Commission Implementing Decision (EU) 2019/314 of 21 February 2019 on the approval of the technology used in SEG Automotive Germany GmbH High efficient 48V motor generator (BRM) plus 48V/12V DC/DC converter for use in conventional combustion engine and certain hybrid powered passenger cars as an innovative technology for reducing CO2 emissions from passenger cars pursuant to Regulation (EC) No 443/2009 of the European Parliament and of the Council (Text with EEA relevance)

COMMISSION IMPLEMENTING DECISION (EU) 2019/314

of 21 February 2019

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(Text with EEA relevance)

THE EUROPEAN COMMISSION,

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

Having regard to Regulation (EC) No 443/2009 of the European Parliament and of the Council of 23 April 2009 setting emission performance standards for passenger cars as part of the Union's integrated approach to reduce CO_2 emissions from passenger cars[(1)], and in particular Article 12(4) thereof,

Whereas:

(1) On 14 May 2018, the supplier SEG Automotive Germany GmbH submitted an application for the approval of the High efficient 48V motor generator (BRM) plus 48V/12V DC/DC converter for M_1 vehicles as an eco-innovation. The application has been assessed in accordance with Article 12 of Regulation (EC) No 443/2009 and Commission Implementing Regulation (EU) No 725/2011[(2)].

(2) The 48V motor generator is a reversible machine that may operate as either an electric motor converting electrical energy into mechanical energy, or a generator converting mechanical energy into electrical energy as a standard alternator. The application submitted focused on the generation function of the component.

(3) The applicant proposed two different methodologies to determine the total efficiency of the system, combining the efficiency of the 48V motor generator and the efficiency of the 48V/12V DC/DC converter. The first method aims to calculate the efficiency of the 48V motor generator and its 48V/12V DC/DC converter separately, while the second method aims to calculate the efficiency of the 48V motor generator plus its 48V/12V DC/DC converter (combined method). Both testing procedures are in line with the Technical Guidelines for the preparation of applications for the approval of innovative

technologies pursuant to Regulation (EC) No 443/2009. As compared to the testing methodology defined in Commission Implementing Decision (EU) 2017/785[3] on the approval of efficient 12V motor-generators, the testing methodologies for 48V motor generators include different voltage and test current to take into account the specificities of the 48V motor generator.

(4) The information provided in the application demonstrates that the conditions and the criteria referred to in Article 12 of Regulation (EC) No 443/2009 and in Articles 2 and 4 of Implementing Regulation (EU) No 725/2011 have been met for the two proposed case studies. As a consequence, the SEG Automotive Germany GmbH High efficient 48V motor generator (BRM) plus 48V/12V DC/DC converter applied to M_1 vehicles should be approved as an eco-innovation.

(5) It is appropriate to approve the testing methodologies for determining the CO_2 savings from the SEG Automotive Germany GmbH High efficient 48V motor generator (BRM) plus 48V/12V DC/DC converter. Only emission savings certified on the basis of one of the two testing methodologies set out in this Decision can be taken into account for determining a manufacturer's specific emission performance pursuant to Regulation (EC) No 443/2009.

(6) In order to determine the CO_2 savings from the SEG Automotive Germany GmbH High efficient 48V motor generator (BRM) plus 48V/12V DC/DC converter, it is necessary to establish the baseline technology against which the efficiency of the generator function should be assessed. Taking into account expert judgement it is appropriate to consider an alternator with 67 % efficiency as baseline technology to be used for the purpose of determining the CO_2 savings under this Decision..

(7) In the case of hybrid M_1 vehicles, the testing methodologies are based on certain conditions that are only valid for vehicles for which it is allowed to use uncorrected measurements like the fuel consumption or the CO_2 emissions measured during type 1 test as specified in Annex 8 to UNECE Regulation No 101. This is why the scope of this decision applies to any internal combustion engine powered M_1 vehicles, but is limited to certain hybrid M_1 vehicles only.

(8) The savings from the SEG Automotive Germany GmbH High efficient 48V motor generator (BRM) plus 48V/12V DC/DC converter may be partially demonstrated on the test referred to in Annex XII to Commission Regulation (EC) No 692/2008[4]. It is therefore necessary to ensure that this partial coverage is taken into account in the testing methodology for CO_2 savings from the motor generator.

(9) If the type approval authority finds that the SEG Automotive Germany GmbH High efficient 48V motor generator (BRM) plus 48V/12V DC/DC converter does not satisfy the conditions for certification, the application for certification of the savings should be rejected.

(10) This Decision should apply until 2020 inclusive in relation to the test procedure referred to in Annex XII to Regulation (EC) No 692/2008. With effect from 1 January 2021, innovative technologies are to be assessed in relation to the test procedure laid down in Commission Regulation (EU) 2017/1151[5].

(11) For the purposes of determining the general eco-innovation code to be used in the relevant type approval documents in accordance with Annexes I, VIII and IX to Directive 2007/46/EC of the European Parliament and of the Council[6], the individual code to be used for the innovative technology for the SEG Automotive Germany GmbH High efficient 48V motor generator (BRM) plus 48V/12V DC/DC converter should be specified,

HAS ADOPTED THIS DECISION:

Article 1

Approval

The technology used in the SEG Automotive Germany GmbH High efficient 48V motor generator (BRM) plus 48V/12V DC/DC converter is approved as an innovative technology within the meaning of Article 12 of Regulation (EC) No 443/2009 provided the innovative technology is fitted in internal combustion engine powered M_1 vehicles, or in hybrid M_1 vehicles for which the conditions specified in point 6.3.2(2) or (3) of Annex 8 to UNECE Regulation 101 are fulfilled.

Article 2

Definitions

For the purpose of this Decision, 48V motor generator means a reversible machine that may operate as either an electric motor converting electrical energy into mechanical energy, or a generator converting mechanical energy into electrical energy as a standard alternator. This Decision focus on the generation function of the component.

Article 3

Application for certification of CO_2 savings

1 A manufacturer may apply for certification of the CO_2 savings from one or several SEG Automotive Germany GmbH High efficient 48V motor generators (BRM) plus 48V/12V DC/DC converters intended for use in M_1 vehicles that comply with the conditions set out in Article 1.

2 An application for the certification of the savings from one or several SEG Automotive Germany GmbH High efficient 48V motor generator (BRM) plus 48V/12V DC/DC converter shall be accompanied by an independent verification report confirming that the CO_2 savings threshold of 1 g CO_2/km specified in Article 9 of Implementing Regulation (EU) No 725/2011 is met.

3 The type approval authority shall reject the application for certification if it finds that the motor generator plus converter or motor generators plus converters are fitted in vehicles that do not comply with the conditions set out in Article 1, or where the CO_2 emission savings are below the threshold specified in Article 9(1) of Implementing Regulation (EU) No 725/2011.

Changes to legislation: *There are currently no known outstanding effects for the Commission Implementing Decision (EU) 2019/314. (See end of Document for details)*

Article 4

Certification of CO_2 savings

1 The reduction in CO_2 emissions from the use of a SEG Automotive Germany GmbH High efficient 48V motor generator (BRM) plus 48V/12V DC/DC converter shall be determined using one of the two methodologies set out in the Annex.

2 Where a manufacturer applies for the certification of the CO_2 savings from more than one SEG Automotive Germany GmbH High efficient 48V motor generator (BRM) plus 48V/12V DC/DC converter in relation to one vehicle version, the type approval authority shall determine which of the motor generators plus converters tested delivers the lowest CO_2 savings, and record those savings in the relevant type approval documentation. That value shall also be indicated in the certificate of conformity in accordance with Article 11(2) of Implementing Regulation (EU) No 725/2011.

3 The type approval authority shall record the verification report and the test results on the basis of which the savings were determined and shall make that information available to the Commission on request.

Article 5

Eco-innovation code

The eco-innovation code No 27 shall be entered into the type approval documentation where reference is made to this Decision in accordance with Article 11(1) of Implementing Regulation (EU) No 725/2011.

Article 6

Applicability

This Decision shall apply until 31 December 2020.

Article 7

Entry into force

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

Done at Brussels, 21 February 2019.

For the Commission

The President

Jean-Claude JUNCKER

***Changes to legislation:** There are currently no known outstanding effects for the Commission Implementing Decision (EU) 2019/314. (See end of Document for details)*