) electrical energy meters; ’,	‘ DC and harmonics in the current circuit ⁽²⁾ , for ~~alternating current (‘AC’)~~ <u>AC</u> electrical energy meters’; ’,
Annex III, 7 paragraph, point (ba)			
166a			<u>(ba) in the third row, first column, of Table 3, the wording ‘Reversed phase sequence’ is replaced by the following:</u>
Annex III, 7 paragraph, point (ba), amending provision, first paragraph			
166b			‘ <u>‘Reversed phase sequence, for AC electrical energy meters’;</u> ’,
Annex III, 8 paragraph			

	COM proposal	EP Mandate	Council Mandate
167	(8) points 5.4. and 5.5. are replaced by the following:	(8) points 5.4. and 5.5. are replaced by the following:	(8) points 5.4. and 5.5. are replaced by the following:
Annex III, 8 paragraph, amending provision, numbered paragraph (5.4), first subparagraph			
168	‘ 5.4. Running with no load	‘ 5.4. Running with no load	‘ 5.4. Running with no load
Annex III, 8 paragraph, amending provision, numbered paragraph (5.4), second subparagraph			
169	When the voltage is applied without any current flowing in the current circuit, the meter shall not register any energy.	When the voltage is applied without any current flowing in the current circuit, the meter shall not register any energy.	When the voltage is applied without any current flowing in the current circuit, the meter shall not register any energy.
Annex III, 8 paragraph, amending provision, numbered paragraph (5.5), first subparagraph			
170	5.5. Starting	5.5. Starting	5.5. Starting
Annex III, 8 paragraph, amending provision, numbered paragraph (5.5), second subparagraph			
171	The meter shall start and continue to register at a rate of change of energy equal to the product of the smallest voltage within the rated operating conditions and $I_{st.}$.	The meter shall start and continue to register at a rate of change of energy equal to the product of the smallest voltage within the rated operating conditions and $I_{st.}$.	The meter shall start and continue to register at a rate of change of energy equal to the product of the smallest voltage within the rated operating conditions and $I_{st.}$.
Annex IV			
172	Annex IV	Annex IV	Annex IV
Annex IV, amending provision, first paragraph			
173	‘ ANNEX Va	‘ ANNEX Va	‘ ANNEX Va
Annex IV, amending provision, second paragraph			
174	MEASURING SYSTEMS FOR ELECTRIC VEHICLE SUPPLY EQUIPMENT (MI-003a)	MEASURING SYSTEMS FOR ELECTRIC VEHICLE SUPPLY EQUIPMENT (MI-003a)	MEASURING SYSTEMS FOR ELECTRIC VEHICLE SUPPLY EQUIPMENT (MI- ~~003a~~ <u>011</u>)

	COM proposal	EP Mandate	Council Mandate
Annex IV, amending provision, third paragraph			
175	The relevant requirements of Annex I, the specific requirements of this Annex and the conformity assessment procedures listed in this Annex apply to measuring systems for EVSE intended for residential, commercial and light industrial use.	The relevant requirements of Annex I, the specific requirements of this Annex and the conformity assessment procedures listed in this Annex apply to measuring systems for EVSE intended for residential, commercial and light industrial use, <u>except if specified otherwise</u> .	The relevant requirements of Annex I, the specific requirements of this Annex and the conformity assessment procedures listed in this Annex apply to measuring systems for EVSE ~~intended for residential, commercial and light industrial use~~ .
Annex IV, amending provision, fourth paragraph			
176	DEFINITIONS	DEFINITIONS	DEFINITIONS
Annex IV, amending provision, fifth paragraph			
177	A measuring system for EVSE means a system that includes all relevant metrological functions related to the transfer (either way), at a specified transfer point, of electrical energy between EVSE (such as charging stations for electric vehicles) and electric vehicles.	A measuring system for EVSE means a system that includes all relevant metrological functions related to the transfer (either way), at a specified transfer point, of electrical energy between EVSE (such as charging stations for electric vehicles) and electric vehicles.	A measuring system for EVSE means a system that includes all relevant metrological functions related to the <u>conductive</u> transfer (either ~~way~~ <u>direction</u>), at a specified transfer point, of <u>active</u> electrical energy between EVSE (such as charging stations for electric vehicles) and electric vehicles (<u>such as motor vehicles, rail engines, boats, vessels and aircraft</u>).
Annex IV, amending provision, sixth paragraph			
178	However, by way of derogation from Annex I, such measuring systems shall not be considered as utility measuring instruments.	However, by way of derogation from Annex I, such measuring systems shall not be considered as utility measuring instruments.	~~However, by way of derogation from Annex I,~~ Such measuring systems shall not be considered as utility measuring instruments <u>as defined in Annex I</u> .
Annex IV, amending provision, seventh paragraph			
179	Measuring systems for EVSE can also have their basic metrology provided by a separately type approved meter which has been tested for compliance with a recognised metering standard with equal or more stringent requirements.	Measuring systems for EVSE ~~can also have their basic metrology provided by a~~ <u>may use</u> separately type ~~approved meter which has been tested for compliance with a recognised~~ <u>meters to obtain metrology data, provided that the meters comply with the applicable</u> metering	<u>The metrological functions in a</u> measuring ~~systems~~ <u>system</u> for EVSE can also ~~have their basic metrology~~ <u>be</u> provided by ~~a separately type approved~~ <u>an active electrical energy</u> meter <u>for which a conformity assessment procedure</u> has been ~~tested for compliance with a~~

	COM proposal	EP Mandate	Council Mandate
		~~standard with equal or more stringent~~ standards under this directive meeting or exceeding the accuracy and reliability requirements of the measuring system.	~~recognised metering standard with equal or more stringent requirements~~ successfully completed in accordance with this Directive.
Annex IV, amending provision, Table			
180	Table (row 180)	Table (row 180)	Table (row 180)
Annex IV, amending provision, eighth paragraph			
181	SPECIFIC REQUIREMENTS	SPECIFIC REQUIREMENTS	SPECIFIC REQUIREMENTS
Annex IV, amending provision, numbered paragraph (1), first subparagraph			
182	1. Accuracy	1. Accuracy	1. Accuracy
Annex IV, amending provision, numbered paragraph (1), second subparagraph			
183	The manufacturer shall specify the class index of the measuring system for EVSE. The class indices are defined as: Class A, B and C.	The manufacturer shall specify the class index of the measuring system for EVSE. The class indices are defined as: Class ~~A, B and C~~ <u>X, Y and Z</u> .	The manufacturer shall specify the class index of the measuring system for EVSE. The class indices are defined as: Class A, B and C.
Annex IV, amending provision, numbered paragraph (1), third subparagraph			
184	Accuracy shall be determined at the transfer point.	Accuracy shall be determined at the transfer point.	Accuracy shall be determined at the transfer point.
Annex IV, amending provision, numbered paragraph (1), fourth subparagraph			
185	If energy exchanged at the transfer point is in the form of DC, then DC energy shall be the measurand; if AC energy is exchanged at the transfer point, then AC energy shall be the measurand.	If energy exchanged at the transfer point is in the form of DC, then DC energy shall be the measurand; if AC energy is exchanged at the transfer point, then AC energy shall be the measurand.	If energy exchanged at the transfer point is in the form of DC, then DC energy shall be the measurand; if AC energy is exchanged at the transfer point, then AC <u>active</u> energy shall be the measurand.
Annex IV, amending provision, numbered paragraph (1), fourth subparagraph a			

	COM proposal	EP Mandate	Council Mandate
185a			<u>For the purposes of Annex I, the overall maximum permissible error (MPE) shall be determined as the root of the quadratic sum of BMPE and the allowable error shifts for variations in frequency, voltage and temperature.</u>
Annex IV, amending provision, numbered paragraph (2), first subparagraph			
186	2. Rated operating conditions	2. Rated operating conditions	2. Rated operating conditions
Annex IV, amending provision, numbered paragraph (2), second subparagraph			
187	The manufacturer shall specify the rated operating conditions of the measuring system for EVSE, in particular, the values of f_n , U_n , I_{st} , I_{min} , I_{tr} and I_{max} that apply to the measuring system for EVSE.	The manufacturer shall specify the rated operating conditions of the measuring system for EVSE, in particular, the values of f_n , U_n , I_{st} , I_{min} , I_{tr} and I_{max} that apply to the measuring system for EVSE.	The manufacturer shall specify the rated operating conditions of the measuring system for EVSE, in particular, the values of f_n , U_n , I_{st} , I_{min} , I_{tr} and I_{max} ~~that apply to the~~ <u>the temperature range, and, for DC measuring system for EVSE systems, the output voltage range.</u>
Annex IV, amending provision, numbered paragraph (2), third subparagraph			
188	For the current values specified, the measuring system for EVSE shall fulfil the conditions given in Table 1:	For the current values specified, the measuring system for EVSE shall fulfil the conditions given in Table 1:	For the current values specified, the measuring system for EVSE shall fulfil the conditions given in Table 1:
Annex IV, amending provision, numbered paragraph (2), third subparagraph, first paragraph			
189	Table 1	Table 1	Table 1
Annex IV, amending provision, numbered paragraph (2), third subparagraph, first paragraph a, Table			
189a			Table (row 189a)
Annex IV, amending provision, numbered paragraph (2), third subparagraph, Table			
190	Table (row 190)	Table (row 190)	<i>deleted</i>

	COM proposal	EP Mandate	Council Mandate
Annex IV, amending provision, numbered paragraph (2), third subparagraph a			
190a			<u>For EVSE intended for operation in either direction, reverse direction current, $I_{\square\square}$, shall not exceed 100 mA.</u>
Annex IV, amending provision, numbered paragraph (2), fourth subparagraph			
191	The voltage, frequency and power factor ranges within which the measuring system for EVSE shall satisfy the MPE requirements are specified in Table 2.	The voltage, frequency and power factor ranges within which the measuring system for EVSE shall satisfy the MPE requirements are specified in Table 2.	The voltage, frequency and power factor ranges within which the measuring system for EVSE shall satisfy the ~~MPE~~ BMPE requirements are specified in Table 2.
Annex IV, amending provision, numbered paragraph (2), fifth subparagraph			
192	For AC measuring systems, the following shall apply:	For AC measuring systems, the following shall apply:	For AC measuring systems, the following shall apply:
Annex IV, amending provision, numbered paragraph (2), fifth subparagraph, first indent			
193	- the voltage range shall be: $0,9 \bullet U_n \leq U \leq 1,1 \bullet U_n$;	- the voltage range shall be: $0,9 \bullet U_n \leq U \leq 1,1 \bullet U_n$;	- the voltage range shall be: $0,9 \bullet U_n \leq U \leq 1,1 \bullet U_n$;
Annex IV, amending provision, numbered paragraph (2), fifth subparagraph, second indent			
194	- the frequency range shall be: $0,98 \cdot f_n \leq f \leq 1,02 \cdot f_n$;	- the frequency range shall be: $0,98 \cdot f_n \leq f \leq 1,02 \cdot f_n$;	- the frequency range shall be: $0,98 \cdot f_n \leq f \leq 1,02 \cdot f_n$;
Annex IV, amending provision, numbered paragraph (2), fifth subparagraph, third indent			
195	- the power factor range shall be: $PF \geq 0,9$;	- the power factor range shall be: $PF \geq 0,9$;	- the power factor range shall be: $PF \geq 0,9$ ~~-~~ ;
Annex IV, amending provision, numbered paragraph (2), fifth subparagraph, fourth indent			
196	- the measuring system for EVSE shall operate correctly when the supply voltage distortion is less than 10 % and the load current	- the measuring system for EVSE shall operate correctly when the supply voltage distortion is less than 10 % and the load current	- the measuring system for EVSE shall operate correctly when the supply voltage distortion is less than 10 % and the load current

	COM proposal	EP Mandate	Council Mandate
	distortion is less than 3 % at all harmonics indices;	distortion is less than 3 % at all harmonics indices;	distortion is less than 3 % at all harmonics indices;
Annex IV, amending provision, numbered paragraph (2), fifth subparagraph, fifth indent			
197	- the MMQ range shall be: $MMQ \leq 0,1 kWh$	- the MMQ range shall be: $MMQ \leq 0,1 kWh$ $MMQ \leq 2 kWh$	- the MMQ range shall be: $MMQ \leq 0,1 kWh$
Annex IV, amending provision, numbered paragraph (2), sixth subparagraph			
198	For DC measuring systems, the following shall apply:	For DC measuring systems, the following shall apply:	For DC measuring systems, the following shall apply:
Annex IV, amending provision, numbered paragraph (2), sixth subparagraph, first indent			
199	- the voltage range shall be between the lowest and the highest output voltage;	- the voltage range shall be between the lowest and the highest output voltage;	- the <u>output</u> voltage range shall be between the lowest and the highest <u>rated</u> output voltage <u>of the EVSE measuring system</u> ;
Annex IV, amending provision, numbered paragraph (2), sixth subparagraph, second indent			
200	- while the measuring system for EVSE shall only measure energy having frequencies up to 2 kHz, the ripple produced on the output of the measuring system for EVSE shall not exceed:	- while the measuring system for EVSE shall only measure energy having frequencies up to 2 kHz, the ripple produced on the output of the measuring system for EVSE shall not exceed:	<i>deleted</i>
Annex IV, amending provision, numbered paragraph (2), sixth subparagraph, third indent			
201	- 1,5 A below 10 Hz, 6 A below 5 kHz, and 9 A below 150 kHz at maximum rated power and maximum rated current or where the output voltage and current correspond to the maximum current ripple for current; and	- 1,5 A below 10 Hz, 6 A below 5 kHz, and 9 A below 150 kHz at maximum rated power and maximum rated current or where the output voltage and current correspond to the maximum current ripple for current; and	<i>deleted</i>

	COM proposal	EP Mandate	Council Mandate
Annex IV, amending provision, numbered paragraph (2), sixth subparagraph, fourth indent			
202	- ± 5 V in normal operation for voltage, while the measuring system for EVSE shall only measure energy having frequencies up to 2 kHz;	- ± 5 V in normal operation for voltage, while the measuring system for EVSE shall only measure energy having frequencies up to 2 kHz;	deleted
Annex IV, amending provision, numbered paragraph (2), sixth subparagraph, fifth indent			
203	- the MMQ range shall be: $MMQ \leq 1kWh$	- the MMQ range shall be: $MMQ \leq 1kWh$ $MMQ \leq 5kWh$	- the MMQ range shall be: $MMQ \leq 1kWh$
Annex IV, amending provision, numbered paragraph (2), sixth subparagraph, sixth indent			
203a		<u>5a For current ripple, the limits shall fulfil the conditions given in Table 1a.</u>	
Annex IV, amending provision, numbered paragraph (2), sixth subparagraph, seventh indent, Table			
203b		Table (row 203b)	
Annex IV, amending provision, numbered paragraph (2), sixth subparagraph, eighth indent			
203c		<u>For voltage ripple, the following limits shall apply:</u>	
Annex IV, amending provision, numbered paragraph (2), sixth subparagraph, ninth indent			
203d		<u>For a target voltage of the EV ≤ 500 V DC, ± 5 V in normal operation for voltage;</u>	
Annex IV, amending provision, numbered paragraph (2), sixth subparagraph, tenth indent			
203e		<u>For a target voltage of the EV > 500 V DC, $\pm 1\%$ V of the target voltage of the EV.</u>	
Annex IV, amending provision, numbered paragraph (3)			

	COM proposal	EP Mandate	Council Mandate
204	3.		3.
Annex IV, amending provision, numbered paragraph (3), first subparagraph			
205	3. Base MPEs (BMPEs)	3. Base MPEs (BMPEs)	3. Base MPEs (BMPEs)
Annex IV, amending provision, numbered paragraph (3), second subparagraph			
206	When the measuring system for EVSE is operating under rated operating conditions, the percentage errors shall not exceed the limits given in Table 2 for the specified class index.	When the measuring system for EVSE is operating under rated operating conditions, the percentage errors shall not exceed the limits given in Table 2 for the specified class index.	<u>When current (AC and DC measuring systems) and voltage (DC measuring systems) is varied within the intervals given by the rated operating conditions, and</u> when the measuring system for EVSE is ~~operating under rated operating~~ <u>otherwise operated at reference</u> conditions, the percentage errors shall not exceed the limits given in Table 2 for the specified class index.
Annex IV, amending provision, numbered paragraph (3), third subparagraph			
207	Table 2	Table 2	Table 2
Annex IV, amending provision, numbered paragraph (3), Table			
208	Table (row 208)	Table (row 208)	Table (row 208)
Annex IV, amending provision, numbered paragraph (3), fourth subparagraph			
209	The measuring system for EVSE shall not exploit the BMPEs or systematically favour any party.	The measuring system for EVSE shall not exploit the BMPEs or systematically favour any party.	The measuring system for EVSE shall not exploit the BMPEs or systematically favour any party.
Annex IV, amending provision, numbered paragraph (4), first subparagraph			
210	4. Operating requirements	4. Operating requirements	4. Operating requirements
Annex IV, amending provision, numbered paragraph (4), second subparagraph			
211	A measuring system for EVSE that applies corrections to compensate for energy loss introduced by parts comprising a cable and	A measuring system for EVSE that applies corrections to compensate for energy loss introduced by parts ~~comprising a cable and~~	~~A~~ <u>For</u> measuring ~~system~~ <u>systems</u> for EVSE ~~that applies corrections to compensate for energy loss introduced by parts comprising~~ <u>including</u> a

	COM proposal	EP Mandate	Council Mandate
	connector mounted between the position at which the energy is measured and the transfer point shall do either of the following:	~~connector mounted between the position at which the energy is measured and the transfer point~~ <u>of the EVSE</u> shall do either of the following:	cable ~~and~~ <u>with</u> connector mounted between the ~~position~~ <u>point</u> at which the energy is measured and the transfer point ~~shall do~~ , either of the following <u>shall apply</u> :
Annex IV, amending provision, numbered paragraph (4), second subparagraph, point (a)			
212	(a) ensure that those parts are not replaceable and that they are secured by an appropriate hardware seal;	(a) ensure that those parts are not replaceable and that they are secured by an appropriate hardware seal;	(a) ~~ensure that those parts are~~ <u>the cable with connector is</u> not replaceable and ~~that they are~~ <u>is</u> secured by an appropriate hardware seal; <u>or</u>
Annex IV, amending provision, numbered paragraph (4), second subparagraph(b)			
213	(b) if those parts are intended to be replaceable while the measuring system for EVSE is under seal, ensure, that they are:	(b) if those parts are intended to be replaceable while the measuring system for EVSE is under seal, ensure, that they are:	(b) if ~~those parts are~~ <u>the cable with connector is</u> intended to be replaceable while the measuring system for EVSE is under seal, ~~ensure, that they are~~ <u>it shall be</u> :
Annex IV, amending provision, numbered paragraph (4), second subparagraph(b), first indent			
214	- identified in the type approval certificate as replaceable;	- identified in the type approval certificate as replaceable;	- identified in the ~~type approval certificate as replaceable~~ <u>relevant conformity assessment of the measuring system for EVSE as interchangeable and the measuring system for EVSE shall be marked with the characteristics of compatible cables with connectors. That interchangeability shall not affect compliance with the BMPEs of the declared accuracy class at the transfer point throughout the rated operating conditions</u> ;
Annex IV, amending provision, numbered paragraph (4), second subparagraph(b), second indent			
215	- marked with information about the cable characteristics and/or that they bear a unique identification;	- marked with information about the cable characteristics and/or that they bear a unique identification;	- marked with ~~information about the cable~~ <u>its</u> characteristics ~~and/or that they bear a~~ <u>and</u> unique identification; <u>and their its replacement units shall also bear such</u>

	COM proposal	EP Mandate	Council Mandate
			<u>marking and be assessed independently and separately according to the relevant conformity assessment procedures; and</u>
Annex IV, amending provision, numbered paragraph (4), second subparagraph(b), third indent			
216	- sealed separately with an installer seal.	- sealed separately with an installer seal.	- sealed separately ~~with an installer seal~~ <u>in such a way that the replacement does not require access to, or breaking of, the metrologically sealed parts of the measuring system.</u>
Annex IV, amending provision, numbered paragraph (4), second subparagraph a			
216a		<u>1a Calibration compensation requirements shall apply exclusively to public EVCS installations where billing is based on the energy delivered to the vehicle's battery.</u>	
Annex IV, amending provision, numbered paragraph (4a)			
216b		<u>1b Protection requirements shall apply to any component that may influence calibration and is subject to field replacement.</u>	
Annex IV, amending provision, numbered paragraph (5)			
217	5. Permissible effects	5. Permissible effects	5. Permissible effects <u>of disturbances</u>
Annex IV, amending provision, numbered paragraph (5), point (5.1), first subparagraph			
218	5.1. General	5.1. General	5.1. General
Annex IV, amending provision, numbered paragraph (5), point (5.1), second subparagraph			
219	Measuring system for EVSE shall be designed and manufactured in such a way that when exposed to disturbances critical faults do not occur.	Measuring system for EVSE shall be designed and manufactured in such a way that when exposed to disturbances critical faults do not occur.	Measuring system for EVSE shall be designed and manufactured in such a way that when exposed to disturbances critical faults do not occur <u>and shifts in accuracy do not exceed the values given in 5.2 and 5.3.</u>

	COM proposal	EP Mandate	Council Mandate
Annex IV, amending provision, numbered paragraph (5), point (5.1), third subparagraph			
220	When there is a foreseeable high risk due to lightning or where overhead supply networks are predominant, the metrological characteristics of the measuring system for EVSE shall be protected.	When there is a foreseeable high risk due to lightning or where overhead supply networks are predominant, the metrological characteristics of the measuring system for EVSE shall be protected.	When there is a foreseeable high risk due to lightning or where overhead supply networks are predominant, the metrological characteristics of the measuring system for EVSE shall be protected.
Annex IV, amending provision, numbered paragraph (5), point (5.2), first subparagraph			
221	5.2. Effect of disturbance	5.2. Effect of disturbance	5.2. Effect of ~~disturbance~~ <u>disturbances</u>
Annex IV, amending provision, numbered paragraph (5), point (5.2), second subparagraph			
222	In case of disturbances, the legally relevant data shall be correct or the shift in the accuracy measurements shall not exceed 1,0 BMPE even if the measuring system for EVSE appears to function correctly. Ceasing to function is not a critical fault. If a disturbance interrupts a transaction, either of the following shall apply:	In case of disturbances, the legally relevant data shall be correct or the shift in the accuracy measurements shall not exceed 1,0 BMPE even if the measuring system for EVSE appears to function correctly. Ceasing to function is not a critical fault. If a disturbance interrupts a transaction, either of the following shall apply:	In case of disturbances, the legally relevant data shall be correct or the shift in the accuracy measurements shall not exceed 1,0 BMPE even if the measuring system for EVSE appears to function correctly. Ceasing to function is not a critical fault. If a disturbance interrupts a transaction, either of the following shall apply:
Annex IV, amending provision, numbered paragraph (5), point (5.2), second subparagraph, point (a)			
223	(a) the transaction is cancelled;	(a) the transaction is cancelled;	(a) the transaction is ~~cancelled~~ <u>concluded when the disturbance occurs</u> ;
Annex IV, amending provision, numbered paragraph (5), point (5.2), second subparagraph, point (b)			
224	(b) the transaction is completed correctly when the disturbance is removed.	(b) the transaction is completed correctly when the disturbance is removed.	(b) the transaction ~~is completed correctly~~ <u>continues</u> when the disturbance is removed.
Annex IV, amending provision, numbered paragraph (5), point (5.3), first subparagraph			
225	5.3. Effect of influence quantities	5.3. Effect of influence quantities	5.3. Effect of influence quantities
Annex IV, amending provision, numbered paragraph (5), point (5.3), second subparagraph			
226	When the load current is held constant at a point within the rated operating range with the	When the load current is held constant at a point within the rated operating range with the	When the load current is held constant at a point within the rated operating range with the

	COM proposal	EP Mandate	Council Mandate
	measuring system for EVSE otherwise operated at reference conditions, and when any single influence quantity is varied from its value at reference conditions to its extreme values defined in Tables 3 and 4, the variation of error shall be such that the additional percentage error is not outside the values for error shift specified in Table 4. The measuring system for EVSE shall continue to function after the completion of each of those tests.	measuring system for EVSE otherwise operated at reference conditions, and when any single influence quantity is varied from its value at reference conditions to its extreme values defined in Tables 3 and 4, the variation of error shall be such that the additional percentage error is not outside the values for error shift specified in Table 4. The measuring system for EVSE shall continue to function after the completion of each of those tests.	measuring system for EVSE otherwise operated at reference conditions, and when any single influence quantity is varied from its value at reference conditions to its extreme values defined in Tables 3 and 4, the variation of error shall be such that the additional percentage error is not outside the values for error shift specified in ~~Table~~ Tables 3 and 4 . The measuring system for EVSE shall continue to function after the completion of each of those tests.
Annex IV, amending provision, numbered paragraph (5), point (5.3), third subparagraph			
227	Table 3	Table 3	Table 3
Annex IV, amending provision, numbered paragraph (5), point (5.3), Table			
228	Table (row 228)	Table (row 228)	Table (row 228)
Annex IV, amending provision, numbered paragraph (5), point (5.3), fourth subparagraph			
229	Table 4	Table 4	Table 4
Annex IV, amending provision, numbered paragraph (5), point (5.3), Table			
230	Table (row 230)	Table (row 230)	Table (row 230)
Annex IV, amending provision, numbered paragraph (5), point (5.3), fifth subparagraph			
231	Table notes:	Table notes:	Table notes:
Annex IV, amending provision, numbered paragraph (5), point (5.3), fifth subparagraph, point (i)			
232	(i) In case of a measuring system for EVSE with a separately type approved meter, the temperature test can be limited to a check of correct functioning at the extreme temperatures foreseen in the measuring system for EVSE enclosure.	(i) In case of a measuring system for EVSE with a separately type approved meter, the temperature test can be limited to a check of correct functioning at the extreme temperatures foreseen in the measuring system for EVSE enclosure.	(i) In case of a measuring system for EVSE with ~~a separately type approved~~ an active electrical energy meter for which a conformity assessment procedure has been successfully completed in accordance with this Directive , the temperature test can be

	COM proposal	EP Mandate	Council Mandate
			limited to a check of correct functioning at the extreme temperatures foreseen in the measuring system for EVSE enclosure.
Annex IV, amending provision, numbered paragraph (5), point (5.3), fifth subparagraph, point (ii)			
233	(ii) Not required for measuring for EVSE system with a separately type approved meter if the type approval specifications meet or exceed those of the accuracy class specified by the manufacturer.	(ii) Not required for measuring for EVSE system with a separately type approved meter if the type approval specifications meet or exceed those of the accuracy class specified by the manufacturer.	(ii) Not required for <u>a</u> measuring <u>system</u> for EVSE ~~system with a separately type approved~~ <u>with an active electrical energy</u> meter <u>for which a conformity assessment procedure has been successfully completed in accordance with this Directive</u> if the ~~type approval~~ specifications meet or exceed those of the accuracy class specified by the manufacturer.
Annex IV, amending provision, numbered paragraph (5), point (5.3), fifth subparagraph a			
233a		<u>2a When ancillary devices that are a part of EVSE are used during a charging session, they must comply with the requirements in the table above.</u>	
Annex IV, amending provision, numbered paragraph (6), first subparagraph			
234	6. Units	6. Units	6. Units
Annex IV, amending provision, numbered paragraph (6), second subparagraph			
235	The electrical energy measured shall be displayed in kilowatt-hours or in megawatt-hours.	The electrical energy measured shall be displayed <u>at least</u> in kilowatt-hours or in megawatt-hours.	The electrical energy measured shall be displayed in kilowatt-hours or ~~in megawatt-hours~~ <u>their decimal multiples.</u>
Annex IV, amending provision, numbered paragraph (5b)			
235a			<u>7. Putting into use</u>
Annex IV, amending provision, numbered paragraph (7), first subparagraph			

	COM proposal	EP Mandate	Council Mandate
236	7. The Member State shall ensure that the intended use determines the foreseen and foreseeable practical working conditions, namely the rated operating conditions, so that the measuring system for EVSE is suitable for its use.	7. The Member State shall ensure that the intended use determines the foreseen and foreseeable practical working conditions, namely the rated operating conditions, so that the measuring system for EVSE is suitable for its use.	~~7.~~ The Member State shall ensure that the intended use determines the foreseen and foreseeable practical working conditions, namely the rated operating conditions, so that the measuring system for EVSE is suitable for its use.
Annex IV, amending provision, numbered paragraph (5c), first subparagraph a			
236a			<u>Where a Member State imposes measurement of publicly accessible EVSE such measurement shall be performed by minimum Class B.</u>
Annex IV, amending provision, numbered paragraph (5c), first subparagraph b			
236b			<u>Where a Member State imposes measurement of rail engines, boats, vessels and aircraft such measurements shall be performed by Class C.</u>
Annex IV, amending provision, numbered paragraph (7), second subparagraph			
237	CONFORMITY ASSESSMENT	CONFORMITY ASSESSMENT	CONFORMITY ASSESSMENT
Annex IV, amending provision, numbered paragraph (7), third subparagraph			
238	The conformity assessment procedures referred to in Article 17 that the manufacturer can choose between are:	The conformity assessment procedures referred to in Article 17 that the manufacturer can choose between are:	The conformity assessment procedures referred to in Article 17 that the manufacturer can choose between are:
Annex IV, amending provision, numbered paragraph (7), third subparagraph, first paragraph			
239	B + F or B + D or H1.. ,	B + F or B + D or H1.. ,	B + F or B + D or <u>G or</u> H1.- ,
Annex V			
240	Annex V	Annex V	Annex V

	COM proposal	EP Mandate	Council Mandate
Annex V, first paragraph			
241	Annex VI to Directive 2014/32/EU is amended as follows:	Annex VI to Directive 2014/32/EU is amended as follows:	Annex VI to Directive 2014/32/EU is amended as follows:
Annex V, second paragraph			
242	(1) the part ‘DEFINITIONS’ is amended as follows:	(1) the part ‘DEFINITIONS’ is amended as follows:	(1) the part ‘DEFINITIONS’ is amended as follows:
Annex V, second paragraph, point (a)			
243	(a) the first paragraph is replaced by the following:	(a) the first paragraph is replaced by the following:	(a) the first paragraph is replaced by the following:
Annex V, second paragraph, point (a), amending provision, first paragraph			
244	‘ A thermal energy meter is an instrument designed to measure the energy which in a heat-exchange circuit is absorbed (cooling) and/or given up (heating) by a liquid called the thermal energy-conveying liquid.; ’,	‘ A thermal energy meter is an instrument designed to measure the energy which in a heat-exchange circuit is absorbed (cooling) and/or given up (heating) by a liquid called the thermal energy-conveying liquid.; ’,	‘ A thermal energy meter is an instrument designed to measure the energy which in a heat-exchange circuit is absorbed (cooling) and/or given up (heating) by a liquid called the thermal energy-conveying liquid.; ’,
Annex V, second paragraph, point (b)			
245	(b) in the table, the fourth row is replaced by the following:	(b) in the table, the fourth row is replaced by the following:	(b) in the table, the fourth row is replaced by the following:
Annex V, second paragraph, point (b), amending provision, first paragraph			
246	‘		‘
Annex V, second paragraph, point (b), amending provision, Table			
247	Table (row 247)	‘Table (row 247)	Table (row 247)
Annex V, second paragraph, point (b), amending provision, second paragraph			

	COM proposal	EP Mandate	Council Mandate
248	,		,
Annex V, 2 paragraph			
249	(2) point 1.1. is replaced by the following:	(2) point 1.1. is replaced by the following:	(2) point 1.1. is replaced by the following:
Annex V, 2 paragraph, amending provision, numbered paragraph (1.1)			
250	1.1. For the temperature of the liquid: $\theta_{\max}$, $\theta_{\min}$,	1.1. For the temperature of the liquid: $\theta_{\max}$, $\theta_{\min}$,	1.1. For the temperature of the liquid: $\theta_{\max}$, $\theta_{\min}$,
Annex V, 2 paragraph, amending provision, numbered paragraph (1.1), first indent, first subparagraph			
251	- for the temperature differences: $\Delta\theta_{\max}$, $\Delta\theta_{\min}$, subject to the following restrictions:	- for the temperature differences: $\Delta\theta_{\max}$, $\Delta\theta_{\min}$, subject to the following restrictions:	- for the temperature differences: $\Delta\theta_{\max}$, $\Delta\theta_{\min}$, subject to the following restrictions:
Annex V, 2 paragraph, amending provision, numbered paragraph (1.1), first indent, second subparagraph			
252	$\Delta\theta_{\max}/\Delta\theta_{\min} \geq 10$	$\Delta\theta_{\max}/\Delta\theta_{\min} \geq 10$	$\Delta\theta_{\max}/\Delta\theta_{\min} \geq 10$
Annex V, 2 paragraph, amending provision, numbered paragraph (1.1), first indent, third subparagraph			
253	with the exception of cooling applications;	with the exception of cooling applications;	with the exception of cooling applications;
Annex V, 2 paragraph, amending provision, numbered paragraph (1.1), first indent, fourth subparagraph			
254	$\Delta\theta_{\min}$ is a whole number in the range of 1 K and 10 K;	$\Delta\theta_{\min}$ is a whole number in the range of 1 K and 10 K;	$\Delta\theta_{\min}$ is a whole number in the range of 1 K and 10 K;
Annex V, 3 paragraph			
255	(3) point 1.3. is replaced by the following:	(3) point 1.3. is replaced by the following:	(3) point 1.3. is replaced by the following:
Annex V, 3 paragraph, amending provision, numbered paragraph (1.3)			

	COM proposal	EP Mandate	Council Mandate
256	1.3. For the flow rates of the liquid: q_s, q_p, q_i, where the values of q_p and q_i are subject to the following restriction: $q_p/p_i \geq 5$	1.3. For the flow rates of the liquid: q_s, q_p, q_i, where the values of q_p and q_i are subject to the following restriction: $q_p/p_i \geq 5$	1.3. For the flow rates of the liquid: q_s, q_p, q_i, where the values of q_p and q_i are subject to the following restriction: $q_p/p_i \geq 5$ $q_p/q_i \geq 5$
Annex VI			
257	Annex VI	Annex VI	Annex VI
Annex VI, amending provision, first paragraph			
258	ANNEX VIIa	ANNEX VIIa	ANNEX VIIa
Annex VI, amending provision, second paragraph			
259	MEASURING SYSTEMS FOR COMPRESSED GAS DISPENSERS (MI-005a)	MEASURING SYSTEMS FOR COMPRESSED GAS DISPENSERS (MI-005a)	MEASURING SYSTEMS FOR COMPRESSED GAS DISPENSERS (MI- ~~005a~~ <u>012</u>)
Annex VI, amending provision, third paragraph			
260	The relevant requirements of Annex I, the specific requirements of this Annex and the conformity assessment procedures listed in this Annex apply to measuring systems intended for the continuous and dynamic measurement of quantities (mass or energy) of compressed gas.	The relevant requirements of Annex I, the specific requirements of this Annex and the conformity assessment procedures listed in this Annex apply to measuring systems intended for the continuous and dynamic measurement of quantities (mass or energy) of compressed gas.	The relevant requirements of Annex I, the specific requirements of this Annex and the conformity assessment procedures listed in this Annex apply to measuring systems intended for the continuous and dynamic measurement of quantities (mass ~~or~~ <u>and, if applicable,</u> energy) of compressed gas.

	COM proposal	EP Mandate	Council Mandate
Annex VI, amending provision, fourth paragraph			
261	However, by way of derogation from Annex I, such measuring systems shall not be considered as utility measuring instruments.	However, by way of derogation from Annex I, such measuring systems shall not be considered as utility measuring instruments.	~~However, by way of derogation from Annex I,~~ Such measuring systems shall not be considered as utility measuring instruments as defined in Annex I.
Annex VI, amending provision, fifth paragraph			
262	DEFINITIONS	DEFINITIONS	DEFINITIONS
Annex VI, amending provision, Table			
263	Table (row 263)	Table (row 263)	Table (row 263)
Annex VI, amending provision, sixth paragraph			
264	SPECIFIC REQUIREMENTS	SPECIFIC REQUIREMENTS	SPECIFIC REQUIREMENTS
Annex VI, amending provision, numbered paragraph (1), first subparagraph			
265	1. Rated operating conditions	1. Rated operating conditions	1. Rated operating conditions
Annex VI, amending provision, numbered paragraph (1), second subparagraph			
266	The manufacturer shall specify the rated operating conditions for the instrument, in particular:	The manufacturer shall specify the rated operating conditions for the instrument, in particular:	The manufacturer shall specify the rated operating conditions for the instrument, in particular:
Annex VI, amending provision, numbered paragraph (1), second subparagraph, point (1.1), first subparagraph			
267	1.1. The flowrate range	1.1. The flowrate range	1.1. The flowrate range
Annex VI, amending provision, numbered paragraph (1), second subparagraph, point (1.1), second subparagraph			
268	The flowrate range is subject to the following conditions:	The flowrate range is subject to the following conditions:	The flowrate range is subject to the following conditions:
Annex VI, amending provision, numbered paragraph (1), second subparagraph, point (1.1), second subparagraph, point (a)			
269	(a) the flowrate range of a measuring system shall be within the flowrate range of each of its elements, in particular the meter;	(a) the flowrate range of a measuring system shall be within the flowrate range of each of its elements, in particular the meter;	(a) the flowrate range of a measuring system shall be within the flowrate range of

	COM proposal	EP Mandate	Council Mandate
			each of its elements, in particular the meter; <u>and</u>
Annex VI, amending provision, numbered paragraph (1), second subparagraph, point (1.1), second subparagraph, point (b)			
270	(b) for CG dispensers, the ratio between the minimum and maximum flow rate shall be no less than 10.	(b) for CG dispensers, the ratio between the ~~minimum and~~ maximum <u>and minimum</u> flow rate shall be no less than 10.	(b) ~~for CG dispensers,~~ the ratio between the minimum and maximum flow rate shall be no less than 10.
Annex VI, amending provision, numbered paragraph (1), second subparagraph, point (1.2)			
271	1.2. The properties of the gas to be measured by the instrument by specifying the name, the type or the following relevant characteristics of that gas such as:	1.2. The properties of the gas to be measured by the instrument by specifying the name, the type or the following relevant characteristics of that gas such as:	1.2. The properties of the gas to be measured by the instrument by specifying the name, the type or the following relevant characteristics of that gas such as:
Annex VI, amending provision, numbered paragraph (1), second subparagraph, point (1.2)(a)			
272	(a) temperature range;	(a) temperature range;	(a) temperature range;
Annex VI, amending provision, numbered paragraph (1), second subparagraph, point (1.2)(b)			
273	(b) pressure range;	(b) pressure range;	(b) pressure range;
Annex VI, amending provision, numbered paragraph (1), second subparagraph, point (1.2)(c)			
274	(c) heating value of the gas;	(c) heating value of the gas;	(c) ~~heating~~ <u>the calorific</u> value of the gas;
Annex VI, amending provision, numbered paragraph (1), second subparagraph, point (1.2)(d)			
275	(d) the nature and characteristics of the gas to be measured.	(d) the nature and characteristics of the gas to be measured.	(d) the nature and characteristics of the gas to be measured.
Annex VI, amending provision, numbered paragraph (1), second subparagraph, point (1.3)			
276	1.3. The nominal value of the AC voltage supply and/or limits of the DC voltage supply.	1.3. The nominal value of the AC voltage supply and/or limits of the DC voltage supply.	1.3. The nominal value of the AC voltage supply and/or limits of the DC voltage supply.
Annex VI, amending provision, numbered paragraph (2)			
277	2. Accuracy classification and MPEs	2. Accuracy classification and MPEs	2. Accuracy classification and MPEs
Annex VI, amending provision, numbered paragraph (2), point (2.1), first subparagraph			

	COM proposal	EP Mandate	Council Mandate
278	2.1. The MPE on the indication of measured or converted amounts transferred at the transfer point is set out in Table 1.	2.1. The MPE on the indication of measured or converted amounts transferred at the transfer point is set out in Table 1.	2.1. The MPE on the indication of measured or converted amounts transferred at the transfer point is set out in Table 1.
Annex VI, amending provision, numbered paragraph (2), point (2.1), second subparagraph			
279	Table 1	Table 1	Table 1
Annex VI, amending provision, numbered paragraph (2), point (2.1), Table			
280	Table (row 280)	Table (row 280)	Table (row 280)
Annex VI, amending provision, numbered paragraph (2), point (2.1), third subparagraph			
281	The MPE on the MMQ equals twice the value stated in Table 1.	The MPE on the MMQ equals twice the value stated in Table 1.	The MPE on the MMQ equals twice the value stated in Table 1.
Annex VI, amending provision, numbered paragraph (2), point (2.2), first subparagraph			
282	2.2. The MMQ of a measuring system shall have the form $1 \times 10n$, $2 \times 10n$, or $5 \times 10n$ authorised units of mass or energy, where n is a positive or negative whole number, or zero.	2.2. The MMQ of a measuring system shall have the form $1 \times 10n$, $2 \times 10n$, or $5 \times 10n$ authorised units of mass or energy, where n is a positive or negative whole number, or zero.	2.2. The MMQ of a measuring system shall have the form $1 \times 10n$, $2 \times 10n$, or $5 \times 10n$ authorised units of mass or energy, where n is a positive or negative whole number, or zero.
Annex VI, amending provision, numbered paragraph (2), point (2.2), second subparagraph			
283	The MMQ shall satisfy the conditions of use of the measuring system; except in exceptional cases, the measuring system shall not be used for measuring quantities less than that MMQ.	The MMQ shall satisfy the conditions of use of the measuring system; except in exceptional cases, the measuring system shall not be used for measuring quantities less than that MMQ.	The MMQ shall satisfy the conditions of use of the measuring system; except in exceptional cases, the measuring system shall not be used for measuring quantities less than that MMQ.
Annex VI, amending provision, numbered paragraph (2), point (2.3)			
284	2.3. The measuring system shall not exploit the MPEs or systematically favour any party.	2.3. The measuring system shall not exploit the MPEs or systematically favour any party.	2.3. The measuring system shall not exploit the MPEs or systematically favour any party.
Annex VI, amending provision, numbered paragraph (3)			
285	3. Maximum permissible effect of disturbances	3. Maximum permissible effect of disturbances	3. Maximum permissible effect of disturbances
Annex VI, amending provision, numbered paragraph (3), point (3.1)			

	COM proposal	EP Mandate	Council Mandate
286	3.1. The effect of an electromagnetic disturbance on a measuring system shall be one of the following:	3.1. The effect of an electromagnetic disturbance on a measuring system shall be one of the following:	3.1. The effect of an electromagnetic disturbance on a measuring system shall be one of the following:
Annex VI, amending provision, numbered paragraph (3), point (3.1)(a)			
287	(a) the change in the measurement result is not greater than the critical change value pursuant to point 3.2;	(a) the change in the measurement result is not greater than the critical change value pursuant to point 3.2;	(a) the change in the measurement result is not greater than the critical change value pursuant to point 3.2;
Annex VI, amending provision, numbered paragraph (3), point (3.1)(b)			
288	(b) the indication of the measurement result shows a momentary variation that cannot be interpreted, memorised or transmitted as a measurement result; furthermore, in the case of an interruptible system, that can also mean the impossibility to perform any measurement;	(b) the indication of the measurement result shows a momentary variation that cannot be interpreted, memorised or transmitted as a measurement result; furthermore, in the case of an interruptible system, that can also mean the impossibility to perform any measurement;	(b) the indication of the measurement result shows a momentary variation that cannot be interpreted, memorised or transmitted as a measurement result; furthermore, in the case of an interruptible system, that can also mean the impossibility to perform any measurement; <u>or</u>
Annex VI, amending provision, numbered paragraph (3), point (3.1)(c)			
289	(c) the change in the measurement result is greater than the critical change value pursuant to point 3.2, in which case the measuring system shall permit the retrieval of the measurement result just before the critical change value occurred and cut off the flow.	(c) the change in the measurement result is greater than the critical change value pursuant to point 3.2, in which case the measuring system shall permit the retrieval of the measurement result just before the critical change value occurred and cut off the flow.	(c) the change in the measurement result is greater than the critical change value pursuant to point 3.2, in which case the measuring system shall permit the retrieval of the measurement result just before the critical change value occurred and cut off the flow.
Annex VI, amending provision, numbered paragraph (3), point (3.2)			
290	3.2. The critical change value is the greater of the following values:	3.2. The critical change value is the greater of the following values:	3.2. The critical change value is the greater of the following values:
Annex VI, amending provision, numbered paragraph (3), point (3.2), first indent			
291	- one tenth of the MPE;	- one tenth of the MPE;	- ~~one tenth~~ <u>10%</u> of the MPE;
Annex VI, amending provision, numbered paragraph (3), point (3.2), second indent			

	COM proposal	EP Mandate	Council Mandate
292	- three times the MMQ divided by 100; in the case of a failure of the main power source, the critical change value shall be increased by 5 % of the MMQ.	- three times the MMQ divided by 100; in the case of a failure of the main power source, the critical change value shall be increased by 5 % of the MMQ.	- ~~three times~~ <u>3% of</u> the MMQ ~~divided by 100~~ ; in the case of a failure of the main power source, the critical change value shall be increased by 5 % of the MMQ.
Annex VI, amending provision, numbered paragraph (4), first subparagraph			
293	4. Durability	4. Durability	4. Durability
Annex VI, amending provision, numbered paragraph (4), second subparagraph			
294	For systems fitted with meters with moving parts, after an appropriate test, taking into account the period of time estimated by the manufacturer, has been performed, the following criterion shall be satisfied:	For systems fitted with meters with moving parts, after an appropriate test, taking into account the period of time estimated by the manufacturer, has been performed, the following criterion shall be satisfied:	For systems fitted with meters with moving parts, after an appropriate test, taking into account the period of time estimated by the manufacturer, has been performed, the following criterion shall be satisfied:
Annex VI, amending provision, numbered paragraph (4), second subparagraph, first paragraph			
295	The variation of the measurement result after the durability test, when compared with the initial measurement result, shall not exceed two fifths of the MPE.	The variation of the measurement result after the durability test, when compared with the initial measurement result, shall not exceed two fifths of the MPE.	The variation of the measurement result after the durability test, when compared with the initial measurement result, shall not exceed two fifths of the MPE.
Annex VI, amending provision, numbered paragraph (5)			
296	5. Suitability	5. Suitability	5. Suitability
Annex VI, amending provision, numbered paragraph (5), point (5.1), first subparagraph			
297	5.1. For any measured quantity relating to the same measurement, the indications and, if applicable, printouts provided by various devices shall have the same scale interval and the results shall not deviate one from another.	5.1. For any measured quantity relating to the same measurement, the indications and, if applicable, printouts provided by various devices shall have the same scale interval and the results shall not deviate one from another.	5.1. For any measured quantity relating to the same measurement, the indications and, if applicable, printouts provided by various devices, <u>including the ones that are part of a self-service arrangement</u> , shall have the same scale interval and the results shall not deviate one from another.
Annex VI, amending provision, numbered paragraph (5), point (5.1), second subparagraph			

	COM proposal	EP Mandate	Council Mandate
298	The scale interval of a CG measuring system shall not exceed one and a half times the MMQ divided by 100.	The scale interval of a CG measuring system shall not exceed one and a half times the MMQ divided by 100.	The scale interval of a CG measuring system shall not exceed ~~one and a half times~~ <u>1,5 % of</u> the MMQ ~~divided by 100~~ .
Annex VI, amending provision, numbered paragraph (5), point (5.2)			
299	5.2. It shall not be possible to divert the measured quantity in normal conditions of use unless it is readily apparent.	5.2. It shall not be possible to divert the measured quantity in normal conditions of use unless it is readily apparent.	5.2. It shall not be possible to divert the measured quantity in normal conditions of use unless it is readily apparent.
Annex VI, amending provision, numbered paragraph (5), point (5.3)			
300	5.3. During the warm-up time of the CG measuring system, no measurements shall take place.	5.3. During the warm-up time of the CG measuring system, no measurements shall take place.	5.3. During the warm-up time of the CG measuring system, no measurements shall take place.
Annex VI, amending provision, numbered paragraph (5), point (5.4)			
301	5.4. Instruments for direct sales	5.4. Instruments for direct sales	5.4. Instruments for direct sales
Annex VI, amending provision, numbered paragraph (5), point (5.4)(5.4.1), first subparagraph			
302	5.4.1. A measuring system for direct sales shall be provided with means for resetting the display to zero.	5.4.1. A measuring system for direct sales shall be provided with means for resetting the display to zero.	5.4.1. A measuring system for direct sales shall be provided with means for resetting the display to zero.
Annex VI, amending provision, numbered paragraph (5), point (5.4)(5.4.1), second subparagraph			
303	It shall not be possible to divert measured gas downstream of the meter during a filling operation.	It shall not be possible to divert measured gas downstream of the meter during a filling operation.	It shall not be possible to divert measured gas downstream of the meter during a filling operation.
Annex VI, amending provision, numbered paragraph (5), point (5.4)(5.4.2)			
304	5.4.2. The display of the quantity on which the transaction is based shall be permanent until all parties in the transaction have accepted the measurement result.	5.4.2. The display of the quantity on which the transaction is based shall be permanent until all parties in the transaction have accepted the measurement result.	5.4.2. The display of the quantity on which the transaction is based shall be permanent until all parties in the transaction have accepted the measurement result.
Annex VI, amending provision, numbered paragraph (5), point (5.4)(5.4.3)			

	COM proposal	EP Mandate	Council Mandate
305	5.4.3. Measuring systems for direct sales shall be interruptible.	5.4.3. Measuring systems for direct sales shall be interruptible.	5.4.3. Measuring systems for direct sales shall be interruptible.
Annex VI, amending provision, numbered paragraph (5), point (5.4)(5.4.4)			
306	5.4.4. Measuring systems for direct sales shall display either in units of mass or energy.	5.4.4. Measuring systems for direct sales shall display either in units of mass or energy.	5.4.4. Measuring systems for direct sales shall display either in units of mass ~~or~~ <u>and, if applicable,</u> energy.
Annex VI, amending provision, numbered paragraph (5), point (5.5)			
307	5.5. CG Dispensers	5.5. CG Dispensers	5.5. ~~CG Dispensers~~ <u>Additional requirements for the display</u>
Annex VI, amending provision, numbered paragraph (5), point (5.5)(5.5.1)			
308	5.5.1. It shall not be possible to reset displays on CG dispensers to zero during a measurement.	5.5.1. It shall not be possible to reset displays on CG dispensers to zero during a measurement.	5.5.1. It shall not be possible to reset displays on CG dispensers to zero during a measurement.
Annex VI, amending provision, numbered paragraph (5), point (5.5)(5.5.2)			
309	5.5.2. The start of a new measurement shall be inhibited until the display has been reset to zero.	5.5.2. The start of a new measurement shall be inhibited until the display has been reset to zero.	5.5.2. The start of a new measurement shall be inhibited until the display has been reset to zero.
Annex VI, amending provision, numbered paragraph (5), point (5.5)(5.5.3)			
310	5.5.3. Where a measuring system is fitted with a price display, the difference between the indicated price and the price calculated from the unit price and the indicated quantity shall not exceed the smallest currency unit. However, that difference need not be less than the smallest monetary value.	5.5.3. Where a measuring system is fitted with a price display, the difference between the indicated price and the price calculated from the unit price and the indicated quantity shall not exceed the smallest currency unit. However, that difference need not be less than the smallest monetary value.	5.5.3. Where a measuring system is fitted with a price display, the difference between the indicated price and the price calculated from the unit price and the indicated quantity shall not exceed the smallest currency unit. However, that difference need not be less than the smallest monetary value.
Annex VI, amending provision, numbered paragraph (6), first subparagraph			
311	6. Power supply failure	6. Power supply failure	6. Power supply failure
Annex VI, amending provision, numbered paragraph (6), second subparagraph			

	COM proposal	EP Mandate	Council Mandate
312	A measuring system shall either be provided with an emergency power supply device that will safeguard all measuring functions during the failure of the main power supply device or be equipped with means to save and display the data present in order to permit the conclusion of the transaction in progress and with means to stop the flow of gas at the moment of failure of the main power supply device.	A measuring system shall either be provided with an emergency power supply device that will safeguard all measuring functions during the failure of the main power supply device or be equipped with means to save and display the data present in order to permit the conclusion of the transaction in progress and with means to stop the flow of gas at the moment of failure of the main power supply device.	A measuring system shall either be provided with an emergency power supply device that will safeguard all measuring functions during the failure of the main power supply device or be equipped with means to save and display the data present in order to permit the conclusion of the transaction in progress and with means to stop the flow of gas at the moment of failure of the main power supply device.
Annex VI, amending provision, numbered paragraph (7), first subparagraph			
313	7. Units of measurement	7. Units of measurement	7. Units of measurement
Annex VI, amending provision, numbered paragraph (7), second subparagraph			
314	The metered quantity shall be displayed in grams, kilograms, kilojoules, megajoules or kilowatt-hours.	The metered quantity shall be displayed in grams, kilograms, kilojoules, megajoules or kilowatt-hours.	The metered quantity shall be displayed in ~~grams, kilograms, kilojoules, megajoules or kilowatt-hours~~ <u>or their decimal multiples or submultiples, and, if applicable, in joules or watt-hours, or their decimal multiples.</u>
Annex VI, amending provision, numbered paragraph (7), third subparagraph			
315	CONFORMITY ASSESSMENT	CONFORMITY ASSESSMENT	CONFORMITY ASSESSMENT
Annex VI, amending provision, numbered paragraph (7), fourth subparagraph			
316	The conformity assessment procedures referred to in Article 17 that the manufacturer can choose between are: B + F or B + D or H1 or G..	The conformity assessment procedures referred to in Article 17 that the manufacturer can choose between are: B + F or B + D or H1 or G..	The conformity assessment procedures referred to in Article 17 that the manufacturer can choose between are: B + F or B + D or H1 or G..

COM proposal Table (row 86)

'Gas calorific value determining device	An associated measuring instrument for determining the calorific value of gas that has passed it.
Energy conversion device	A device which calculates, integrates and displays energy using the mass or the volume at base conditions, and the superior / gross calorific value.
Superior/gross calorific value	Amount of heat that would be released by the complete combustion with oxygen of a specified quantity of gas, in such a way that the pressure, p_1 , at which the reaction takes place remains constant, and all the products of combustion are returned to the same specified temperature, t_1 , equal to that of the reactants, all of those products being in the gaseous state except for water, which is condensed to the liquid state at t_1 .';

EP Mandate Table (row 86)

'Gas calorific value determining device	An associated measuring instrument for determining the calorific value of gas that has passed it.
Energy conversion device	A device which calculates, integrates and displays energy using the mass or the volume at base conditions, and the superior / gross calorific value.
Superior/gross calorific value	Amount of heat that would be released by the complete combustion with oxygen of a specified quantity of gas, in such a way that the pressure, p_1 , at which the reaction takes place remains constant, and all the products of combustion are returned to the same specified temperature, t_1 , equal to that of the reactants, all of those products being in the gaseous state except for water, which is condensed to the liquid state at t_1 .';

Council Mandate Table (row 86)

Gas calorific value determining device	An ~~associated measuring~~ instrument <u>connected to or integrated in the energy conversion device</u> for determining the calorific value of gas that has passed <u>through</u> it.
Energy conversion device	A device ~~which calculates, integrates and displays~~ <u>that converts the quantity measured to</u> energy using the mass or the volume at base conditions, and the ~~superior / gross~~ <u>superior/gross</u> calorific value.
Superior/gross calorific value	Amount of heat that would be released by the complete combustion with oxygen of a specified quantity of gas, in such a way that the pressure, p_1 , at which the reaction takes place remains constant, and all the products of combustion are returned to the same specified temperature, t_1 , equal to that of the reactants, all of those products being in the gaseous state except for water, which is condensed to the liquid state at t_1 .’;

COM proposal Table (row 91)

Class	$Q_{\max}/Q_{\min}$	$Q_{\max}/Q_t$	$Q_r/Q_{\max}$
1,5	≥ 150	≥ 10	1,2
1,0	≥ 10	≥ 5	1,2

EP Mandate Table (row 91)

Class	$Q_{\max}/Q_{\min}$	$Q_{\max}/Q_t$	$Q_r/Q_{\max}$
1,5	≥ 150	≥ 10	1,2
1,0	≥ 10	≥ 5	1,2

Council Mandate Table (row 91)

Class	$Q_{\max}/Q_{\min}$	$Q_{\max}/Q_t$	$Q_r/Q_{\max}$
1,5	≥ 150	≥ 10	1,2
1,0	≥ 10	≥ 5	1,2

COM proposal Table (row 124)

Class	0,5	1,0
MPE	0,5 %	1 %

EP Mandate Table (row 124)

Class	0,5	1,0
MPE	0,5 %	1 %

Council Mandate Table (row 124)

Class	0,5	1,0
MPE	0,5 %	~~+1,0~~ %

COM proposal Table (row 146)

'f	=	the frequency of the voltage supplied to the meter, for alternating current ('AC') electrical energy meters;
f _n	=	the specified reference frequency, for AC electrical energy meters;
PF	=	power factor = $\cos\varphi$ = the cosine of the phase difference φ between I and U, for AC electrical energy meters.';

EP Mandate Table (row 146)

'f	=	the frequency of the voltage supplied to the meter, for alternating current ('AC') electrical energy meters;
f _n	=	the specified reference frequency, for AC electrical energy meters;
PF	=	power factor = cosφ = the cosine of the phase difference φ between I and U, for AC electrical energy meters.';
<u>top</u>	=	<u><i>the operating temperature is a specified operating temperature range, within which the variations of operating percentage errors of a meter are specified and determined.</i>';</u>

Council Mandate Table (row 146)

<u><i>I_{st}</i></u>	=	<u><i>the lowest declared value of I at which the meter registers active electrical energy, and, for AC, at unity power factor (polyphase measuring systems with balanced load);</i></u>
<u><i>I_{min}</i></u>	=	<u><i>the value of I above which the error lies within maximum permissible errors (MPEs) (for AC, polyphase meters measuring systems with balanced load);</i></u>
<u><i>f</i></u>	=	the frequency of the voltage supplied to the meter, for alternating current ('AC') electrical energy meters;
<i>f_n</i>	=	the specified reference frequency, for AC electrical energy meters;
PF	=	power factor = $\cos\phi$ = the cosine of the phase difference ϕ between I and U, for AC electrical energy meters.';

COM proposal Table (row 180)

I	=	the electrical current flowing through the measuring system for EVSE at the transfer point;
I _{st}	=	the lowest declared value of I at which the measuring system for EVSE registers electrical energy at unity power factor (polyphase measuring systems with balanced load);
I _{min}	=	the value of I above which the error lies within maximum permissible errors (MPEs) (polyphase meters with balanced load);
I _{tr}	=	the value of I above which the error lies within the smallest MPE corresponding to the class index of the measuring system for EVSE;
I _{max}	=	the maximum value of I for which the error lies within the MPEs;
U	=	for AC, root mean square (RMS) value of the electrical voltage supplied to or from the measuring system for EVSE at the transfer point; for DC, value of the electrical voltage supplied to or from the measuring system for EVSE at the transfer point;
U _n	=	the specified reference voltage(s);
f	=	the frequency of the voltage supplied to or from the measuring system for EVSE, for AC measuring systems;
f _n	=	the specified reference frequency, for AC measuring systems;
PF	=	power factor = $\cos\phi$ = the cosine of the phase difference ϕ between I and U, for AC measuring systems;
ripple	=	peak-to-peak deviation from the nominal voltage signal expressed as a percentage of the reference value, for DC measuring systems;
harmonic	=	part of a signal that has a frequency that is an integer multiple of the fundamental frequency of the power input to the measuring system for EVSE, the fundamental frequency being, generally, the nominal frequency, f _{nom} , for AC measuring systems;
d	=	distortion factor which is the ratio of the RMS value of the harmonic content (obtained by subtracting the fundamental term from a non-sinusoidal alternating quantity) to the RMS value of the fundamental term, and which is equal to the total harmonic distortion using the fundamental as the reference (denominator);
MMQ	=	minimum measured quantity of energy delivered in a transaction for which the manufacturer specifies that the measuring system for EVSE will meet the MPE of the measuring system for EVSE's accuracy class;
transfer point	=	point at which an electric vehicle is connected to the EVSE (i.e. the charging station for electric vehicle).

EP Mandate Table (row 180)

I	=	the electrical current flowing through the measuring system for EVSE at the transfer point;
I _{st}	=	the lowest declared value of I at which the measuring system for EVSE registers electrical energy at unity power factor (polyphase measuring systems with balanced load);
I _{min}	=	the value of I above which the error lies within maximum permissible errors (MPEs) (polyphase meters with balanced load);
I _{tr}	=	the value of I above which the error lies within the smallest MPE corresponding to the class index of the measuring system for EVSE;
I _{max}	=	the maximum value of I for which the error lies within the MPEs;
U	=	for AC, root mean square (RMS) value of the electrical voltage supplied to or from the measuring system for EVSE at the transfer point; for DC, value of the electrical voltage supplied to or from the measuring system for EVSE at the transfer point;
U _n	=	the specified reference voltage(s);
f	=	the frequency of the voltage supplied to or from the measuring system for EVSE, for AC measuring systems;
f _n	=	the specified reference frequency, for AC measuring systems;
PF	=	power factor = $\cos\phi$ = the cosine of the phase difference ϕ between I and U, for AC measuring systems;
ripple	=	peak-to-peak deviation from the nominal voltage signal expressed as a percentage of the reference value, for DC measuring systems;
harmonic	=	part of a signal that has a frequency that is an integer multiple of the fundamental frequency of the power input to the measuring system for EVSE, the fundamental frequency being, generally, the nominal frequency, f _{nom} , for AC measuring systems;
d	=	distortion factor which is the ratio of the RMS value of the harmonic content (obtained by subtracting the fundamental term from a non-sinusoidal alternating quantity) to the RMS value of the fundamental term, and which is equal to the total harmonic distortion using the fundamental as the reference (denominator);
MMQ	=	minimum measured quantity of energy delivered in a transaction for which the manufacturer specifies that the measuring system for EVSE will meet the MPE of the measuring system for EVSE's accuracy class;
transfer point	=	point at which an electric vehicle is connected to the EVSE (i.e. the charging station for electric vehicle).

Council Mandate Table (row 180)

I	=	the electrical current flowing through the measuring system for EVSE at the transfer point;
I _{st}	=	the lowest declared value of I at which the measuring system for EVSE registers electrical energy, <u>and, for AC</u> , at unity power factor (polyphase measuring systems with balanced load);
I _{min}	=	the value of I above which the error lies within <u>base</u> maximum permissible errors (~~MPEs~~ <u>BMPEs</u>) (<u>for AC</u> , polyphase ~~meters~~ <u>measuring systems</u> with balanced load);
I _{tr}	=	the value of I above which the error lies within the smallest ~~MPE~~ <u>BMPE</u> corresponding to the class index of the measuring system for EVSE;
I _{max}	=	the maximum value of I for which the error lies within the ~~MPEs~~ <u>BMPEs</u> ;
U	=	for AC, root mean square (RMS) value of the electrical voltage ~~supplied~~ <u>applied</u> to or from the measuring system for EVSE at the transfer point; for DC, value of the electrical voltage supplied to or from the measuring system for EVSE at the transfer point;
U _n	=	the specified reference voltage(s);
f	=	the frequency of the voltage supplied to or from the measuring system for EVSE, for AC measuring systems;
f _n	=	the specified reference frequency, for AC measuring systems;
PF	=	power factor = cosφ = the cosine of the phase difference φ between I and U, for AC measuring systems;
~~ripple~~	=	~~peak-to-peak deviation from the nominal voltage signal expressed as a percentage of the reference value, for DC measuring systems;~~
harmonic	=	part of a signal that has a frequency that is an integer multiple of the fundamental frequency of the power input to the measuring system for EVSE, the fundamental frequency being, generally, the nominal frequency, ~~from~~ <u>fn</u> , for AC measuring systems;
d	=	distortion factor which is the ratio of the RMS value of the harmonic content ~~(obtained by subtracting the fundamental term from a non-sinusoidal alternating quantity)~~ to the RMS value of the fundamental term, and which is equal to the total harmonic distortion using the fundamental as the reference, <u>for AC measuring systems (denominator)</u> ;
MMQ	=	minimum measured quantity of energy delivered in a transaction for which the manufacturer specifies that the measuring system for EVSE will meet the MPE of the measuring system for EVSE's accuracy class;

transfer point	=	point at which an electric vehicle is connected to the ~~EVSE (i.e. the charging station for electric vehicle)~~ <u>measuring system of the EVSE</u> .
<u>critical fault</u>	<u>=</u>	<u>failure of the device when subjected to a disturbance in which the device appears to function correctly, but where the legally relevant data is incorrect or the shift in the accuracy measurements exceeds that specified in the tests.</u>
<u>Base Maximum Permissible Error (BMPE)</u>	<u>=</u>	<u>extreme values of the error (of indication) of an EVSE, when the current is varied (AC and DC EVSE) and voltage (DC EVSE) within the intervals given by the rated operating conditions, and when the EVSE is otherwise operated at reference conditions.</u>

Council Mandate Table (row 189a)

	<u><i>Class A</i></u>	<u><i>Class B</i></u>	<u><i>Class C</i></u>
<u><i>Ist</i></u>	<u><i>< 0,05 x Itr</i></u>	<u><i>< 0,04 x Itr</i></u>	<u><i>< 0,04 x Itr</i></u>
<u><i>Imin</i></u>	<u><i>< 0,5 x Itr</i></u>	<u><i>< 0,5 x Itr</i></u>	<u><i>< 0,3 x Itr</i></u>
<u><i>Imax</i></u>	<u><i>> 20 x Itr</i></u>	<u><i>> 20 x Itr</i></u>	<u><i>> 20 x Itr</i></u>

COM proposal Table (row 190)

	AC	AC	DC	DC
I _{min}	$\leq I_{tr}$	$\leq I_{tr}$	$\leq I_{tr}$	$\leq I_{tr}$
I _{tr}	$\leq 5 A$	$\leq 0,1 \cdot I_{max}$	$\leq 25 A$	$\leq 0,1 \cdot I_{max}$
I _{max}	$\leq 80 A$	$> 80 A$	$\leq 500 A$	$> 500 A$

EP Mandate Table (row 190)

	AC	AC	DC	DC
I _{min}	$\leq I_{tr}$	$\leq I_{tr}$	$\leq I_{tr}$	$\leq I_{tr}$
I _{tr}	$\leq 5 A$	$\leq 0,1 \cdot I_{max}$	$\leq 25 A$	$\leq 0,1 \cdot I_{max}$
I _{max}	$\leq 80 A$	$> 80 A$	$\leq 500 A$	$> 500 A$

EP Mandate Table (row 203b)

<u>Frequency</u>	<u>Present current at transfer point</u>		
	<u>$I \leq 200 \text{ A DC}$</u>	<u>$200 \text{ A DC} < I \leq 400 \text{ A DC}$</u>	<u>$I > 400 \text{ A DC}$</u>
<u>10 Hz</u>	<u>1,5</u>	<u>$I \times 0,75\%$</u>	<u>$I \times 0,75\%$</u>
<u>5 kHz</u>	<u>6,0</u>	<u>6,0</u>	<u>$I \times 1,5\%$</u>
<u>150 kHz</u>	<u>9,0</u>	<u>$I \times 4,5\%$</u>	<u>$I \times 4,5\%$</u>

COM proposal Table (row 208)

		BMPEs in percent at rated operating conditions and defined load current levels		
Current	Power factor	A (2 %)	B (1 %)	C (0,5 %)
$I_{st} \leq I < I_{min}$	> 0,9	± 25	± 15	± 10
$I_{min} \leq I < I_{tr}$	> 0,9	± 2,5	± 1,5	± 1
$I_{tr} \leq I < I_{max}$	> 0,9	± 2	± 1	± 0,5

EP Mandate Table (row 208)

		BMPEs in percent at rated operating conditions and defined load current levels		
Current	Power factor	A (2 %)	B (1 %)	C (0,5 %)
$I_{st} \leq I < I_{min}$	> 0,9	± 25	± 15	± 10
$I_{min} \leq I < I_{tr}$	> 0,9	± 2,5	± 1,5	± 1
$I_{tr} \leq I < I_{max}$	> 0,9	± 2	± 1	± 0,5

Council Mandate Table (row 208)

		BMPEs in percent at ~~rated operating~~ <u>reference</u> conditions and defined load current levels		
Current	Power factor <u>(only for AC)</u>	A (2 %)	B (1 %)	C (0,5 %)
$I_{st} \leq I < I_{min}$	> 0,9	± 25	± 15	± 10
$I_{min} \leq I < I_{tr}$	> 0,9	± 2,5	± 1,5	± 1
$I_{tr} \leq I < I_{max}$	> 0,9	± 2	± 1	± 0,5

COM proposal Table (row 228)

Influence quantity	Current	Limits for temperature coefficient (%/K) for EVSE of class			Type of Current
		A (2 %)	B (1 %)	C (0,5 %)	
Temperature coefficient, c, over any interval of the temperature range, which is not less than 15 K and not greater than 23 K (i)	$I_{tr} \leq I \leq I_{max}$	$\pm 0,1$	$\pm 0,05$	$\pm 0,03$	AC and DC

EP Mandate Table (row 228)

Influence quantity	Current	Limits for temperature coefficient (%/K) for EVSE of class			Type of Current
		A (2 %)	B (1 %)	C (0,5 %)	
Temperature coefficient, c, over any interval of the temperature range, which is not less than 15 K and not greater than 23 K (i)	$I_{tr} \leq I \leq I_{max}$	$\pm 0,1$	$\pm 0,05$	$\pm 0,03$	AC and DC

Council Mandate Table (row 228)

Influence quantity	Current	Limits for temperature coefficient (%/K) for <u>measuring system for</u> EVSE of class			Type of Current
		A (2 %)	B (1 %)	C (0,5 %)	
Temperature coefficient, c, over any interval of the temperature range, which is not less than 15 K and not greater than 23 K (i)	$I_{tr} \leq I \leq I_{max}$	±0,1	±0,05	±0,03	AC and DC

COM proposal Table (row 230)

Influence quantity	Value	Current	Maximum permissible error shift (%) for measuring system for EVSE of class			Type of Current
			A (2 %)	B (1 %)	C (0,5 %)	
Self-heating	Continuous current at I _{max}	I _{max}	±1	±0,5	±0,25	AC and DC
Conducted disturbances, low frequency	2 kHz – 150 kHz	$I_{tr} \leq I \leq I_{max}$	±3	±2	±2	AC and DC
Continuous (DC) magnetic induction of external origin	200 mT at 30 mm from magnetic core surface	$I_{tr} \leq I \leq I_{max}$	±3	±1,5	±0,75	AC and DC
Magnetic field (AC, power frequency) of external origin (ii)	400 A/m	$I_{tr} \leq I \leq I_{max}$	±2,5	±1,3	±0,5	AC and DC
Radiated, RF, electromagnetic fields	f = 80 MHz – 6000 MHz, Field strength ≤ 10 V/m	$I_{tr} \leq I \leq I_{max}$	±3	±2	±1	AC and DC
Conducted disturbances, induced by radio frequency fields (ii)	f = 0,15 MHz – 80 MHz, Amplitude ≤ 10 V	$I_{tr} \leq I \leq I_{max}$	±3	±2	±1	AC and DC
Operation of ancillary devices	Ancillary devices operated with I = I _{tr} and I _{max}	$I_{tr} \leq I \leq I_{max}$	±0,7	±0,3	±0,15	AC and DC
Voltage variation (ii)	0,9 × U _n to 1,1 × highest U _n	$I_{tr} \leq I \leq I_{max}$	±1	±0,7	±0,2	AC
Frequency variation of mains (ii)	Each f _n ± 2 %	$I_{tr} \leq I \leq I_{max}$	±0,8	±0,5	±0,2	AC
Harmonics in voltage and current circuits (ii)	d < 5 % I d < 10 % U	$I_{tr} \leq I \leq I_{max}$	±1	±0,6	±0,3	AC
Reversed phase sequence (AC 3-phase only) (ii)	Any two phases interchanged	$I_{tr} \leq I \leq I_{max}$	±1,5	±1,5	±0,1	AC

EP Mandate Table (row 230)

Influence quantity	Value	Current	Maximum permissible error shift (%) for measuring system for EVSE of class			Type of Current
			A (2 %)	B (1 %)	C (0,5 %)	
Self-heating	Continuous current at I_{max}	I_{max}	± 1	$\pm 0,5$	$\pm 0,25$	AC and DC
Conducted disturbances, low frequency	2 kHz – 150 kHz	$I_{tr} \leq I \leq I_{max}$	± 3	± 2	± 2	AC and DC
Continuous (DC) magnetic induction of external origin	200 mT at 30 mm from magnetic core surface	$I_{tr} \leq I \leq I_{max}$	± 3	$\pm 1,5$	$\pm 0,75$	AC and DC
Magnetic field (AC, power frequency) of external origin (ii)	400 A/m	$I_{tr} \leq I \leq I_{max}$	$\pm 2,5$	$\pm 1,3$	$\pm 0,5$	AC and DC
Radiated, RF, electromagnetic fields	$f = 80 \text{ MHz} - 6000 \text{ MHz}$, Field strength $\leq 10 \text{ V/m}$	$I_{tr} \leq I \leq I_{max}$	± 3	± 2	± 1	AC and DC
Conducted disturbances, induced by radio frequency fields (ii)	$f = 0,15 \text{ MHz} - 80 \text{ MHz}$, Amplitude $\leq 10 \text{ V}$	$I_{tr} \leq I \leq I_{max}$	± 3	± 2	± 1	AC and DC
Operation of ancillary devices	Ancillary devices operated with $I = I_{tr}$ and I_{max}	$I_{tr} \leq I \leq I_{max}$	$\pm 0,7$	$\pm 0,3$	$\pm 0,15$	AC and DC
Voltage variation (ii)	$0,9 \times U_n$ to $1,1 \times \text{highest } U_n$	$I_{tr} \leq I \leq I_{max}$	± 1	$\pm 0,7$	$\pm 0,2$	AC
Frequency variation of mains (ii)	Each $f_n \pm 2 \%$	$I_{tr} \leq I \leq I_{max}$	$\pm 0,8$	$\pm 0,5$	$\pm 0,2$	AC
Harmonics in voltage and current circuits (ii)	$d < 5 \%$ $I_d < 10 \%$ U	$I_{tr} \leq I \leq I_{max}$	± 1	$\pm 0,6$	$\pm 0,3$	AC
Reversed phase sequence (AC 3-phase only) (ii)	Any two phases interchanged	$I_{tr} \leq I \leq I_{max}$	$\pm 1,5$	$\pm 1,5$	$\pm 0,1$	AC

Council Mandate Table (row 230)

Influence quantity	Value	Current	Maximum permissible error shift (%) for measuring system for EVSE of class			Type of Current
			A (2 %)	B (1 %)	C (0,5 %)	
Self-heating	Continuous current at I_{max}	I_{max}	± 1	$\pm 0,5$	$\pm 0,25$	AC and DC
Conducted disturbances, low frequency	2 kHz – 150 kHz	$I_{tr} \leq I \leq I_{max}$	± 3	± 2	± 2	AC and DC
Continuous (DC) magnetic induction of external origin	200 mT at 30 mm from magnetic core surface	$I_{tr} \leq I \leq I_{max}$	± 3	$\pm 1,5$	$\pm 0,75$	AC and DC
Magnetic field (AC, power frequency) of external origin (ii)	400 A/m	$I_{tr} \leq I \leq I_{max}$	$\pm 2,5$	$\pm 1,3$	$\pm 0,5$	AC and DC
Radiated, RF, electromagnetic fields	$f = 80 \text{ MHz} - 6000 \text{ MHz}$, Field strength $\leq 10 \text{ V/m}$	$I_{tr} \leq I \leq I_{max}$	± 3	± 2	± 1	AC and DC
Conducted disturbances, induced by radio frequency fields (ii)	$f = 0,15 \text{ MHz} - 80 \text{ MHz}$, Amplitude $\leq 10 \text{ V}$	$I_{tr} \leq I \leq I_{max}$	± 3	± 2	± 1	AC and DC
Operation of ancillary devices	Ancillary devices operated with $I = I_{tr}$ and I_{max}	$I_{tr} \leq I \leq I_{max}$	$\pm 0,7$	$\pm 0,3$	$\pm 0,15$	AC and DC
Voltage variation (ii)	$0,9 \times U_n$ to $1,1 \times \text{highest } U_n$	$I_{tr} \leq I \leq I_{max}$	± 1	$\pm 0,7$	$\pm 0,2$	AC
Frequency variation of mains (ii)	Each $f_n \pm 2 \%$	$I_{tr} \leq I \leq I_{max}$	$\pm 0,8$	$\pm 0,5$	$\pm 0,2$	AC
Harmonics in voltage and current circuits (ii)	$d < 5 \%$ $I_d < 10 \%$ U	$I_{tr} \leq I \leq I_{max}$	± 1	$\pm 0,6$	$\pm 0,3$	AC
Reversed phase sequence (AC 3-phase only) (ii)	Any two phases interchanged	$I_{tr} \leq I \leq I_{max}$	$\pm 1,5$	$\pm 1,5$	$\pm 0,1$	AC

COM proposal Table (row 247)

$\Delta\theta$	=	the temperature difference $\theta_{in} - \theta_{out}$ with $\Delta\theta > 0$ for heating and $\Delta\theta < 0$ for cooling';
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EP Mandate Table (row 247)

$\Delta\theta$	=	the temperature difference $\theta_{in} - \theta_{out}$ with $\Delta\theta > 0$ for heating and $\Delta\theta < 0$ for cooling';
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Council Mandate Table (row 247)

' $\Delta\theta$	=	the temperature difference $\theta_{in} - \theta_{out}$ with $\Delta\theta \geq 0$ for heating and $\Delta\theta \leq 0$ for cooling';
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COM proposal Table (row 263)

Meter	An instrument designed to measure continuously, memorise and display the quantity at metering conditions of gas flowing through the measurement transducer in a closed, fully charged conduit.
Calculator	A part of a meter that receives the output signals from the measurement transducers and possibly, from associated measuring instruments and displays the measurement results.
Associated measuring instrument	An instrument connected to the calculator for measuring certain quantities, which are characteristic of the gas, with a view to make a correction and/or conversion.
Conversion device	A part of the calculator, which by taking into account the characteristics of the gas, automatically converts the mass of the gas into the amount of energy delivered or received.
Measuring system	A system that comprises, in addition to the meter itself, a transfer point, gas piping and all devices required to ensure correct measurement or intended to facilitate the measuring operations.
Compressed gas ('CG') dispenser	A measuring system intended for the fuelling of road vehicles, rail engines, boats, vessels and aircraft with compressed gaseous fuel.
Transfer point	Physical location at which the gas is defined as being delivered or received.
Self-service arrangement	An arrangement that allows customers to use a measuring system for the purpose of obtaining gas for their own use.
Self-service device	A specific device that is part of a self-service arrangement and which allows one or more measuring systems to perform in that self-service arrangement.
Minimum measured quantity ('MMQ')	The smallest quantity of gas for which the measurement is metrologically acceptable for the measuring system.
Direct indication	The indication of mass or energy, corresponding to the measure and that the meter is physically capable of measuring. Note: The direct indication may be converted into another quantity using a conversion device.
Interruptible	A measuring system is considered as interruptible when the gas flow can be stopped easily and rapidly.
Non-interruptible	A measuring system is considered as non-interruptible when the gas flow cannot be stopped easily and rapidly.
Flowrate range	The range between the minimum flowrate (Q_{min}) and maximum flowrate (Q_{max}).

EP Mandate Table (row 263)

Meter	An instrument designed to measure continuously, memorise and display the quantity at metering conditions of gas flowing through the measurement transducer in a closed, fully charged conduit.
Calculator	A part of a meter that receives the output signals from the measurement transducers and possibly, from associated measuring instruments and displays the measurement results.
Associated measuring instrument	An instrument connected to the calculator for measuring certain quantities, which are characteristic of the gas, with a view to make a correction and/or conversion.
Conversion device	A part of the calculator, which by taking into account the characteristics of the gas, automatically converts the mass of the gas into the amount of energy delivered or received.
Measuring system	A system that comprises, in addition to the meter itself, a transfer point, gas piping and all devices required to ensure correct measurement or intended to facilitate the measuring operations.
Compressed gas ('CG') dispenser	A measuring system intended for the fuelling of road vehicles, rail engines, boats, vessels and aircraft with compressed gaseous fuel.
Transfer point	Physical location at which the gas is defined as being delivered or received.
Self-service arrangement	An arrangement that allows customers to use a measuring system for the purpose of obtaining gas for their own use.
Self-service device	A specific device that is part of a self-service arrangement and which allows one or more measuring systems to perform in that self-service arrangement.
Minimum measured quantity ('MMQ')	The smallest quantity of gas for which the measurement is metrologically acceptable for the measuring system.
Direct indication	The indication of mass or energy, corresponding to the measure and that the meter is physically capable of measuring. Note: The direct indication may be converted into another quantity using a conversion device.
Interruptible	A measuring system is considered as interruptible when the gas flow can be stopped easily and rapidly.
Non-interruptible	A measuring system is considered as non-interruptible when the gas flow cannot be stopped easily and rapidly.
Flowrate range	The range between the minimum flowrate (Q_{min}) and maximum flowrate (Q_{max}).

Council Mandate Table (row 263)

Meter	An instrument designed to measure continuously, ~~memorise~~ <u>and to ensure the memorisation</u> and display <u>of</u> the quantity <u>of gas</u> , at metering conditions ~~of gas~~ , flowing through the measurement transducer in a closed, fully charged conduit.
Calculator	A part of a meter that receives the output signals from the measurement transducers and possibly, from associated measuring instruments and displays the measurement results.
Associated measuring instrument	An instrument connected to the calculator for measuring certain quantities, which are characteristic of the gas, with a view to make a correction and/or conversion.
Conversion device	A part of the calculator, which by taking into account the characteristics of the gas, automatically converts the mass of the gas into the amount of energy delivered or received.
Measuring system	A system that comprises, in addition to the meter itself, a transfer point, gas piping and all devices required to ensure correct measurement or intended to facilitate the measuring operations.
Compressed gas ('CG') dispenser	A measuring system intended for the fuelling of ~~road~~ <u>motor</u> vehicles, rail engines, boats, vessels and aircraft with compressed gaseous fuel.
Transfer point	Physical location at which the gas is defined as being delivered or received.
Self-service arrangement	An arrangement that allows customers to use a measuring system for the purpose of obtaining gas for their own use.
Self-service device	A specific device that is part of a self-service arrangement and ~~which~~ <u>that</u> allows one or more measuring systems to perform in that self-service arrangement.
Minimum measured quantity ('MMQ')	The smallest quantity of gas for which the measurement is metrologically acceptable for the measuring system.
Direct indication	The indication of mass ~~or~~ <u>and, if applicable</u> , energy, corresponding to the measure and that the meter is physically capable of measuring. Note: The direct indication may be converted into another quantity using a conversion device.
Interruptible	A measuring system is considered as interruptible when the gas flow can be stopped easily and rapidly.
Non-interruptible	A measuring system is considered as non-interruptible when the gas flow cannot be stopped easily and rapidly.
Flowrate range	The range between the minimum flowrate (Qmin) and maximum flowrate (Qmax).

COM proposal Table (row 280)

Type of compressed gas measuring systems	Accuracy Class (MPE [% of measured value])
Compressed hydrogen measuring systems	2
Other compressed gas measuring systems	1,5

EP Mandate Table (row 280)

Type of compressed gas measuring systems	Accuracy Class (MPE [% of measured value])
Compressed hydrogen measuring systems	2
Other compressed gas measuring systems	1,5

Council Mandate Table (row 280)

Type of compressed gas measuring systems	Accuracy Class (MPE [% of measured value])
Compressed hydrogen measuring systems	~~2~~ <u>2,0</u>
Other compressed gas measuring systems	1,5