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**Subject: State Aid SA.64376 (2021/N) – Germany – EEG 2021 amendments
State Aid SA.63414 (2021/N) – Germany – Post-support aid to small
manure installations**

Excellency,

1. PROCEDURE

- (1) On 3 August 2021, Germany sent an initial pre-notification paper listing the amendments that it would like to make to its latest support scheme ('Erneuerbare Energien Gesetz 2021', hereinafter 'EEG 2021') for the promotion of the production of electricity from renewable energy sources ('RES electricity') and from mine gas, approved on 29 April 2021 in case SA.57779 (2020/N)¹.
- (2) A first list of questions was sent to Germany on 19 August 2021, to which Germany replied on 16 September 2021. A second set of questions was sent on 26 October 2021, to which Germany replied on 11 November 2021. A meeting was also held with Germany on 12 November 2021. On 18 November 2021, Germany formally notified amendments to the EEG 2021 scheme (hereafter 'EEG 2021 amendments') according to Article 108(3) of the Treaty on functioning of the European Union (hereinafter "the TFEU") and according to Article 4(2) of

¹ Decision of 29.04.2021, C(2021) 2960 final, State Aid SA.57779 (2020/N) Germany EEG 2021 – Reform of the Renewable Energy Law (OJ C 240, 18.06.2021, p. 4-5). Available at: https://ec.europa.eu/competition/state_aid/cases1/202124/288710_2283746_342_2.pdf.

Seiner Exzellenz Herrn Heiko MAAS
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Council Regulation (EU) 2015/1589². The Commission registered the notification by letter on 22 November 2021.

- (3) On 18 November 2021, further to pre-notification contacts, including a meeting with Germany on 12 November 2021 and requests for information dated 14 September 2021 and 15 November 2021, to which Germany responded on 14 October 2021 and 18 November 2021 respectively, Germany notified to the Commission a measure seeking to prolong support to small manure installations. On 22 November 2021, the Commission registered Germany's notification.
- (4) By letters dated 20 September 2021, Germany agreed exceptionally to waive its rights deriving from Article 342 TFEU in conjunction with Article 3 of Regulation 1/1958³ and to have the present decision adopted and notified in English.

2. DETAILED DESCRIPTION OF THE MEASURES

- (5) The measures notified and assessed in this decision relate to:
 - (a) the EEG 2021 amendments; and
 - (b) a follow-up support to small manure installations with installed capacity not exceeding 150 kW. Hereafter, this measure is referred to as 'the follow-up support'.

2.1. National legal basis, background and objective

- (6) The EEG 2021 was adopted on 18 December 2020 and entered into force on 1 January 2021, under the suspensive condition of State aid approval by the Commission. Section 88b of the EEG 2021 provided for the follow-up support. The detail for this measure was set out in Sections 12a to 12e of the Renewable Energy Regulation (*Erneuerbare-Energien-Verordnung*) ('EEV'), implemented by means of Article 1 of the Regulation implementing the EEG 2021 and amending other energy-related legislation (*Verordnung zur Umsetzung des Erneuerbare-Energien-Gesetzes 2021 und zur Änderung weiterer energierechtlicher Vorschriften*).
- (7) The EEG 2021 amendments were adopted on 26 July 2021 by means of Article 11 dealing with the EEG 2021 amendments (*Änderungen am EEG 2021*) of the Law for the implementation of Union law requirements and for the regulation of pure hydrogen networks in energy law (*Gesetz zur Umsetzung unionsrechtlicher Vorgaben und zur Regelung reiner Wasserstoffnetze im Energiewirtschaftsrecht*).
- (8) The objectives of the EEG 2021 amendments and the follow-up support are the same as those of the EEG 2021, while increasing its environmental ambitions. Thus, the EEG 2021 amendments accelerate the capacity expansion path of solar

² Council Regulation (EU) 2015/1589 of 13 July 2015 laying down detailed rules for the application of Article 108 of the Treaty on the Functioning of the European Union (OJ L 248, 24.9.2015, pp. 9-29).

³ Regulation No 1 determining the languages to be used by the European Economic Community (OJ 17, 6.10.1958, p. 385).

PV⁴ and onshore wind (by increasing the tender quantities)⁵, promote the use of biomethane for electricity production and fine-tune the rules on flexible biogas support. As for the follow-up support, it promotes the use of agricultural manure (other than poultry manure) in biogas production so as to reduce the spread of manure in the fields. Since the practice of spreading manure in the fields contributes to greenhouse gas emissions from naturally fermenting manure and the seepage of nitrates into groundwater, the follow-up support seeks to reduce those negative effects and thereby contribute to environmental protection.

- (9) The EEG 2021 amendments are described in more detail in the next section 2.2 and the follow-up support is described in more detail in section 2.3.

2.2. Description of the EEG 2021 amendments

- (10) The EEG 2021 amendments comprise the following measures: (a) changes in solar PV, onshore wind and special solar innovation tenders (subsection 2.2.1), (b) ‘early tenders’ for biomethane (subsection 2.2.2), (c) temporary extension of the system of ‘decommissioning certificates’ for biomethane installations (subsection 2.2.3), and (d) change in the system of flexibility remuneration for biogas installations (subsection 2.2.4). The amendments are discussed in detail in the subsections below.

2.2.1. Amendments related to solar PV, onshore wind and special solar innovation tenders

- (11) In December 2020, in light of the EU’s commitment to increase its climate ambition in line with the Paris Agreement, the European Council endorsed a binding EU target for a net domestic reduction of at least 55 % in greenhouse gas emissions by 2030 compared to 1990⁶. The EEG 2021 was adopted during the same time and increased the ambition as regards the share of renewable energy in Germany (see recital 9 of the decision in case SA.57779). The European Climate Law adopted on 30 June 2021 writes into law the 2030 emissions reduction target⁷. In order to meet the tighter emissions cutting target, the German authorities decided to take additional measures in the short term. The EEG 2021 originally targeted a share of RES electricity of 65 % by 2030. According to the coalition agreement published on 24 November 2021, Germany’s incoming coalition government plans to add at least 100 TWh per year of renewable energy by 2030, lifting the target share of renewables in the power mix to 80 %. The EEG 2021 amendment related to increased tender volumes for solar PV and onshore wind in 2022, will contribute to the achievement of this revised target.
- (12) First, the targeted tender volumes for solar PV (rooftop and ground-based), onshore wind and the special solar innovation segment have been increased for

⁴ PV stands for photovoltaic solar energy.

⁵ This implies that the increased tender quantities for solar PV and onshore wind will contribute to the increase in the total amount of installed capacity of renewable energy sources in Germany.

⁶ <https://www.consilium.europa.eu/media/47296/1011-12-20-euco-conclusions-en.pdf>

⁷ Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 (OJ 2021 L 243, p. 1)

the year 2022. Second, the procedures to take part in the tenders have been simplified, in particular in the rooftop solar PV segment. Third, in order to increase the public acceptance of ground-based solar PV projects, municipalities can receive a compensation for having those installations on their territory (similar as for onshore wind, see recital 79 of the decision in case SA.57779). The EEG 2021 amendments concerning solar PV tenders (ground-based solar PV, rooftop solar PV, special solar innovation tenders) and onshore wind tenders are explained in more detail below in subsections 2.2.1.1 and 2.2.1.2 respectively.

- (13) Those amendments have no impact on the beneficiaries of the scheme, the form and award of the aid, for which the description is provided in sections 2.2, 2.3 and 2.4 of the decision in case SA.57779.

2.2.1.1. Solar PV tenders

- (14) In order to unlock additional potential for the development of all types of solar PV in Germany, additional ‘special invitations to tender’ (‘Sonderausschreibungen’) will be launched in 2022. The amendments to §28a EEG 2021 (concerning ‘regular’ rooftop and ground-based solar PV⁸) and §28c EEG 2021 (concerning special solar innovation tenders⁹) adjust the tender quantities for solar installations as follows:

- (a) Ground-based solar PV: target tender volume of 3 600 MW in 2022, of which 2 000 MW in the context of the EEG 2021 special tender invitations;
- (b) Rooftop solar PV: target tender volume of 2 300 MW in 2022, of which 2 000 MW in the context of the EEG 2021 special tender invitations;
- (c) Special solar installations: target tender volume of 150 MW in 2022, of which 100 MW in the context of the EEG 2021 special tender invitations.

- (15) In summary, the tender volumes for 2022 for solar PV will be increased by 4 100 MW (2 000 MW ground-based solar PV, 2 000 MW rooftop solar PV and 100 MW special solar installations). As described in the decision in case SA.57779, funding for all ground-based solar installations with a capacity over 750 kW will be tendered in three annual rounds (March, June and November). Funding for all rooftop solar PV installations with a capacity over 750 kW will be tendered in two annual rounds (June and December), except in 2022 where there will be three annual tender rounds (April, August and December). There are two annual innovation tenders (April and August).

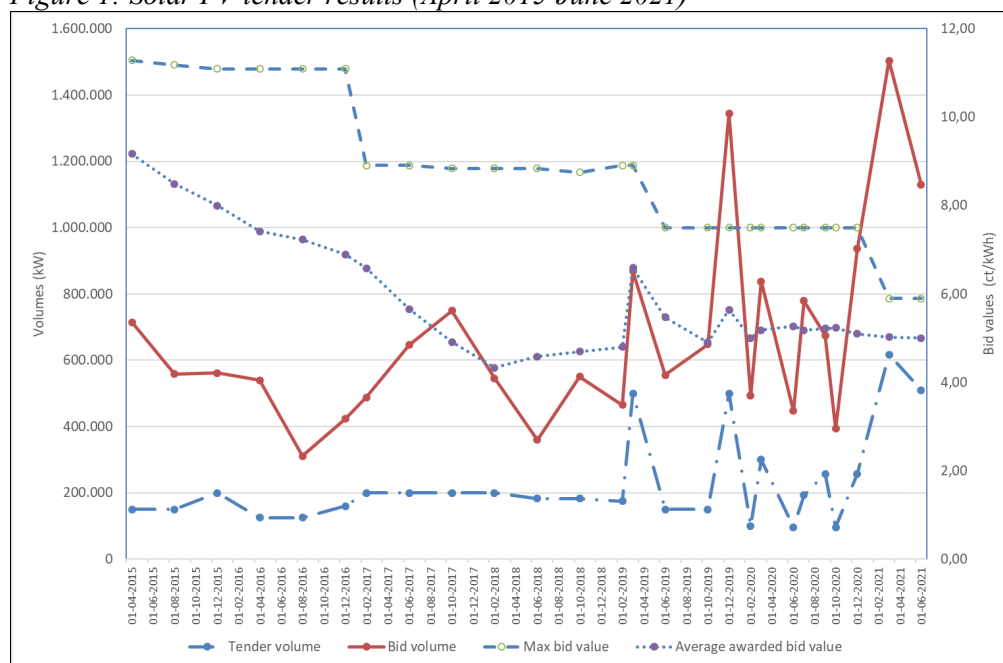
- (16) Germany only notified the increased tender volume for the first two 2022 tender rounds for ‘regular’ solar PV (i.e. the March 2022 and June 2022 tender rounds in the case of the ground-based solar PV segment and the April 2022 and August

⁸ The wording ‘regular’ in the context of solar PV tenders refers to the difference with the category of special solar innovation tenders.

⁹ As described in more detail in recital 120 of the decision in case SA.57779, special solar installations (‘besondere Solaranlagen’) are floating solar installations, installations installed above a parking area or a surface, which is used in parallel for agricultural purposes. Special solar tenders are part of the innovation tender category.

2022 in the case of the rooftop solar PV segment), in order to be able to observe how the increased solar PV tender volumes will affect the competitiveness of the tenders. The EEG 2021, adopted in December 2020, did not foresee a safeguard to ensure the competitiveness of the ‘regular’ solar PV tenders in both the segment of ground-based solar PV and rooftop solar PV¹⁰. After having observed the results of the first two 2022 tender rounds, Germany will assess the impact of the increased tender volumes on the competitiveness of the ‘regular’ solar PV tenders. The results of the assessment will steer a decision on the potential need for the introduction of a safeguard in the third tender round of 2022.

Figure 1: Solar PV tender results (April 2015-June 2021)



Source: [Bundesnetzagentur - Beendete Ausschreibungen / Statistiken](#)

- (17) The German authorities consider that the risk of undersubscribed tenders for ‘regular’ solar PV installations is limited, since solar PV tenders were never undersubscribed in the past (cf. Figure 1)¹¹ and studies show that there is ample potential to further develop solar PV in Germany¹².
- (18) Regarding the competitiveness of the rooftop solar PV tenders, which were not a separate category in the past, Germany refers to studies showing that there is a

¹⁰ The category of rooftop solar PV tenders was introduced with the EEG 2021 in December 2020; only one tender has taken place in that segment so far. Therefore, there is only little experience with respect to the separate category of rooftop solar PV tenders.

¹¹ The volumes submitted by the bidders (line ‘Bid volume’ in the graph) have always been higher than the auctioned volume (line ‘Tender volume’ in the graph), and the values of the bids (line ‘Average awarded bid value’ in the graph) have always been lower than the bid caps (line ‘Max bid value’ in the graph). These results points to the fact that tenders have been competitive in the past.

¹² Germany referred to a number of studies showing the further development of solar PV in Germany: Fath, Karoline, “Technical and economic potential for photovoltaic systems on buildings” (2018), verfügbar unter: <http://dx.doi.org/10.5445/KSP/1000081498BMVI>; BMVI (Hrsg.), “Räumlich differenzierte Flächenpotenziale für erneuerbare Energien in Deutschland” (2015), verfügbar unter: http://www.bbsr.bund.de/BBSR/DE/Veroeffentlichungen/BMVI/BMVIOnline/2015/DL_BMVI_Onlin_e_08_15.pdf?__blob=publicationFile&v=2145.

large future potential for rooftop solar PV development in Germany¹³. The results of the first rooftop solar PV tender, held in June 2021 under the EEG 2021, also seem to confirm this, as it was largely oversubscribed: the tender volume (150 000 kW) was lower than the actual bid volume (213 172 kW) and the average bid value of 6.88 ct/kWh was lower than the maximum bid value of 9 ct/kWh¹⁴.

- (19) For the separate tender category of innovation tenders, including the special solar innovation tenders, a safeguard is foreseen in the EEG 2021. In case the tender is undersubscribed, only the lowest 80 % of bids in terms of capacity are awarded (see §11 (2) (2) of the Innovationsausschreibungsverordnung (InnAusV)).
- (20) In view of the substantial increase in the tender volumes for regular ground-based and rooftop solar PV tenders, and in order to increase the tender participation, the tender procedures have been simplified for both the bidders and the Federal Network Agency (the Bundesnetzagentur, 'BNetzA'). The following facilitations have been introduced in the tender procedure, to make the tenders more accessible and to make the procedure more efficient, hereby increasing the level of participation in the tenders:
 - (a) Rooftop solar PV tenders:
 - Change from a bidder- to a project-based procedure, whereby a change of location is no longer possible; the existing guarantee within the meaning of §31 EEG is replaced by a project guarantee amount within the meaning of §38d EEG;
 - The minimum bid size has been increased from 100 kW to 300 kW (cf. §30 EEG);
 - The guarantee payment (amount per bid quantity) has been reduced from EUR 70/kW to EUR 35/kW (cf. §38d EEG); the amount of the guarantee is approximately the same as for onshore wind tenders, where the bidding procedure is also project-based. Since a project-based procedure is less risky than a bidder-based procedure, Germany considers that the guarantee payment can be lowered.
 - The implementation deadline and penalties have been abolished (§38f and §55 EEG). Instead, rooftop solar PV awards are permanently bound to the project site that was the subject of the bid and cannot be transferred to other sites; moreover, there is a maximum duration of the support, counting as of the day of the award of the project (instead of the day of start of the operations). This should ensure that projects are still implemented as soon as possible.

¹³ https://www.erneuerbare-energien.de/EE/Redaktion/DE/Downloads/bmwi_de/zsv-boschundpartner-vorbereitung-begleitung-ee.html.

¹⁴ https://www.bundesnetzagentur.de/DE/Sachgebiete/ElektrizitaetundGas/Unternehmen_Institutionen/Ausschreibungen/Solaranlagen2/BeendeteAusschreibungen/BeendeteAusschreibungen_node.html

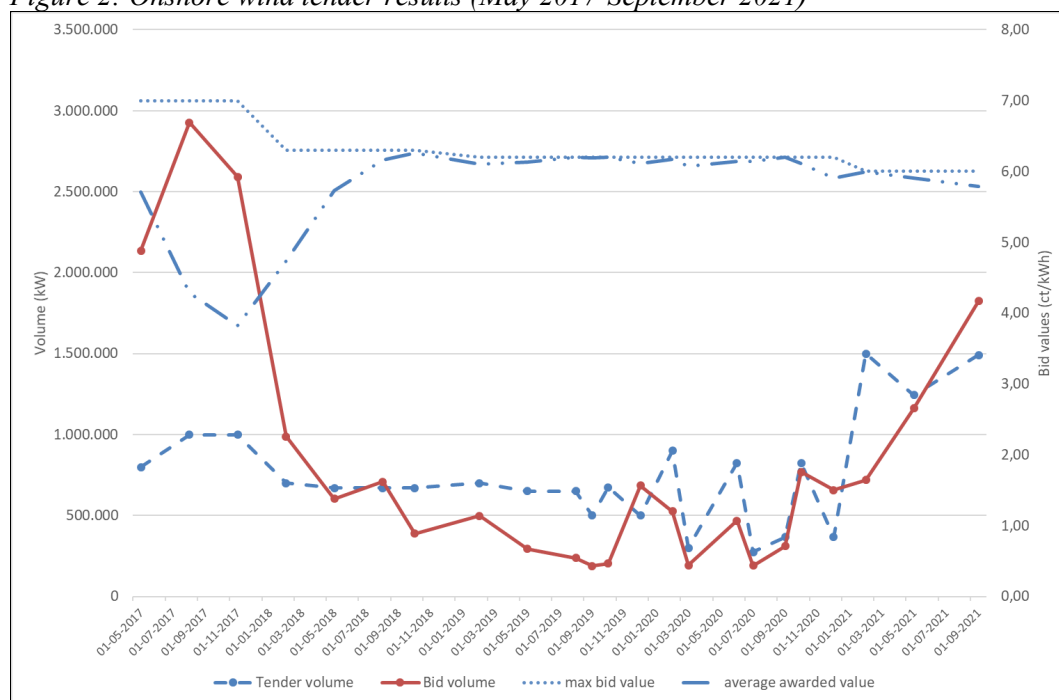
- (b) Ground-based solar PV tenders:
- Instead of two guarantee payments, there is only one guarantee payment, but the overall amount of the guarantee remains the same, namely EUR 50/kW (§37a EEG);
 - The implementation deadline has been extended from 24 to 32 months, in order to compensate for expected delays in implementation of the projects due to the Covid-19 pandemic, as well as for the increasing length of the procedure to obtain permits. That extension is temporary and only holds for ground-based solar PV installations in 2021 and 2022 (§100(11) EEG).
 - In exchange for the longer implementation deadline and to incentivise faster implementation, §54(1) EEG is changed so that after 24 months, there is a penalty in the form of a reduction of 0.3 ct/kWh in the bid value.
- (21) On top of the increased tender volumes for all types of solar PV tenders, and the simplified tender procedure for ground-based and rooftop solar PV tenders, the amendment of the EEG 2021 extends the possibility to allow operators of ground-based PV installations to offer the affected municipalities an amount up to 0.2 ct/kWh of electricity produced from the installations (§6 EEG 2021). If they do so, the operators receive the amount reimbursed by the respective system operator.
- (22) Similar as the reasoning for onshore wind installations (see recitals 79 and 80 in the decision in case SA.57779), Germany submits that, through those payments, the affected municipalities would be remunerated for the impact (e.g. visual impact) of new installations on their territory. That tool would therefore allow operators of ground-based solar PV installations to respond to possible local acceptance problems.

2.2.1.2. Onshore wind tenders

- (23) In order to unlock additional potential for the development of onshore wind in Germany, similar as to solar PV, special invitations to tender will be launched in 2022. The amendments to §28 EEG 2021 adjust the tender quantities for onshore wind installations as follows: the target tender volume is 4 000 MW, of which 1 100 MW in the context of the additional ‘special tender invitations’ (‘Sonderausschreibungen’). The tender volume for onshore wind is therefore increased by 1 100 MW in 2022. This increase will be spread evenly over the regular tendering dates of 2022. In addition, in the years 2022 and 2023 an additional tendering date has been added in December, on top of the usual tendering dates in February, May, and September. The additional tender in December provides for an additional occasion to allocate the quantities which were not awarded in the previous calendar year (cf. §28(1) EEG).
- (24) The EEG 2021 already provides for a safeguard in the call for tenders for onshore wind, in order to address the risk of undersubscription (cf. recital 71 of the decision in case SA.57779). The specific mechanism for onshore wind foresees that the BNetzA, in case of a risk of undersubscription for a tender (indicated by, *inter alia*, a limited number of newly granted permits and limited tender

participation in the past), reduces the tender capacity to keep the tender competitive. Germany confirmed that this volume control mechanism also covers automatically the special invitations for onshore wind tenders in 2022.

Figure 2: Onshore wind tender results (May 2017-September 2021)



Source:

https://www.bundesnetzagentur.de/DE/Sachgebiete/ElektrizitaetundGas/Unternehmen_Institution/en/Ausschreibungen/Wind_Onshore/BeendeteAusschreibungen/BeendeteAusschreibungen_node.html

Table 1: Overview last three bid rounds (2021) for onshore wind energy in Germany

Date tender:	February 2021	May 2021 (*)	September 2021 (**)
Tender volume (kW)	1 500 000	1 243 230	1 492 019
Number of bids	91	137	210
Bid volume (kW)	718 800	1 161 390	1 823 840
Bid cap (ct/kWh)	6	6	6
Average (awarded) bid value (ct/kWh)	6	5.91	5.79

Source:

https://www.bundesnetzagentur.de/DE/Sachgebiete/ElektrizitaetundGas/Unternehmen_Institution/en/Ausschreibungen/Wind_Onshore/BeendeteAusschreibungen/BeendeteAusschreibungen_node.html

(*): Safeguard in place; (**): Safeguard in place, but not applied

- (25) Together with the Action Plan to Strengthen Onshore Wind (agreed upon in October 2019, see recital 70 of the decision in case SA.57779), the safeguard mentioned above should serve as a sufficient guarantee that the increase in tender volumes in 2022 will not lead to uncompetitive tenders for onshore wind energy. The effectiveness of that safeguard has been confirmed by the results of the latest two onshore wind tenders in Germany, which were – unlike in the previous years – not undersubscribed (or in the case of the May tender only marginally undersubscribed) and the average bid value was in all cases lower than the maximum value (see Figure 2 and Table 1). In addition, the revised tender

volume foreseen for 2022 (4 000 MW) is lower than the target volume tendered in 2021 (4 500 MW, see recital 14 of the decision in case SA.57779).

- (26) Finally, §99a EEG 2021 provides for an annual reporting obligation on the part of the German Federal Government to the German Federal Parliament, concerning the compatibility between radio navigation systems and onshore wind installations. In the mid to long term, the purpose of that reporting obligation is to increase the allocation of land for wind energy use. This change should also come to the benefit of the competitiveness of onshore wind tenders in the long term.

2.2.2. Amendments related to biomethane - 'early tenders'

- (27) The EEG 2021 introduced a separate tender procedure for installations producing electricity from biomethane ('biomethane installations'), since they have higher production costs than other biomass/biogas installations and since they have particular potential for providing flexibility, due to their link to the gas grid. There will be one tender per year, the first one organised in December 2021 (see recitals 109-113 of the decision in case SA.57779).
- (28) Similarly to the procedure for onshore wind tenders, the EEG 2021 originally only provided for so-called '*late tenders*' for biomethane installations, i.e. for installations that already obtained approval under the Federal Emissions Control Act ('Bundes-Immissionsschutzgesetz', BImSchG) (see recitals 66 and 99 of the decision in case SA.57779). As a consequence, only biomethane installations that are at a late stage of project development (with higher realisation rates) could participate in the tenders.
- (29) In the amended EEG 2021, biomethane installations that have not yet obtained approval under the Federal Emissions Control Act, but that have been formally registered as planned projects ('*early tender*'), can exceptionally also participate in the first biomethane tender in December 2021.
- (30) This amendment compensates the fact that tenders for biomethane were only introduced in the EEG 2021, adopted in December 2020. Hence, given the short period between the announced introduction of the biomethane category in the EEG and the first tender (less than one year), and the fact that biomethane plants are significantly more cost-intensive in terms of planning, approval and construction than all other biomass plants, there is a risk that, if only '*late tenders*' are allowed, too few projects would qualify to take part in the first tender in 2021. The ones that would not have obtained an approval under the Federal Emissions Control Act, would be excluded from the tender procedure. Therefore, there was a risk that the first tender would not be competitive. The objective of exceptionally allowing also '*early*' biomethane tenders in 2021 is therefore the increase in the competitiveness of the first biomethane tender in 2021.
- (31) Germany argues that for the exceptional first '*early*' biomethane tender in 2021 the sanction provisions for non-implementation are just as strict as for the projects participating in the '*late*' tenders as of 2022: the same implementation period of 36 months after award of the contract applies according to §39e EEG, as well as the same penalty regulations according to §55 EEG.

2.2.3. *Temporary extension of the system of decommissioning certificates for biomass*

- (32) The EEG provides for long term¹⁵ financial support for electricity generation from renewable sources. The process for electricity production based on biomethane consists of several steps: (1) biogas production in a biogas plant, (2) conversion of biogas into biomethane in a biomethane treatment plant, (3) injection of the biomethane in the natural gas network where it is further transported, (4) use of the biomethane for electricity production in a power generating plant running on biomethane (usually a CHP plant). Before 2014, the EEG subsidy was obtained by the biomethane CHP plant, which generates the power, but shared with the upstream plants involved in the biomethane production process through contractual relations. As a consequence, not only the renewable electricity production (in the power generating CHP plant) was supported through the EEG subsidy, but also the biomethane production process.
- (33) This support mechanism for renewable electricity based on biomethane was reduced and cancelled in the EEG 2014 and EEG 2017 respectively. As a consequence, when for instance a biomethane CHP plant shut down, the biomethane producers would not obtain a part of the EEG funding any longer, and would lose a customer (since a new biomethane CHP plant would not be economically profitable without the support). Therefore, in order to protect the biomethane producers and to guarantee their planning and investment security, whenever a biomethane CHP plant shut down, another plant could take over the capacity of the existing plant and continue receiving the EEG support through a system of ‘decommissioning certificates’ for the remaining time that the decommissioned CHP plant would have been eligible to receive support. Hereby, biomethane producers kept sufficient customers and hence sufficient support.
- (34) The EEG 2021 abolished the system of ‘decommissioning certificates’, but introduced a new instrument to support electricity production based on biomethane, namely biomethane tenders (see section 2.2.2 above). Germany states however that a transitional period for the continuation of the system of decommissioning certificates would be necessary and intends to ensure that projects that were planned in the past on the basis of the decommissioning certificates still have the opportunity to be completed.
- (35) The amendment to the EEG 2021 (§100(1) sentence 2 EEG 2021) therefore provides for an extension of the previous mechanism based on ‘decommissioning certificates’ for a transitional period, until the end of 2022. Therefore, new CHP plants or existing CHP plants that are not yet running on renewable energy sources, are allowed to take over the support of a decommissioned existing biomethane plant, when they plan to convert to electricity production based on biomethane (cf. §100(3) EEG 2017). They have to complete the conversion before 31 December 2022 and register it the Marktstammdatenregister¹⁶.

¹⁵ In principle for 20 years in order to guarantee investment and planning security of the involved plants.

¹⁶ The Marktstammdatenregister (MaStR) is the register for the German electricity and gas market, managed by the German Federal Network Agency (Bundesnetzagentur). The MaStR primarily registers the data on electricity and gas generation systems, but also includes information on the market players, such as system operators, network operators and energy suppliers.

- (36) The system works as follows and ensures that there is no double compensation for biomethane. The decommissioning of biomethane CHP plants is documented in the Marktstammdatenregister of the BNetzA. If a biomethane CHP plant closes down, a CHP plant with the same installed capacity, registered in the Marktstammdatenregister, can receive the EEG support for the remainder of the remuneration period. This is enabled by the introduction of a biogas register introduced by the German Energy Agency (dena). The German Biogas Register is a platform for the standardised and simple documentation of verification records for biogas quantities and qualities in the natural gas network¹⁷. It ensures that the amount of the output of biomethane from the biogas processing plant is balanced with the input of biomethane for the production of electricity in biomethane CHP plants.

2.2.4. Flexibility payments for biogas

- (37) As explained in detail in section 2.5 of the decision in case SA.57779, Germany wants to promote the flexible use of biomass/biogas installations, so that for the same amount of electricity produced over the year, the major part of the electricity is produced during peak demand hours. Therefore, those plants should have a higher installed capacity, which means that they have to incur additional costs independently of the operation of the plant. When the necessary equipment is installed, the production of electricity from biomass/biogas can be adapted to the needs of the demand-side, which makes a valuable contribution to the system and integration of renewable energies into the free market for electricity.
- (38) In order to promote this flexibilisation, Germany provides since the EEG 2012 an additional flexibility remuneration on top of the RES support, in order to incentivise the investments in flexible installations. The flexibility remuneration is meant to compensate the plants for their additional availability at times of low solar and wind energy supply.
- (39) The EEG 2021 (§50, §50a, §50b) provides for flexibility payments (for new installations and for existing installations awarded follow-up support in tenders¹⁸) and flexibility premiums (for existing installations commissioned before 1 August 2014, as long as these have not shifted to follow-up support). The flexibility remuneration is linked to the payment of the RES support and linked to certain conditions (see recital 41 of the decision in case SA.57779). Table 2 provides an overview of the flexibility remuneration tools in the EEG 2021.

Table 2: Comparison flexibility premium and flexibility payment in the EEG

Flexibility premium - §50b EEG 2021 ('Flexibilitätsprämie')	Flexibility payment - §50a EEG 2021 ('Flexibilitätszuschlag')
Since 2012 in EEG	Since 2014 in EEG
Existing biogas plants, commissioned before August 2014, as long as these have not shifted to follow-up support	New and existing biogas installations

¹⁷ <https://www.dena.de/en/topics-projects/projects/renewable-energies/german-biogas-register/>

¹⁸ The EEG 2021 introduced tenders for new biomass installations with an installed capacity of at least 150 kW and existing installations of all sizes. However, installations may not be larger than 20 MW. The tendered aid to existing installations is limited to ten years.

EUR 130/kW	EUR 65/kW ¹⁹
Calculated on the “additional flexibilised capacity” ²⁰ , with a maximum of 50% of the installed capacity	Calculated on the full installed capacity; for existing biogas installations with a reduced payment for capacity previously supported through the flexibility premium
Granted for 10 years	Granted for 20 years (in line with RES support) Existing installations receive the flexibility payment for the duration of 10 years

- (40) As is clear from Table 2, the rules for obtaining the flexibility remuneration are different depending on when the biogas plant was commissioned. While plants commissioned after August 2014 only have the flexibility payment as an incentive to flexibilise their operations, existing plants commissioned before August 2014 have had the opportunity to receive a premium on the “additional flexibilised capacity” under §50b EEG. When such plants shift to the follow-up support scheme, which includes a flexibility payment on the entire installed capacity, the support to flexibilisation previously received should thus be taken into account.
- (41) To avoid that the same flexible capacity is financed twice, the EEG 2021 foresaw that the flexibility payment and premium cannot be cumulated, by stating that the flexibility payment to existing installations would only be granted on capacity that was “additional compared to the capacity for which the flexibility premium was already granted”. The wording of this non-cumulation clause created some ambiguity regarding what counted as “additional” capacity (only capacity added to the plant at the time of the shift to follow-up support or any capacity that had not counted as “additional flexibilised capacity” for the calculation of the flexibility premium). It also created a difficulty for plants that had not yet received the flexibility premium for the full duration of 10 years, as they would lose the remaining duration of the flexibility premium without receiving a flexibility payment on this capacity. Germany argues that this made the flexible operation of existing biogas plants unprofitable and that it would disincentivise plants that had already flexibilised some of their capacity in the past from participating in the tenders.
- (42) In order to accommodate this problem, the EEG 2021 amendments no longer exclude the entire capacity added in the past and supported by the flexibility premium from remuneration through the flexibility payment scheme, but rather grants a reduced flexibility payment. The previously flexibilised capacity for which a flexibility premium has already been received in the past would receive a reduced flexibility payment of EUR 50/kW. The full flexibility payment of EUR 65/kW would only be paid for the share of the previously flexibilised capacity for which no flexibility premium has been received in the past and for any new additionally flexibilised capacity.

¹⁹ Increased from 40 EUR/kW under the EEG 2017.

²⁰ Calculated according to a formula provided in Annex 3 to the EEG 2021, which takes into account the installed capacity, the rated power and the type of plant.

- (43) The new provision in §50a (1) EEG 2021 includes a rule to cover for the flexibilised capacity in the past, so that any confusion for existing biogas plants is avoided. The non-cumulation rule present in the previous version of the EEG 2021 is withdrawn, since Germany argues that both the flexibility premium and flexibility payment contribute to the aim of the measure, namely compensating operators of biogas installations for not using the full installed capacity of their installation for the production of electricity at all times.
- (44) As explained in recital 44 of the decision in case SA.57779, the flexibility remunerations allow producers to steer production of electricity during times when demand and thus market prices are high, hereby allowing them to achieve additional revenues compared to normal hours. Germany explained in the context of the decision in case SA.57779 that those additional revenues are not sufficient to cover the additional costs resulting from installing the flexibility equipment. Germany also explained that the flexibility remuneration takes into account the higher revenues generated during peak hours, and serves to merely cover the part of the additional costs that cannot be recouped thanks to higher market prices.
- (45) Germany argues that this amendment would not increase the total aid amount or lead to overcompensation because the aid is tendered and there is a safeguard in the biomass/biogas tender procedure, whereby only 80 % of the bids are awarded EEG support in the tender (see recitals 107 and 324 in the decision in case SA.57779). In order to submit a competitive bid, participants to the tender will therefore incorporate the remuneration for flexibilisation in their bids, which will lower the bid values and increase competition.

2.3. Description of follow-up support to small manure installations

- (46) The follow-up support subject to this decision concerns a one-off extension of the entitlement to remuneration for small biogas installations using manure for the production of electricity by 10 years (the ‘follow-up period’).
- (47) The initial entitlement to remuneration for small manure installations was provided for in the EEG 2000, whereby eligible installations could benefit from a feed-in tariff for a period of 20 years. Under that system, an installation delivers the electricity it produces to the distribution system operator in exchange for a set price (a ‘reference value’ provided for in the EEG). The distribution system operator sells the electricity to the network operator for the same price. The network operator in turn sells the electricity on the market and credits the proceeds of that sale to the EEG account. The aid element consists in the difference between the reference value and the market price. Therefore, if the market price of electricity increases, the level of the aid element decreases. If the market price is above the reference value, no aid will be paid.
- (48) EEG 2017 introduced auctions to select renewable electricity producers eligible for support in the form of a market premium. Biomass installations with an installed capacity under 150 kW were exempted from the auction scheme, their level of funding instead being set by law, as was the case previously.²¹

²¹ See Commission decision in case SA.45461 (2016/N) – Germany - EEG 2017 – Reform of the Renewable Energy Law, recitals 14-15 (OJ C 68, 3.3.2017, p. 1–16).

- (49) Only those small manure installations whose initial entitlement to remuneration expires before 31 January 2025, and whose installed capacity had not exceeded 150 kW on 31 March 2021 can benefit from the follow-up support. Further eligibility requirements are that:
- (a) the electricity must be generated at the location of the biogas generation plant;
 - (b) the installed capacity of the installation at the location of the biogas generation plant has not been increased after 31 March 2021;
 - (c) the electricity is generated from biogas obtained through anaerobic fermentation of biomass within the meaning of the Biomass Ordinance;
 - (d) on average in any calendar year, manure (other than poultry manure and dry poultry manure) must represent at least 80 % by mass of the biomass used in the production of biogas; and
 - (e) the other payment requirements under the version of the EEG applicable to that installation are met.
- (50) The entitlement to remuneration during the follow-up period is limited to the average amount in cents per kWh achieved by the installation in question in the previous three calendar years pursuant to the reference values provided for in the version of the EEG applicable to that installation (i.e. EEG 2000). That amount is further capped at 15.5 cents per kWh for up to 75 kW, and to 7.5 cents per kWh for up to 150 kW. This means that the larger of the eligible small manure installations are entitled to less payment, on average, than the smaller installations.
- (51) Furthermore, those caps will be subject to a yearly degression of 0.5 % as of 1 January of every year beginning in 2022 for those installations whose follow-up period has not yet commenced before that date. This means that installations that become eligible for this follow-up support after 1 January 2022 will be subject to a reduced cap.
- (52) Germany argues that there is no risk of overcompensation because:
- (a) eligible small manure installations would only be entitled to reference values that are capped as described at (50) above;
 - (b) the aid element represents only the difference between the reference value and the market price; and
 - (c) the reference value is set below the operating costs of the small manure installations.
- (53) In the calculation of the operating costs, Germany did not take into account the costs of the feedstock, only feedstock transport costs, and the necessary maintenance costs. Germany also took into account the revenues from the sale of heat. Germany noted the high transport costs of manure, given its high water content, and the high maintenance costs required for small manure installations, which include periodic replacement of the CHP, reprofiling of the fermenter,

renewal of gas cover and similar maintenance. Germany explained that small manure installations eligible for follow-up support are a very homogenous group of installations and that therefore there are no major variations in size or substrate.

- (54) Those calculations show that for an average small manure installation with 75 kW installed capacity, operating costs amount to 17.48 ct/kWh, which is above the cap of 15.5 ct/kWh. For average small manure installations with 149 kW installed capacity, operating costs amount to 13.29 ct/kWh, which is also above the progressive cap applicable to installations with between 75 and 150 kW installed capacity, i.e. approximately 12 ct/kWh. Furthermore, the operating costs of these average small manure installations are in general above the prevailing energy market prices.²²

2.4. Beneficiaries

- (55) The beneficiaries of the measures subject to this decision are the producers of ‘EEG electricity’, in particular RES electricity (solar PV, onshore wind, biomethane, biogas) eligible for support under the EEG 2021 (see recital 16 of the decision in case SA.57779).

2.5. Monitoring of costs

- (56) With regard to the follow-up support measure, the German authorities have committed to annually verify the production costs of typical installations as part of the domestic technology-specific monitoring reports (*‘Forschungsvorhaben’*) and compare them with the remuneration levels.
- (57) The German authorities observe that if overcompensation occurs, measures will be taken to review the remuneration awarded in the future to such installations in order to avoid any overcompensation in line with point 131 of the EEAG (i.e. the aid per unit of energy should not exceed the difference between the cost of producing the energy (LCOE) and its market price).

2.6. Duration

- (58) While the EEG 2021 scheme, is in place from 1 January 2021 until 31 December 2026 (see recital 162 of decision in case SA.57779), most of the EEG 2021 amendments do not last until 31 December 2026. The duration differs for each of the EEG 2021 amendments:
- (a) The increase in the tender volume for solar PV tenders has only been notified for the first two tender rounds in 2022. The increase in the tender volume for onshore wind tenders and for the special solar innovation tenders, is notified for all rounds in 2022.

²² This is particularly the case for smaller installations, whose operating costs are higher than the current unusually high market prices. Whereas for some of the largest of these small manure installations the operating costs may be slightly below the current market prices, the Commission notes that the markets expect market prices to stabilise at a lower level by April 2022 (see the Communication from the Commission to the European Parliament, the European Council, the European Economic and Social Committee and the Committee of the Regions “Tackling rising energy prices: at toolbox for action and support” (COM/2021/660 final)). Furthermore, as explained at (47), as long as market prices remain above the reference values (as capped in this measure), no aid will be paid.

- (b) The exception to the procedure of ‘late tenders’ for biomethane installations applies only to the first tender in December 2021.
 - (c) The extension of the ‘decommissioning certificates’ procedure is foreseen for a transitional period of two years, until 31 December 2022.
 - (d) The amendments to the system of flexibility payments for biogas installations cover the entire duration of the EEG 2021, i.e. until 31 December 2026.
- (59) The follow-up support to small manure installations is in place from 1 January 2021 until 31 December 2026.

2.7. Impact of the EEG 2021 amendments on the budget

- (60) Germany has put forward the following estimates regarding the impact of the various EEG 2021 amendments on the budget:
- (a) The additional costs related to the increased tender volumes are estimated at EUR 53 million for solar PV as of 2023, and EUR 16 million for onshore wind as of 2024²³. Germany argues that only rough estimates on the budget are possible ex ante, since the cost of the increased tender volumes for solar PV and onshore wind depends on the outcome of the tenders and the evolution of energy prices in the market.
 - (b) Germany argues that the change from ‘late biomethane tenders’ to ‘early biomethane tenders’ in 2021 will in principle not affect the budget, since the tender volume of 150 MW is relatively small and it is hard to estimate the level of competition for the first tender round.
 - (c) The two-year extension of the ‘decommissioning certificates’ system would be budget-neutral, since the total amount of EEG support granted will not be altered by the scheme. Germany argues that the support granted previously to a now decommissioned CHP plant will just continue to be granted to a converted CHP plant.
 - (d) The impact of the change in the system of flexibility payments for biogas installations is hard to determine ex ante, since the impact on the competitiveness of the tenders is hard to estimate. However, Germany claims that there will likely be no big impact on the budget, since the amendment allows existing plants with flexibilised capacity to better compete, in addition to the existing safeguard which ensures the competitiveness of the biogas tenders.

2.8. Impact of the follow-up support on the budget

- (61) Germany estimates the total budget of the measure over 10 years to amount to EUR 89 million. The aid will be paid from the general budget of the State, which will be adopted annually.

²³ The difference in the year in which the effect on the budget occurs is due to the longer implementation period for onshore wind projects compared to solar PV.

2.9. Financing of the EEG 2021 amendments and of the follow-up support

- (62) The principles on the financing of the EEG 2021 amendments and of the follow-up support for small manure installations are the same as for the financing of the EEG 2021 scheme. The details of the financing are described in recitals 168 to 186 of the EEG 2021 decision in case SA.57779.

2.10. Transparency

- (63) The rules regarding transparency are the same as the ones adopted in case SA.57779 (see recital 217 of that decision).

2.11. Undertakings in difficulty or subject to an outstanding recovery order

- (64) Germany confirmed that no aid can be granted to undertakings in difficulty and all firms that intend to participate in the scheme will have to provide a declaration that they are not a ‘firm in difficulty’. The Commission notes that Germany intends to allow undertakings, which were not in difficulty on 31 December 2019 but became undertakings in difficulty in the period from 1 January 2020 to 30 June 2021 to participate in the scheme, in line with the amended EEAG. The Commission therefore considers that the scheme is in line with point 16 of the EEAG.
- (65) Germany has committed that no aid can be granted to undertakings subject to an outstanding recovery order following a previous Commission decision declaring aid illegal and incompatible with the internal market. The Commission therefore considers that the scheme is in line with point 17 of the EEAG.

2.12. Evaluation

- (66) No specific evaluation of the EEG 2021 amendments or of the follow-up support for small manure installations is foreseen, but where relevant they will be part of the overall evaluation of the effects of the EEG 2021 scheme, for which Germany has committed to submit the final evaluation report to the Commission nine months before the end of the scheme, by 31 March 2026. The evaluation of the EEG 2021 scheme is described in detail in recitals 218 to 235 of the decision in case SA.57779.

3. ASSESSMENT OF THE MEASURES

3.1 Presence of State Aid

- (67) Germany has notified the measures described in section 2.2 and section 2.3 as State aid. Similar as for the other EEG 2021 measures, notified and approved by the decision in case SA.57779, Germany submits that the measures are financed from State resources, due to the payment of financial means from the Federal budget into the EEG account.
- (68) Under Article 107(1) TFEU, any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods, in so far as it affects trade between Member States, is incompatible with the internal market.

- (69) To determine whether a measure constitutes State aid within the meaning of Article 107(1) of the Treaty, the measure must:
- (a) confer an advantage on certain undertakings or certain sectors (selective advantage),
 - (b) be imputable to the State and involve State resources,
 - (c) distort or threaten to distort competition, and
 - (d) be liable to affect trade between Member States.

3.1.1 Existence of a selective advantage

- (70) Regarding the support of electricity generated from renewable energy sources, the Commission notes that the measure confers an advantage on producers of EEG electricity because, through the granting of market premiums, feed-in tariffs and flexibility remunerations, those producers obtain more than what they would obtain on the market. Indeed, those payments guarantee that producers of EEG electricity will obtain a price for their electricity that is higher than the market price. They are thus advantaged by the EEG 2021 measures, including the follow-up support and the EEG 2021 amendments.
- (71) Furthermore, the aid is selective, since it only applies to EEG electricity technologies, as opposed to conventional electricity production technologies.

3.1.2 Imputability and existence of State resource

- (72) Only advantages which are granted directly or indirectly through State resources are to be regarded as aid within the meaning of Article 107(1) TFEU.
- (73) The financing of support for the EEG 2021 amendments described in this decision is imputable to the State, as they are established by law (EEG 2021) and implementing decrees (see section 2.1 above). The reasoning for why the EEG 2021 amendments and follow-up support are financed through State resources is the same as for the EEG 2021 measures, described in section 3.1.2 in the decision in case SA.57779.

3.1.3 Impact on trade between Member States and on competition

- (74) Similar as in the decision in case SA.57779, the beneficiaries of the scheme are EEG electricity installations that are eligible for follow-up support and for support under the EEG 2021 amendments. In all those sectors, trade takes place between Member States, and the beneficiaries are in competition with undertakings located in other Member States. In addition, the electricity market is liberalised and electricity is traded between Member States. The EEG electricity is generally sold on the spot market, where it enters in competition with all sources of electricity. The German spot market is interconnected with other markets.
- (75) For all the reasons mentioned above, the measures are therefore liable to distort competition and affect trade between Member States.

3.1.4 Conclusion on the existence of aid

- (76) The Commission concludes that the follow-up support and the EEG 2021 amendments entail aid. The German authorities do not contest this conclusion.

3.2 Lawfulness of the aid

- (77) The EEG 2021 amendments and the follow-up support were notified to the Commission and have not been implemented before. The EEG 2021 amendments and the follow-up measure are subject to a suspension clause, whereby the measure cannot be implemented until the European Commission approves it. Germany has complied with its obligations under Article 108 TFEU.

3.3 Compatibility of the aid

- (78) The Commission has assessed the measures on the basis of Article 107(3)(c) TFEU and the Guidelines on State aid for environmental protection and energy 2014-2020²⁴ ('EEAG'). In particular, it has assessed the support to the production of renewable electricity under section 3.3 (aid to energy from renewable sources).
- (79) On 2 July 2020, the Commission adopted a Communication²⁵ prolonging the validity of certain State aid rules, including the EEAG, which would have otherwise expired at the end of 2020. Consequently, the EEAG is applicable until 31 December 2021.
- (80) Article 107(3)(c) TFEU provides that the Commission may declare compatible '*aid to facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest*'.

3.3.1 Positive condition: the aid must contribute to the development of an economic activity

3.3.1.1 Establishment of an economic activity

- (81) Pursuant to Article 107(3)(c) TFEU, compatible aid must contribute to the development of an economic activity²⁶.

²⁴ OJ C 200, 28.6.2014, p. 1.

²⁵ Communication from the Commission concerning the prolongation and the amendments of the Guidelines on Regional State Aid for 2014-2020, Guidelines on State Aid to Promote Risk Finance Investments, Guidelines on State Aid for Environmental Protection and Energy 2014-2020, Guidelines on State aid for rescuing and restructuring non-financial undertakings in difficulty, Communication on the Criteria for the Analysis of the Compatibility with the Internal Market of State Aid to Promote the Execution of Important Projects of Common European Interest, Communication from the Commission - Framework for State aid for research and development and innovation and Communication from the Commission to the Member States on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to short-term export-credit insurance. (OJ C 224, 8.7.2020, p. 2-4).

²⁶ Judgment of 22 September 2020, *Austria v Commission*, C-594/18 P, EU:C:2020:742, paragraphs 20 and 24.

- (82) The EEG 2021 amendments and the follow-up support to small manure installations support the generation of electricity produced from renewable electricity sources, in particular solar PV, onshore wind, biomethane, biogas.
- (83) According to point 19(5) EEAG, the following are renewable energy sources: wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases. Point 19(6) further specifies that biomass includes the biodegradable fraction of products, waste and residues from agriculture, including vegetal and animal substances (i.e. manure). According to point 19(11) EEAG, the definition of electricity generated from RES also includes renewable electricity used for filling storage systems, but excludes electricity produced as a result of storage systems.
- (84) In view of the above, the Commission considers that the notified amendments to the EEG 2021 and the follow-up support to small manure installations contribute to the development of an economic activity, in particular the production of RES electricity, as required by Article 107(3)(c) TFEU.

3.3.1.2 Facilitation of an economic activity and incentive effect

- (85) State aid has an incentive effect if it incentivises the beneficiary to change its behaviour towards the development of a certain economic activity pursued by the aid and if the change in behaviour would not occur without the aid²⁷.
- (86) The EEG 2021 amendments related to solar PV (section 2.2.1.1), onshore wind (section 2.2.1.2), biomethane (section 2.2.2) and biogas (section 2.2.4) concern measures whereby the aid will be awarded on the basis of a competitive bidding process. Therefore, Germany is not required to fulfil the requirements of point 50 and 51 of the EEAG for those installations (see point 52 EEAG). In addition, the targeted projects would not be executed in the absence of the aid, given the gap between the cost to produce the electricity based on the respective RES and the market price for electricity which is generally lower.
- (87) Regarding the temporary extension of the system of ‘decommissioning certificates’ (section 2.2.3), new CHP plants or existing CHP plants that are not yet running on renewable energy sources, are allowed to take over the support of a decommissioned existing biomethane plant, when they foresee producing electricity based on biomethane. Since it is more expensive to run a CHP installation on biomethane compared to fossil fuels or other biomass, the temporary extension of the system of ‘decommissioning certificates’ effectively provides an incentive for new or existing CHP installations, which are not yet running on renewable energy sources, to switch to biomethane as input source.
- (88) Regarding the follow-up support to small manure installations, the aid promotes the use of agricultural waste (i.e. manure) in the production of electricity. By doing so, the aid not only promotes the production of RES electricity, but also channels the use of manure in electricity generation instead of being left to ferment naturally on the fields, which leads to greenhouse gas emissions and nitrates seepage into groundwater. Absent the aid, small manure installations

²⁷ See point 49 of the EEAG and Judgment of 22 September 2020, *Austria v Commission*, C-594/18 P, EU:C:2020:742.

would not be able to continue operating, given the high operating costs of biogas installations and the generally lower electricity market price.

- (89) The Commission therefore concludes that the aid has an incentive effect and facilitates the development of EEG electricity production.

3.3.1.3 Compliance with other provisions of EU law

- (90) State aid which contravenes provisions or general principles of EU law cannot be declared compatible²⁸.
- (91) As indicated in point 29 of the EEAG, if a State aid measure or the conditions attached to it (including its financing method when it forms an integral part of it) entail a non-severable violation of Union law, the aid cannot be declared compatible with the internal market.
- (92) As clarified in detail in the decision in case SA.57779 (recitals 273 to 278), Germany has put in place a mechanism allowing the Commission to conclude that the risk of possible discrimination against producers of other Member States is reduced. This has not been altered by the measures subject to this decision.
- (93) As noted in recitals 233 and 279 of the Commission decision in case SA.57779, Germany has committed to respect both the waste hierarchy and the Water Framework Directive.
- (94) In light of the above, the Commission considers that the notified aid measures do not infringe relevant EU laws.

3.3.2 *Negative condition: the aid measure cannot unduly affect trading conditions to an extent contrary to the common interest*

3.3.2.1 The market affected by the aid

- (95) The market affected by the aid is the market for electricity production in Germany.

3.3.2.2 The positive effect of the aid

- (96) As indicated in section 3.3.1.1, the measure contributes to the development of certain economic activity, i.e. the generation of electricity from RES installations. The promotion of the development of renewable energy is one of the aims of the Union's policy on energy. The measure is also in full consistency with Germany's and the Union's RES and emissions targets.

3.3.2.3 The negative effects of the aid measure on the internal market: the aid measure minimizes the distortions on competition and trade

3.3.2.3.1 Need for State intervention

- (97) Point 34 of the EEAG explains that State aid should be targeted towards situations where aid can bring about a material improvement that the market alone

²⁸ Judgment of 22 September 2020, *Austria v Commission*, C-594/18 P, EU:C:2020:742, paragraph 44.

cannot deliver. Point 35 of the EEAG invites Member States to identify the market failures hampering an increased level of environmental protection. In the case of renewable electricity production, the Commission presumes that a residual market failure remains, which can be addressed through aid for renewable energy, for the reasons set out in point 115 of the EEAG.

- (98) In the case of tendered support, which is the case for most of the EEG 2021 amendments concerned in this decision, the aid is granted through a sliding premium on top of the market price and only when the cost of electricity generation from RES is higher than the market price for electricity. Therefore, the aid is only effectively paid out when there is a need for it.
- (99) In the case of the system of ‘decommissioning certificates’, the EEG 2021 amendment, i.e. the extension of the scheme for another two years, is necessary to stimulate the development of biomethane and its use in new or existing CHP installations, since biomethane is more expensive than other inputs such as biomass or fossil fuels (see recital 332 in the decision in case SA.57779).
- (100) In the case of the follow-up support to small manure installations, the aid is necessary for the continued operation of these small biogas installations, given their high operating costs. As explained in recitals (53) and (54) above, the operating costs of small manure installations are very high and generally above energy market prices. Without aid, therefore, these small manure installations would not be able to continue operating.
- (101) For those reasons, it is unlikely that, absent the aid, the development of the economic activity of generation of electricity from RES in Germany would occur, or would occur to the same extent. The Commission therefore considers that the notified EEG 2021 amendments and follow-up support are necessary.

3.3.2.3.2 Appropriateness of the aid

- (102) Point 40 of the EEAG explains that aid measures must be appropriate and that an aid measure will not be considered compatible with the internal market if the same outcome is achievable through other less distortive policies or aid instruments.
- (103) Point 116 of the EEAG states that the Commission presumes the appropriateness of aid for renewable energy sources provided all other conditions of section 3.3.2 of the EEAG are met. According to point 107 of the EEAG, under certain conditions State aid for renewable energy sources can be an appropriate instrument to increase renewable electricity production.
- (104) As mentioned in recitals (9) and (13) of the decision in case SA.57779, and in recital (7) and section 2.2 above, the EEG 2021 aims at significantly increasing the installed RES capacity and the electricity produced from RES in order to further reduce CO₂ emissions in the future²⁹.

²⁹ The EEG 2021 as amended says in § 1(2): ‘Ziel dieses Gesetzes ist es, den Anteil des aus erneuerbaren Energien erzeugten Stroms am Bruttostromverbrauch auf 65 Prozent im Jahr 2030 zu steigern’. Unofficial translation in English: ‘The aim of this law is to increase the share of electricity generated from renewable energy sources in the gross electricity consumption to 65 % in 2030’.

- (105) The EEG 2021 amendments and follow-up support are therefore deemed appropriate provided that the other compatibility conditions are met. As explained in sections 3.3.1, 3.3.2.1, 3.3.2.2 and 3.3.2.3.1 above and as will be shown in the sections below, these other compatibility conditions are met. Therefore, the Commission considers the aid to be appropriate.

3.3.2.3.3 Proportionality of the aid

- (106) According to point 69 of the EEAG, environmental aid is considered to be proportionate if the aid amount per beneficiary is limited to the minimum needed.
- (107) The aid supports electricity production from renewable sources, for which the EEAG include specific rules, in particular in points 124 and 126, as well as point 133 applicable for aid for exiting biomass plants after plant depreciation.
- (108) The sections below assess the proportionality of the different EEG 2021 amendments and of the follow-up support to small manure installations. The assessment differs depending on whether the aid is granted as a market premium, through a competitive bidding process, or whether it is administratively set.

Aid granted in the form of a market premium in a competitive bidding process with safeguard

- (109) According to point 124 of the EEAG, the aid has to be paid as a premium in addition to direct selling in the market, beneficiaries are subject to balancing responsibilities and should have no incentive to produce in hours of negative prices.
- (a) As explained in more detail in section 2.4 of the decision in case SA.57779, the tendered aid to producers of electricity based on solar PV and onshore wind is provided in the form of a sliding premium, taking into account revenues from the sale of electricity.
- (b) Installations also have an obligation to sell their produced electricity on the market and have standard balancing responsibilities³⁰.
- (c) In addition, no subsidy will be paid for hours in which the spot market price is negative, whenever negative prices persist for at least four consecutive hours (§51 EEG 2021 – see recital 295 of the decision in case SA.57779)³¹.
- (110) According to point 126 of the EEAG, the aid is presumed to be proportionate if it is granted in a competitive bidding process open to all generators producing electricity from renewable energy sources on a non-discriminatory basis, unless a) Member States demonstrate that only one or a very limited number of projects or sites could be eligible; or b) Member States demonstrate that a competitive bidding process would lead to higher support levels (for example to avoid strategic bidding); or c) Member States demonstrate that a competitive bidding process would result in low project realisation rates (avoid underbidding). The

³⁰ Only installations below 100 kW are exempted from those requirements.

³¹ This applies for all RES plants above 500 kW, except for onshore wind pilot installations.

bidding process should in principle be open to all technologies. It can be limited to certain technologies in certain circumstances (see recital 299 of the decision in case SA.57779).

- (111) The EEG 2021 amendments concerning the increased tender volumes for solar PV (including special solar innovation tenders) and onshore wind, as well as the changes to the biomethane tender procedure and the flexibility remuneration, do not affect the compliance of the measure with the requirements of points 124 and 126 of the EEAG. Indeed, the aid is granted through a competitive bidding procedure and awarded through a (sliding) market premium. The reasoning for having technology-specific tenders has been explained in recital 61 of the decision in case SA.57779 and discussed in sections 3.3.1.4.3.2.3 to 3.3.1.4.3.2.6 of that decision: it is still valid.
- (112) Moreover, the tenders for onshore wind and biomass/biogas include a safeguard which should ensure the competitiveness of the bidding procedure. This has not changed in the EEG 2021 amendments.
- (113) Regarding onshore wind tenders, if there is a risk of undersubscription for a tender, the BNetzA reduces the tender capacity to keep the tender competitive (see recital 355 in the decision in case SA.57779). On the basis of the latest outcomes of onshore wind tenders, the safeguard appears to be working and the onshore wind tenders of September and June 2021 were not or only slightly undersubscribed (see also recital (25) above). Moreover, the revised targeted tender volume in 2022 (4 000 MW) is lower than the targeted tender volume in 2021 (4 500 MW). Finally, Germany has also taken initiatives in recent years to avoid delays in the deployment of onshore wind installations (e.g. the Action Plan to Strengthen Onshore Wind, see recital (25)). Therefore, the Commission can conclude that there is *a priori* no reason to believe that the onshore wind tenders in 2022 would be undersubscribed and uncompetitive.
- (114) Regarding biomass/biogas tenders, to prevent undersubscription, Germany applies a rule where only 80 % of submitted bids are awarded, in case there are not sufficient bids to cover the tendered capacity (see recitals 107 and 324 in the decision in case SA.57779). Therefore, the Commission can conclude that tenders will be competitive in the sense that through the application of that rule the volume will constitute a binding constraint (i.e. it is ensured that the volume tendered does not exceed the capacity of the bids), which avoids the risk of undersubscription since not all bids will be awarded.
- (115) In the light of the EEG 2021 amendment concerning the revised flexibility remuneration, that safeguard is important to ensure that the revised flexibility remuneration for existing biogas plants, which will receive EUR 50/kW for capacity flexibilised in the past and EUR 65/kW for newly flexibilised capacity when participating in the biogas tenders, will not lead to overcompensation. The safeguard will ensure that the flexibility remunerations will be taken into account in the submission of the bids (i.e. will lower the bids) and will ensure that there is no overcompensation.
- (116) Given that a) the amended flexibility payment is accessible to all biogas installations selected in a tender procedure, and that the amount paid annually per kW of installed capacity to each of these installations is the same (though at different levels depending on whether the capacity has been newly flexibilised or

flexibilised in the past), b) it is aimed at covering costs that only biogas installations have, c) it has been designed so as to create incentives to keep on running the installations flexibly and flexibility criteria are laid down in the EEG 2021, and d) this flexibility payment will necessarily be taken into account by biogas installations in their bids, the Commission concludes that the amended flexibility payment is unlikely to distort the tender procedure and therefore concludes that it is in line with point 126 of the EEAG.

Aid granted in the form of a market premium in a competitive bidding process without safeguard

- (117) The reasoning regarding the (regular) solar PV and biomethane tenders is similar as in the section above, except that there is no safeguard in place to deal with the risk of undersubscribed tenders.
- (118) Regarding the biomethane tenders, as argued in recital 334 of the decision in case SA.57779, strong competition between new and existing biomethane installations is expected. Following the EEG 2021 amendment, installations which have not yet obtained approval under the Federal Emissions Control Act, but that have been formally registered as planned projects (see recital (29)), can also participate in the first biomethane tender in December 2021. That amendment should increase the competitiveness of the first biomethane tender, since more projects will be allowed to participate.
- (119) This said, the change to allow ‘early tenders’ increases the risk that eventually some projects will not be implemented. However, the risk of non-implementation can be expected to be low, since the sanction provisions for non-implementation are just as strict for the ‘early tenders’ as for the ‘late tenders’ as of 2022: the same implementation period of 36 months after award of the contract applies according to §39e EEG, as well as the same penalty regulations according to §55. Moreover, since the planning and approval process of biomethane plants involves high costs and risks, once a biomethane project is planned, it will likely be approved and realised due to the high sunk costs involved in the planning phase.
- (120) As a consequence, the Commission considers that the increase in competitiveness of the first tender outweighs the risk of non-implementation of the ‘early’ biomethane projects, especially given that the sanctions for non-implementation are unchanged. Therefore, the Commission considers the change to early tenders in the first round is proportionate.
- (121) Regarding the competitiveness of the solar PV tenders, the Commission observes the following:
- (a) Based on the results of previous tender rounds (see Figure 1 and recital (17) above) the Commission observes that the category of solar PV tenders (no separation between ground-based and rooftop solar PV) has always been oversubscribed in the past.
 - (b) The Commission observes that the increase in the tender volume by 4 000 MW in 2022 is significant (target volume for 2022 changed from 1 900 MW to 5 900 MW), as well as the change between the volumes foreseen in 2021 and 2022 (change from 2 150 MW foreseen in 2021 to 5 900 MW in 2022). Nevertheless, a similar significant increase in tender volume

occurred in some of the tender rounds in 2019 and 2020, and as can be seen in Figure 1, the market followed. As a consequence, there is *a priori* no reason to assume that a significant increase in tender volumes will lead to uncompetitive solar PV tenders.

- (c) In addition, Germany made a few procedural changes (as described in recital (20)) for both the categories of ground-based and rooftop solar PV tenders, which should further facilitate the participation in the solar PV tenders.
 - (d) Finally, there appears to be a great potential for the segment of rooftop solar PV, especially now this has become a separate tender category, which has been confirmed by studies on the subject as well as the results of the first rooftop solar PV tender held in June 2021 (cf. recital (18) above).
- (122) In light of the reasoning set out above, the Commission considers that it is unlikely that the solar PV tenders in 2022 will be undersubscribed. Nevertheless, since the increase in tender volume is significant, Germany only notified the first two tender rounds of 2022 for solar PV tenders, and will observe their outcomes, before deciding on the introduction of additional safeguards to ensure competitiveness (similar to the ones for onshore wind, biomass/biogas and special innovation tenders).

Special solar innovation tenders

- (123) The reasoning regarding the solar innovation tenders is similar as in the section above, except that the remuneration will be paid as a fixed premium on top of the market price³².
- (124) In order to ensure the competitiveness of the tenders, Germany introduced also here a safeguard whereby, in case the tender is undersubscribed, only the lowest 80 % of bids in terms of capacity are awarded. Moreover, no remuneration is paid, as soon as the spot price is negative. Germany confirmed that the tendering procedure for special solar installations is, from a legal point of view, a subset of the innovation tenders. Therefore, the same rules apply³³.
- (125) In light of the above, the Commission considers that it is unlikely that the special solar innovation tenders in 2022 will be undersubscribed.

Extension of decommissioning certificates

- (126) Different from the amendments in the measures described in the previous sections, the amendment regarding the extension of the system of

³² The bid cap amounts to 7.5 ct/kWh with an annual decrease of 1% (cf. recital 117 of the decision in case SA.57779).

³³ The quantity control (80 % rule) for innovation tenders is governed by §11 of the *Verordnung zu den Innovationsausschreibungen* (“InnAusV”) and the negative price rule is governed by §3(4) InnAusV; both rules have not been changed by the EEG 2021 amendments. The award procedure for the special solar installations is adapted with regard to volume control in §17(3) InnAusV, which ensures that the 80% rule also applies to the subset of special solar installations.

decommissioning certificates does not entail a competitive bidding process. The EEG remuneration that can be taken over thanks to the system has in the past usually been set via administratively set tariffs, optionally as a market premium. In view of the exceptions to tendering provided in point 126 of the EEAG, given that only a limited number and specific profile of plants would be eligible for this type of support (namely only existing CHP plants currently not running on renewable energy), the Commission considers that this type of aid does not need to be tendered. Also in the view of Germany's commitment to monitor the administratively set tariffs (see recital (57)), this should ensure that the aid per unit of energy does not exceed the difference between the cost of producing the energy (LCOE) and its market price, in line with the requirements of point 131 of the EEAG.

- (127) The Commission also observes that the provision in §100 (1) sentence 2 of the EEG 2021 only serves the transition from a system based on 'decommissioning certificates' to a system based on tendering in order to support the use of biomethane for electricity production, and is only intended to ensure that projects that were planned in the past on the basis of the decommissioning evidence can be completed. The Commission understands that the transitional period of two years will provide sufficient time for projects to successfully complete the plans that have already been started, and should enable the necessary plant technology to be procured, delivered and installed in the CHP production plant. After the transitional period, the decommissioning certificates system will be definitively phased out by 1 January 2023.
- (128) In addition, Germany confirmed that in order to avoid cumulation, the plants that still make use of the decommissioning certificates system will not be allowed to participate in the biomethane tenders, which were introduced in the EEG 2021.
- (129) Given that the support is limited to the remainder of the remuneration period, extended for a limited number of years to allow finalisation of plans that already started, is limited to the minimum necessary and excludes cumulation with participation in biomethane tenders, the Commission concludes that the mechanism ensures continuity of the demand for production of biogas and biomethane, protecting legitimate expectations and planning security of the processing plants at the time of their investment. In addition, by merely replacing the receiving beneficiary the extension has no effect on the total cost of the aid. As a consequence, the Commission considers the extension of the system of decommissioning certificates is proportionate.

Follow-up support

- (130) Under the EEAG, from 1 January 2016 new aid schemes and measures may not be granted as a feed-in tariff,³⁴ other than to installations with an installed capacity of less than 500 kW or demonstration projects.³⁵ Given that only installations with installed capacity not exceeding 150 kW are eligible for this follow-up support, this measure can be approved as a feed-in tariff.

³⁴ See point 124 of the EEAG.

³⁵ See point 125 of the EEAG.

- (131) Point 133 of the EEAG provides that operating aid for biomass after plant depreciation will be considered compatible with the internal market if a Member State demonstrates that the operating costs borne by the beneficiary after plant depreciation are still higher than the market price of the energy concerned and provided that the following cumulative conditions are met:
- (a) the aid is only granted on the basis of the energy produced from renewable sources;
 - (b) the measure is designed in a way that compensates the difference in operating costs borne by the beneficiary and the market price; and
 - (c) a monitoring mechanism is in place to verify whether the operating costs borne are still higher than the market price of energy; such a monitoring mechanism needs to be based on updated production cost information and take place at least on an annual basis.
- (132) As noted at (54) above, Germany has demonstrated that on average the operating costs of small manure installations eligible for follow-up support are still higher after plant depreciation than the market price of energy.
- (133) Follow-up support is only granted on the basis of the energy produced from renewable sources (i.e. biomass), so the requirement in point 133(a) of the EEAG is satisfied.
- (134) The measure cannot compensate more than the difference between the operating costs and the market price of electricity. As explained at (47) and (54) above, the caps provided for in the EEV do not exceed the average operating costs of the installations. The reference values can therefore be seen as reflecting the operating costs of the installations. Since the aid consists in the difference between the reference value and the market price, the level of aid cannot exceed the difference between the operating costs and the market price of electricity: given that the beneficiary receives the same remuneration regardless of the market value of the electricity it produces, if the market price of electricity increases, the level of aid received decreases, and if the market price of electricity is above the reference value, no aid will be paid. The requirement in point 133(b) of the EEAG is therefore satisfied.
- (135) Finally, as noted at (56) above, Germany has undertaken to review the operating costs of small manure installations on an annual basis and to adjust the support in the event of overcompensation. Germany explained that the data on operating costs will be collected, calculated and updated by independent research institutes (*unabhängige Forschungsinstitute*). Germany explained that since the EEV is based on the EEG 2021, it will apply the requirement in decision in case SA.57779 (2020/N) to annually review operating costs also to the EEV. Point 133(c) of the EEAG is therefore also satisfied.
- (136) The Commission therefore concludes that the notified follow-up support measure complies with point 133 of the EEAG.

3.3.3 *Weighing up the positive effects of the aid with the negative effect on the internal market*

- (137) The negative effects of the measure on competition and trade must be sufficiently limited, so that the overall balance of the measure is positive. The Court has clarified that in order to assess whether a measure adversely affects trading conditions to an extent contrary to the common interest, the Commission must weigh up the positive effect of the planned aid for the development of the activities that aid is intended to support and the negative effects that the aid may have on the internal market³⁶.

3.3.3.1 Positive effects

- (138) On the positive side of the balance, the Commission notes that EEG 2021 amendments and the follow-up support can be expected to contribute directly to renewable energy production, and indirectly to environmental protection.
- (139) On 24 October 2014, the European Council endorsed a binding EU target of an at least 40% domestic reduction in greenhouse gas emissions by 2030 compared to 1990³⁷. The climate ambitions of the Commission were reinforced in 2019 with the European Green Deal Communication, setting an objective of no net emissions of greenhouse gases in 2050³⁸. Finally, the European Council has in December 2020 adopted the net 55% target for 2030. The European Climate Law adopted on 30 June 2021 writes into law the 2030 emissions reduction target³⁹.
- (140) The renewable energy generation technologies eligible for support under the EEG 2021 meet the EEAG definition of ‘renewable energy sources’ (see points 19(5) and 19(11) of the EEAG).
- (141) The Commission therefore concludes that, similar to the approved aid scheme for the generation of renewable electricity, the amendments to the scheme as well as the follow-up support will not only contribute to the development of that economic activity, but moreover they will do so in a manner that creates incentives for emissions reductions and therefore they will also have positive environmental effects.

3.3.3.2 Negative effects

- (142) On the negative side of the balance, support to the production of renewable electricity can distort competition and trade in the electricity market, as well as between undertakings receiving the support and their competitors in the same sector.

³⁶ Judgment of 22 September 2020, *Austria v Commission*, C-594/18 P, EU:C:2020:742, paragraph 101.

³⁷ EUCO 169/14, https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/145397.pdf.

³⁸ Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, The European Green Deal, 11 December 2019, COM 2019 (640).

³⁹ Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 (OJ 2021 L 243, p. 1).

- (143) Point 97 of the EEAG explains that, when assessing the negative effects of an aid measure, the Commission assesses the impact on competition between undertakings in the product markets affected and on the location of economic activity. Point 98 adds that, where the aid is proportionate, its negative impact is in principle softened. Point 99 explains that the Commission will place great emphasis on the selection process, which should not exclude companies and projects that may compete to address the environmental or energy objective. The selection process should lead to the selection of beneficiaries that can address the objectives using the least amount of aid or in the most cost effective way. Finally, in point 116, room has been given to Member States to achieve their targets, in this case related to climate and environmental protection, in line with the EU 2020 objectives. To this purpose, the Commission presumes that the aid is appropriate and has limited distortive effects, provided all other conditions are met.
- (144) As explained in section 3.1.3, the beneficiaries of the EEG 2021 amendments and the follow-up support are EEG electricity installations, operating in a liberalised, EU-wide market, and therefore the measures are likely to impact competition and trade in the electricity market.
- (145) In line with point 97 of the EEAG, the aid schemes are well targeted to the market failures they aim to address (see section 3.3.2.3), so that the risk that the aid will unduly distort competition is limited.
- (146) In line with point 98 of the EEAG, since the aid is proportionate (see section 3.3.2.3.3), the negative impact of the aid on competition and trade is softened.
- (147) As explained in sections 2.3 and 2.5 of the decision in case SA.57779 regarding the EEG 2021, and as regards the EEG 2021 amendments described in section 2.2 and the follow-up support described in section 2.3 above, and in line with point 99 of the EEAG, an important part of the aid is attributed through tenders, which are non-discriminatory, transparent and open. As well as supporting a reduction in the costs of achieving the targeted environmental protection objectives, this approach is appropriate to help to ensure possible distortions to competition are minimised.
- (148) In line with point 116 of the EEAG, given that all other conditions are met (as explained in the recitals above), the Commission presumes the EEG 2021 amendments and follow-up support to be appropriate and to have limited distortive effects on competition and trade.

3.3.3.3 Conclusions on distortion of competition and balancing test

- (149) In light of the above, the Commission considers that the amendments to the aid scheme for the generation of electricity from RES as described in section 2.2 and the follow-up support described in section 2.3 above are in line with the relevant provisions of the EEAG. The Commission considers that the negative effects on competition and trade are limited by the use of a competitive bidding process, where possible, and are outweighed by the positive effects of the measures in terms of facilitating the development of an economic activity, and having regard also to the environmental benefit that the promotion of RES brings in comparison with more environmentally-harming technologies in the electricity generation market.

(150) Therefore, the aid at issue facilitates the development of certain economic activities, while not adversely affecting trading conditions to an extent contrary to the common interest, as required by Article 107(3)(c) TFEU.

3.3.4 Transparency of the aid and firms in difficulty or subject to an outstanding recovery order

(151) According to point 104 of the EEAG, Member States must ensure the transparency of aid granted by publishing certain information on a comprehensive State aid website.

(152) Germany has committed to comply with the transparency requirements in EEAG points 104-106, and indicated that this information is published and can be found on a website.

(153) As explained in section 2.11, the Commission notes that no aid will be granted to undertakings in difficulty and all firms that intend to participate in the call for tenders will have to provide a declaration that they are not an ‘undertaking in difficulty’. The Commission notes that Germany intends to allow undertakings that were not in difficulty on 31 December 2019 but became undertakings in difficulty in the period from 1 January 2020 to 30 June 2021 to participate in the scheme, in line with the amended EEAG. The Commission therefore considers that the notified measures are in line with point 16 of the EEAG. The German authorities also confirm that no aid can be granted to undertakings subject to an outstanding recovery order following a previous Commission decision declaring aid illegal and incompatible with the internal market. The Commission therefore considers that the notified measures are in line with point 17 of the EEAG.

4. AUTHENTIC LANGUAGE

(154) As mentioned under section 1 above, Germany has accepted to have the decision adopted and notified in English. The authentic language will therefore be English.

5. CONCLUSION

The Commission has accordingly decided not to raise objections to the EEG 2021 amendments and the follow-up support on the grounds that the aid is compatible with the internal market pursuant to Article 107(3)(c) of the Treaty on the Functioning of the European Union.

The Commission reminds the German authorities that, in accordance with Article 108(3) TFEU, any plans to refinance, alter or change this aid have to be notified to the Commission pursuant to provisions of the Commission Regulation (EC) No 794/2004 implementing Council Regulation (EC) No 659/1999 laying down detailed rules for the application of Article 93 of the EC Treaty (now Article 108 TFEU).

The Commission further reminds Germany that individual aid granted on the basis of the scheme remains subject to the notification obligation pursuant to Article 108(3) of the Treaty if the aid exceeds the notification thresholds of paragraph 20 of the EEAG and is not granted on the basis of a competitive bidding process.

If this letter contains confidential information which should not be disclosed to third parties, please inform the Commission within fifteen working days of the date of receipt. If the Commission does not receive a reasoned request by that deadline, you will be deemed to agree to the disclosure to third parties and to the publication of the full text of the letter in the authentic language on the Internet site: <http://ec.europa.eu/competition/elojade/isef/index.cfm>.

Your request should be sent electronically to the following address:

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Directorate-General Competition
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Yours faithfully,

For the Commission

Margrethe VESTAGER
Executive Vice-President