EUROPEAN
COMMISSION

Brussels, 13.8.2021
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COMMISSION IMPLEMENTING DECISION

of 13.8.2021

on the request from the Portuguese Republic for a derogation pursuant to Article 3(4) and (5) of Directive 98/70/EC

(Only the Portuguese text is authentic)

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THE EUROPEAN COMMISSION,

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

Having regard to Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel and amending Council Directive 93/12/EEC[1], and in particular Article 3(4) and (5) thereof,

Whereas:

(1) By letter to the Commission registered on 19 November 2020, the Portuguese Republic ('Portugal') notified a request for derogation to permit the placing on the market during the summer period of petrol containing ethanol, as a biofuel, with a maximum vapour pressure of 60 kPa plus the permitted vapour pressure waiver specified in Annex III of Directive 98/70/EC ('the Directive') for the period until 31 December 2025.

(2) According to Article 3(4) of the Directive, Member States in which the derogation referred to in the first subparagraph of Article 3(4) is not applied may, subject to paragraph 5, permit the placing on the market during the summer period of petrol containing ethanol with a maximum vapour pressure of 60 kPa plus the permitted vapour pressure waiver specified in Annex III[2], on condition that the ethanol used is a biofuel.

(3) In accordance with Article 3(5) of the Directive, Member States that wish to apply either of the derogations provided for in paragraph 4 shall notify the Commission and provide all relevant information. The Commission shall assess the desirability and duration of the derogation, taking account of both:

   (a) the avoidance of socioeconomic problems resulting from higher vapour pressure, including time-limited technical adaptation needs; and

   (b) the environmental or health consequences of the higher vapour pressure and, in particular, the impact on compliance with EU legislation on air quality, both in the Member State concerned and in other Member States.

(4) Pursuant to Article 3(5), the Commission shall assess the desirability and the duration of each derogation requested. If, taking into account relevant target values, the assessment shows that the derogation will result in a lack of compliance with EU

[1] OJ L 350, 28.12.1998, p.58.

[2] The addition of ethanol to petrol increases the vapour pressure of the blend leading to higher evaporative emissions of volatile organic compounds (VOC). The derogation is introduced to accommodate this increase and to keep the emissions of VOC at the level that is safe for health and environment.

legislation on air quality or air pollution, including limit values and emissions ceilings, the application shall be rejected.

(5) Directive 2009/30/EC amending Directive 98/70/EC by i.a. introducing Article 3(2) to (6) had to be transposed into national law by 31 December 2010. A failure to comply with the vapour pressure requirements of the Directive after this date would constitute an infringement of EU law, unless a derogation is in place.

(6) The notification was assessed in line with Directive 98/70/EC and with the general recommendations for assessment set out in the public document 'Guidance note on notifications of exemptions from the vapour pressure requirements for petrol under Article 3(4) of Directive 98/70/EC relating to the quality of petrol and diesel fuels' ('the Guidance note')[3].

(7) The Commission found that some essential information was missing in the initial notification, and asked Portugal by letter dated on 8 February 2021 to complete the notification. Portugal submitted additional information by letter on 22 April 2021.

(8) The Commission found the additionally submitted information sufficient to finalise the assessment.

(9) The Guidance note provides that the notification by the Member State is assessed considering the forecast quantity of petrol concerned, the share it represents of the Member State's total produced amount, the quantity of petrol exported, the forecast quantity of petrol for which a derogation is sought and – if relevant – the associated percentage of bioethanol content of that petrol. In addition, the assessment of notifications will be conducted in accordance with the following socioeconomic and environmental criteria:

– Any social, financial or economic impact to implementing the regulated vapour pressure of 60 kPa.

– Compliance with Community air quality and pollution legislation encompassing realistic and reliable predictions of their emissions of non-methane volatile organic compounds (NMVOCs), ozone and benzene, including additional measures being considered to outweigh the additional emissions caused by the derogation.

(10) First, the notification was assessed in accordance with information requirements set out under point 4 of the Guidance note. Portugal provided information on petrol sales, exports, imports and distribution, which the Commission considers sufficient to evaluate the notification. More specifically, Portugal has indicated an increase of maximum estimated volumes of petrol placed on the market from about 980 kilotonnes (kt) in 2020 to 1023 kt in 2025. Portugal further informed that the planned bioethanol content for the estimated volumes of petrol would be 5%, corresponding to the requested maximum pressure waiver of 8 kPa in accordance with Annex III of the Directive.

(11) Second, as set out under point 4.1 of the Guidance note, Portugal provided information of the direct socioeconomic problems on the impact on petrol producers and/or petrol suppliers of not having the derogation. This concerns any social, financial or economic impact of implementing the regulated vapour pressure of 60 kPa.

[3] https://ec.europa.eu/clima/sites/clima/files/transport/fuel/docs/guidance_note_vapour_pressure_en.pdf

(12) In the information submitted, Portugal referred to the existing options to produce petrol containing bioethanol which would include either the use bioETBE[4] or/and bioethanol. Portugal provided information that using bioETBE appears to be more costly and less efficient in terms of reduction of greenhouse gas emissions. More concretely, bioETBE needs to be imported from outside the Iberian Peninsula and is only 37% renewable, while bioethanol can be produced within the Iberian Peninsula and is 100% biological. This latter option of using bioethanol is the preferred one. The logistical investments necessary for the roll-out this preferred option amount to €14 million in total. Portugal reported that these investments are gradually being made and are planned to be finalised in May/June 2021.

(13) Portugal further reported that the option of using purely bioethanol in the production of petrol would lead to higher vapour pressure than using bioETBE. In order to lower the vapour pressure to the regulatory requirement of 60 kPa, a pre-blended petrol with the specific parameters, such as, low vapour pressure of around 50 kPa and appropriate octane number would need to be produced in order to manufacture the final product. Portugal indicated that this process would require the use of adding different petrol components with lower vapour pressure, such as reformate and cracking, that can be used in limited quantities due to their other parameters, such as aromatics and benzene. In addition, some blending components would need to be imported, such as bioETBE and alkylate[5], while the other components, such as butane, which already exist in excess in Europe during summer, would need to be exported. Portugal concludes that maintaining the vapour pressure below 60 kPa would distort the equilibrium of the market for blending components, and lead to non-optimised production and additional costs for refineries, ultimately increasing the costs for consumers. Portugal has estimated, that in the absence of the waiver, the blending cost for this option would lead to an increase of the petrol price by around €0.015 to €0.023 per litre.

(14) Portugal referred also to another solution that could possibly be applied in the absence of the derogation, although a rigorous study would be needed to produce concrete estimates of the total amount of investments and the corresponding time-frame. This solution would entail building more storage tanks in the refinery and logistic centres to store the segregated petrol parts according to their vapour pressure, and to build a new bioETBE unit where this component would be produced. The investment cost for each tank of 15 000 m3 could amount to €4 million. Portugal has concluded that this option would still be costly for the refinery sector and would lead to higher consumer price.

(15) Portugal reported that in the absence of the derogation, the competitiveness of its refinery sector would be affected. Portugal would become less competitive vis-à-vis Spain who is benefiting from the vapour pressure derogation since 2013 and therefore is able to market petrol at a lower production cost.

(16) Portugal also provided information on its reinforced commitment to air quality and to the greenhouse gas emissions reduction, based on the Portuguese National Climate and Energy Plan 2030[6] and the National Hydrogen Strategy[7]. More specifically, by 2030, Portugal is committed to reduce its greenhouse gas emissions by 45% to 55% (without

[4] Bio Ethyl tert-butyl ether, is bio-based fuel octane enhancer considered as a bio-fuel in Europe. Blended with gasoline fuels, ETBE improves fuel combustion and reduces toxic hydrocarbon emissions.

[5] Alkylate is a petrol blending stock that is produced by the acid-catalyzed reactions of olefins with normal hydrocarbons to yield higher boiling, and higher octane, iso-alkanes.

[6] https://ec.europa.eu/energy/topics/energy-strategy/national-energy-climate-plans_en

[7] Resolução do Conselho de Ministros nº 63/2020 – Estratégia Nacional para o Hidrogénio

carbon sinks) compared to 2005, achieve 20% share of the use of renewable energy in transport sector and 1% to 5% share of the use of green hydrogen in road transport.

(17) Portugal concluded that in the absence of the derogation, the combination of the two main components: technical and market limitations on the one hand and the increased national biofuel targets on the other, would result in increased production costs along the entire distribution chain, ultimately leading to higher prices for consumers.

(18) In conclusion, the Commission takes note of the market constrains and additional costs of carrying out the option to produce lower volatility pre-blend, as well as the Portuguese national commitment to reduce the GHG and air pollutant emissions. Based on the submitted information, the Commission can consider as valid and reasonable the arguments brought forward by Portugal concerning the socio-economic criteria

(19) Third, as set out under point 4.2.1 of the Guidance note, Portugal provided information concerning the compliance with the national emissions reduction commitments for non-methane volatile organic compounds ('NMVOC') set out in Directive (EU) 2016/2284[8] on the reduction of national emissions of certain atmospheric pollutants ('NEC Directive').

(20) Portugal also informed that its NMVOC emissions show a steady downward trend since 2005 (baseline year of the NEC Directive, when its emissions were 190 kt), with a 20% decrease between 2005 and 2018.

(21) Based on the National Informative Inventory Report 2020, submitted under the NEC Directive, Portugal indicated that its projected NMVOC emissions reduction commitment for the period 2020-2029 is expected to be over-accomplished with a 7% margin. At the same time, Portugal reported, that the NMVOC reduction commitment for the year 2030 could be missed with a gap of 3%. Portugal further indicated that additional measures to close this gap will be required. Portugal also referred to several important factors, such as the European climate and energy regulatory framework and the National Hydrogen Strategy, aiming to incorporate the use of alternative energy sources in transport and industry that are expected to contribute further to the NMVOC emissions reductions by 2030 and beyond. However, as stated in the implementation report[9], the Commission considered Portugal at high risk of non-compliance with the NMVOC emission reduction commitments under the NEC Directive for the periods 2020-2029 and 2030 onwards.

(22) Portugal has provided the estimated effect on the NMVOC emissions for petrol of 60 kPa vapour pressure (without derogation) and of 68 kPa vapour pressure (applying the derogated increase of 8 kPa) over the period of 2021 - 2025. The NMVOC emissions due to a maximum increase of 8 kPa in the summer petrol vapour pressure would imply an increase of about 0.7 kt NMVOC emissions per year between 2021 and 2025. Portugal indicated that this estimated increase corresponds to only 0.5% of the total NMVOC emissions amounting to 144 kt[10] for the relevant years. Portugal further concluded that the mentioned increase is not significant and does not affect the efforts of meeting the targets of the NEC Directive.

[8] Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants; OJ L 344, 17.12.2016, p. 1–31.

[9] COM(2020)266 final: Report from the Commission to the European Parliament and the Council on the progress made on the implementation of Directive (EU) 2016/2284 on the reduction of national emissions of certain atmospheric pollutants, see Annex 3.

[10] NMVOC values are obtained from the National Informative Inventory Report 2020 – Portugal, table 9-26.

(23) Portugal informed that the total NMVOC emissions were reduced from 187 kt in 2005 to 152 kt in 2020, with the industrial sector as the main source of the emissions, followed by other sectors such as transport, residential, energy, agriculture and waste. With respect to the transport sector (NRF 1A3b), Portugal reported to have reduced its NMVOC emissions from 93 000 tonnes in 1990 to 16 000 tonnes 2018. Portugal further indicated that there is an overall decreasing trend in other sectors as well, except for agriculture, where the contribution to total NMVOC emissions has increased in 2020.

(24) With respect to future projections, Portugal reported that the volumes of NMVOC emissions are estimated to continue decreasing in 2030 and beyond, especially in the transport sector where after 2030 the NMVOC emissions will decrease rapidly reaching only residual values by 2050. Portugal indicated that this significant emission reduction in the transport sector is expected due to decarbonisation efforts, where the role of electrification combined with the use of novel fuels, such as hydrogen, will play a significant role.

(25) The Commission notes that the methodologies for reporting of emissions and emission projections employed by Portugal appear to be consistent with those required under Directive (EU) 2016/2284 and considers that:

– allowing a maximum increase of 8 kPa in the summer petrol vapour pressure would have a very limited impact on the total NMVOC emissions;

– the timeframe for the derogation request is 31 December 2025. This corresponds to a period during which Portugal projects compliance with the national NMVOC emission reduction commitments set out under the NEC Directive;

The Commission therefore sees no grounds for objecting to this part of the notification.

(26) Fourth, concerning the ozone criteria, Portugal provided information as set out under point 4.2.2 of the Guidance note.

With respect to the ground level ozone, the EU target value of 120 µg/m3 may not be exceeded by more than 25 days a year as from year 2010, under Directive 2008/50/EC[11] (Ambient Air Quality Directive). In its submission, Portugal has reported that the EU ozone target value is exceeded widely throughout Portugal, more specifically referring that in virtually all ozone monitoring stations (42 in total in 2017) the value was exceeded for at least one day over the period 2010 - 2017[12]. Portugal reported that the most critical years were 2010, 2011 and 2013, when the exceedance of the days in all stations amounted to 575, 418 and 790 respectively.

(27) The EU has defined an information threshold of 180 µg ozone per m3 air and an alert threshold of 240 µg ozone per m3 air. Portugal reported that the years 2010, 2013 and 2016 demonstrate the most critical hourly ozone concentrations, with respectively a total of 270, 146 and 106 hourly periods with concentrations above the information threshold, and a total of 11, 1 and 5 hourly periods with concentrations above the alert threshold in the time period between 2010 and 2017.

[11] Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe; OJ L 152, 11.6.2008, p. 1–44.

[12] The reported information on ozone compliance is based on the Portuguese Environment Agency report 'Pollution episodes by tropospheric ozone' (2018): https://rea.apambiente.pt/content/epis%C3%B3dios-de-polui%C3%A7%C3%A3o-por-ozono-troposf%C3%A9rico

(28) Portugal reported that background stations (rural, urban and sub-urban) generally have the highest number of exceedances in terms of information and alert thresholds, and the highest number of days exceeding the target value. This situation, as explained by Portugal, is due to the fact that highest ozone concentrations normally occur in areas far from the main sources of pollution.

(29) With respect to the trends of ozone concentrations over time, Portugal reported that the information threshold indicator (180 µg/m3) has reached its peak exceedances in 2005 and 2006, and after that a downward trend can be observed, based on the monitored data between 1995 and 2017. Regarding the eight hour daily average (120 µg/m3), Portugal reported that there is a tendency for the values to stabilise, while, in recent years, the ozone concentration values are the lowest on record out of the entire set of data between 2001 and 2017.

(30) Portugal has performed a modelling study to estimate the impact of increased NMVOC emissions on ozone concentrations with and without the application of the derogation, i.e. measuring NMVOC emissions when the vapour pressure of 60 kPa and of 68 kPa is applied during the summer period. Based on the modelling study presented in Annex II of the submission, Portugal explained that the impacts in both scenarios are not statistically significant. In the 68 kPa scenario where higher NMVOC emissions are assumed, higher maximum ozone concentrations occur in some areas in comparison to the 60 kPa scenario. However, the maximum concentrations occur in the 60 kPa scenario. Portugal further noted that the most significant variations occur in the Lisbon area and in the west and north coast of Portugal, either in terms of increases or decreases of ozone concentrations. Portugal concluded that it is not possible to identify that one scenario would be more favourable than another in terms of maximum concentrations. As a result, the influence of the application of the derogation is considered negligible or not statistically significant.

(31) Portugal has indicated that the issue of high ozone concentrations is included in the strategic actions of the National Air Strategy (ENAR) 2020[13], in particular the action foreseeing the development of tools for assessing the effects of air pollution on ecosystems (critical loads) and identifying mitigating measures. Portugal further specified that the measures recommended by the ENAR 2020 strive to reach full compliance with the existing goals in the legislation until 2020, and paves the way for reaching the ambition levels in 2030. The ENAR 2020 identifies a number of critical aspects, such as knowledge and information gaps, the need for better articulation of action at local, regional, national and international levels, as well as the need for integration between air quality policies and other policies. The ENAR 2020 further defines strategic action vectors and detailed actions to address these outstanding issues to ultimately reach the air quality policy goals.

(32) Based on the information provided, the Commission considers that the extension of the derogation up to 2025 is expected to have a minimal impact on the number of exceedance days in Portugal, with the following underlying considerations: 1) the very limited increase of NMVOC emissions due to a maximum increase of 8 kPa in the summer petrol vapour pressure when applying the derogation; 2) the stabilising trend with lower exceedances of ozone target values in last decade; 3) the national strategic measures and actions set out in ENAR 2020 to address the existing remaining gaps, improved knowledge, better governance and policy coordination. Hence, the Commission finds no reasons to object to the request in this part.

[13] ENAR 2020: https://apambiente.pt/index.php?ref=16&subref=82&sub2ref=1174

(33) Fifth, in order to assess compliance with air quality limit value for benzene, Portugal provided information as set out under point 4.2.3 of the Guidance note.

Portugal submitted information based on the monitoring results for benzene target values for the years from 2010 to 2017 in 16 air quality monitoring stations, showing that the limit value of 5 µg/m3, as specified by Directive 2008/50/EC, has not been exceeded in any area in the reference period. Portugal further indicated that the reported values generally show a downward trend.

(34) Portugal has demonstrated that the limit values for benzene are not being exceeded, and it is the Commission's view that it is unlikely that the waiver would lead to the limit value being exceeded during the period 2021 - 2025, with or without the derogation. The Commission raises therefore no objection to this part of the notification.

(35) In conclusion, the Commission finds that these conditions justify a duration of a derogation limited until 31 December 2025.

HAS ADOPTED THIS DECISION:

Article 1

The Commission raises no objection to the notification from the Portuguese Republic to permit the placing on the market during the summer period of petrol containing ethanol, as a biofuel, with a maximum vapour pressure of 60 kPa plus the permitted vapour pressure waiver specified in Annex III of the Directive, until 31 December 2025.

Article 2

The Commission shall revoke the decision if, based on updated data, the Commission's assessment shows that the derogation will result in a lack of compliance with Union legislation on air quality or air pollution.

Article 3

This Decision is addressed to the Portuguese Republic.

Done at Brussels, 13.8.2021

For the Commission
Frans TIMMERMANS
Executive Vice-President