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Subject: **State Aid SA.48327 (2017/N) – Germany**
Support for PV installations on rented buildings (Mieterstrom)

Sir,

1. PROCEDURE: NOTIFICATION, CORRESPONDENCE, DEADLINE ETC.

(1) The German authorities have notified by electronic notification on 1 June 2017 a planned modification of the support scheme for the promotion of the production of electricity from renewable energy sources ("renewable electricity"). The initial support scheme for the promotion of the production of renewable electricity has been approved by the Commission by decision of 23 July 2014 in State aid file SA.38632 (2014/N) – Germany - EEG 2014 – Reform of the Renewable Energy Law[1] (the "2014 EEG Decision") and by decision of 20 December 2016 in State aid file SA.45461 (2016/N) – Germany – EEG 2017 – Reform of the Renewable Energy Law[2] (the "2017 EEG Decision").

(2) The German authorities provided additional information on 18 July 2017, 1 August 2017, 29 September 2017 and 17 October 2017.

2. DETAILED DESCRIPTION OF THE SCHEME

2.1. National legal basis, background, objective and budget

(3) The notified scheme aims at supporting landlords willing to install solar panels on the roof of the building that they rent (within the limit of 500 MW/year). For the moment only electricity injected in the public grid is eligible for support under the

[1] OJ C 325, 2.10.2015, p. 1.

[2] OJ C 68, 3.3.2017, p. 11.

Seiner Exzellenz Herrn Sigmar GABRIEL
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EEG 2017 and the notified scheme would amend the EEG 2017 so that also electricity from solar panels installed on apartment buildings and sold to tenants is eligible for support. The amendments are included in the Law for the support of so-called rental electricity ("Mieterstrom") ("Gesetz zur Förderung von Mieterstrom").

(4) Like the other renewable electricity support measures included in the EEG 2017 and already approved by the Commission[3], the notified scheme aims at ensuring that the share of renewable electricity in electricity supplied to German final customers rises to 40-45 % by 2025, to 55-60 % by 2035 and to 80 % by 2050.

(5) In this context, Germany indicated that for the third year in a row, it is not meeting its annual solar deployment target of 2.5 GW and that the support scheme aims at expanding the type of solar projects eligible for aid under the EEG 2017 and to enable persons who are renting buildings to also take part in the energy transition. This would increase acceptability of the energy transition.

(6) Germany has observed that while PV panels of less than 10 kW continue to be installed (single family houses), the segment of solar panels between 10 kW and 100 kW (i.e. the type of PV installations that would typically be installed on rented apartment buildings) is stagnating although the potential on rented buildings is largely untapped. Germany explained further that renewable electricity that is supplied to tenants is not eligible for support under the EEG 2017 and that economic conditions are such that, without support, landlords will not install solar installations on rented building to supply electricity to their tenants because such investment would be either loss making or yield such a poor return that the investment is not worth the administrative and organizational burden that such projects imply. Also, the support levels currently available under the EEG 2017 for electricity injected into the grid have been structured based on the assumption that part of the installation can be used for the self-supply of the owner of the installation as this increases the attractiveness of the investment. In contrast, solar installations on rented buildings are not used for self-supply (by definition). However, without the possibility to self-consume part of the electricity consumed, the support levels offered in the EEG for electricity injected into the grid do not allow for a sufficient rate of return for investors and explains the stagnation in the segment of solar panels that can be installed on rented buildings. The notified measure would on the one hand create a demand for Mieterstrom from the part of the tenants and on the other hand make those projects sufficiently attractive (in most parts of Germany) as the rate of return obtained with the support would in many cases be higher than the rate of return obtained for injection into the grid.

2.2. Beneficiaries and form of aid

(7) Beneficiaries are producers of electricity from solar installations with installed capacity of maximum 100 kW. The installation concerned must be located on or in a residential building and the support is granted only for electricity that:

a) is supplied to a final consumer and

[3] Commission decision of 20.12.2016 on SA.45461 (2016/N) – EEG 2017 – Reform of the Renewable Energy Law.

b) is consumed in the building in or on which the electricity is produced or in residential or secondary buildings that are in the immediate vicinity of the building in or on which the installation is located (*Wohngebäuden oder Nebenanlagen im unmittelbaren räumlichen Zusammenhang*) and

c) does not circulate through the public grid.

(8) Residential buildings are buildings that are used at least at 40% (of their surface) for residential purposes.

(9) The support is paid out as a premium (the "Mieterstrompremium") calculated as the difference between the reference value ("anzulegender Wert") applicable when the installation enters into operation and 8.5 € cents/kWh (the "deduction value"). The specific Mieterstrompremium is only granted on the electricity produced by the PV installation and consumed by the tenants. Excess electricity produced by the PV installation but not consumed by the tenants and consequently injected into the grid remains eligible for support for electricity injected into the grid. This support for injected electricity has been approved by the Commission in the 2014 EEG Decision and the 2017 EEG Decision.

(10) The reference value used to determine the level of the Mieterstrompremium corresponds to the reference value mentioned under §48 (2) of the EEG 2017 as corrected by the correction factor determined in accordance with §49 of the EEG 2017. The reference value mentioned under §48 (2) of the EEG 2017 has been determined by reference to the levelized costs of a PV installation (see also the 2014 EEG Decision). The correction factor foreseen under §49 of the EEG 2017 automatically adapts the reference value every three months based on the deployment rate of solar installations[4]. In particular the reference value decreases when the rate of deployment reaches certain thresholds and increases again when the deployment rates are below certain thresholds.

(11) The reference value under §48 (2) of the EEG 2017 varies depending on the installed peak capacity of the solar installation and was determined based on cost studies that are regularly updated[5].

(12) For installations entering into operation as of 1 July 2017, the reference value amounted to:

Table 1:

	Up to 10 kWp	Above 10 kWp and up to 40 kWp	Above 40 kWp and up to 100 kWp
Reference value (Cent/kWh)	12.20	11.87	10.61
Deduction value	8.5	8.5	8.5
Subsidy	3.7	3.37	2.11

[4] See Commission decision of 23.07.2014 on SA.38632 (2014/N) – DE – EEG 2014, recitals 103-106 and Commission decision of 20.12.2016 on SA.45461 (2016/N) – EEG 2017 – Reform of the Renewable Energy Law, recital 38.

[5] See Commission decision of 23.07.2014 on SA.38632 (2014/N) – DE – EEG 2014, recitals 144-146.

(13) Germany has further described the economics of the "Mieterstrommodel" and also submitted an extensive study on the subject[6]: the decision to invest into a solar installation on rented buildings will depend on :

(a) The costs of the installation (investment and maintenance), the costs of the adaptation of the network needed to connect the PV installation to the electricity system of the building, the cost of installing the metering equipment and the costs of managing the electricity contract with the tenant and finally the costs of supplying the tenant with electricity from the grid for the part of his consumption that is not covered by the solar installation[7].

(b) The revenues that the landlord can obtain from supplying the electricity to his tenant(s). Those revenues will depend on both the quantity of electricity sold, the extent to which the electricity produced from the installation is consumed by the tenants, the percentage of tenants having contracted with the landlord and the price per kWh that can be agreed between the landlord and the tenant. In general, the tenant will conclude a contract with the landlord for the supply of electricity only if the price is not higher than the best offer than can be obtained from an electricity supplier.

(c) The revenues that the landlord can obtain from injecting unconsumed electricity into the grid.

(d) The level of the EEG surcharge imposed on the electricity supplied to the tenant.

(14) In order to determine the level of revenues that a landlord can expect from an electricity supply contract with his tenants, the German authorities have indicated that a tenant will be willing to enter into such contract with his landlord only if it is slightly below the average electricity price. The simulation assumes – based on pilot projects – that this price difference should at least be 2 € cents/kWh, VAT incl. (i.e. 1.68 € cents/kWh, VAT excl.).

(15) For the LCOE[8] calculations of the PV installations, Germany has taken into account the costs of the solar panels as such, the costs relating to the connection of the solar installation to the electricity system of the building, the maintenance and further operating costs, a WACC[9] of 4 % (real, pre-tax) and have assumed that the solar installation runs 950 hours at full power.

(16) Germany provided rates of return simulations of projects under current conditions (i.e. without specific support) for projects that would be launched between 2015

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6 "*Mieterstrom – Schlussbericht: Rechtliche Einordnung, Organisationsformen, Potenziale und Wirtschaftlichekit von Mieterstrommodellen"*, Prognos and BH&W, January 2017.

7 Article 2 of the Gesetz zur Förderung von Mieterstrom provides that the landlord is responsible for ensuring the entire supply of the tenant.

8 Levelised costs of electricity.

9 Weighted average cost of capital.

and 2020) for apartment blocks of 4, 8 and 24 apartments[10]. Germany stressed that in all scenarios the rate of return is either negative or extremely low (between 2 % and 4 % in the vast majority of scenarios) and is insufficient to trigger the project. In particular, the rate of return is far too low to justify a project which will place a high administrative burden on the landlord and which bears the risk of becoming unprofitable if not enough tenants conclude a supply contract with the landlord or if they put an end to the contract. Germany further highlighted that in the vast majority of the scenarios (89 %), the rate of return is lower than for projects injecting electricity into the grid which makes the Mieterstrommodel uninteresting. In the rare scenarios where the rate of return is higher than for an injection into the grid, it remains below 5 % and is insufficient to compensate the landlord for the administrative burden and his risk.

(17) In this context, Germany has further explained that a landlord planning to supply electricity to his tenants will need to comply with several administrative requirements that make this type of project more cumbersome to administer compared to auto consumption or injection into the grid: they are bound to ensure the entire electricity supply of the tenant and thus have to ensure that when the PV installation is not producing electricity the tenant is still supplied with electricity (Article 2 of the Gesetz zur Förderung von Mieterstrom); they will generally have to obtain the permission of the other owners of the building to install a PV installation on the roof; the electricity contract proposed to the tenant must contain a certain number of mandatory contractual clauses, they have to issue invoices fulfilling certain conditions, they have to provide certain information to the tenant on electricity consumption. Those obligations will in most of the cases require that the landlord outsources the management of the electricity contract.

(18) In terms of risk, Germany has explained that the landlord cannot force the tenant to engage into such contract with him and the tenants have the right to end the contract after one year (see Article 2 of the Gesetz zur Förderung von Mieterstrom). This increases the risk for the landlord that the investment might not be economical.

(19) Germany submitted that the support would increase the rate of return of Mieterstrom projects so as to deliver in many scenarios a rate of return of between 5 % and 7 %. This rate of return is slightly higher than for projects injecting the electricity into the grid so as to compensate for the higher administrative burden and the risk associated with the project.

(20) Germany also provided several detailed calculations of cash flows over the lifetime of the installations and the profitability of the project taking the aid into account.

[10] Rechtliche Einordnung, Organisationsformen, Potenziale und Wirtschaftlichkeit von Mieterstrommodellen (MSM), BH&W and Prognos, 17 January 2017.

(21) They also provided a simplified[11] calculation of the project costs and revenues for a typical household (consumption of 2500 kWh/year, 60 % of the consumption is covered from the solar installation and the rest needs to be covered by the grid) :

Revenues from the sale of the electricity to the tenant (23.26 € cents/kWh[12])	+582 EUR/year
LCOE of the electricity produced from the solar installation (12.18 € cents/kWh)	-183 EUR/year
EEG surcharge	-103 EUR/year
Metering, administration, distribution	-100 EUR/year
Electricity needed from the grid (23 € cents/kWh)	-230 EUR/year
Total without subsidy	**-34 EUR/year**
Subsidy Mieterstrom (3.6 € cents/kWh)	+54 EUR/year
Total with subsidy	**20 EUR/year**

(22) Germany has further explained that the electricity price is not uniform across Germany as it depends on competition at retail level and also on network charges (which are different in each network zone). In regions where the average electricity price is higher than the baseline scenario, the price that can be asked from the tenant is likely to be higher. Germany has therefore also provided profitability of solar installations in regions with higher electricity prices and how the profitability of installations could evolve if electricity prices increase in general over Germany. Under the baseline scenario, profitability of solar installations in the Mieterstrommodel vary between 1.1 % and 7.5 %, between 3.1 % and 8.8 % if electricity prices would increase and between 2.6 % and 9.5 % for installations in zones with higher network costs. Germany has however stressed that in regions with high network charges, operators of PV installations are unlikely to obtain the high remuneration that is assumed in the simulation because the exact remuneration will depend on the competitiveness of the local electricity market. Germany mentioned the example of Frankfurt (highest basis tariff in Germany) where electricity prices offered by suppliers on the market were 6 € cents/kWh lower than the basis tariff. A landlord would attract tenants only if the price offered is lower than this price.

[11] Germany has not taken into account the costs and revenues linked to the injection into the grid of the electricity that is not consumed by the tenant as the EEG tariff obtained for the injection is cost covering.

[12] This price was estimated based on average retail prices in Germany (excl. VAT) and already incorporates the reduction of 1.68 € cents/kWh mentioned under recital (14) above.

Table 2: Rates of return – Sensitivity analysis

Number of appartments	PV installation	Senario: percentage of tenants participating	i. EEG Mieterstrompremium (20 Jahre) – No electricity tax (during 20 years) – Baseline electricity price, EEG surcharge – average network charge	ii. EEG Mieterstrompremium (20 Jahre) – No electricity tax (during 20 years) – Increasing electricity prices – average network charge	iii. EEG Mieterstrompremium (20 Jahre) – No electricity tax (during 20 years) – baseline electricity prices and EEG surcharge – high network charge	iv. EEG Mieterstrompremium (20 Jahre) – No electricity tax (during 20 years) – increasing electricity prices - high network charge	v. EEG Mieterstrompremium (20 Jahre) – No electricity tax (during 20 years) – Baseline electricity price, EEG surcharge – low network charge	vi. EEG Mieterstrompremium (20 Jahre) – No electricity tax (during 20 years) – Increasing electricity prices - low network charge	vii. EEG Mieterstrompremium (20 Jahre) – No electricity tax (during 20 years) – Baseline electricity price, EEG surcharge – average network charge
4	20 KW	25 %	4.0 %	4.4 %	4.5 %	4.8 %	3.8 %	4.1 %	3.7 %
4	20 KW	50 %	4.2 %	4.8 %	5.0 %	5.5 %	3.8 %	4.4 %	3.7 %
4	20 KW	75 %	3.3 %	3.9 %	4.0 %	4.6 %	3.0 %	3.6 %	2.8 %
8	20 KW	25 %	5.0 %	5.6 %	5.9 %	6.5 %	4.5 %	5.2 %	4.4 %
8	20 KW	50 %	4.8 %	5.6 %	5.9 %	6.7 %	4.2 %	5.1 %	3.9 %
8	20 KW	75 %	3.5 %	4.4 %	4.5 %	5.4 %	2.9 %	3.9 %	2.6 %
8	40 KW	25 %	4.8 %	5.1 %	5.3 %	5.6 %	4.5 %	4.9 %	4.5 %
8	40 KW	50 %	5.1 %	5.6 %	5.8 %	6.4 %	4.7 %	5.3 %	4.6 %
8	40 KW	75 %	4.4 %	5.0 %	5.1 %	5.6 %	4.0 %	4.6 %	3.9 %

		Senario	i. EEG Mieterstrompremium (20 Jahre) – No electricity tax (during 20 years) – Baseline electricity price, EEG surcharge – average network charge	ii. EEG Mieterstrompremium (20 Jahre) – No electricity tax (during 20 years) – Increasing electricity prices – average network charge	iii. EEG Mieterstrompremium (20 Jahre) – No electricity tax (during 20 years) – baseline electricity prices and EEG surcharge – high network charge	iv. EEG Mieterstrompremium (20 Jahre) – No electricity tax (during 20 years) – increasing electricity prices - high network charge	v. EEG Mieterstrompremium (20 Jahre) – No electricity tax (during 20 years) – Baseline electricity price, EEG surcharge – low network charge	vi. EEG Mieterstrompremium (20 Jahre) – No electricity tax (during 20 years) – Increasing electricity prices - low network charge	vii. EEG Mieterstrompremium (20 Jahre) – No electricity tax (during 20 years) – Baseline electricity price, EEG surcharge – average network charge
24	20 KW	25 %	7.5 %	8.8 %	9.5 %	10.7 %	6.4 %	7.8 %	6.1 %
24	20 KW	50 %	4.3 %	5.9 %	6.1 %	7.5 %	3.4 %	5.1 %	2.8 %
24	20 KW	75 %	1.1 %	3.1 %	2.6 %	4.4 %	0.4 %	2.5 %	-0.7 %
24	40 KW	25 %	6.7 %	7.5 %	8.0 %	8.8 %	6.0 %	6.9 %	5.8 %
24	40 KW	50 %	5.9 %	7.0 %	7.4 %	8.4 %	5.2 %	6.3 %	4.9 %
24	40 KW	75 %	4.3 %	5.5 %	5.6 %	6.7 %	3.7 %	5.0 %	3.2 %
24	60 KW	25 %	5.4 %	6.0 %	6.3 %	7.0 %	4.9 %	5.6 %	4.7 %
24	60 KW	50 %	5.5 %	6.4 %	6.7 %	7.5 %	4.8 %	5.8 %	4.6 %
24	60 KW	75 %	4.3 %	5.3 %	5.4 %	6.3 %	3.8 %	4.8 %	3.4 %

High network charges = average charge +3.38 € cents/kWh

Low network charges = average charge -1.62 € cents/kWh

Rate of return higher than for injection into the grid are marked in grey

2.3. Cumulation

(23) Germany indicated that in the case of Mieterstrom, the level of the Mieterstrompremium under the EEG 2017 allows the investor to cover the difference between the market price and the production costs (including a reasonable rate of return) so that in principle there is no room for any investment aid.

(24) Should there be a gap, the cumulation will be handled based on the rule set out in §80a EEG 2017: In case of cumulation of EEG aid with investment aid and revenues from the sale of the electricity, the cumulated amounts may not exceed the production costs (LCOE) of the energy concerned.

2.4. Monitoring of costs

(25) In addition to the automatic quarterly adaptation of the reference value depending on the deployment rate, the German authorities also regularly monitor the evolution of production costs of solar installations. Germany monitors the production costs of typical installations on the basis of samples[13]. In addition, Germany undertakes every 4 years an evaluation report of the EEG ("*Forschungsvorhaben zum Erfahrungsbericht des EEG"*) which is based on extensive studies and surveys of the renewable sector and of production costs.

2.5. Duration of Support

(26) The support will be granted to beneficiaries for a period of 20 years, which corresponds to the depreciation period of the installation.

(27) There is no end date to the scheme as such (Mieterstromgesetz); however, Germany committed to re-notify the scheme 10 years after its approval.

2.6. Financing and budget

(28) The support is paid to the owner of the PV installation by the relevant network operator. The extra costs resulting from this payment obligation for the network operator are compensated ultimately through the so-called EEG-surcharge ("EEG-Umlage", §60 of the EEG 2017) as is the case for feed-in tariffs and premiums paid to other operators of renewable electricity power installations under the EEG 2017 and approved by the Commission in the 2014 EEG and the 2017 EEG decisions. The compensation mechanism is established in the EEG 2017 and works as follows.

(29) If the network operator concerned is a distribution system operator, he will be compensated by the transmission system operator to which the distribution system is connected.

(30) The financial burden concentrated at the level of the TSOs is then spread between TSOs so that ultimately every TSO bears the same financial burden in proportion

[13] See also Commission decision of 23.07.2014 on SA.38632 (2014/N) – DE – EEG 2014, recitals 144-145.

to the electricity delivered to the final consumers in each area served by the individual TSO in the previous calendar year (§58 EEG 2017).

(31) Each TSO has the right and the obligation to request the payment of the EEG-surcharge from electricity suppliers[14], from final consumers that are supplied with electricity by a third party (but which does not qualify as electricity supplier), from final consumers who are producing their own electricity (self-supply or auto consumption) (§60 and §61 of the EEG 2017) and from electro-intensive users (§60a of the EEG 2017).

(32) The EEG-surcharge is imposed on electricity consumption and expressed in kWh. It is a uniform charge across Germany. Its level is determined each year jointly by the TSOs based on a detailed methodology set out in the Implementing decree to the EEG ("*Verordnung zur Durchführung des Erneuerbare-Energien-Gesetzes und des Windenergie-auf-See-Gesetzes"* referred to as *"Erneuerbare-Energien-Verordnung – EEV"*) and in the decree implementing the EEV ("*Verordnung zur Ausführung der Erneuerbare-Energien-Verordnung"* that in Germany is referred to as *"Erneuerbare-Energien-Ausführungsverordnung – EEAV").*

(33) As a result of this methodology, the TSOs jointly determine each year the EEG-surcharge for year X+1 on the basis of the financial needs forecasted for year X+1, the difference between the forecasted expenses and revenues and the actual expenses and revenues of the previous period and on the basis of the forecasted consumption of electricity (§3 of the EEV). 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 (liquidity reserve, interest rate on revenues and deficits, registration fee to the spot market, etc). The forecasted financial needs are themselves a function of the forecasted feed-in tariffs and premium payments to EEG electricity operators and the forecasted revenues from the sale of the EEG electricity on the spot market.

(34) TSOs are subject to a certain number of publication obligations and are subject to the monitoring of the BNetzA.

(35) They 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).

(36) TSOs are under the obligation to publish (§77 EEG 2017), on a common website designated as "EEG-account", monthly aggregated revenues resulting from the sale of EEG electricity on the spot market and from the EEG-surcharge and aggregated costs (compensation to DSOs and other costs related to the management of the system). They are also under the obligation to publish in advance the forecasted EEG-surcharge.

(37) TSOs have to transmit to the BNetzA detailed data relating to the establishment of the EEG-surcharge. In particular, they have to provide data related to the

[14] In the case of Mieterstrom, the landlord is considered an electricity supplier as he is supplying an end consumer with electricity.

different revenues and expenditures entries that enter into the calculation of the EEG-surcharge (§4 EEAV).

(38) The BNetzA has been entrusted with various monitoring tasks. It has *inter alia* to monitor that TSOs comply with the provisions of the EEV, that they properly determine, set and publish and levy the EEG surcharge, that the information that TSOs have to publish is indeed published and that the way the EEG-electricity can be shown on the electricity bill is indicated in accordance with §78 EEG 2017.

(39) The BNetzA has audit powers towards EEG electricity operators, electricity suppliers and network operators and can organize controls at their premises (§85 (3) EEG 2017 read in conjunction with §69 of the Energiewirtschaftsgesetz).

(40) Germany expects that the notified aid scheme would trigger projects accounting for around 120 GWh of production with a budget estimated at around EUR 4 million at the beginning of the scheme. This amount will however vary depending on the number of installations that progressively enter the scheme but also on the level of the premium which is likely to decrease over time (due to the quarterly adaptation in function of the deployment rate).

2.7. Transparency

(41) Germany has indicated that the information to be published in accordance with 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) can be found on www.bmwi.de (with link to the Transparency Award Module "TAM" that the Commission made available on https://webgate.acceptance.ec.europa.eu/competition/transparency/public/search/home/).

3. ASSESSMENT OF THE AID SCHEME

3.1. Existence of aid

(42) 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.

(43) In determining whether a measure constitutes State aid within the meaning of Article 107(1) of the Treaty, the Commission has to apply the following criteria: 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;
- be liable to affect trade between Member States.

3.1.1. Advantage

(44) Producers of renewable electricity are advantaged because they obtain a payment coming on top of what they will obtain on the market through the bilateral electricity supply contract.

3.1.2. Selectivity

(45) Furthermore, the measure is selective because it favours only producers of electricity from solar installations with installed capacity of no more than 100 kW by contrast to any other electricity producers.

3.1.3. Imputability

(46) Both the support for renewable electricity and the financing mechanism of the support (the EEG-surcharge) are imputable to the State, as they are established by law and implementing decrees (EEG 2017, EEV and EEAV).

3.1.4. Existence of State resources

(47) 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. The distinction between aid granted by the State and aid granted through State resources serves to bring within the definition of aid not only aid granted directly by the State, but also aid granted by public or private bodies designated or established by the State.[15] Thus, resources do not need to transit through the State budget to be considered as State resources. It is sufficient that they remain under public control.[16]

(48) As results from established case-law, proceeds of levies imposed by the State and which are then managed and apportioned in accordance with the provisions of the legislation constitute State resources within the meaning of Article 107(1) TFEU

[15] To this effect, see judgment of 22 March 1977, *Steinike & Weinlig*, C-78/76, EU:C:1977:52, paragraph 21; judgment of 17 March 1993, *Sloman Neptun v Bodo Ziesemer*, joined cases C-72/91 and C-73/91, EU:C:1993:97, paragraph 19, and judgment of 10 May 2016, *Germany* v *Commission*, T-47/15, ECLI:EU:T:2016:281, paragraph 81.

[16] See case C-482/99 *France* v *Commission* EU:C:2002:294, paragraph 37, and the case-law cited, in the EEG 2012 Decision, paragraph 83.

even if they are managed by private or public entities separate from the public authorities (Essent[17], Vent de Colère[18]).

(49) The premium to be paid to operators of PV installations eligible under the notified scheme are financed from a surcharge on electricity (the "EEG-surcharge"). In its 2014 EEG decision, the Commission had concluded that the aid scheme was financed through State resources, because (i) the State has established a mechanism that guarantees that TSOs are compensated for all the costs, (ii) TSOs have been designated to administer the EEG surcharge, (iii) TSOs are strictly monitored in their administration of the EEG-surcharge and (iv) the EEG surcharge is a price-surcharge and not a remuneration for a good.[19] These main characteristics of the EEG 2014 aid scheme remain fundamentally unchanged in the EEG 2017 aid scheme. Some features have been added and they reinforce this assessment.

(50) In particular, the Commission notes that the State established by law a surcharge on electricity consumption (see §60 to 61 of the EEG 2017 and see Section 2.6 above). The EEG 2017 provides that TSOs are under the obligation to collect this surcharge from electricity suppliers and from certain categories of consumers. The law 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 for electro-intensive undertakings for instance and §61b to §61e for auto-consumers 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 (see recital (33) above). Indeed, according to §3 of the 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. 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 2017 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 (34) to (39) above for details of the monitoring).

(51) On that basis, the Commission concludes that the support is financed from State resources given that is is financed from the proceeds of levies imposed by the State and which are managed and apportioned in accordance with the provisions of the legislation. Like in the case giving rise to the judgment of 19 December 2013 in the case Association Vent de Colère![20], the State has, within the framework of the EEG 2017, created a system where the costs incurred by the network operators to pay the premiums to owners of solar installations eligible under the notified schme are fully compensated by the EEG-surcharge imposed

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[17] Judgment of 17 July 2008, *Essent Netwerk Noord and Others*, C-206/06, ECLI:EU:C:2008:413.

[18] Judgment of 19 December 2013, *Vent De Colère and Others*, C-262/12 ECLI:EU:C:2013:851, paragraph 25.

[19] State aid SA.38632 (2014/N) – Germany – EEG 2014 – Reform of the Renewable Energy law, recitals 175 – 220.

[20] Judgment of 19 December 2013, *Vent De Colère and Others*, C-262/12 ECLI:EU:C:2013:851.

on electricity end consumers. That circumstance distinguishes the present case from the case giving rise to the judgment of 13 March 2001 in the case PreussenElektra[21], as in the latter case the electricity suppliers had to finance the additional costs from their own means. In addition, 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 premiums to operators of renewable installations although the electricity is not sold to the network operators but to third parties. In most of the cases, the electricity concerned is not even fed into the grid.

3.1.5. Distortion of competition and effect on trade

(52) In this case, the landlord is supplying electricity from the solar installation in competition with other electricity suppliers which are procuring electricity from their own power generation facilities or on the spot market. The electricity market has been liberalised and electricity producers are engaged in trade between Member States so that the advantage granted to the producers of renewable electricity is likely to distort competition and affect trade between Member States. The German spot market is interconnected with other markets.

3.1.6. Conclusion on the existence of aid

(53) Based on the foregoing, the Commission concludes that the notified scheme constitutes aid within the meaning of Article 107 TFEU.

3.2. Lawfulness of the aid

(54) The scheme was notified to the Commission on 1 June 2017. It has not been implemented yet. Therefore Germany has complied with its obligations under Article 108 (3) TFEU.

3.3. Compatibility of the aid

(55) The Commission has assessed the notified aid scheme on the basis of the EEAG. In particular, it has assessed the support to the production of renewable electricity under Section 3.3 (Aid to energy from renewable sources).

(56) According to paragraph 120 of the EEAG, for operating aid schemes the general requirements of Section 3.2 will be applied as modified by the specific requirements as set in subsection 3.3.1. of the EEAG. The Commission will thus verify :

(a) The contribution to a clearly defined objective of common interest (Section 3.2.1. and paragraphs 107, 108, 117, 118 and 121 of the EEAG);

(b) The need for State intervention (Section 3.2.2. and paragraph 115 of the EEAG);

(c) The appropriateness of the aid (Section 3.2.3. and paragraph 116 of the EEAG);

[21] Judgment of 13 March 2001, *PreussenElektra*, C-379/98 ECLI:EU:C:2001:160.

(d) The incentive effect of the aid (Section 3.2.4 of the EEAG);

(e) The proportionality of the aid (Section 3.2.5. and Section 3.3.2. of the EEAG);

(f) The avoidance of undue negative effects on competition and trade (Section 3.2.6 and paragraph 116 of the EEAG);

(g) The transparency of the aid (Section 3.2.7 of the EEAG).

3.3.1. Objective of common interest

(57) According to paragraph 31 of the EEAG, Member States need to define precisely the objective of common interest pursued and explain the expected contribution of the scheme to that objective.

(58) The promotion of the development of renewable energy is one of the objectives of the Union's policy on energy. Moreover, paragraph 30 of the EEAG recognises the increase of environmental protection as an objective of common interest which may be attained through a shift to a low carbon economy with a significant share of variable energy from renewable sources.

(59) The scheme aims at providing support for the production of energy from renewable energy sources within the meaning of paragraph 19(5) and (11) of the EEAG. Indeed, it is limited to photovoltaic installations (see recital (7) above).

(60) The scheme contributes to achieving the overall (all energy consumption types confounded) national target set out in the Directive 2009/28/EC of the European Parliament and of the Council (Renewable Energy Directive "RED")[22] for Germany: reaching 18 % of energy from renewable sources in gross final consumption of energy by 2020. It also contributes to the objective of the Union 2030 target of at least 27 % share of renewable energy. The scheme is therefore directed at the objective of common interest of promoting the deployment of renewable energy. The purpose of the scheme as described in recital (4) above is therefore in line with an objective of common interest.

3.3.2. Need for State intervention

(61) According to subsection 3.2.2 of the EEAG, a Member State needs to demonstrate that there is a need for State intervention and in particular that the aid is necessary to remedy a market failure that otherwise would remain unaddressed. In the case of the production of renewable electricity, the Commission presumes that a residual market failure remains, which can be addressed through aid for renewable energy (paragraph 115 of the EEAG).

(62) This presumption is still valid given that the electricity market price does not cover the production costs of the production plant (see recital 0 above showing that without support the projects are loss making).

[22] Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC (OJ L 140, 5.6.2009, p. 16).

3.3.3. Appropriateness

(63) According to paragraph 40 of the EEAG, the proposed measure must be an appropriate instrument to address the policy objective concerned. According to paragraph 116 of the EEAG, the Commission presumes the appropriateness of aid to renewable energy sources provided that all other conditions are met.

(64) As all those other conditions are complied with in the present case (see Sections 3.3.1 to 3.3.2 above and Sections 3.3.4 to 3.3.6 below), the Commission considers that the notified measure is appropriate.

3.3.4. Incentive effect

(65) Germany has shown that without the aid, the projects would not materialize because the rate of return of the project would either be negative or too low to trigger the projects supported under the Mieterstromgesetz (see in particular recitals (6), (16) and 0 above). In most cases the rate of return would be around 2 % or 3 % without the Mieterstrompremium, which is insufficient to trigger the project given that first this rate of return is lower than the rate of return that can be obtained from projects injecting electricity into the grid; second this rate of return is insufficient to incentivize projects that are more complex to set up and administratively more burdensome than projects injecting electricity into the grid (recital (17) above); and third there is a risk that the project becomes loss making if during the lifetime of the installations tenants opt out of the supply of electricity from the landlord (see recital (18) above). By contrast, with the Mieterstrompremium several scenarios would yield rates of return between 5 % and 7 % that could attract investors.

(66) Germany has further confirmed that beneficiaries have to indicate in their request for payment of the premium: identification of the aid applicant, installed capacity of the installation concerned and the type of technology and the requested aid amount in line with paragraph 51 of the EEAG.

(67) The Commission therefore concludes that the aid has an incentive effect.

3.3.5. Proportionality of the aid

(68) According to paragraph 124 (a) of the EEAG aid must be granted as a premium in addition to the market price whereby the generators sell their electricity directly to the market. According to paragraph 124 (b) and (c) of the EEAG, the beneficiaries of the aid must be subject to standard balancing responsibilities and Member State must put measures in place to ensure that generators have no incentive to generate electricity under negative prices. According to paragraph 125 of the EEAG, however, these conditions do not apply to installations with an installed electricity capacity of less than 500 kW. These requirements, hence, do not apply to the notified scheme given that only installations of not more than 100 kW are eligible under the notified scheme.

(69) As described in recital (9) above, the aid is paid as a premium granted on top of the price that the producer obtains from the sale of the electricity to the tenants. The projects eligible for aid are not selected in a competitive bidding process. However this is justified in light of the installed capacity of the installations (see paragraph 127 of the EEAG).

(70) According to paragraph 128 of the EEAG, aid which is not granted through a competitive bidding procedure has to be assessed under paragraph 131 of the EEAG. Paragraph 131 of the EEAG requires that the aid does not exceed the difference between the LCOE and the market price, that investment aid is deducted, that no aid is granted beyond the depreciation of the investment and that the production costs be reviewed every year.

(71) Germany has provided detailed data on the costs and revenues that a Mieterstrom project involves and justified the different assumptions that Germany used to calculate the rate of return of the concerned projects (evolution of electricity prices, types of apartment blocks that are common in Germany, etc).

(72) In addition, as the rate of return of the project can vary depending on the applicable network charges, the electricity prices and the percentage of tenants using the installation and the size of the installation, Germany calculated rates of return in different scenarios (4, 8 and 24 apartment blocks with 20, 40 and 60 kW installation and 25 %, 50 % and 75 % of tenants using the installations) and submitted sensitivity analyses (rates of return in regions with low, average and high network charges, rates of return with electricity prices at current levels or with increasing electricity prices) (see Table 2 above). In the baseline scenario (current electricity prices and average network charges), the aid helps to improve the rate of return of the projects. As a result, in 7 out of 18 scenarios, the rate of return reaches between 5 % to 7.5 %, i.e. the range that Germany has identified as likely to trigger the projects. Also, in 8 scenarios out of 18, the aid helps to increase the rate of return above the rate of return that can be expected for a project injecting electricity into the grid, which is a necessary condition to trigger Mieterstrom projects. In light of the higher administrative burden and the complexity of Mieterstrom projects (see recital (17) above) and the risks that tenants opt out of the electricity supply contract with the landlords (see recital (18) above), the Commission considers that a rate of return of between 5 % and 7.5 % is reasonable.

(73) The sensitivity analyses have shown that the rate of return could further improve if electricity prices increase. In that case 13 out of 18 types of scenarios would be likely to yield a rate of return above 5 %. Except for one scenario (24 apartment blocks with a 20 kW installation and 25 % of tenants using the installation), the rate of return would however not exceed 7.5 % (see Table 2 above)

(74) In regions where network charges are high the rates of return would also improve. In that case 14 out of 18 scenarios would be likely to yield a rate of return above 5 %. The rate of return would increase to 8 % and 9.5 % only in two scenarios. Even under the combination high electricity price and high network charges region, the rate of return would not exceed 11 % in one scenario and would vary between 6 % and 8 % for the majority of scenarios (see Table 2 above).

(75) Given that in the vast majority of cases, the rate of return would remain between 6 % and 8 %, that the rate of return is pre-tax, that rates of return of between 8 % and 11 % can only be reached in 5 out of 54 scenarios and only under very favourable conditions which in addition are rather unlikely to occur often (see also recital (22) above) and given still the administrative burden, the complexity of Mieterstrom projects (see recital (17) above) and the risks that tenants opt out of the electricity supply contract with the landlords (see recital (18) above), the

Commission concludes that the rates of return that can be obtained with the aid are reasonable and in line with paragraph 131 (a) and (b) EEAG.

(76) The Commission notes in addition that the aid is granted only until the plant has been fully depreciated (20 years) in line with paragraph 131 (d) EEAG.

(77) In terms of cumulation with investment aid, the Commission notes that in principle cumulation should not occur as the premium under the EEG for Mieterstrom is sufficient to cover the difference between market price and production costs (including a reasonable rate of return) but that for the event that cumulation would occur under §80a of the EEG 2017, the aid obtained under the EEG for Mieterstrom, the investment aid and the price obtained for the electricity may not exceed the production costs (levelised costs) of the electricity and that this will be verified based on the methodology approved by the Commission in case SA.45461.

(78) Finally, the Commission finds that production costs are being updated at least annually in line with paragraph 131 (c) of the EEAG. Indeed, first the reference value used to calculate the premium is adapted every quarter in relation to the deployment rate of solar installations. In addition, the German authorities make a general review of the EEG every 4 years. During this review, production costs are surveyed in detail across the whole of Germany. Finally, Germany monitors production costs of solar installations annually so as to verify that the automatic adjustment are adequate and do not lead to overcompensation (see Section 2.4 above).

(79) On the basis of those elements taken together, the Commission considers that the conditions of paragraph 131 of the EEAG are fulfilled.

3.3.6. Avoidance of undue negative effects on competition and balancing test

(80) According to paragraph 90 of the EEAG, the proposed measure should not unduly distort competition. According to paragraph 116 of the EEAG, the Commission presumes the limited distortive effects of the aid to renewable energy sources provided that all other conditions are met.

(81) As all those other conditions are complied with in the present case (see Sections 3.3.1 to 3.3.5 above), the Commission considers that the notified measure does not have undue distortive effects. Consequently, the Commission concludes that the distortion of competition caused is limited and is outbalanced by the positive impact of the support scheme for the environment.

3.3.7. Duration of the approval

(82) The scheme is approved for 10 years (see paragraph 121 of the EEAG) and Germany has committed to re-notify the scheme at the latest 10 years after the notification of the present decision.

3.3.8. Transparency

(83) In line with paragraph 104 of the EEAG, Germany confirmed (see Section 2.7 above) that it would publish the details of the scheme and the identity of the

beneficiaries, the form and amount of the aid, the date of granting, the type of undertaking on www.bmwi.de (except if the individual aid remains below EUR 500 000).

3.3.9. Compatibility with Articles 30 and 110 TFEU

(84) In accordance with paragraph 29 of the EEAG, as the EEG-surcharge has the aim of financing the support for EEG electricity, the Commission has examined its compliance with Articles 30 and 110 TFEU.

(85) The financing mechanism of the support of EEG electricity, i.e. the EEG-surcharge, is imposed on domestic and imported products according to the same criteria. As a result of the aid, the burden resulting from the EEG-surcharge or a part thereof – depending on the level of the aid – is offset. Therefore, the Commission has assessed whether there could be discriminatory treatment with regard to imported products, to the extent that these are in a similar situation.

(86) The Commission had in its decision SA.38632 concluded that the notified aid scheme (the EEG 2014), including its financing mechanism, complied with Articles 30 and 110 TFEU in view of the opening of auctions to operators located in other Member States provided for under §2(6) EEG 2014.

(87) This conclusion remains valid: first the §5 EEG 2017 maintains the principle introduced by the EEG 2014 that auctions are open for operators established in other Member States subject to the same conditions as those examined in decision 2014. The Commission notes in addition, that Germany has already adopted implementing regulation and a cooperation agreement with Denmark. The first auction open to also installations located in other Member States was launched on 12 October 2016 and several Danish installations were selected in the auction. Finally, Germany has adopted a flexible implementation of the requirement to demonstrate physical imports as the EEG 2017 also accepts that an impact on the German electricity market comparable to imports is demonstrated. In the case of Danish installations for the purpose of the pilot auction in 2016, this comparable import was presumed given the high level of connectivity between Germany and Denmark and the volumes of electricity concerned.

(88) In view of the opening of auctions to operators located in other Member States provided for under §5 EEG 2017, in view also of the fact that Germany started to implement the opening of auctions as committed under the 2014 EEG decision and in view of the possibility to demonstrate physical imports by way of demonstrating comparable impacts on the German electricity market, the Commission concludes that the notified aid scheme, including its financing mechanism, can be currently considered as compatible with Articles 30 and 110 TFEU.

3.3.10. Conclusion with regard to the compatibility of the measure

(89) In light of the above, the Commission considers that the notified aid scheme fulfils the requirements of EEAG and therefore is compatible with the internal market on the basis of Article 107(3)c TFUE.

4. CONCLUSION

The Commission has accordingly decided not to raise objections to the aid scheme 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

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Yours faithfully
For the Commission

Margrethe VESTAGER
Member of the Commission