COMMISSION IMPLEMENTING DECISION (EU) 2015/158

of 30 January 2015

on the approval of two Robert Bosch GmbH high efficient alternators as the innovative technologies for reducing CO_2 emissions from passenger cars pursuant to Regulation (EC) No 443/2009 of the European Parliament and of the Council

(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 emissions performance standards for new passenger cars as part of the Community's integrated approach to reduce CO_2 emissions from light-duty vehicles ([1]), and in particular Article 12(4) thereof,

Whereas:

(1) The supplier Robert Bosch GmbH (the 'Applicant') submitted the following two applications for the approval of the Robert Bosch GmbH efficient alternators as innovative technologies on 2 December 2013 and 6 May 2014 respectively:

No	Innovative technology
1	High efficient alternator with high efficiency diodes (HED)
2	High efficient alternator with synchronous active rectification (SAR)

(2) The completeness of two applications was assessed in accordance with Article 4 of Commission Implementing Regulation (EU) No 725/2011 ([2]). The Commission identified certain relevant information as missing in the original application for innovative technology No 1 and requested the Applicant to complete it. The Applicant provided the information on 6 May 2014. Both applications were found to be complete and the period for the Commission's assessment of the applications started on the day following the date of official receipt, i.e. 7 May 2014 in both cases.

(3) Both applications have been assessed in accordance with Article 12 of Regulation (EC) No 443/2009, Implementing Regulation (EU) No 725/2011 and the Technical Guidelines for the preparation of applications for the approval of innovative technologies pursuant to Regulation (EC) No 443/2009 (the Technical Guidelines) ([3]).

(4) The application No 1 refers to the Robert Bosch GmbH high efficient alternator with HED. The high efficient alternator with HED use optimised component designs and high efficiency diodes. In addition, to the new diode technology of HED, the Applicant's alternator has an increased efficiency compared to the baseline alternator by: reduction of iron losses by optimisation of steel and lamination, optimisation of iron length and tooth cross section, optimisation of air gap between rotor and stator and optimisation of chamber of the rotor claw poles, and optimisation of phase resistance. This technology is therefore different from the other efficient generation alternators approved as eco-innovation by Commission Implementing Decision 2013/341/EU ([4]) and Commission Implementing Decision 2014/465/EU ([5]).

([1]) OJ L 140, 5.6.2009, p. 1.
([2]) Commission Implementing Regulation (EU) No 725/2011of 25 July 2011 establishing a procedure for the approval and certification of innovative technologies for reducing CO_2 emissions from passenger cars pursuant to Regulation (EC) No 443/2009 of the European Parliament and of the Council (OJ L 194, 26.7.2011), p. 19.
([3]) http://ec.europa.eu/clima/policies/transport/vehicles/cars/docs/guidelines_en.pdf
([4]) Commission Implementing Decision 2013/341/EU of 27 June 2013 on the approval of the Valeo Efficient Generation Alternator as an innovative technology for reducing CO_2 emissions from passenger cars pursuant to Regulation (EC) No 443/2009 of the European Parliament and of the Council (OJ L 179, 29.6.2013, p. 98).
([5]) Commission Implementing Decision 2014/465/EU of 16 July 2014 on the approval of the DENSO efficient alternator as an innovative technology for reducing CO_2 emissions from passenger cars pursuant to Regulation (EC) No 443/2009 of the European Parliament and of the Council and amending Commission Implementing Decision 2013/341/EU (OJ L 210, 17.7.2014, p. 17).

(5) The application No 2 refers to the Robert Bosch GmbH high efficient alternator with SAR. The high efficient alternator with SAR has an efficiency of at least 78 %. Main efficiency increase is achieved by the introduction of the active rectification using MOSFET, i.e. by a use of metal–oxide–semiconductor field-effect transistor technology. In addition, the Applicant's high efficient alternator with SAR has an increased efficiency compared to the baseline alternator by: reduction of iron losses by optimisation of steel and lamination, optimisation of iron length and tooth cross section, optimisation of air gap between rotor and stator and optimisation of chamber of the rotor claw poles, and optimisation of phase resistance. This technology is therefore different from the other efficient generation alternators approved as eco-innovation by Implementing Decision 2013/341/EU and Implementing Decision 2014/465/EU, and from the high efficient alternator with HED as per application No 1.

(6) The Commission finds that the information provided in both applications demonstrates that the conditions and 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.

(7) The Applicant has demonstrated that both high efficiency alternators of the kind described in this application did not exceed 3 % of the new passenger cars registered in the reference year 2009.

(8) In order to determine the CO_2 savings that the innovative technology will deliver when fitted to a vehicle, it is necessary to define the baseline vehicle against which the efficiency of the vehicle equipped with the innovative technology should be compared as provided for in Articles 5 and 8 of Implementing Regulation (EU) No 725/2011. The Commission finds that it is appropriate to consider an alternator with 67 % efficiency as an appropriate baseline technology in the case the innovative technology is fitted on a new vehicle type. Where the Robert Bosch GmbH efficient alternators are fitted to an existing vehicle type, the baseline technology should be the alternator of the most recent version of that type placed on the market.

(9) The Applicant in both applications has provided a methodology for testing the CO_2 reductions which includes formulae that are consistent with the formulae described in the Technical Guidelines for the simplified approach with regard to efficient alternators. The Commission considers that the testing methodology will provide testing results that are verifiable, repeatable and comparable and that it is capable of demonstrating in a realistic manner the CO_2 emissions benefits of the innovative technology with strong statistical significance in accordance with Article 6 of Implementing Regulation (EU) No 725/2011.

(10) The Commission notes that the Applicant's testing methodology and formulae to calculate the CO_2 savings in both cases are in all aspects identical to the methodology specified in the Annex to Implementing Decision 2013/341/EU. As a consequence, the Commission considers that the methodology specified in Implementing Decision 2013/341/EU should be used to determine the reduction in CO_2 emissions due to the use of the Robert Bosch GmbH high efficient alternator with HED and Robert Bosch GmbH high efficient alternator with SAR.

(11) Against that background the Commission finds that the Applicant has demonstrated satisfactorily that the emission reduction achieved by the innovative technology is at least 1 g CO_2/km.

(12) The Commission notes that the savings of both innovative technologies may be partially demonstrated on the standard test cycle, and the final total savings to be certified should therefore be determined in accordance with the second subparagraph of Article 8(2) of Implementing Regulation (EU) No 725/2011.

(13) The Commission finds that in both cases the verification report has been prepared by the TÜV SÜD Industrie Service GmbH which is an independent and certified body and that the report supports the findings set out in the applications.

(14) Against that background, the Commission finds that no objections should be raised as regards the approval of both innovative technologies in question.

(15) 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 [1], the individual codes to be used for the innovative technology approved through this Implementing Decision should be specified.

[1] Directive 2007/46/EC of the European Parliament and of the Council of 5 September 2007 establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles (Framework Directive) (OJ L 263, 9.10.2007, p. 1).

(16) Any manufacturer wishing to benefit from a reduction of its average specific CO_2 emissions for the purpose of meeting its specific emissions target by means of the CO_2 savings from the use of the innovative technology approved by this Implementing Decision, should in accordance with Article 11(1) of Implementing Regulation (EU) No 725/2011, refer to this Decision in its application for an EC type-approval certificate for the vehicles concerned,

HAS ADOPTED THIS DECISION:

Article 1

1. The Robert Bosch GmbH high efficient alternator with high efficiency diodes (HED) and intended for use in M_1 vehicles is approved as an innovative technology within the meaning of Article 12 of Regulation (EC) No 443/2009.

2. The Robert Bosch GmbH high efficient alternator with synchronous active rectification (SAR) having an efficiency of at least 78 per cent and intended for use in M_1 vehicles is approved as an innovative technology within the meaning of Article 12 of Regulation (EC) No 443/2009.

3. The CO_2 emissions reduction from the use of both alternators referred to in paragraphs 1 and 2 shall be determined using the methodology set out in the Annex to Implementing Decision 2013/341/EU.

4. In accordance with the second subparagraph of Article 11(2) of Implementing Regulation (EU) No 725/2011, the CO_2 emission reduction determined in accordance with paragraph 3 of this Article, may only be certified and entered into the certificate of conformity and relevant type approval documentation specified in Annexes I, VIII and IX to Directive 2007/46/EC where the reductions are on or above the threshold specified in Article 9(1) of Implementing Regulation (EU) No 725/2011.

5. The individual eco-innovation code to be entered into type approval documentation to be used for the innovative technologies approved through this Decision shall be as follows:

(1) '8' for high efficient alternator with high efficiency diodes,

(2) '9' for high efficient alternator with synchronous active rectification.

Article 2

This Decision shall enter into force on the 20th day following that of its publication in the *Official Journal of the European Union*.

Done at Brussels, 30 January 2015.

For the Commission
The President
Jean-Claude JUNCKER