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Subject: State Aid SA.44076 – Hungary Aid for electricity production from renewable energy sources (METÁR)

Sir,

1. **PROCEDURE**

(1) Following pre-notification contacts on 10 April 2017, Hungary notified, pursuant to Article 108(3) of the Treaty on the Functioning of the European Union (TFEU), a new operating aid scheme for the production of electricity from renewable energy sources (RES). Hungary provided additional information on 23 May 2017 and 2 June 2017.

2. **DESCRIPTION OF THE MEASURE**

2.1. National legal basis

- (2) The national legal basis of the scheme is composed of several regulatory and legislative acts:
 - (a) Electricity Act LXXXVI of 2007;
 - (b) Act No. LXXXII of 2016, on the modification of the Electricity Act and amendment of the modification of Energy Related Regulations (XXIX of 2011);
 - (c) Governmental Decree 165/2016 (VI. 23.) on the feed-in-tariff and feed-inpremium support for electricity production from renewable energy sources;
 - (d) Act No. 62 of 2016 (XII. 28.). Decree of the Ministry of National Development on the limits of support of production of electricity from

Őexcellenciája SZIJJÁRTÓ Péter Külgazdasági és külügyminiszter Bem rakpart 47 H - 1027 Budapest renewable energy sources and the application procedure for premium type support;

- (e) Act No. 63 of 2016 (XII. 28.). Decree of the Ministry of National Development on the detailed rules for setting the budget of the financial measure for financing the operation support for renewable electricity production;
- (f) Act No. 17 of 2016 (XII. 21.). Decree of the Hungarian Energy and Public Utility Regulatory Authority (HEA) on the level of support for the applicants excluded from the premium type applications and declaration of demonstration project.

2.2. Background and objectives of the notified scheme

- (3) The support scheme intends to incentivize electricity production from RES in order to contribute to the achievement of the target set by Directive 2009/28/EU of the European Parliament and of the Council¹ at 20 % share of energy from renewable sources on the EU overall gross energy consumption in 2020. In particular, the Hungarian 2020 national target has been set by that Directive at 13 % share of energy from renewable sources on national final gross energy consumption.
- (4) Based on the latest available data from Eurostat, in 2015 Hungary's RES share on total final gross energy consumption was 14,5 %, with electricity from renewable sources (RES-e) representing 7,3 % of total electricity generation. New investment is still required in order to further promote RES or to reach the abovementioned national RES target.
- (5) Such investment requires in turn additional funding because current and projected electricity prices in Hungary are not sufficient to support investment in electricity production from renewable sources. Due to the production costs of RES-e and the current electricity market price level, estimated by the Hungarian authorities at around 10 HUF/kWh, investments in RES installations are unlikely to occur without financial support.

The Hungarian electricity market

- (6) The current structure of the Hungarian electricity market took shape around 1995, when the majority of large power plants, public utility suppliers as well as distribution companies were privatised. The State retains a dominant position in the sector through the state-owned vertically integrated energy company MVM Group.
- (7) In Hungary, the most common transactions of wholesale are concluded via bilateral power purchase agreements (PPAs) where generators agree to sell a minimum pre-defined volume to wholesale traders and where traders are obliged to purchase a minimum volume. The PPAs are mostly concluded under the standards set out by the European Federation of Energy Traders.

¹ 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).

- (8) The Hungarian electricity market is organised as a day-ahead wholesale market (HUPX DAM), established in 2010 and an intraday market (HUPX IDM) put into operation in Hungary in March 2016. In 2016, 17 720,7 GWh were traded in the HUPX DAM market, with an average daily traded volume of 48,4 GWh. Between March 2016 and December 2016 11,11 GWh were traded in the HUPX IDM market.
- (9) In addition to the organised day-ahead and intra-day markets, HUPX has cooperation agreements with two broker companies providing a service of submitting over-the-counter (OTC) deals for exchange clearing for common clients.
- (10) In addition to the day-ahead auctions not organised by HUPX, electricity is also traded on exchanges based in the EU or OTC platforms as well as via direct bilateral deals (see recital (7)).

2.3. Beneficiaries

- (11) The beneficiaries of the notified measure will be new installations producing electricity from RES. Existing installations that undergo a significant refurbishment or development with a cost exceeding 50 % of the original initial investment costs can participate in the tendering procedure. Existing power plants using biomass or biogas are eligible also for support in form of a feed-in-premium (FiP).
- (12) The technologies that will be eligible for support under the notified measure are RES defined as non-fossil and non-nuclear energy sources, such as solar, wind, aerothermal, geothermal, hydrothermal, hydropower, biomass, landfill gas, sewage treatment plant gas and biogas. Biomass is defined as agriculture, forestry and related products, waste and residues for agriculture, as well as the biodegradable fraction of industrial and municipal waste.
- (13) Hungary has confirmed that when granting aid to small hydropower installations, it will fully respect the provisions of Directive 2000/60/EC of the European Parliament and the Council² (the Water Framework Directive). All hydropower developments are required to obtain the relevant environmental permits prior to the granting of aid, including an approval by the competent river basin authority that the hydropower plants have been developed in accordance with Article 4(7) of the Water Framework Directive.
- (14) With regard to support provided under the notified scheme to plants using renewable fuels originating from waste, Hungary has confirmed that the waste hierarchy, as set out in the Directive 2008/98/EC of the European Parliament and of the Council³ (the Waste Framework Directive), will be respected.

² Directive 2000/60/EC of the European Parliament and the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1).

³ Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (OJ L 312, 22.11.2008, p. 3).

Firms in difficulty or subject to an outstanding recovery order

(15) Hungary has committed to ensuring that firms in difficulty, as defined by the *Guidelines on State aid for rescuing and restructuring firms in difficulty*,⁴ and those which are subject to an outstanding recovery order following a previous Commission decision declaring an aid measure illegal and incompatible with the internal market will not be eligible to receive support under the notified measure.

2.4. Form of the aid and level of support

2.4.1. Calculation parameters

(16) Hungary has provided estimations for the costs of project development as well as the supply and installation of the equipment (CAPEX, expressed in million HUF per MW), the fixed and variable operational costs (OPEX, expressed in million HUF per MW for the first year of operation, afterwards they are assumed to evolve with inflation), the expected electricity production and all other technical and accounting parameters that determine the costs and revenue of the relevant RES units. According to Hungary, the typical cost and performance parameters constitute a representative depiction of the current RES technologies. They reflect the maturity of the relevant technologies, grid connection costs and operational characteristics of installations in Hungary. The assumptions used in the calculations are summarised in Table 1.

Technology- installation category	Installed power [kW]	CAPEX [MFt/MW]	OPEX [MFt/year]	Utilisation factor	Approximate LCOE (Ft/kWh)
Biomass	490	2 308	175	31 %	66,74
	990	1 419	178	78 %	44,41
Biogas	490	1 307	88	77 %	43,86
	990	1 242	178	77 %	42,66
Landfill gas	490	551	42	86 %	17,72
	990	497	86	86 %	12,60
PV	495	333	2,7	16 %	34,25
	990	312	8,4	16 %	34,27

Table 1. Typical cost and performance parameters.

- (17) Support can take the form of a feed-in-tariff (FiT) for installations with a capacity below 500 kW (with the exception of wind plants) and demonstration projects. Installations with a capacity below 1 MW may benefit from aid in the form of an administratively set feed-in-premium (FiP). The subsidised price for premium-based support shall be established through a competitive bidding procedure for wind installations and installations with a rated capacity equal or above 1 MW.
- (18) Support will be paid during 25 years to biogas and solid biomass installations in form of FiT or FiP, 20 years to solar installations in form of FiT or FiP, 6 years to landfill gas plants in form of FiT and 5 years to landfill gas plants in form of FiP.

⁴ Communication from the Commission – Guidelines on State aid for rescuing and restructuring non-financial undertakings in difficulty (OJ C 249, 31.7.2014, p. 1).

- (19) The internal rate of return (IRR) used for calculating the level of the FiT and FiP and the duration of support is 6,94 %. This rate of return has been calculated by the Hungarian authorities taking into consideration the average yield for the last year on forint-denominated Hungarian government bonds for 15 years, the sector beta measuring the volatility or systematic risk of the electricity sector and the market risk premium for a mature market.
- (20) The FiT and FiP are actualised every year, on 1st of January by multiplying the value applied in the previous year by the average of the monthly consumer price index, published each month by the Hungarian Central Statistical Office, reduced by a 1 % efficiency improvement factor.

2.4.2. Feed-in-tariffs (FiT)

- (21) Installations with a capacity below 500 kW and demonstration projects may benefit from aid in the form of a FiT. Wind power plants cannot benefit from FiT.
- (22) In the case of demonstration projects, the HEA will individually assess each proposal in order to decide if the project can qualify as demonstration project. Demonstration projects are defined as projects which demonstrate the technology used for the first time in the European Union and represent a significant innovation going well beyond the state of the art.
- (23) The base FiT for electricity generated from RES, in HUF/kWh, are reflected in Table 2.

Solar Energy			
31,77			
All RES except solar			
Peak period	35,50		
Off-peak period	31,77		
Low off-peak period	12,96		

Table 2. Base feed-in-tariffs for electricity generated from RES [HUF/kWh].

- (24) Time periods are fixed in Annex 2 of Governmental Decree 165/2016 and depend on the hour of the day, on the distribution area concerned (ÉDÁSZ, DÉDÁSZ, TITÁSZ, DÉMÁSZ, ÉMÁSZ and ELMŰ), on whether the day belongs to winter or summer time according to daylight saving time arrangements and on whether the day is a working day or not.
- (25) The duration of support and the maximum subsidized energy per year for installations benefitting from a FiT are reflected in Table 3.

Table 3. Maximum duration of support and subsidized energy for installationsbenefiting from a FiT.

Technology	Duration [year]	Maximum energy [kWh/kW•year]
Biogas	25	6 750
Landfill gas	6	7 500
Solar (fixed)	20	1 100
Solar (solar tracker)	20	1 500
Solid biomass	25	6 900

- (26) The amount of electricity used for settlement each month shall be established by aggregating the amounts for each settlement period according to the relevant daily time periods (zone times).
- (27) If the power plant generates electricity using different sources of energy in the same technological process, as in the case of co-firing, the energy source ratio calculated for each month shall be applied equally to each settlement period.

2.4.3. Feed-in-premiums (FiP)

- (28) Installations with a capacity below 1 MW, except wind power plants, may benefit from aid in the form of an administratively set FiP.
- (29) Installations that could benefit from a FiT (i.e. installations with a capacity below 500 kW) might opt for a premium based support. Installations opting for a premium based support cannot later apply for support in the form of a FiT.
- (30) The FiP shall be calculated as the difference between the subsidised price and the reference market price. Generators will earn money from selling their electricity on the market, but when the reference market price is below the subsidised price, generators will also receive a premium to cover the difference. If the difference is negative, the amount of the difference shall be paid back by the subsidised generator.
- (31) Existing power plant units using biomass or biogas are eligible for a FiP (brown premium). Eligibility for this brown premium shall be decided by the HEA at the generator's request.
- (32) For existing power plants using biomass or biogas benefiting from the brown premium, the subsidy shall be calculated (i) on the basis of the difference between the costs of the power plant unit's power generation if fossil fuels were to be used and those of the power generation from biomass or biogas or (ii) on the basis of the operational costs of the plant unit, including the additional investment needed to ensure continuous operation. The premium shall be granted for a maximum of 5 years, during which the rate of subsidy shall be revised once a year.

2.4.3.1. Balancing responsibilities

(33) Producers of electricity covered by the premium-based support scheme shall conclude an agreement with the transmission system operator (TSO) based on the TSO's code of practice. Hungary has confirmed that the tasks of power plants receiving premium-based support are the same as for any other power plant. These plants need to join a balancing circle and they have to fulfil the timetable related tasks according to their agreements with the balance circle managers, and they need to pay the sanctions in case of deviations from the timetable. The balance circle managers implement their tasks related to providing the timetable to the Hungarian TSO (MAVIR) in accordance with the commercial regulation, and they pay the sanctions for the deviations of their balance circle from the timetable.

2.4.3.2. The reference market price

(34) The reference market price will be based on the price in the HUPX DAM.

- (35) The reference market price will be differentiated between variable (solar and wind) and non-variable installations:
 - (a) For solar power stations, as the weighted monthly average price of the day-ahead hourly prices of the organised electricity market for each hour of the month, weighted with the aggregated production of solar power station units subject to FiT or FiP;
 - (b) For wind power station units, as the weighted monthly average price of the day-ahead hourly price of the organised electricity market for each hour of the month, weighted with the aggregated production of wind power station units subject to FiT or FiP;
 - (c) For the rest of power station units, as the monthly arithmetic mean of the hourly day-ahead price of the organised electricity market.
- (36) The reference market price will be determined in HUF/kWh, using the arithmetic mean of the daily exchange rates published by the Hungarian Central Bank to calculate the EUR/kWh value.
- (37) The reference market prices will be determined and published by MAVIR on its website on the 5th business day of the month following the month for which the reference price is fixed.

2.4.3.3. The subsidised price

- (38) The subsidised base price for all RES installations benefiting from an administratively set FiP shall be 31,77 HUF/kWh.
- (39) The duration of support and the maximum subsidized energy per year for installations benefitting from an administratively set a FiP are reflected in Table 4.

Table 4. Maximum du	ation of support and	subsidized ener	gy for installations
benefiting from an admi	nistratively set FiP.		

Technology	Duration [year]	Maximum energy [kWh/kW•year]
Biogas	25	6 750
Landfill gas	5	7 500
Solar (fixed)	20	1 100
Solar (solar tracker)	20	1 500
Solid biomass	25	6 900

2.4.4. Negative prices

- (40) If the hourly prices of the HUPX DAM are negative for at least 6 consecutive hours, no premium shall be paid from the first hour of negative prices.
- (41) As indicated in paragraph (8), the volume of electricity traded in the HUPX IDM is very small compared with the volume of electricity traded in the HUPX DAM market. In addition, the intra-day market was established in Hungary in March 2016. The Hungarian authorities have committed to evaluate the adequacy of using a market closer to real time operation as reference for the determination of

episodes of negative prices once enough experience with the intra-day market is gathered.

2.4.5. Auto-producers

(42) The aid scheme applies only to electricity fed into the grid. Electricity produced for own consumption is not eligible for aid. Own consumption is defined as the total electricity consumption of the site of the power plant unit, including the electricity from its own output or from the grid used in the power plant unit's electricity and thermal energy generation and the operation of the means of production, as well as all electricity consumption for any other purpose at the site by the company that owns the power plant.

2.4.6. Co-firing

- (43) In the case of co-firing, the amount of electricity that may be taken into account for the purposes of FiT or FiP based support shall be calculated proportionally based on the fuel input (based on its calorific value) broken down by its various energy sources for a given month.
- (44) Co-firing plants shall submit to HEA detailed information regarding the allocation of cost and revenues for each fuel and the calculation used for determining the amount of electricity taken into account for the purposes of the mandatory FiT or FiP based support.

2.4.7. Monitoring

- (45) The level of remuneration will be reviewed each year before 1 November.
- (46) The parameters relating to solar power plant will be reviewed every six months, before 1 May and before 1 November.
- (47) Additional reviews may be carried out in the event of major economic, legislative and other relevant changes.

2.4.8. Cumulation

- (48) For each individual application, HEA will check the amount of support received from any other source. The value of the other support at the time of the initial investment will be deducted from the value of investment when calculating its net present value.
- (49) Rebates on grid connection fees will also be considered as support.
- (50) The duration of the support will be modified following the formula:

$$A_2 = \left(\frac{1-T_2}{1-T_1}\right) \cdot A_1$$

 A_1 , is the original support period;

 A_2 , is the modified support period;

 T_1 , is the present value of the other support as a percentage of the investment costs before the modification;

 T_2 , is the present value of the other support as a percentage of the investments costs after the modification.

- (51) Under this approach, it is ensured that the investment aid received by a RES installation leads to a reduction of the operating aid that the installation is entitled to receive by an equivalent amount.
- (52) The Hungarian authorities have confirmed that guarantees of origin will be priced and taken into account when determining the duration of support. A value of 0,2 EUR/MWh has been used.

2.5. Competitive bidding procedure

- (53) The subsidised price for premium-based support shall be established through a competitive bidding procedure for installations with a rated capacity equal or above 1 MW and wind installations.
- (54) New installations and existing installations that undergo a significant refurbishment or development with a cost exceeding 50 % of the original initial investment costs can participate in the tendering procedure.
- (55) HEA will be responsible for preparing and publishing the calls for tenders, elaborating the documentation and evaluating the bids.
- (56) The Hungarian authorities have committed to organise technology-neutral tenders. The call for tenders shall determine the main elements, in particular:
 - (a) The capacity for tendering and any limit on the new annual subsidy that may be distributed;
 - (b) The deadline for commencing commercial operation for all bidders or for each technology.
- (57) Bids may be accepted only up until the limits specified in the call are reached, in the order of the bid prices specified for the bids. Bids higher than the highest bid price shall be disregarded.
- (58) Winners of the competitive bidding process shall be entitled to subsidies based on an initial subsidised price identical to their bid price.

Opening up of tenders to non-domestic RES producers

- (59) In order to remedy any possible discrimination under Articles 30 or 110 TFEU, bidders having their permanent establishment outside Hungary will be allowed to participate in the competitive bidding processes.
- (60) The share of tendered out support to be opened to foreign producers will be calculated by taking into account the yearly imports of electricity from each neighbouring country (EEA countries or countries with whom the EU has concluded free trade agreements covering energy), the renewable electricity share of these imports, based on the renewable share of each neighbouhouring country,

and the annual electricity supply in Hungary. The quotient between the sum of the imports multiplied by the renewables share from each neighbouhouring country and the annual electricity supply in Hungary will be the minimum percentage of the support scheme to be opened to foreign producers.

- (61) Data will refer to the previous year, or the last year available.
- (62) The final remuneration of imported RES production will be subject to evidence of the physical import of electricity from renewable sources (e.g., bilateral contracts with generator or importer, interconnection capacity rights, participation of import in the day ahead schedule, etc.), insofar as the presentation of such evidence is feasible.
- (63) The support for electricity generated outside Hungary is conditional to the conclusion of intergovernmental arrangements.
- (64) Based on this methodology and taking into account the data for 2015, an estimated share of around 12 % of the total annual new RES-e capacity would be expected to be open to RES-e producers outside Hungary. The percentage to be opened to producers outside Hungary will be updated each year on the basis of the methodology described in recital (60).

2.6. Application procedure

- (65) Beneficiaries not selected through tenders will be required to submit a standard application form which will include: (i) a declaration that no installation works have been carried out, (ii) information on the size of the undertaking, (iii) the amount of aid needed, (iv) the eligible costs, as well as (v) a counterfactual scenario which in case of large undertakings will have to be supported by documentary evidence. The credibility of the information submitted will be evaluated in order to confirm that the aid has the required incentive effect.
- (66) The Hungarian authorities have confirmed that aid will not be granted in cases where works on the project had already started prior to the aid application.

2.7. Financing, budget and duration

- (67) The duration of the notified scheme is 10 years (i.e. 2017-2026).
- (68) The maximum budget of the aid to RES installations under the notified scheme has been estimated at HUF 45 billion per year between 2017 and 2026. The Hungarian authorities have established further limits regarding the budget allocated to installations entering into the support scheme each year. These limits have been established at HUF 1 billion for installations under FiT, HUF 0,5 billion for installations under administratively set FiP and HUF 1 billion for installations participating in competitive bidding processes, with the exception of existing biomass or biogas plants. For existing biogas or biomass plants the maximum budget has been set at HUF 20 billion per year for the complete duration of the scheme.

- (69) The funding of the support scheme is based on a levy borne exclusively by consumers not eligible for the provision of universal services. The Hungarian authorities have confirmed that end users eligible for universal services are:
 - (a) Household consumers and low-voltage consumers for which the aggregated connection capacity on all their consumption sites does not exceed 3x63 A;
 - (b) Budgetary bodies specified under the relevant legislation, including their institutions carrying out public duties, local governments and their institutions carrying out public duties, incorporated ecclesiastic entities in connection with their public duties, and institutions maintained by foundations and carrying out public duties having submitted a request to the universal service provider.
- (70) Economic enterprises owned by the state or local governments are not entitled to universal service provision.
- (71) The duration of the operating aid is 25 years for all RES-e installations, except for landfill gas installations for which the duration of the aid is 5 or 6 years, and solar installations for which the aid has a duration of 20 years.

2.8. Transparency

(72) The Hungarian authorities commit to ensure the publication of information on a central State aid website after the enactment of the new support scheme. This information shall include: the full text of the approved aid scheme and its implementing provisions, or a link to it, the identity of the granting authority, the identity of the individual beneficiaries, the form and amount of aid granted to each beneficiary, the date of granting, the type of undertaking (SME/large company), the region in which the beneficiary is located (at NUTS level II) and the principal economic sector in which the beneficiary has its activities (at NACE group level).

2.9. The scheme and the General Block Exemption Regulation

(73) Hungary puts forward that a part of the notified scheme concerning producers which are not existing power plant units using biomass or biogas eligible for a FiP (brown-premium) and demonstration projects has been operational since January 2017 as it was reported to the Commission under SA.47331 (2017/X) pursuant to the General Block Exemption Regulation⁵.

3. Assessment of the measure

3.1. Presence of State aid

(74) A measure constitutes State aid in the meaning of Article 107 (1) TFEU if it is "granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain

⁵ Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty (OJ L 187, 26.6.2014, p. 1–78).

undertakings or the production of certain goods [...] in so far as it affects trade between Member States".

(75) Under the notified scheme, RES generators receive support from the Hungarian Government for the electricity generated. The notified scheme favours the generation of electricity from RES by the selected beneficiaries. Electricity is widely traded between Member States, for which reason the notified scheme is likely to distort the competition on the electricity market and affect trade between Member States. Therefore the notified measures constitute State aid in the meaning of Article 107 TFEU.

3.2. Legality of the aid

- (76) Hungary has confirmed that the scheme will be put into effect only after a final Commission decision stating its compatibility with the internal market has been taken.
- (77) As indicated in recital (73), the parts of the scheme which do not refer to existing power plants units using biomass or biogas eligible for a FiP were put into force by Hungary as from 1 January 2017 under Articles 42 and 43 of Commission Regulation (EU) No 651/2014⁶.
- (78) The Commission concludes that Hungary has complied with the stand-still obligation set out in Article 108(3) TFEU.

3.3. Compatibility of the aid

- (79) The Commission notes that the notified scheme aims at promoting the generation of electricity from RES. Consequently, the notified scheme falls within the scope of the Guidelines on State aid for environmental protection and energy 2014-2020 (EEAG).⁷
- (80) The scheme provides support to the beneficiaries by providing payments based on production output over a certain period of time after the original investment. The Commission has therefore assessed the notified measures on the basis of the general compatibility provisions of the EEAG (set out in Section 3.2 thereof) and the specific compatibility criteria for operating aid granted to energy from renewable energy sources (Section 3.3.2 of the EEAG).

3.3.1. Objective of common interest

(81) The aim of the notified aid measure is to help Hungary achieve the renewable energy targets set by the EU as part of its 2020 strategy, in particular to meet its national target of an 13 % share of energy from RES in the national gross final consumption by 2020 (see recital (3)) and to ensure Hungary's contribution towards achieving the EU RES target by 2030.

⁶ Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty (OJ L 187, 26.6.2014, p. 1).

⁷ OJ C 200, 28.6.2014, p. 1.

- (82) The Commission considers that the notified scheme is clearly aimed at an objective of common interest in accordance with Article 107(3) of the Treaty.
 - 3.3.2. Need for State aid and appropriate instrument
- (83) In point 107 of the EEAG, the Commission acknowledges that "under certain conditions State aid can be an appropriate instrument to contribute to the achievement of the EU objectives and related national targets".
- (84) For the notified scheme, Hungary has demonstrated that without the aid there would be no further investment in RES-e generation since the costs are above the electricity market price. The operating aid is also needed to ensure the fulfilment of the RES target by 2020 and ensure Hungary's contributions towards achieving the EU RES target by 2030. The RES share in the total gross energy consumption in 2015 was 14,5 %. New investments are required in order to further increase the RES share in the Hungarian market or meeting the national RES target in 2020. Hungary has provided calculations demonstrating that support for electricity production from RES is still needed (see recitals (16), (17) and (19)).
- (85) On the basis of these estimates, the Commission concludes that, due to persistent negative externalities, large scale deployment of RES installations would not be financially viable without State aid.
- (86) Point 27(c) of the EEAG stipulates that in order to be deemed compatible State aid measures must be an appropriate policy instrument to address the objective of common interest.
- (87) According to point 116 of the EEAG, in order to allow Member States to achieve their national energy and climate change targets, the Commission presumes aid to energy from RES to be appropriate and have limited distortive effects provided all other compatibility conditions are met.
- (88) Compliance with all other compatibility conditions is assessed in Sections 3.3.3 to 3.3.6 below. Consequently, the Commission considers that for the notified scheme the aid is necessary and that it is an appropriate instrument to address the objective of common interest.
 - 3.3.3. Incentive effect
- (89) In line with point 49 of the EEAG, the incentive effect occurs if the aid induces the beneficiaries to change their behaviour towards reaching the objective of common interest which they would not do without the aid.
- (90) The Commission notes on the basis of the calculations submitted by the Hungarian authorities that in the absence of aid RES installations will not be deployed at the required scale and pace, as without the aid such projects would not be financially viable. The aid has therefore an incentive effect, since it determines the beneficiaries to change their behaviour and invest in RES projects.
- (91) As mentioned in recital (65), Hungary confirmed that where the aid is awarded not on the basis of a competitive bidding process, the applicants will have to fill in an application form to receive support and those applications for aid must be submitted prior to starting works on the project. The Commission notes that the notified scheme complies with the provisions in points 50 and 51 of the EEAG.

3.3.4. Proportionality

- (92) 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 to achieve the environmental protection objective aimed for.
- (93) The Commission assessed proportionality of the aid under the provisions of Section 3.3.2 of the EEAG on operating aid to energy from renewable sources.
- (94) As described in recitals (28) to (33), under the support scheme, aid to installations with a capacity equal or above 500 kW and below 1 MW, will be granted in the form of an administratively set FiP. This is in line with the requirement of point 124(a) of the EEAG.
- (95) As per point 124(b) of the EEAG, beneficiaries need to be subject to standard balancing responsibilities. As indicated in recital (33), the notified scheme ensures that installations benefiting from a FiP are subject to standard balancing responsibilities.
- (96) For installations benefiting from a FiP, the support will be set to zero in case the system marginal price in the HUPX DAM is negative for six or more consecutive hours (see recitals (40) and (41) above). The Commission considers that to comply with point 124(c) of the EEAG.
- (97) As set out in recitals (21) to (27), the aid will take the form of a FiT for installations with a capacity below 500 kW and demonstration projects, as allowed by point 125 of the EEAG.
- (98) As specified in point 127 of the EEAG, only installations with an installed electricity capacity of less than 1 MW, or demonstration projects, are excepted from the participation in a competitive bidding procedure. As specified in point 128 of the EEAG, in the absence of competitive bidding procedures, the Commission assesses proportionality of the aid under the provisions of point 131 of the EEAG.
- (99) Point 131(a) of the EEAG states that the aid per unit of energy must not exceed the difference between the LCOE for the relevant technology and the market price of the form of energy produced. Hungary has estimated the market price of electricity at approximately 10 HUF/kWh during the lifetime of the installations.
- Point 131(b) of the EEAG allows a normal return on capital to be included in the LCOE. As indicated in recital (19), Hungary has calculated an IRR of 6,94 %. This appears to be in line with IRR of RES projects recently approved by the Commission.⁸
- (101) Point 131(c) of the EEAG provides that the production costs are to be updated regularly, at least every year. As indicated in recitals (45) to (47) above, Hungary will put in place a monitoring mechanism to review at least on an annual basis the production costs for all categories and will update the applicable reference values accordingly.

⁸ See for example the decisions in cases SA.38758, SA.38759, SA.38761, SA.38763, SA.38812, SA.38796, and SA.43756.

- (102) Point 131(d) of the EEAG states that aid will only be granted until the plant has been fully depreciated. As indicated in recital (71), the duration of the operating aid is 25 years for all RES, except for landfill gas installations for which the duration of the aid is 5 or 6 years, and solar installations for which the aid has a duration of 20 years. The Hungarian authorities have indicated that the support duration will not exceed the depreciation period of plants under normal accounting rules.
- (103) In light of the above, the Commission concludes that remuneration granted to installations with a capacity below 1 MW satisfies the conditions of point 131(a),
 (b) (c) and (d) of the EEAG and is, therefore, proportionate in the meaning of point 69 of the EEAG.
- (104) As indicated in recital (31), existing power plant units using biomass or biogas are eligible for a FiP (brown premium). Aid for existing biomass plants after plant depreciation has to be evaluated according to Section 3.3.2.3 of the EEAG.
- (105) According to points 133 and 134 of the EEAG the Commission will consider operating aid for biomass after plant depreciation compatible with the internal market if the Member State demonstrates that the operating costs borne by the beneficiary after plant depreciation are still higher than the market price for the energy concerned or that the use of fossil fuel as input is more economically advantageous than the use of biomass and the aid is only granted on the basis of the energy produced from renewable sources, the measure is designed in such a way that it compensates the difference in operating costs borne by the beneficiary using biomass compared to the market price or compared to the use of alternative fossil fuel credible evidence is provided that without the aid a switch from the use of biomass to fossil fuels would take place within the same plant; and a monitoring mechanism is in place to verify that the operating costs borne are still higher than the use of biomass. The monitoring mechanism needs to be based on updated cost information and to take place at least on an annual basis.
- (106) According to the definition of biomass in Section 1.3 of the EEAG, biomass means the biodegradable fraction of products, waste and residues from agriculture (including vegetal and animal substances), forestry and related industries including fisheries and aquaculture, as well as biogases and the biodegradable fraction of industrial and municipal waste. In consequence biogas is also covered by the provisions of points 133 and 134 of the EEAG.
- (107) As indicated in recital (32), for installations benefiting from a brown premium, the FiP will be calculated on the basis of the difference between the costs of the power plant unit's power generation from fossil fuels and those of the power generation from biomass or biogas or on the basis of the operational costs of the plant. The amount of support will be defined on the basis of the authorization by HEA after analysis of the information provided by the possible beneficiary, the HEA will take into account the business plan and carry out a verification of the energy sources used, the nominal capacity, the technological features, best available technologies and other relevant parameters of the installation. Hungary has confirmed that the aim of the measure is avoiding the shutting down of these plants. As indicated in recital (43), Hungary has confirmed that in case of use of mixed energy sources, the amount of electricity involved in the mandatory off-take or premium support, will be calculated by the composition and kind of fuels,

while in case of heat production, the same fuel structure will be applied. Hungary has confirmed that for the definition and setting of the support, the power plant has to present the cost of fossil based and biomass based operation and give detailed reasons for the different costs. Hungary has confirmed that aid granted for 5 years by the subside shall be revised once a year.

- (108) In light of the above, the Commission concludes that the remuneration for existing biomass and biogas plants after depreciation satisfies the conditions of Section 3.3.2.3 of the EEAG (in particular points 133 and 134 thereof) and is, therefore proportionate in the meaning of point 69 of the EEAG.
- (109) Point 126 of the EEAG provides that from 1 January 2017 onwards, all aid to renewable installations should in principle be granted by means of a competitive bidding process on the basis of clear, transparent and non-discriminatory criteria. Additionally, when such competitive bidding process is open to all generators producing electricity from RES on a non-discriminatory basis, the proportionality of the aid will be presumed.
- (110) As indicated in recital (53) above, aid to installations with an installed electricity capacity equal or above 1 MW and wind installations will be granted through a competitive-bidding process. These processes will be open to all generators producing electricity from RES on a non-discriminatory basis. The Commission considers that this justification is acceptable in view of point 126 of the EEAG.

3.3.5. Distortion of competition and balancing test

- (111) According to point 90 of the EEAG, the Commission considers that aid for environmental purposes will by its very nature tend to favour environmentally friendly products and technologies at the expense of other, more polluting ones. Moreover, the effect of the aid will in principle not be viewed as an undue distortion of competition since it is inherently linked to its very objective.
- (112) According to point 116 of the EEAG, the Commission presumes aid to electricity from RES to have limited distortive effects provided all other compatibility conditions are met.
- (113) In the present case, the Commission considers that aid to RES-e installations does not have undue distortive effects on competition and trade because the applicable conditions laid out in Section 3.3.2.1 of the EEAG are fulfilled (see recitals (92)-(103)).
- (114) Moreover, as set out in recital (15), the Hungarian authorities have committed not to grant any aid to firms in difficulty or to those which are subject to an outstanding recovery order following a previous Commission decision declaring an aid measure illegal and incompatible with the internal market, in compliance with points 16 and 17 of the EEAG.
- (115) Consequently, the Commission concludes that the distortion of competition caused by the notified scheme is balanced by the positive contribution towards common policy objectives.

3.3.6. Transparency

- (116) Point 104 of the EEAG requires Member States to ensure the transparency of the aid granted, by publishing certain information on a comprehensive State aid website.
- (117) The Commission notes that Hungary has committed to ensure the transparency of the aid granted and ensure the publication of information pursuant to point 104 of the EEAG on a central State aid website, as set out in recital (72) above.

3.3.7. Other provisions of Union law

3.3.7.1. Articles 30 and 110 TFEU

- (118) As set out 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. The Commission has therefore verified if the financing mechanism of the notified aid measure complies with Articles 30 and 110 TFEU.
- (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 used to support activities which specifically benefit the taxed domestic products. If the advantages which those 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 this provision as regards the proportion used to offset the burden borne by the domestic products.⁹
- (120) If 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 from RES installations and thereby violates Articles 30 or 110 of the Treaty.¹⁰
- (121) As described in recital (69), the funding of the support scheme is based on a levy, charged on electricity consumption, to be paid by electricity consumers not eligible for universal services.
- (122) Hungary has committed to open up each year the RES competitive bidding process for producers established in other EEA countries or in countries with

⁹ Joined Cases C-128/03 and C-129/03 AEM, EU:C:2005:224, paragraphs 44 to 47; Case C-206/06 Essent, EU:C:2008:413, paragraph 42.

¹⁰ Case 47/69 *France v Commission*, EU:C:1970:60, paragraph 20.

which the European Union has concluded trade agreements to the extent and under the conditions set out in recitals (62), (63) and (64) above.

(123) The Commission considers the partial opening, established in recital (64), of the tenders to remedy any discrimination against producers of green electricity in other Member States, under Articles 30 and 110 TFEU.

3.3.7.2. Environmental legislation

- (124) As set out in recital (13), when granting aid to small hydropower installations, Hungary will fully respect the provisions of the Water Framework Directive, as requested by point 117 of the EEAG.
- (125) As set out in recital (14), Hungary has also taken measures to ensure that aid granted under this scheme does not lead to circumvention of the waste hierarchy, in compliance with point 118 of the EEAG.

3.3.8. Conclusion with regard to the compatibility of the measure

(126) In light of the above assessment, the Commission considers that the notified aid scheme pursues an objective of common interest in a necessary and proportionate way and that therefore the aid is compatible with the internal market on the basis of the EEAG.

4. 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.

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> Yours faithfully For the Commission

Margrethe VESTAGER Member of the Commission