EUROPEAN COMMISSION

Brussels, 29.03.2021
C(2021) 1949 final

PUBLIC VERSION

This document is made available for information purposes only.

Subject: **State Aid SA.57610 (2020/N) – Germany – Modified offshore wind support**

Excellency,

1. PROCEDURE: NOTIFICATION, CORRESPONDENCE, DEADLINE ETC.

(1) On 8 June 2020, Germany sent an initial pre-notification paper regarding the Offshore Wind Energy Act ('WindSeeG'). A conference call was held on 19 June 2020 and a list of preliminary questions sent by the Commission to Germany on 13 July 2020. Germany replied on 10 August 2020. Subsequently, Germany notified the measure on 12 August 2020. The Commission sent a list of questions on 10 September 2020. Germany responded on 30 September 2020.

(2) On 12 June 2020, Germany sent an initial pre-notification paper regarding the planned support scheme ('*Erneuerbare Energien Gesetz*', hereinafter 'EEG') for the promotion of the production of electricity from renewable energy sources ('RES electricity') and from mining gas, which contains a number of provisions applicable also to offshore wind.

(3) A conference call was held on 19 June 2020 and a list of questions sent to Germany on 23 June 2020. Germany sent responses, a draft of the law and the evaluation report of the predecessor support scheme, EEG 2017 (SA.45461), on 26 August 2020. A conference call was held on 22 September 2020 and a revised version of the draft law sent on 24 September 2020. The Commission sent a further list of questions on 2 October 2020. Germany notified the scheme on 13 October 2020 and responded to the questions on 15 October 2020 and 2 November 2020.

Seiner Exzellenz Herrn Heiko MAAS
Bundesminister des Auswärtigen
Werderscher Markt 1
D - 10117 Berlin

(4) The Commission sent follow-up questions on both measures on 9 November 2020. Germany sent responses on 12, 16 and 17 November 2020. Conference calls took place on 18 and 23 November 2020. Germany sent further information on 24 and 30 November and 1 December 2020. The Commission sent further questions on 30 November 2020. Germany sent responses on 3 December 2020, and further information on 7, 8, 10 and 11 December 2020. The Commission sent further questions on 26 February 2021, to which Germany responded on 3 March 2021.

(5) Germany sent the modifications to the WindSeeG as decided by the Parliament's committee on 5 November 2020. Germany sent the EEG 2021 law (see recital 10 below) as voted by the Parliament on 18 December 2020 and a consolidated version of the law on 12 January 2021. A conference call was held on 25 January 2021. The Commission sent further questions on 26 January 2021. Germany sent responses on 29 January and 1 February 2021.

(6) During a video conference meeting on 18 November 2020, the Commission services informed Germany that the evaluation report of the EEG 2017 (see recital (3)) was deemed sufficient. It was emphasised that a satisfactory solution on the future evaluation plan is a condition for not objecting to the evaluation report submitted on 26 August 2020. On 11 March 2021, Germany submitted the final draft of the revised evaluation plan of the EEG 2021 and the WindSeeG.

(7) By letter dated 30 September 2020, Germany agreed exceptionally to waive its rights deriving from Article 342 TFEU in conjunction with Article 3 of Regulation 1/1958[1] and to have the present decision adopted and notified in English.

2. DETAILED DESCRIPTION OF THE MEASURE CONCERNED

(8) The measure notified and assessed in this decision relates only to the support of electricity generated from offshore wind installations connected to the grid.

2.1. National legal basis, background and objective

(9) The notified scheme follows the EEG 2014 (approved in the European Commission decision in case SA.38632) and the EEG 2017 (approved in the European Commission decision in case SA.45461 until 31 December 2020 and prolonged in the European Commission decision in case SA.59842 until 31 December 2021). It prolongs the previous schemes provisions on offshore wind, but also significantly modifies them.

(10) The scheme is included in the Law amending the Renewable Energy Law as well as further energy-related legislation ('*Entwurf eines Gesetzes zur Änderung des Erneuerbare-EnergienGesetzes und weiterer energierechtlicher Vorschriften*'). This law amends the EEG 2017 (which now becomes the 'EEG 2021'), as well as further legislation relating to electricity from renewable sources. It 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.

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

(11) Specific offshore wind-related provisions are also set out in the modified Offshore Wind Energy Act ('*Gesetz zur Änderung des Windenergie-auf-See-Gesetzes und anderer Vorschriften*', hereinafter 'WindSeeG'). The modified WindSeeG entered into force on 10 December 2020. The suspensive clause contained in the EEG 2021 ensures that these modifications can only be implemented after the relevant State aid approval by the Commission. In fact, the two laws are interrelated and only together set the framework for support to offshore wind installations.

(12) The modified WindSeeG expands the use of offshore wind energy as compared to the previous version. The notified WindSeeG aims at increasing the installed capacity of offshore wind energy installations to 20 GW by 2030 (instead of the previous target of 15 GW) and sets a new target of 40 GW offshore wind capacity by 2040. Germany estimates that the increased target for 2030 will lead to a cumulative reduction of forecasted CO_2 emissions of roughly 76 million tons between 2020 and 2030.

(13) The notified WindSeeG provides for the following tentative quantities to be tendered:

- around 1 GW per year from 2021 to 2023 ;
- around 3 GW in 2024;
- around 4 GW in 2025; and
- continuously expanding offshore wind capacity from 2026 onwards, which for 2026 would translate to about 2 GW.

2.2. Beneficiaries

(14) Offshore wind installations will be eligible for support only if they have been selected in tenders.

(15) Only pilot installations are exempt from tenders. These are the first three offshore wind energy installations of a type which are used to test a demonstrably significant innovation extending well beyond the best available technology. The innovation can particularly refer to the generator output, the rotor diameter, the hub height, the tower type or the foundation structure.

(16) Germany has explained that the above types of offshore wind energy installations correspond to the concept of demonstration projects within the meaning of point 19(45) of the Guidelines on State aid for environmental protection and energy 2014-2020[2] ('EEAG'). To show the existence of a significant innovation going well beyond the state of the art, it will thus be necessary for the beneficiary to demonstrate that the technology is entirely new, i.e. that it is the first of its kind in the Union.

(17) In the past Germany, has received six applications for support as pilot offshore wind installations, of which three were granted.

(18) The modified WindSeeG applies to all tenders carried out as of its entry into force. In practice, the first tender it will apply to is the one of September 2021.

[2] OJ C 200, 28.6.2014, p. 1.

2.3. Form of aid and level of support

2.3.1. Feed-in premium

(19) As was already the case under the EEG 2017 and previous version of the WindSeeG, the aid is paid as a market premium ('*Marktprämie*') that is obtained on top of the market price for the electricity. The premium is paid out by the network operator to whose network the RES electricity installation is connected. The methodology to determine the administratively set market premium is established in Annex 1 to the EEG 2021.

(20) The premium is a sliding premium: it corresponds to the difference between a reference value ('*der anzulegende Wert*') and the market price of the electricity. The reference value aims at covering the production costs of the electricity concerned, a reasonable return and a management premium to cover the costs of direct marketing. It is determined either by tender or administratively[3]. The installations are obliged to sell their production on the free market for electricity ('direct marketing').

(21) The successful participants in the tenders are granted support for a period of 20 years.

2.3.2. Level of support and market price

(22) When selling the RES electricity on the market, operators are subject to balancing responsibilities according to §20 EEG 2021 and §4 Stromnetzzugangsverordnung. In particular, they must be part of a balancing group, in which the balancing of the electricity is ensured.

(23) According to §51 EEG 2021, when market prices are negative for at least 4 hours on the spot market, the reference value is set to zero and no remuneration will be paid for the period during which the prices were negative. This rule does not apply to pilot offshore wind installations. For installations awarded in tenders the hours, during which no remuneration is paid due to negative prices, are added at the end of the support period (§51a EEG 2021).

(24) The premium is obtained only on the basis of electricity that is injected into the grid. In addition, producers of offshore wind electricity whose reference value has been determined through tenders cannot use the electricity for self-consumption (§27a EEG 2021).

(25) The market value corresponds to the annual average price that serves as a reference for the specific energy source concerned, in this case offshore wind. This is a change compared to the EEG 2017, where it was the monthly average price.

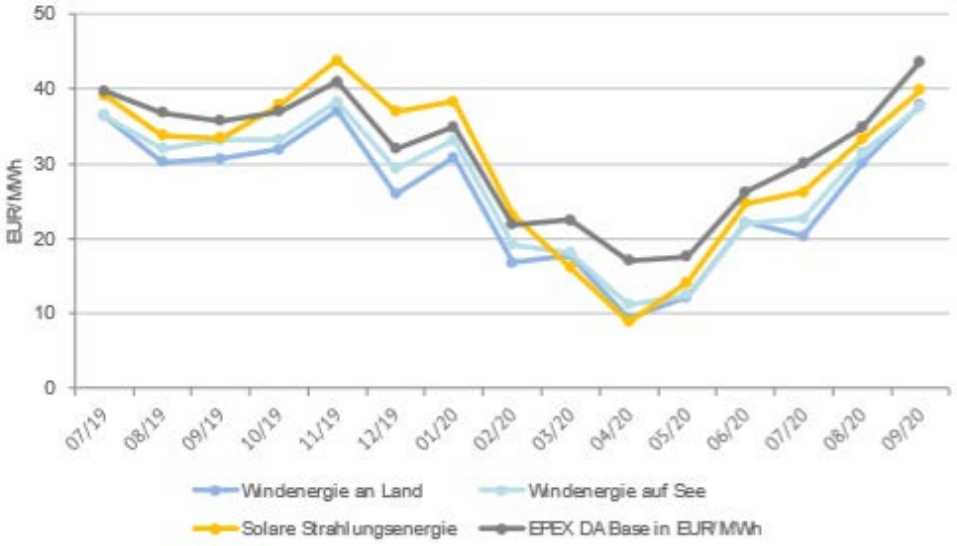
(26) For intermittent sources, such as offshore wind, the actual production from the respective source in each hour is taken into account for the calculation of the annual average. The Transmission System Operators ('TSOs') have to publish on a common website the data used to calculate these averages.

[3] WindSeeG §69(2) describes the administratively set reference value for pilot offshore wind energy installations.

(27) Germany has explained that the duration of the reference period was increased from monthly to annual, in order to increase the incentives for installations to be conceived, to produce electricity and to sell it in a way to maximise their revenues based on market signals over the entire year.

(28) The new system of annual average price is applied to new installations entering into operation or receiving a tender award as of 1 January 2023 (Annex 1 of the EEG 2021).

(29) The below table gives an overview of the monthly base prices and market values for wind and solar between July 2019 and September 2020.



[Quelle: MONITORING DER DIREKTVERMARKTUNG: QUARTALSBERICHT (09/2020); eigene Darstellung Energy Brainpool nach EPEX Spot und netztransparenz.de]

2.4. Aid granted through tenders

(30) Except for pilot offshore wind installations, for which remuneration is administratively set, aid to all offshore wind projects is granted by way of technology-specific tenders, which will be conducted by the Federal Network Agency (the Bundesnetzagentur, 'BNetzA').

(31) Germany argues that technology-specific tenders are justified due to the longer-term potential of an innovative technology, the necessity to diversify the energy mix, the network limitations and grid stability reasons, as well as system integration cost, in line with the decision on the EEG 2017 (SA.45461). Germany added that technology costs for offshore wind installations could be further reduced in the coming years, but that offshore wind installations have particular features (particularly high CAPEX, specific technological challenges and long project timeframes) that increase risk and render them more expensive. This would lead to a situation in which it would be difficult to integrate offshore wind projects in tech-neutral tenders, and it would be unlikely that offshore wind projects would be awarded in such tenders. Moreover, technological neutrality would be difficult to enact in the 'centralised model' for tenders (as explained below).

(32) The offshore wind sites will be examined in advance by the State, and bidders in the tender will compete for the right to build a wind farm at the site that has been examined. This way of organising tenders, referred to as the 'centralised model', was introduced in 2017 and is maintained by the modified WindSeeG. In the 2017 EEG (SA.45461), a distinction was made between the rules for the bidding processes during the transitional period and the rules for the bidding processes under the centralised model. The centralised model applies to projects which are put on stream as of 1 January 2026 and for which the BNetzA will organise yearly tenders as of 1 September 2021. This means that all tenders carried out for the described measure will apply the centralised model. The aim of the centralised model is to ensure better and more cost-effective dovetailing between site planning, regional planning, approval of installations, funding under the Renewable Energy Sources Act and grid connection. So far, no tender has been carried out under the centralised model in Germany.

(33) Germany considers that, despite the increased offshore wind targets in Germany as well as in other Member States and worldwide, tenders will remain competitive. In case there are indications to the opposite, meaning if at least two subsequent tenders for different areas receive either no or only one bid close to the bid cap, Germany will review the tender design.

(34) Tenders are organised annually for a bid deadline of 1 September. The tenders are announced at the latest six months before the respective bid deadline on the BNetzA website with the necessary information for participation. For each site, the BNetzA awards the lowest bid (pay-as-bid).

(35) The modified WindSeeG sets the following bid caps:

- for tenders in 2021, 7.3 cents per kWh,
- for tenders in 2022, 6.4 cents per kWh and
- for tenders from the year 2023 onwards, 6.2 cents per kWh.

(36) This approach differs from the previous version of the WindSeeG, which stipulated that the bid caps for the tenders in the centralised model would correspond to the lowest awarded bids in the second transitional tender. Germany explains that this change is due to the fact that a number of awards in the aforementioned tender were made at 0 cents/kWh, which would set the bid cap for all new tenders to zero. However, the sites to be tendered between 2021 and 2023 differ in terms of location, ground, shattering effects because of conversion, capacity to be installed and power density. All these differences have an impact on the levelised costs of electricity production ('LCOE'). This means that despite the fact that some of the sites to be tendered in the future are attractive and will likely be awarded at 0 cents/kWh, other sites are not equally profitable and there is a risk that no bids would be submitted for individual tenders without a positive premium being possible. This would have a negative impact on the achievement of the offshore wind expansion targets.

(37) To arrive at the above bid caps, Germany has used a formula to calculate the LCOE and derive the necessary remuneration level from this.

(38) The calculation of the real LCOE was based on assumptions on investment, operating and decommissioning costs (capital expenditure (CAPEX) and operating expenditure (OPEX)) of the wind farms and the assumptions on the average wind yield according to the following formula, which corresponds to the

formula used by Germany in the past and approved in decisions SA.38632 and SA.45461:

$$LCOE = \frac{I_0 + \sum_{t=1}^{n} \frac{A_t}{(1+i)^t}}{\sum_{t=1}^{n} \frac{M_{el}}{(1+i)^t}}$$

LCOE	LCOE in Euro2020/MWh
I0	Capital expenditure in Euro
At	Annual operating cost (OPEX) in Euro in year t
Mel	Produced electricity in the respective year in MWh
i	Real imputed interest rate in % (here WACC)
n	Economic lifetime (25 years)
t	Year (1, 2, …n)

(39) The following assumptions for an advantageous and less advantageous case per site were made:

Case	CAPEX [EUR/kW]	OPEX [EUR/kW/a]	Decommissioning [EUR/kW]	Yield [kWh/kW/a]	Electricity price last 5 years [EUR/MWh]
N-3.7 min	2384	74	85	3700	80
N-3.7 max	2384	74	85	3700	60
N-3.8, O-1.3 min	2384	74	85	3900	80
N-3.8, O-1.3 max	2384	74	85	3800	60
N-3.5, N-3.6, N-7.2 min	2034	72	81	3900	80
N-3.5, N-3.6, N-7.2 max	2237	74	85	3800	60
N-9.1 min	2034	72	81	4000	80
N-9.1 max	2034	72	85	4000	60

(40) Additionally, Germany assumed that the achievable electricity yield in the last five years of operation would fall from 100 % of the assumed value to 83.7 % in the last year of operation. It was also assumed that annual operating costs would increase from 100 % of the assumed value in the same period to 128.4 % in the last year of operation. The assumed WACC amounts to 5 % (20 % equity, interest rate for equity 13 %, interest rate for debt 3 %).

(41) The following table provides the results of the calculation in terms of LCOE (in real terms) and the associated minimum required remuneration levels (in nominal terms, fixed over the support duration) per site to be tendered out for offshore wind projects:

Site	**LCOE min-max [ct/kWh]**	**Minimum required remuneration min-max [ct/kWh]**
N-3.7 (2021)	6.7-6.7	7.7-7.9
N-3.8. O-1.3 (2021)	6.4-6.6	7.3-7.7
N-7.2 (2022)	5.7-6.3	6.4-7.3
N-3.5, N-3.6 (2023)	5.7-6.3	6.4-7.3
N-9.1 (2024)	5.5-5.5	6.2-6.4

(42) Germany confirmed that it is foreseen to tender the specific sites in the years mentioned, unless the pre-investigation or grid connection cannot be concluded on time.

(43) The amended version of the WindSeeG provides for the drawing of lots if several zero-cent bids are submitted. This procedure will be reviewed in 2022. Germany submits that, in view of the above LCOE calculations, they do not expect zero-cent bids before that date. The German authorities have also committed to act immediately if there are multiple zero-cent bids in order to avoid multiple zero-cent bids in the following tenders; among the options contemplated will be a dynamic procedure and Contracts for Difference[4].

(44) Once a bid has been accepted, the project must be implemented within a period of 6 months after the binding finalisation date for the offshore grid connection. The project owner may apply for an extension of the implementation period under specific circumstances. However, the extension must not exceed 18 months. If the wind farm is not developed in time, the promoter loses the award or pays a penalty ensured by the guarantee payment, which amounts to 200 EUR/kW.

(45) In continuity with a similar provision under the EEG 2017, the EEG 2021 provides for the adoption of a regulation opening up to 5 % of annual auctioned capacity to bidders from other EU Member States with which Germany has concluded a cooperation agreement under Article 5 of the Renewable Energy Directive 2018/2001/EU[5]. The tenders can be jointly organised or held by each partner State separately. There has to be physical import of the electricity concerned or an equivalent effect. In contrast to other tendered technologies under the EEG 2021, the principle of reciprocity does not apply to offshore wind. Moreover, the limitation of annual auctioned capacity to bidders from other EU Member States to 5% does not apply to offshore wind energy installations.

(46) Based on the EEG 2014, the implementing regulation was adopted on 1 June 2016 (Cross-Border Renewable Energy Ordinance).

(47) Following a pilot cross-border tender with Denmark for PV, Germany has discussed further cooperation with a number of other Member States, such as France, Luxemburg and Poland, but this has not lead to new cooperation agreements so far. Germany continues to work towards further cross-border opening of support for RES, including at the European level. Germany also confirmed that it is particularly interested in cross-border cooperation for offshore wind energy, as illustrated by Germany's focus on such cooperation during its presidency of the North Seas Energy Cooperation (NSEC) in 2020.

2.5. Cumulation

(48) Cumulation between aid under the modified WindSeeG and investment aid is possible. However, the cumulation of the EEG aid, investment aid and revenues

[4] A two-sided Contract for Difference foresees a strike price (in this case in ct/kWh). For hours, when the market price is below this strike price, the difference is paid to the beneficiary as support payment. For hours, when the market price exceeds this strike price, the beneficiary reimburses the difference.

[5] DIRECTIVE (EU) 2018/2001 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2018 on the promotion of the use of energy from renewable sources (recast).

from the sale of the electricity may not exceed the production costs of the energy concerned (§80a EEG 2021, unchanged from EEG 2017).

(49) If cumulation occurs between administratively set premiums and investment aid, Germany has indicated that it would first examine what the maximum permissible aid intensity is for investment aid. Secondly, it would identify the (potential) subsidy gap (‘*Förderlücke*’), i.e. the difference between EEG support and electricity production costs. The potential subsidy gap will as a rule be based on the LCOE of standardised installations and on the individual LCOE when the installation is too different from the reference model. The potential subsidy gap can be calculated as a value per kWh or as a total amount over the entire lifetime period. Thirdly, the possible investment aid would then be paid out only to the extent that it does not exceed either the potential subsidy gap or the allowed aid intensities for investment aid.

(50) Germany has further indicated that when the beneficiary has been selected in a tender, cumulation with investment aid is in principle not possible given that the aid obtained in the tender is covering the entire LCOE (including a reasonable return). Germany has however submitted that an investment aid would be justified in addition to the aid under the EEG (even though obtained after a tender) when this investment aid is to cover investment costs unrelated to electricity production and which are separate from the costs that were part of the scope of the tender. Any investment aid that would distort the tender results will however be excluded.

2.6. Monitoring of Costs

(51) For offshore wind installations exempt from taking part in tenders, 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.

(52) 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 paragraph 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).

2.7. Duration of Support

(53) Germany has notified the scheme for the period 1 January 2021 until 31 December 2026 (taking into account the suspensive clause under the EEG 2021 as mentioned in recitals (10) and (11)).

2.8. Budget

(54) Germany provided information that support payments to offshore wind installations in operation amounted to EUR 3.7 billion in 2019. Germany estimates that such payments will amount to EUR 4.6 billion in 2021 and decrease over the coming years to EUR 3.4 billion in 2025, as Germany expects market prices to increase and aid amounts under the sliding premium are inversely related to the market price.

(55) As regards the budget (i.e. discounted aid payments to offshore wind installations awarded in tenders or entering into operation (pilot projects) between 2021 and 2026), Germany submits that this cannot be reliably estimated due to the uncertainty of the award level combined with the uncertainty of the future market price. It points to the fact that the capacity to be awarded and the bid caps are known.

(56) For relevant purposes, the Commission therefore considers the volume in the form of capacity to be awarded (1 GW per year from 2021 to 2023, 3 GW in 2024, 4 GW in 2025 and 2 GW in 2026) augmented by the maximum 50 MW per year awarded pilot offshore wind installations as a proxy for the budget.

2.9. Financing

(57) The EEG financing has been described in detail in the decisions in cases SA.38632 (recitals 11 to 73) and SA.45461 (recitals 139 to 143). In summary:

(58) The financing of the remuneration for RES electricity is based on the polluter-pays principle ('*Verursacherprinzip*', §2(4) EEG 2021). The financial burden will be shared among all electricity consumers on the basis of their electricity consumption through the EEG surcharge (see recital 61 below). In order not to endanger the international competitiveness of electricity-intensive industries, the EEG 2021 foresees reductions from the EEG surcharge for energy-intensive users.

(59) Network operators (in most cases the Distribution System Operator, 'DSO') are obliged to pay the market premium to producers of EEG electricity established within their network area or to purchase the EEG electricity at feed-in tariffs.

(60) DSOs have to immediately transfer the EEG electricity to their respective TSO. TSOs are under the obligation to compensate the DSOs in their network area for payments for feed-in tariffs, market premiums and flexibility premiums that DSOs have paid to producers of EEG electricity.

(61) The EEG 2021 establishes further an equalisation mechanism whereby the financial burden is spread between TSOs so that ultimately every TSO covers the costs of a quantity of electricity that corresponds to the average share of EEG electricity compared to the total electricity delivered to the final consumers in each area served by the individual TSO in the previous calendar year.

(62) TSOs are obliged to sell the EEG electricity for which they paid feed-in tariffs on the spot market. They can do so alone or together.

(63) If the price obtained on the spot market is not sufficient to cover the financial burden, TSOs have the right and obligation to require from electricity suppliers to pay a share of the financial burden proportionate to the respective quantity of electricity delivered by the electricity suppliers to their final consumers (§60 EEG 2021). The share must be determined in such a way that each electricity supplier bears the same costs for each kWh of electricity delivered by it to a final consumer. The EEG 2021 explicitly designates that surcharge as '*EEG-Umlage*' ('EEG surcharge') (see §60 (1) EEG 2021).

(64) The EEG 2021 also sets the methodology to determine the level of the surcharge and sets the level of the surcharge directly for certain categories of consumers

(see §64 EEG 2021 for electro-intensive undertakings for instance and §61b to §61g EEG 2021 for self-suppliers and consumers not supplied by an electricity supplier). The law further determines to what purposes the surcharge can be used and how any surpluses or deficits are corrected, as described in the *Verordnung zur Durchführung des Erneuerbare-Energien-Gesetzes und des Windenergie-auf-See-Gesetzes* (Erneuerbare-Energien-Verordnung, hereafter 'EEV'). Indeed, according to §3 EEV, differences between forecasted revenues and expenses and actual revenues and expenses are taken into account for the determination of the surcharge for the next year X+1. As a result, deficits (including the interest rate) are compensated in year X+1 and surpluses are used to reduce the surcharge of the coming year. They may not be retained by the TSOs and therefore do not influence their financial means. The methodologies and elements that TSOs have to take into account when determining the EEG-surcharge are further detailed in the Verordnung zur Ausführung der Erneuerbare-Energien-Verordnung (EEAV).

(65) As a result of these implementing provisions, the TSOs jointly determine each year the EEG surcharge for year X+1 on the basis of the forecasted financial needs for the financial burden, the forecasted revenues from the sale of the EEG electricity on the spot market and the forecasted consumption of electricity. In addition, a series of revenues and costs linked to the management of the EEG surcharge have to be taken into account for its calculation. Finally, they also take into account payments from the Federal budget to the EEG account.

(66) TSOs also have the right and the obligation to require the payment of the EEG surcharge from producers of electricity using the electricity produced by installations operated by them for their own consumption ('auto-supply': '*Eigenversorgung*') as well as from other end consumers that are not supplied by an electricity supplier (§61 EEG 2021). The rules of the EEG 2021 applicable to electricity suppliers are applicable *mutatis mutandis* to auto-suppliers.

(67) The EEG 2021 does not explicitly impose on electricity suppliers the obligation to pass on the EEG surcharge to final customers. However, when the final consumer is an electro-intensive company eligible for reduced EEG surcharges under the BesAR, the TSO has the right and obligation to request the payment of the EEG surcharge directly from this consumer rather than through the electricity supplier (§60a EEG 2021).

(68) EEG electricity operators, DSOs and TSOs, electricity suppliers, auto-suppliers and final consumers who are supplied with electricity from other parties than electricity suppliers are obliged to make available to each other the data required for the correct implementation of the EEG-system (§70 EEG 2021). The EEG 2021 establishes exactly what type of information must be transmitted systematically to other operators and at what time of the year (§§71-74 EEG 2021).

(69) TSOs have to keep all transactions linked to the EEG separate from the rest of their activities. They are obliged to keep separate bookkeeping for all financial flows related to the EEG, and the expenses and revenues linked to the EEG must be made on a separate account (§5 EEAV).

(70) The BNetzA has been entrusted with various tasks. Network operators have to transmit to the BNetzA the details which they receive from the installation operators (installation location, production capacity, etc.), the network level at

which installations are connected, aggregated and individual tariffs paid to installations, the final invoices sent to electricity suppliers and the data required to verify the accuracy of the figures thus provided. Electricity suppliers are obliged to communicate to the BNetzA the amount of electricity supplied to their customers and their final accounts. The BNetzA also organises and carries out the tenders. The BNetzA itself is subject to certain reporting obligations and has to communicate certain data to the Ministry for Economy and Energy for statistical and evaluation purposes.

(71) Those benefiting from a capped EEG surcharge must, upon request, provide the Federal Ministry for Economic Affairs and Energy and the BAFA with information about all the facts which are necessary in order to evaluate §§63-68 EEG 2021.

(72) Moreover, a possibility has been created to use financial means from the Federal budget, including from income derived from the national CO_2 pricing. This measure has been put into effect by defining a new source of revenue for the EEG-account, which are direct payments from the Federal budget to the EEG account in order to reduce the EEG surcharge (§ 3(3)3a EEV).

(73) For the years 2021 and 2022, the German government has decided specifically to limit the EEG surcharge in 2021 to 6.5 cents/kWh and to 6.0 cents/kWh in 2022. This is confirmed in a binding manner, such that the TSOs take it into account, when determining the EEG surcharge on 15 October. Germany has therefore already decided to pay EUR 10.8 billion from the Federal budget into the EEG account for 2021.

(74) It is also foreseen to lower the EEG surcharge in the following years using financial means from the Federal budget, which is usually passed close to the end of the year. It is at the discretion of the German Parliament to authorize such funds in future budget acts. According to the EEV, the TSOs take into account the foreseen payments into the EEG account from the government draft of the budget act, which is available before 15 October, date when the TSOs set the EEG surcharge for the next year.

(75) The payment schedule has been agreed in a contract between Germany and the four TSOs based on § 3(9) EEV.[6]

2.10. Transparency

(76) Germany has committed to fulfil all transparency requirements set out in section 3.2.7 of the EEAG (publication on a comprehensive website of the text of the approved scheme, the identity of the granting authority and – except if the individual aid remains below EUR 500 000 – the identity of the beneficiaries, the form and amount of the aid, the date of granting, the type of undertaking, the region in which the beneficiaries are located and the principal economic sector in which beneficiaries have their activities).

[6] https://www.bmwi.de/Redaktion/DE/Downloads/Energie/eeg-umlage-vertrag-uebertragungsnetzbetreiber.pdf?__blob=publicationFile&v=6

2.11. Evaluation

(77) Germany notified the offshore wind scheme for a period of six years (until 31 December 2026), in line with the notification of the modified and prolonged EEG 2021 aid scheme. The ex post evaluation will take place for both the modified WindSeeG and the EEG 2021 at the same time. Therefore, Germany submitted an overall evaluation plan for the EEG 2021 scheme, including and taking into account the measures for offshore wind installations.

(78) Germany has committed to submit the final evaluation report to the Commission by 31 March 2026. In order to keep the Commission updated about the progress of the evaluation in terms of data collection and methodologies (including potential difficulties encountered), an intermediate evaluation report is due in the first half of 2024. In order to approve the EEG 2021 and the modified WindSeeG, the Commission notes that the evaluation plan, as well as report, for the EEG 2021 should be updated and improved as compared to the EEG 2017.

(79) The EEG 2017, the predecessor scheme of the EEG 2021, has been the subject of ex post evaluation in the past. In 2019, Germany published an ex post evaluation report of the EEG 2017 (and the previous WindSeeG)[7]. Under the EEG 2017, several tenders for offshore wind energy, onshore wind energy, biomass plants and solar photovoltaic (PV) installations were managed by the BNetzA. The final report (the '2019 evaluation report') evaluates the tender rounds, which were completed by 1 September 2019.

(80) The evaluation plan of the EEG 2017 included around 70 evaluation questions aiming at assessing different aspects of the aid scheme, including direct and indirect effects, proportionality and appropriateness of the instrument. A large part of the evaluation questions were foreseen to be answered via quantitative evidence, while for others qualitative evidence was foreseen.

(81) Since the present decision merely concerns aid to offshore wind installation, only this part of the evaluation will be discussed in the paragraphs below.

(82) The 2019 evaluation report found that tenders led to a more effective way of granting aid in the case of offshore wind installations. It was nevertheless advised to follow-up the presence of zero-bids and the adjustments of the bid caps in the 'centralised model'.

(83) Regarding the data and methodology used in the 2019 evaluation report, the Commission notes that the following two important points were lacking: (i) anonymised bidding data for offshore wind energy were not available, and (ii) the evaluation failed to identify the causal impact of the aid (in general, and therefore also for the offshore wind part in particular).Germany has committed to address the two above-mentioned shortcomings of the previous ex post evaluation in the notified evaluation plan on the EEG 2021 (including the modified WindSeeG).

(84) The evaluation plan notified by Germany in the context of the EEG 2021 (including the modified WindSeeG) includes around 25 evaluation questions in

[7] Navigant et al. (2019), *„Externer Evaluierungsbericht der Ausschreibungen für erneuerbare Energien - Ausschreibungen für Erneuerbare Energien nach dem Erneuerbare-Energien-Gesetz (EEG) und dem Windenergie-auf-See-Gesetz (WindSeeG)*".

order to assess the scheme's outputs and its direct effects on the beneficiaries (developments in the production of energy from offshore wind installations, installed capacity and investment in offshore wind energy, compared to a counterfactual of no aid), its indirect effects (in particular, its contribution to the reduction of CO2 emissions and its impact on market concentration), as well as the proportionality of the aid and the appropriateness of the chosen aid instrument. In addition to the general evaluation questions, sub-sets of questions will address technology-specific elements to offshore wind.

(85) The evaluation will provide general information, in particular, on whether the scheme achieves its objectives, on the number and type of beneficiaries, on the tenders to be organised, and on the participation of operators located in other EU Member States under the opening of the tenders.

(86) The evaluation will also provide insights into the impact of certain specific features of the scheme on the tender results. In particular, it will examine for instance whether zero-cents bids were submitted in the centralized bidding model, and how the realisation of the awarded projects from the transitional tenders for 2017 and 2018 has developed.

(87) Evaluation questions related to the general outputs of the scheme will be primarily answered by providing quantitative evidence, while other questions may require qualitative assessment. To evaluate the direct effects of the scheme, Germany has committed to further extending the methodology used so far in the evaluation reports by employing, to the extent possible given data availability, counterfactual impact evaluation methods in line with the Commission Staff Working Document on Common methodology for State aid evaluation[8].

(88) In order to perform the evaluation, Germany has confirmed that the required data can be collected and will be made available to the evaluators, as there will be no confidentiality issues. General energy statistics will also be used, as well as some targeted qualitative information, ad hoc studies and surveys. Moreover and in particular in relation to the tender and bid information, the BNetzA will provide the independent evaluator with the necessary data for conducting the evaluation in full respect of data protection rules and while ensuring protection of business secrets and sensitive information. In this way, the problem encountered during the previous evaluation, whereby not sufficient data was available on offshore wind projects in order to answer all evaluation questions, will be avoided. Germany also committed to make use of data from the EEG 2017 projects in order to have sufficient data points to carry out the quantitative analysis.

(89) The evaluation will be conducted by an external independent evaluator to be selected through an open tender procedure. Germany has committed to duly consider the relevant experience of the tender applicants notably in the field of quantitative evaluation methods.

(90) The evaluation report will be published on the website of the German Ministry for Economic Affairs and Energy. Germany will take the evaluation results duly into account for future policy-making.

---

[8] Commission Staff Working Document on Common methodology for State aid evaluation, Brussels, 28.5.2014, SWD(2014) 179 final.

2.12. Other Commitments

(91) The German authorities have also committed to suspend the payment of the notified aid, if the beneficiary still has at its disposal an earlier unlawful aid that was declared incompatible by a Commission Decision (either concerning an individual aid or an aid scheme), until that beneficiary has reimbursed or paid into a blocked account the total amount of unlawful and incompatible aid and the corresponding recovery interest.

(92) The German authorities have also committed not to award aid to firms in difficulty, as defined by the applicable Guidelines on State aid for rescuing and restructuring firms in difficulty.

3. ASSESSMENT

3.1. Presence of State Aid

(93) Germany has notified the measure as State aid. Germany submits in particular that the measure is financed from State resources. In Germany's view, this qualification is due to the payment of financial means from the Federal budget into the EEG account (see recital (70)).

(94) 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.

(95) To determine whether a measure constitutes State aid within the meaning of Article 107(1) of the Treaty, the measure must:

- confer an advantage on certain undertakings or certain sectors (selective advantage),
- be imputable to the State and involve State resources,
- distort or threaten to distort competition, and
- be liable to affect trade between Member States

3.1.1. Existence of a selective advantage

(96) Producers of renewable electricity from offshore wind are advantaged by the measure because, through the market premiums, they obtain more than what they would obtain on the market. Indeed, these payments guarantee that offshore wind installations will obtain a price for their electricity that is higher than the market price. They are thus advantaged by the EEG system. Furthermore, the measure is selective, because it favours only producers of offshore wind.

3.1.2. Imputability and existence of State resources

(97) The financing of support for RES electricity including offshore wind is imputable to the State, as it is established by law (EEG 2021 and WindSeeG) and implementing decrees (see section 2.1 above).

(98) According to settled case law, 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.

(99) In particular, the Commission notes that the State established by law a surcharge on electricity consumption (see §60 to §61 EEG 2021 and see Section 2.9 of this Decision). On the one hand, the EEG 2021 provides that TSOs are obliged to collect this surcharge from electricity suppliers and directly from certain categories of end consumers (see recital (67) above). On the other hand, operators on which the surcharge is levied have to pay it (see recitals (68) and (64) above). In line with the EEG 2012 judgment[9], the EEG surcharge therefore qualifies as a levy imposed by law.

(100) As explained in section 2.9, the EEG 2021 and its implementing regulations (EEV, EEAV) also set the methodology to determine the level of the surcharge and sets the level of the surcharge directly for certain categories of consumers. The law further determines to what purposes the surcharge can be used and how any surpluses or deficits are corrected (see recital (64)). The Commission further notes that the TSOs have been entrusted with the calculation of the surcharge based on the methodology set out in the EEG 2021 and in its implementing regulations and manage the financial flows of the surcharge. The way that those entities manage the surcharge is monitored by the State (see recitals (71) to (72) of this Decision). Besides, an agency of the State, the BNetzA, is empowered to monitor the entire system (recital (67)).

(101) The State has, within the framework of the EEG 2017 (and maintained in the EEG 2021), created a system where the costs incurred by the network operators to pay the feed-in tariffs and premiums to owners of renewable electricity installations eligible under the EEG Act are fully compensated by the levy imposed obligatority by law on suppliers and certain categories of consumers. The support is financed from State resources given that it is financed from the proceeds of a levy imposed by the State and which are managed and apportioned in accordance with the provisions of the legislation. Indeed, if national law requires a charge to be passed on to a given group of persons, that charge is compulsory and thus the funds raised are State resources. This differentiates the EEG 2017 from the EEG 2012, where the pass-on of the cost by system operators was not legally mandatory, even though in practice all operators did pass on the full cost[10].

(102) In addition, as highlighted above, the compulsory charge originates from the State, in the sense that the State did not limit itself to rendering compulsory for a group of private persons a contribution that was introduced and administered by an association of such private person as in the Pearle and Doux Élevage case-law[11]. Moreover, the support granted to renewable electricity does not constitute prices or fees for goods or services. Indeed, the support is paid by network operators to pay in particular premiums to operators of renewable electricity

[9] Judgment of 28 March 2019, C-405/16 P, *Germany v Commission*, EU:C:2019:268, paragraphs 57-60 and 70.

[10] Judgment of 28 March 2019, C-405/16 P, *Germany v Commission*, EU:C:2019:268, paragraph 71.

[11] Judgment of 15 July 2004, *Pearle and Others*, C-345/02, EU:C:2004:448; Judgment of 30 May 2013, *Doux Élevage and Coopérative agricole UKL-ARREE*, C-677/11, EU:C:2013:348.

installations, although the electricity is not sold to the network operators but to third parties (see recitals (18) and (19)).

(103) In addition to the above, which would already suffice to qualify the support to offshore wind electricity covered by this decision as financed from State resources, the German government has introduced a mechanism, by which direct payments are enabled and made from the State budget to the EEG-account in order to reduce the level of the levy (see recitals (69) to (71)). This further corroborates the finding that the measure involves State resources.

3.1.3. Impact on trade between Member States and on competition

(104) The beneficiaries of the scheme are offshore wind installations. The electricity market is liberalised and electricity is traded between Member States. The renewable 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. The measure is therefore liable to distort competition and affect trade between Member States.

3.1.4. Conclusion on the existence of aid

(105) The Commission concludes that the support for offshore wind installations described in this decision entails aid. As mentioned above (recital (90)), the German authorities do not contest this conclusion.

3.2. Lawfulness of the Aid

(106) The scheme was notified to the Commission. It has not been implemented before. Germany has complied with its obligations under Article 108 TFEU.

3.3. Compatibility of the Aid

(107) The Commission has assessed the notified aid scheme on the basis of Article 107(3)(c) TFEU and the EEAG. In particular, it has assessed the support to the production of offshore wind electricity under Section 3.3 of the EEAG (Aid to energy from renewable sources). According to point 19(5) EEAG, wind is a renewable energy source.

(108) 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. Contribution to the development of an economic activity

(109) Pursuant to Article 107(3)(c) TFEU, compatible aid must contribute to the development of an economic activity[12].

(110) The scheme supports the generation of electricity from new offshore wind installations connected to the grid. Germany claims that the sites to be tendered in the period 2021-2026 vary widely in terms of location, ground, and other

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

characteristics. Therefore, Germany expects varying interest in sites and varying level of financial support necessary to render their development attractive. In so doing, the aid scheme contributes to the development of an economic activity.

(111) In view of the above, the Commission considers that the notified scheme facilitates the development of an economic activity, as required by Article 107(3)(c) TFEU.

3.3.2. Facilitation of an economic activity and incentive effect

(112) 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 aid[13].

(113) In order to demonstrate the presence of an incentive effect, the need for an application form in point 51 of the EEAG does not apply if the aid will be awarded on the basis of a competitive bidding process (point 52 of the EEAG). As mentioned in section 2.4, except for pilot installations, aid to all offshore wind projects is granted by way of tenders. Therefore, Germany is not required to fulfil the requirements of point 51 of the EEAG.

(114) In addition, the targeted tendered and in particular pilot offshore wind projects, which due to their novelty and higher risk involved usually involve higher LCOE than traditional projects, would not be executed in the absence of the aid, given the gap between the cost to produce the electricity based on wind and the market price for electricity which is generally lower (see section 3.3.4.1).

(115) The Commission therefore concludes that the aid has an incentive effect and facilitates the development of electricity generation from offshore wind.

3.3.3. Compliance with other provisions of EU law

(116) State aid which contravenes provisions or general principles of EU law cannot be declared compatible[14].

(117) 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. In the field of energy, any levy that has the aim of financing a State aid measure needs to comply in particular with Articles 30 and 110 TFEU.

(118) As the support for electricity generated by offshore wind installations is financed by a charge levied on all electricity consumption, the Commission has examined its compliance with Articles 30 and 110 of the Treaty.

(119) According to the case-law, a charge which is imposed on domestic and imported products according to the same criteria may nevertheless be prohibited by the Treaty if the revenue from such a charge is intended to support activities which specifically benefit the taxed domestic products. If the advantages which those

[13] See in that sense points 49 and 144 of the EEAG, as well as Judgment of 22 September 2020, *Austria v Commission*, C-594/18 P, EU:C:2020:742.

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

products enjoy wholly offset the burden imposed on them, the effects of that charge are apparent only with regard to imported products and that charge constitutes a charge having equivalent effect to custom duties, contrary to Article 30 of the Treaty. If, on the other hand, those advantages only partly offset the burden borne by domestic products, the charge in question constitutes discriminatory taxation for the purposes of Article 110 of the Treaty and will be contrary to that provision as regards the proportion used to offset the burden borne by the domestic products[15].

(120) When domestic electricity production is supported by aid that is financed through a charge on all electricity consumption (including consumption of imported electricity), then the method of financing – which imposes a burden on imported electricity not benefitting from this financing – risks having a discriminatory effect on imported electricity and thereby violating Article 30 or 110 of the Treaty[16].

(121) The scheme is financed by a surcharge on electricity consumption. In this respect, the Commission notes that:

(a) the notified aid scheme is financed through a charge imposed on electricity consumed in Germany, irrespective of whether domestically produced or imported;

(b) the surcharge is levied by network operators and calculated based on the amount of electricity consumed (and thereby imposed on the product itself).

(122) Where aid for domestic producers is financed through a charge that is levied on imported and domestic products alike, the charge may have the effect of further exacerbating the distortion on the product market caused by the aid as such. For that matter, it is not necessary that the charge exclusively finances the aid, since the additional distortive effect can already be present if a sizable share of the revenue from the charge is used to finance the aid.

(123) In order to alleviate any concern regarding compliance with Articles 30 and 110 TFEU, Germany has created enabling rules such that producers located in other Member States could be allowed to bid for capacity allocated within the tenders. The participation of producers from other Member States in the support scheme is subject to a cooperation agreement with the relevant Member State. The Commission therefore concludes that enabling an opening of the scheme in this manner reduces the risk of possible discrimination against producers of renewable electricity in other Member States.

(124) In light of the above, the Commission considers that the notified aid measure does not infringe relevant EU law.

---

[15] Judgment of 14 April 2005, Joined Cases C-128/03 and C-129/03, *AEM* and *AEM Torino*, EU:C:2005:224, paragraphs 44 to 47; Judgment of 17 July 2008, C-206/06, *Essent Netwerk Noord and Others*, EU:C:2008:413, paragraph 42.

[16] Judgment of 25 June 1970, 47/69, *France v Commission*, EU:C:1970:60, paragraph 20. See also Case SA.38632 (2014/N) Germany – EEG 2014 – Reform of the Renewable Energy Law.

3.3.4. The aid is designed in order to limit its effects on competition and trade

3.3.4.1. Need for State intervention

(125) 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 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.

(126) According to the LCOE calculations provided by Germany (see recital (41)), the cost of electricity generation from offshore wind varies from 55 EUR/MWh to 67 EUR/MWh, which is higher than the market price for electricity observed in recent years (see recital (29)). The COVID-19 pandemic had a significant impact on electricity prices in Germany (and the whole EU) in 2020. The spot market price decreased from 40 EUR/MWh at the end of 2019 to less than 10 EUR/MWh in April 2020. Since September 2020 prices are again at 2019 levels (around 40 EUR/MWh), and Germany expects them to remain relatively low in the next years, until the economy fully recovers from the pandemic. For the middle-long term electricity prices may increase again but for the duration of the scheme (until the end of 2026), revenues from offshore wind energy generation are expected to remain below the market price of electricity.

(127) Against this background, it is unlikely that, absent the aid, the development of the economic activity of generation of electricity from offshore wind in Germany would occur, or would occur to the same extent. The Commission therefore considers that the notified scheme is necessary.

3.3.4.2. Appropriateness of the aid

(128) 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.

(129) 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.

(130) As mentioned in recital (12), the modified WindSeeG aims at significantly increasing the installed capacity of offshore wind energy installations (to 20 GW by 2030 and 40 GW by 2040) in order to further reduce CO2 emissions in the future[17].

[17] The WindSeeG as amended says in § 1(1): "*Zweck dieses Gesetzes ist es, insbesondere im Interesse des Klima- und Umweltschutzes die Nutzung der Windenergie auf See insbesondere unter Berücksichtigung des Naturschutzes, der Schifffahrt sowie der Offshore-Anbindungsleitungen auszubauen.*"

(131) The notified measure is therefore deemed appropriate provided that the other compatibility conditions are met. As explained in sections 3.3.1-3.3.3, 3.3.4.1 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.

3.3.4.3. Proportionality of the aid

(132) 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.

(133) The offshore wind scheme supports electricity production from renewable sources, for which the EEAG include specific rules, in particular in points 124, 126 and 129.

Aid granted as premium and market integration

(134) The scheme complies with point 124 of the EEAG. As explained in section 2.3.1, the aid to producers of offshore wind electricity is provided in the form of a variable premium, taking into account revenues from the sale of electricity. Installations also have an obligation to sell their produced electricity on the market. Germany has confirmed that beneficiaries will have standard balancing responsibilities (see recital (22)).

(135) In addition, no subsidy will be paid for hours in which the spot market price is negative, whenever negative prices persist for at least 4 consecutive hours (§51 EEG 2021). This applies for all offshore wind plants, except for offshore wind pilot installations. The Commission welcomes that Germany reduced the number of consecutive hours of negative prices after which no subsidy is paid, from six hours (EEG 2017) to four hours. Nevertheless, the number of hours in which prices are negative have increased in Germany in past years, and Germany has committed to further analyse this issue as one of the aspects of the evaluation exercise. Finally, Germany will add the number of non-remunerated negative price hours at the end of the support period for contracts awarded through tenders. In the view of the Commission, this latter mechanism does not change producers' incentives not to produce in hours of negative prices, as the payment is dissociated from the hours of negative prices.

(136) As a consequence of the above, the Commission can conclude that no incentives are provided to produce electricity at times of negative prices (when demand is lower than supply).

Competitive bidding process

(137) 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.

(138) The WindSeeG foresees that offshore wind installations are granted aid based on a competitive bidding process. The tenders will be conducted by the BNetzA. Only pilot projects, for which remuneration is administratively set, are exempted from the obligation to participate in competitive tenders.

(139) As offshore wind installations will be granted aid based on a bidding process, the Commission has verified whether it would qualify as transparent and non-discriminatory competitive bidding process. Point 19(43) of the EEAG defines a competitive bidding process as '*a non-discriminatory process that provides for the participation of a sufficient number of undertakings and where the aid is granted on the basis of either the initial bid submitted by the bidder or a clearing price. In addition, the budget or volume related to the bidding process is a binding constraint leading to the situation where not all bidders can receive aid*'.

(140) The rules for the competitive bidding process in the WindSeeG are transparent and published in advance (see recital (34)) and hence publicly available to any interested bidder.

(141) In contrast to the previous offshore wind aid scheme, tenders will only be organised under the centralised model, introduced in 2017 (see recital (32)). Under this model the offshore wind sites will be examined in advance by the State. According to Germany, this system would be more efficient and ensure that there is sufficient competition among the bidders, since bidders in the tender will compete for the right to build a wind farm at the site that has been examined. The Commission finds that the centralised model can be in line with the definition of competitive bidding process of point 19(43) EEAG, as long as the other conditions of the definition are fulfilled.

(142) The level of subsidy paid to the beneficiaries of the aid is established via a bidding process whereby successful participants will receive the level of support (premium on top of the electricity market price) for which they bid (pay-as-bid). For each site, the BNetzA awards the lowest bid. In addition, to keep the aid budget limited, maximum bid prices (bid caps) are established, in line with the minimum remuneration thresholds, which are in turn based on the LCOE calculations (see section 2.4 of this Decision)).

(143) According to paragraph 126 of the EEAG, aid should in principle be granted through a competitive bidding process open to all generators producing electricity from renewable sources. However, the bidding process can be limited to specific technologies where a process open to all generators would lead to suboptimal results which cannot be addressed in the process design in view of (a) the longer term potential of a given new and innovative technology, (b) the need to achieve diversification, (c) network constraints and grid stability, (d) system (integration) costs, or (e) the need to avoid distortions on the raw material markets from biomass support.

(144) The aid scheme organises tenders separately for offshore wind in the WindSeeG, independently from tenders for other renewable sources. Germany has justified the separate tenders for offshore wind on the basis of the longer term potential of offshore wind, the need to achieve diversification in its energy mix, the need to manage network extensions, as well as system integration costs, and the advantages of limiting tenders to selected and pre-examined offshore sites (see also section 2.4)[18]. Germany explains that technology costs for offshore wind installations could be further reduced in the coming years, but that offshore wind installations have particular features (particularly high CAPEX, specific

[18] In line with the reasoning in the EEG 2017 decision.

technological challenges and long project timeframes) that increase risk and render them more expensive. This would lead to a situation in which it would be difficult to integrate offshore wind projects in tech-neutral tenders, and it would be unlikely that offshore wind projects would be awarded in such tenders. Moreover, technological neutrality would be difficult to enact in the centralized model.

(145) The Commission agrees with the justifications provided by Germany to have separate tenders for offshore wind. These are detailed in recital (31) and specifically relate to longer-term potential of an innovative technology, the necessity to diversify the energy mix, and network limitations, as well as the context of the 'centralised model' for the granting of aid to offshore wind installations.

(146) Germany considers that, despite the increased offshore wind targets and the lack of tech-neutral tenders, the bidding process will be competitive. Germany considers the centralised model to be more attractive for potential bidders, since only successful bidders will pay certain costs. In general, Germany expects that it will remain an attractive market for investors through 2030, due to Germany's significant installed capacity and tender volumes so far, its established regulatory framework, and its targets for 2030 and 2040, which offer planning security for bidders.

(147) Moreover, in order to ensure that the aid is proportionate, Germany commits to monitor tender participation closely and to review the tender design if at least two subsequent tenders for different sites receive either no or only one bid close to the bid cap.

(148) If offshore wind sites are very attractive and tenders very competitive, a situation can occur, where several bidders offer to develop the project without any direct support payments (so-called "zero-cent bids"). The modified WindSeeG foresees that in such a case lots are drawn and that the procedure is reviewed in 2022 including an examination whether there is a need to adjust the law. The Commission finds it indispensable to differentiate zero-cent bids in order to prevent overcompensation due to further advantages accruing to operators of offshore wind installations, such as the offshore grid connection. Germany has therefore committed to act immediately, in case several zero-cent bids are submitted in a tender by enshrining a mechanism to differentiate such bids in the legislation upon first occurrence and before conducting any following tender.

(149) Finally, to avoid that awarded projects are not implemented, project owners have to take commitments to realise the offshore wind installation project within a period of maximum 6 months (with possible extensions) after the binding finalisation date for the offshore grid connection.

Exemption from competitive bidding for pilot projects

(150) According to paragraph 127 of the EEAG, Member States may grant aid without a competitive bidding process to demonstration projects. According to paragraph 19(45) of the EEAG a demonstration project is a "*project which demonstrates a technology as a first of its kind in the Union and which represents a significant innovation that goes well beyond the state of the art*".

(151) As mentioned in recital (15), the first three offshore wind energy installations of a type which are used to test a demonstrably significant innovation extending well beyond the best available technology (in terms of the generator output, the rotor diameter, the hub height, the tower type or the foundation structure), are considered to be pilot projects exempted from participating in the tenders. This exemption from the tenders is thus in line with paragraph 127 of the EEAG.

No aid beyond depreciation period

(152) The scheme also complies with EEAG point 129 because subsidies will not be paid beyond the point at which the benefitting plants have been fully depreciated according to normal accounting rules. As mentioned in recital (21), the successful participants in the tenders are granted support for a period of 20 years, which coincides with the normal depreciation period of the wind plants.

Conclusion on proportionality

(153) Based on the above, the Commission considers that the aid granted under the notified measure is proportionate.

3.3.5. Distortion of competition and balancing test

(154) 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 market[19].

3.3.5.1. Positive effects

(155) On the positive side of the balance, the Commission notes that the scheme can be expected to have a range of positive effects because the eligible activities contribute directly to renewable energy production from offshore wind, and indirectly to environmental protection.

(156) 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 1990[20]. 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 2050[21]. Finally, the European Council has in December 2020 adopted the net 55% target for 2030, which sets the ground for the "fit for 55" legislative proposals scheduled for June 2021.[22]

---

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

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

21 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).

22 EUCO 22/20, https://www.consilium.europa.eu/media/47296/1011-12-20-euco-conclusions-en.pdf

(157) The renewable energy generation technology eligible for support under the WindSeeG (generation of renewable electricity from wind) meets the EEAG definition of 'renewable energy sources' (see point 19(5) of the EEAG).

(158) The Commission therefore concludes that the notified aid scheme for the generation of renewable electricity based on offshore wind will not only contribute to the development of that economic activity, but moreover it will do so in a manner that creates incentives for emissions reductions and therefore it has also positive environmental effects.

3.3.5.2. Negative effects

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

(160) 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 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.

(161) In line with point 97 of the EEAG, the aid scheme is well targeted to the market failure it aims to address (see section 3.3.4.1), so that the risk that the aid will unduly distort competition is limited.

(162) In line with point 98 of the EEAG, since the aid is proportionate (see section 3.3.4.3), the negative impact of the aid on competition and trade is softened.

(163) As explained in section 2.4 and in line with point 99 of the EEAG, an important part of the aid is attributed through tenders (except for pilot projects), 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.

3.3.5.3. Conclusions on distortion of competition and balancing test

(164) In light of the above, the Commission considers that the scheme is 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, and are outweighed by the positive effects of the measure in terms of facilitating the development of an economic activity, and having regard also to the environmental benefit that the promotion of offshore wind installations (as a source of renewable energy) brings in comparison with more environmentally-harming technologies in the electricity generation market.

(165) 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.

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

(166) 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.

(167) 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.

(168) 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.

(169) 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.

3.3.7. Evaluation

(170) Point 28 and Chapter 4 of the EEAG state that the Commission may require that certain aid schemes be subject to an evaluation, where the potential distortion of competition is particularly high, that is to say when the measure may risk significantly restricting or distorting competition if its implementation is not reviewed in due time. Given its objectives, evaluation only applies for aid schemes with large aid budgets, containing novel characteristics or when significant market, technology or regulatory changes are foreseen.

(171) The present scheme fulfils the criteria of being a scheme with a large aid budget (cf. section 2.8) and containing novel characteristics; therefore it will be subject to an ex-post evaluation.

(172) Germany has notified an evaluation plan, setting out the scope and modalities of the ex-post evaluation. The plan is described in section 2.11 above with certain elements being further described in the following paragraphs. As mentioned in section 2.11, the evaluation will be jointly carried out for the EEG 2021 and the modified WindSeeG. As a consequence, not all parts of the evaluation plan are applicable to the evaluation of the aid to offshore wind installations.

(173) The Commission considers that the notified evaluation plan contains the necessary elements: the objectives of the aid scheme to be evaluated, the evaluation questions, the result indicators, the envisaged methodology to conduct the evaluation, the data collection requirements, the proposed timing of the evaluation including the date of submission of the final evaluation report, the description of the independent body conducting the evaluation or the criteria that

will be used for its selection and the modalities for ensuring the publicity of the evaluation.

(174) The Commission notes that the scope of the evaluation is defined in an appropriate way, and adheres to the principles set out in the Commission Staff Working Document on Common methodology for State aid evaluation[23]. It comprises a list of evaluation questions with corresponding result indicators.

(175) Moreover, data sources are individually defined for each evaluation question. The Commission welcomes that Germany has improved the data gathering compared to the previous ex post evaluation. The German authorities and the evaluator will have access to (anonymised) bidding data (including data on all submitted bids, such as technology, bidding round, bid price, if applicable, parcel and, if available, Markstammdatenregisternumber, as well as state of implementation for awarded projects). These bidding data can be used in combination with the Marktstammdatenregister ('MaStR'), a universal database of all electricity generation plants in operation in Germany available since 31 January 2019. For reasons of data protection, the evaluation committee has no access to the personal data of the bidders and the analysis has to be carried out using an anonymized bidder ID[24]. A project can be linked to the anonymized tender data provided by the BNetzA via the postcode, district and the parcel, if it has participated in the tender. Offshore wind installations in particular can be identified via their location.

(176) Regarding applied methodologies, the Commission welcomes the general commitment by Germany to apply an empirical (where possible counterfactual) analysis, in order to assess the causal impact of the aid scheme on the behaviour of the beneficiaries. For the assessment of the direct and indirect effects of the aid, "top-down" and "bottom-up" approaches, as well as an analysis of the supply curves of individual tenders, are proposed for the evaluation of the EEG 2021 (and for the modified WindSeeG, where possible). The Commission acknowledges that for the evaluation of the modified WindSeeG only a top-down analysis and a supply curve analysis can be undertaken. A bottom-up counterfactual analysis likely cannot be applied for the projects realised under the centralised model in the modified WindSeeG, since only wind energy projects that have been taken part in the tender for a specific site, can realise their project (so there is no control group to compare with).

(177) In the top-down analysis, a counterfactual scenario (market result without aid) is compared with an aid scenario (market result with aid) on the basis of a model about how the market works and reacts.

(178) In the supply curve analysis, the supply curves formed by the bids received in individual tenders will be analysed in more detail on the basis of the tender data. The slope of the constructed supply curve or curves allows a comparative static analysis of price and cost effects of an exogenous change in the tender volume.

---

[23] Staff Working Document on Common methodology for State aid evaluation, SWD(2014) 179 final.

[24] A challenge when analysing the data for the evaluation of the EEG 2017 was that the tender data could only be transmitted anonymously by the BNetzA to the evaluation committee. This should prevent specific bidders from being identified. This will also be the case for the tender dates for the EEG 2021 and the modified WindSeeG. However, by creating an anonymous bidder ID, bids from different bidders could still be identified and analysed.

Such analysis is based on the assumption that bidding behaviour does not depend on tender volume, which appears justified if there is a sufficiently high level of competition and the change in the tender volume considered is not too big. Subject to this assumption, supply curves can effectively inform the evaluator on the effectiveness of the aid.

(179) Relevant for the offshore wind projects in particular, the Commission welcomes the fact that Germany will examine the presence of zero-cents bids in the centralized bidding model, as well as the height of the bid caps and the commitment by Germany to review the tender design if at least two subsequent tenders for different sites receive either no or only one bid close to the bid cap.

(180) The Commission also welcomes that Germany will analyse bids even if only a few bidders have participated in a tender, which is particularly relevant in the case of offshore wind energy.

(181) The Commission holds the view that the proposed methods are based on established ex-post counterfactual or empirical evaluation principles to assess the causal effects of aid. In light of the limitations that no offshore wind installations can be realised outside of the tender process in the centralised model, the proposed approaches are sufficiently empirical in nature. While the top-down analysis will use aggregate data and compare it to a counterfactual derived from modelling, the supply curve analysis will employ data available at project level for both successful and unsuccessful bids which gives insights into the distribution of outcomes (not only averages).

(182) In addition, the evaluation will also allow assessing the cost of abatement (in EUR/tCO_2) of the offshore wind subsidies, a highly relevant parameter for assessing the efficiency of the decarbonisation scheme and for the design of future aid schemes.

(183) The Commission notes that the evaluation will be conducted according to the notified evaluation plan by an independent evaluation body. Moreover, the envisaged publication of the evaluation plan and its results on a public website are adequate to ensure transparency.

(184) The Commission also notes that Germany plans to submit the final evaluation report when it becomes available (at the latest by the end of March 2026) and that an interim evaluation report will be provided in the first half of 2024, which will update the Commission on the progress with data collection and the progress to apply the targeted methodologies mentioned above. In line with the principle of loyal cooperation, Germany commits to swiftly inform the Commission and jointly agree on a possible solution in case the methodologies foreseen in the evaluation plan cannot be applied (e.g. due to lack of data). No future similar scheme can be approved as long as the evaluation is not carried out, in sufficient quality, and its results taken fully into account in the design of any new scheme with similar objective.

(185) The Commission therefore considers that the notified evaluation plan meets the requirements in EEAG point 28 and Chapter 4.

3.3.8. Conclusion with regard to the compatibility of the support

(186) The Commission concludes that the aid facilitates the development of an economic activity and does not adversely affect trading conditions to an extent contrary to the common interest. Therefore, the Commission considers the aid compatible with the internal market based on Article 107(3)(c) TFEU and on the relevant provisions of the EEAG.

4. AUTHENTIC LANGUAGE

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 aid on the grounds that it 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).[25]

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.

The Commission also reminds Germany that the evaluation report must be submitted by 31 March 2026 at the latest and that this decision is valid until 31 December 2026.

Yours faithfully,

For the Commission

Margrethe VESTAGER
Executive Vice-President

[25] OJ L 140, 30.4.2004, p. 1.