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**Subject: State Aid SA.48881 (2018/N) – Portugal
Special regime of support for biomass-operated generators close to
forests in Portugal**

Sir,

1. PROCEDURE

- (1) After a pre-notification period starting in August 2017, on 9 March 2018 the Portuguese authorities notified to the Commission a support scheme for the production of electricity from biomass, through generation facilities installed close to forests at risk of fire in Portugal. Requests for information were sent on 4 and 18 May 2018, additional information was submitted by Portugal on 26 July, on 4 September, on 1 October and lastly on 19 November 2018.

2. DESCRIPTION

2.1. Background

- (2) In the aftermath of a series of forests fires in Portugal, in particular in 2017, which involved significant loss of lives, property and natural capital, Portuguese authorities intend to intervene to prevent new forest fires through the creation of incentives for cleaning up the forests and making an economic use of biomass residues.
- (3) Portugal forest areas cover around 35% of mainland Portugal. They supply various essential products for industrial activities and contribute to generating 2% of GDP. Forest fires jeopardise this asset and have an impact on the sustainability

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of the 64 % of the territory covered by forests and scrubland. Between 1980 and 2006, according to official data, forest fires destroyed more than 3 million hectares. The area, which has been object of fires in recent years, has brought the devastation of the forests into even sharper focus.

- (4) Forest fires are not merely a problem of forest policy and sustainability, but also a civil protection concern on two fronts: defending the physical integrity of the population and preserving their means of subsistence and their property.
- (5) As part of a series of environmental measures related to forests, in line with the 2006 National Forest Defence Against Fires Plan¹, the Government launched in 2006 public tenders aimed at building and operating 15 power plants, totalling 100MW of installed capacity to be fuelled with residual forest biomass. Portuguese authorities clarified that the public tender was not successful because of lack of interest by private investors: until 2016 only 2 of the 15 biomass power plants were constructed².
- (6) According to the Portuguese authorities, the reasons for this failure were various, but one that is particularly stressed is the sub-optimal location of the plants. The Portuguese authorities quoted a study that argues that some *'inefficient stations were built in locations too distant from the sources of biomass requiring excessive transport costs. And some are just too large and the biomass supply is insufficient in the surrounding area'*³. The study, therefore, recommends learning from these experiences and *'to create a strategy that locates many smaller stations closer to biomass sources and potentially increase the electricity generating output'*⁴

¹ The National Plan of Forest Defence Against Fires, Plano Nacional de Defesa da Floresta Contra Incêndios (PNDFCI) (2006-2018) was approved by the Council of Ministers in May 2006, RCM n.º 65/2006. The PNDFCI defines strategy and actions to promote forest management, aiming to mitigate fire hazard: increase the territorial resilience; reduce re occurrence; improve fire fighting and management; recover ecosystems; improve the organic and functional structure. Portuguese Authorities have also adopted on 2006 and lastly, on 2015 the National Forest Strategy (ENF), containing the Strategic framework for national forest sector, concerning: the mitigation of fire and other biotic hazards; spatial planning; forest productivity; reduction of market risks; efficiency and competitiveness; simplification of policy tools. The 2016 Plan assumes periods of time ranging from 2006 to 2012 and from 2012 to 2018 as time periods for the development of sectorial policies and for the achievement of objectives and actions. The Plan is based in 5 axes of action: (1) increase the resilience of the territory to forest fires; (2) reducing the incidence of fires; (3) improving the effectiveness of the attack and fire management; (4) recover and rehabilitate the ecosystems; (5) adaptation of a functional and efficient organic structure.

² Two of the fifteen lots did not have candidates. Only two of the thirteen successful projects were finally built.

³ 'Portugal Wildfire management in a n New Era –Assessing Fire Risks, Resources and Reforms', Mark Beighley and Albert C. Hyde, February 2018 (https://www.isa.ulisboa.pt/files/cef/pub/articles/2018-04/2018_Portugal_Wildfire_Management_in_a_New_Era_Engish.pdf, last checked on 1/10/2018). The study also points to the 'lack of economic stimulus for promoting opportunities for larger scale biomass removal of understory, non-commercial vegetation and harvest residue for biofuel or electricity generation' as one of the main factors for the general lack of management of Portuguese forests and the high frequency of forest fires in Portugal.

⁴ The Report "Portugal Wildfire Management in a New Era - Assessing Fire Risks, Resources and Reforms", further underlines that *"Many flammable species that now choke forest understories need removal but have little commercial value. Increasingly, stands of eucalyptus go unharvested because the wood is not of acceptable quality for pulp. There's a massive amount of biomass growing in*

- (7) As set out in Law Decree n.64/2017 – approved after the 2017 summer fires, Portuguese authorities consider that a special and exceptional arrangement is needed for setting up and operating new small biomass power plants close to the forest at risk. The fundamental objective of the measure is to protect, manage and preserve forests and to fight forest fires, in line with the forest policy of the latest government program which promotes "the strengthening of the forest sector and the productivity of the silvicultural industry as well as the primacy of the forest protection against fires"⁵.
- (8) According to Portuguese authorities, those plants should be managed either by municipalities or by purpose-specific inter-municipal groupings or associations of municipalities, which have the public interest and legal responsibility for the management of forests in their respective territories. Municipalities need to play an essential role in boosting the market for logging remains and indirectly fostering good practices in managing and exploiting the forests in a sustainable manner.
- (9) The measure is distinct and is not related to the general RES support scheme approved by the Commission under case SA.41694 (2015/N) Portugal Support to renewable electricity in Portugal, which is a scheme in place until 31/12/2016, covering all RES technologies, and sizes, with a different system (tenders) for large/medium scale and feed-in tariffs for small-scale installations.

2.2. Objective, legal basis and description of the measure

- (10) The aim of the notified scheme, contained in a draft Decree of the Ministry of Economy and Energy, implementing a Law Decree of 2017 (Decree-Law No 64/2017 of 12 July 2017)⁶, is to protect forests, to manage and preserve them, and to fight forest fires.
- (11) Whereas the biomass-powered plants may consume biomass from any origin, the main objective of the measure is to improve the management of the forest areas- notably in "critical areas" at risk of fire⁷- through creating demand for

Portugal that, if not removed and disposed of, will fuel the next series of catastrophic fires. Some success has been made in addressing this by constructing large, low emission, biomass fueled electric generation stations scattered about the country. Stations in the north are working efficiently while others further south, are not. Lessons learned from these experiences should be used to create a strategy that locates many smaller stations closer to biomass sources and potentially increase the electricity generating output."

⁵ See Preamble of the Law Decree 64/2017 of 12/6/2017.

⁶ Portuguese Official Gazette, Series 1 — No 113 — 12 June 2017.

⁷ Portuguese Authorities have described as follows the procedure for the definition of "critical forests" contained in article 6 of Law Decree 124/2006 of 28 June, as amended by law Decrees 15/ and 17/2009 of 14 January, 114/2011 of 30 November and 83/2014 of 23 May. The critical forest areas consubstantiate the definition of Wildfire Hazard, which results from the overlap of three variables: fire history, slope and land occupation. The wildfire hazard is reviewed annually due to changes in soil occupation and fire history. The entity responsible for the elaboration of Wildfire Hazard map is the Portuguese forest authority - Portuguese Institute for Nature Conservation and Forests. The land occupation variable is based on the Corine Land Cover which is updated every six years, the last one being carried out in 2012. The historical fire variable is updated annually. Therefore, Wildfire Hazard is relatively dynamic but its overall reading remains consistent and stable.

preferentially local residual forest biomass⁸. This will contribute to fuel discontinuity and more fuel management areas, as well as the maintenance of the fuel break network, which will enable the retrenchment of large scale forest fires.

- (12) Biomass-powered plants may also consume wood, with no commercial value, from burnt forest areas, thus promoting its removal from forest areas. Otherwise, this material will be left standing on the ground, contributing to an even greater increase of fuel load in the future.
- (13) The consumption of biomass resulting from phytosanitary cuts will also be a priority⁹, as well as the use of biomass from woody invasive alien species areas. The spread of these species areas is increased by forest fires, with all the well-known adverse consequences, namely the loss of biodiversity and the decrease in the forest areas profitability.
- (14) A further objective of the measure is to achieve the renewable energy (RES) national objective. RES target for Portugal in 2020 is 31%. In 2016, Portugal already achieved 28.5%. The notified measure is expected to contribute for 0.12% out of the global 31% RES target.
- (15) As to the means to achieve such outcome, the measure aims at enabling municipalities to set up, either directly or indirectly (through consortia of municipalities or tendered out to third parties), biomass-powered installations, which will receive a premium for use of forest-residues from areas identified as at risk of fire/ "critical" zones) to produce electricity or electricity and thermal energy (by way of co-generation¹⁰) on mainland Portugal, up to a total of 60 MW of installed capacity, and with a maximum of 15 MW per power plant. As clarified by Portuguese authorities, based on national legislation since 2006 onwards, municipalities have acquired increasing relevance and competences in forest protection against fires, such as setting up and coordinating municipal commissions for the defence of forests against fires, drawing municipal forest protection plans, forest protection technical offices and fire brigades and notably setting up and maintaining fuel breaks and fuel management. After the 2017 forest fires, the Portuguese government even increased the obligations placed on municipalities, which are now responsible for checking the compliance by

⁸ Residual forest biomass is defined as the biodegradable fraction of products and debris resulting from the installation, management and forest exploitation (stumps, roots, leaves, branches), from the woody material of phytosanitary cuts, from forest fire protection measures, and from the control of woody invasive alien species areas, excluding leftovers from the wood processing industries (in particular bark, shavings, sawdust).

⁹ Portuguese authorities stated that the most serious plant disease problem in Portugal is the pine wilt disease caused by the *Bursaphelenchus xylophilus* nematode which is classified as a harmful organism to the European Union and referenced by the European and Mediterranean Organization for Plant Protection (EPPO) as a quarantine body, given its high destructive potential.

¹⁰ Portuguese authorities clarify that in the context of the present measure co-generation plants would be allowed to use only a maximum of 5% (computed on a yearly basis) of fossil fuel as auxiliary fuel.

landowners of their fuel management obligations and replacing the non-compliant landowners in their forest management obligations, as necessary¹¹.

- (16) The new power plants will use as biofuel, preferably, but not exclusively, the residual biomass of the nearby critical forest areas¹². Thus, in order to adjust the size of the plant to the available fuel, it has been estimated that plants will typically have an installed capacity of 2 – 3MW and a load factor of around 46/54% (about 4,030hrs/4,730hrs), which corresponds to an annual production of 263 GWh. Generation from these biomass plants will not be as significant as that from an average biomass power plant. As clarified by the Portuguese authorities, beneficiaries who intend to set up an installation with capacity of more than 2MW would need to show the sustainability of such capacity in the long term. In such a context, the number of new biomass plants is expected to be between 20 and 30.

2.3. Aid amounts, main features of the scheme and intensity

- (17) The scheme concerns both production of electricity and cogeneration. For the category of plants which produce only electricity the electricity produced and released into the public service electricity grid (rede elétrica de serviço público - RESP) shall be remunerated at the hourly market price (Pmercado referred to also as "Market price") of the Mibel daily market¹³, with the addition of the following supplements:
- i) a premium (market premium) per unit of electricity produced;
 - ii) a premium per unit of electricity produced for the plant's contribution to protect against forest fires and preserve forests (PDIF)¹⁴.
- (18) The market premium is a value expressed in euros per Megawatt hour (€/MWh), set by Decision of the Member of Government in charge of energy, according to a specific formula (see below). Portuguese authorities have clarified that the sum of Pmercado (Market price) and the Market Premium is equal to 119€/MWh - which is the average tariff paid in Portugal for biomass electricity production (Pfinal in the below formula)¹⁵.

¹¹ See in particular Article 15 of Decree law Nr. 124/2006 of 28 June, Law n. 20/2009 of May 12 and more recently Law Nr.76/2017 of August 2017, amending Decree law n.124/2006, Article 15.

¹² Since 57% of forest areas are classified as high and very high in wildfire hazard, these areas produce about 4.8 million tons of biomass per year.

¹³ For the purposes of determining the Pmercado, the average market price is understood as corresponding to the simple arithmetic average of the hourly prices on the national daily market, published by the operator of the market responsible for the daily market price (OMI-Polo Português) in the 12 months preceding the month to which the electricity production relates.

¹⁴ The PDIF (Prémio para Defesa contra Incendios e a Preservação da Floresta) is a value expressed in €/MWh set every two years by decision of the Member of Government in charge of energy. It is published on the DGEC's website by 30 November of the year preceding the year to which it relates, after having heard the views of the DGEC and the ERSE.

¹⁵ The Pfinal parameter is actualized on the basis of consumer electricity price index, see article 3.2 of the draft measure.

$$P_{mercado(h,d,m)} = P_{final} * - MIBEL_{(h,d,m)}$$

- (19) For biomass-powered electricity-only plants, Portuguese authorities have clarified that they would ensure that the subsidy would not be granted in case of negative prices (when $MIBEL_{(h,d,m)}$ is zero or below zero in the above formula).
- (20) As for the PDIF, Portuguese authorities have clarified that it consists of a payment (in the year following the production (n+1)), of an amount based on the following factors and the formula: a) the simple arithmetical average of the hourly prices of the daily national market ($P_{mercado}$), b) the percentage of the burnt area in the local district of the licensee in the year n (with a value going from 1 -for 0%- and decreasing conversely with the increasing percentage of burnt areas¹⁶); c) the amount of electricity produced in year n from biomass from forest residues originated in the critical forest areas:

$$PDIF = P_{average\ market\ price} * \%_{Burnt\ areas} * E_{Biomass\ forest\ residues}$$

- (21) Contrary to the market premium, which is paid per unit of electricity produced irrespective of the origin of the biomass fuel, this premium will only be paid in relation to the electricity produced from biomass originating from areas in the municipal district that have been identified as critical¹⁷.
- (22) In case of cogeneration, besides PDIF as above described, plants will benefit from a market premium, differentiated on the basis of the plant capacity (below and equal/above 2MW). Overall the sum of the $P_{mercado}$ and the market Premium would amount to 85,37€/MWh for cogeneration plants of an installed capacity under 2MW and to 69,29€/MWh for plants between 2 and 15 MW¹⁸. Furthermore, cogeneration plants will also benefit from two other premia: the Renewable energy premium ("PER") and the high-efficiency premium ("PEE" or

¹⁶ The draft measure sets out the following table as annex, referred to in article 5.2.

Percentage of burnt area municipality in year n	Parameter value % burnt area
0 %	1
[0 %; 10 % [0,9
[10 %; 20 % [0,7
[20 %; 30 % [0,5
[30 %; 40 % [0,3
[40 %; 50 %]	0,1
> 50 %	0

¹⁷ See definition in footnote 5.

¹⁸ As for the electricity only plants, the market premium is determined based on the formula:

$$P_{mercado(h,d,m)} = P_{final} * - MIBEL_{(h,d,m)}$$

. The P_{final} is revised on a tri-monthly basis, based on a procedure set in ordinance n.140/2012 of 14/5/2012 on cogeneration, as amended further by ordinance 325-A/2012 of 16/10/2012.

HEP)¹⁹. As clarified by Portuguese Authorities all mentioned premia (the market premium as well as PER and PEE/HEP) of the cogeneration installations are applied only if installations are "high-efficiency" cogeneration plants²⁰.

- (23) While the electricity produced from the plants will be bought (at the mentioned subsidised conditions) by the Supplier of Last Resort (SoLR), based on long-term contracts, the producer will be free to sell thermal energy on the market at freely negotiated conditions.
- (24) All of the above premia are subject to periodic revision by Portuguese authorities, applicable to new beneficiaries. In particular the market premium is subject to yearly revision, based on updated info on production costs.
- (25) The Portuguese authorities have produced data, based on the economic model of one typical electricity-only biomass plant as shown in the Table (1) below, showing that the measure would not lead to overcompensation, as the overall aid (Market Premium and PDIF) is not expected to exceed the differential between the levelized cost of energy (LCOE) (calculated including a normal rate of return) and the market price. Similarly, for cogeneration plants, Table 1 shows that the overall aid (Market Premium, PEE, PER and PDIF) is not expected to exceed the difference between the LCOE (calculated including a normal rate of return) and the market price (Pmercado).

¹⁹ These premia are have been lastly revised in the ordinance n.140/2012 of 14/5/2012 on cogeneration, as amended further by ordinance 325-A/2012 of 16/10/2012. PER is linked to cogeneration based on RES and PEE/HEP to "highly-efficient" cogeneration, as defined in the EU directive (2012/27/EU) on energy efficiency. The values indicated by Portuguese Authorities are as follows: PER, fix at 1 €/per MWh and PEE/HEP – variable up to a maximum of 17.9 €/x MWH.

²⁰ As set out in article 2, nr. 2 e) of the draft Ordinance, the feed-in premia are only applicable if the cogeneration plant is a high energy efficiency Plant. If the plants aren't considered *Highly efficient* (see footnote above) they are only remunerated through market prices.

Table 1**LCOE test recap****Electricity only plants****Average biomass thermal plant - 2MW**

€/MWh

LCOE	156.4 €
(-) Market remuneration	45.30 €
Maximum of aid allowed	111 €
(+) Feed in premium	73.7 €
(+) PDIF	28.5 €
State aid contemplated	102 €

Cogeneration plants:**Average biomass CHP < 2MW plant**

€/MWh

LCOE	158.17 €
(-) Market remuneration	45.30 €
Maximum of aid allowed	113 €
(+) Feed in premium; HEP/PEE; PER	57.9 €
(+) PDIF	28.5 €
State aid contemplated	86 €

Average biomass CHP > 2MW plant

€/MWh

LCOE	125.0 €
(-) Market remuneration	45.30 €
Maximum of aid allowed	80 €
(+) Feed in premium; HEP/PEE; PER	42.1 €
(+) PDIF	28.5 €
State aid contemplated	71 €

- (26) The calculations presented in the table above were made using a generic discount rate of 7.5%. This discount rate is the WACC, for which Portugal has provided the details of the assumptions taken for its computation.
- (27) In addition, Portugal communicated a business plan related to a typical plant²¹, which provides projections of the future free cash flows to be generated by this plant over the lifetime of the measure, which confirmed that the profit entailed by

²¹ ca.4,000 hours of operation per year, assuming a load factor of 0.5, installed capacity of 2MW.

the project, including aid, would not exceed the remuneration required at arm's-length conditions.

- (28) The payment of the hourly Market price (Pmercado) plus the premia referred to in the previous paragraphs will continue for a maximum period of 15 years, starting from the date on which the producer presents the prior communication of the start of operations to the competent authorities. The amortisation period for the plant may not be less than twenty years.
- (29) When the 15 years benefit period ends, the guaranteed remuneration shall expire.
- (30) According to the Portuguese legal framework of the National Electric System, the production of electricity that benefits from a feed-in tariff or a feed-in premium, is conveyed to the “Comercializador de Último Recurso (CUR)”, that in turn, is the market agent responsible for selling the electricity in the Iberian Market. It is also the CUR that has the responsibility for the standard balancing responsibilities, as part of the functioning of the CUR/Supplier of Last Resort, in line with the approved Portuguese RES support scheme²².

2.4. Beneficiaries

- (31) Biomass plants may be owned by municipalities or by intermunicipal communities or by associations of municipalities with a specific aim²³. Municipalities will have the possibility to delegate the installation or operation of the biomass power stations to a public or private entity selected in accordance with public procurement laws.
- (32) Portuguese authorities clarified that the measure targets directly municipalities- and not other third party operators- since, according to national legislation, municipalities are legally obliged to defend forest against fires (the Forest Defense Plan against Fire obliges municipalities to undertake a number of network management maintenance tasks, including the enforcement of the forest maintenance laws or implementation of such laws in substitution of the landowners). Furthermore, municipalities also have great interest in making their territories more resilient to wildfires, in providing a lasting market for the raw material concerned and ensuring the sustainability of this system in their territories. Finally, many municipalities are also owners of forest areas and management bodies of industrial zones, industrial parks and business location areas that may use the thermal energy generated by biomass power plants.
- (33) The biomass power plants shall be located in municipalities to be designated by Ministerial Implementing Order of the Members of Government responsible for civil protection, local authorities, energy, the environment, and forests.

²² See the latest measure, notified by Portugal, to support energy production from renewable energy production, SA.41694 (2015/N) – Portugal Support to renewable electricity in Portugal- (approved in 2016). As clarified by Portuguese Authorities, the supplier of last resort (Comercializador de ultimo Recurso/CuR) is supposed to pass a bill to the generators for this service and deduct this from the market price.

²³ Article 1 of the Decree of Law 64/2017, of 12 of June.

- (34) The selection of the districts where the plants are to be located shall be based on the following criteria:
- The distance to critical fire zones;
 - The capacity of reception of power in the grid;
 - The distance to other forest biomass power stations – at least 20 kilometres distance²⁴.
- (35) Portuguese authorities clarified that the first criterion is a "tiebreaker" criterion, based on which a ranked list of potential beneficiaries should be presented. Other criteria are:
- a) Proximity to other forest biomass plants or other forest sector industries that use forest biomass;
 - b) Possibility, as a preference, of location in industrial parks or zones, commercial areas or other zones that allow or favour the use of thermal energy.
- (36) In principle, all Portuguese municipalities will be able to express interest, provided they meet all of the above mentioned eligibility criteria. Nevertheless, in phase two ("pre-qualification") only those who meet the criteria – critical fire zones, capacity of reception of power from the grid, non-existence of biomass power plant in a 20 km – will be notified in order to apply for a production license ("qualification").
- (37) As clarified by Portuguese authorities, the decisive criterion is thus the "wildfire hazard" defined by reference to the distance from critical forest zone, established after consulting relevant ministries and institutions (both for Energy and for protection of forests). The ranking list based on this criterion- to be published fifteen days after the call for applications- will provide the order in which each municipality may apply for a production license of a biomass plant within its municipal area. Thereafter within three months, the eligible entities shall present a plan of creation of connection to the grid and production plants. This process is continued until the maximum capacity of 60 MW is reached.
- (38) As clarified by Portuguese authorities, whereas the installed capacity of the planned installations would be of around 2 MW per year, in case the promoters intend to set up an installation above 2MW (with a maximum of 15 MW), they need to provide evidence of project's sustainability over a longer time-horizon. Such plans will need to be approved by the Ministry of Energy, taking into account the economic viability and sustainability of the project, and the effective possibility of supply of forest residues biomass in the required quantity.
- (39) The beneficiaries may be located both in assisted areas under article 107.3 (a) and (c) of the TFEU and unassisted areas.

²⁴ The selection criteria are set out in article 3 of the decree-law n.64/2017 of 12 July 2017.

- (40) Finally, Portuguese authorities confirmed that the selection process has not yet started and that the implementation of the measure would be subject to the Commission decision approving the scheme.

2.5. Budget and financing

- (41) According to the notification, assuming that the market price amounts to 50 EUR/MWh, the measure is expected to cost 21.5 million euros per year (during the fifteen years of implementation).
- (42) The scheme will be exclusively financed by the tariff for the Global Use of System (UGS), levied on energy consumers proportionally to their energy use.²⁵ Portuguese authorities have indicated that the new 60 MW of installed capacity will increase the UGS by between 0.36% and 0.42%. The UGS tariff finances the Global System Management activity which includes:
- (i) Costs of operation of the system.
 - (ii) Costs arising from energy or environmental policy measures, or measures with a general economic interest.
 - (iii) Costs for the maintenance of the contractual balance²⁶.

The measure assessed in this decision is considered to fall under (ii) above.

2.6. Legal basis

- (43) The legal basis of the measure is a draft decree- in line with the standstill obligation under Article 108 (3) of the Treaty. This draft decree will implement the Law Decree (Decreto Lei) n.64/2017 on the "*Regime especial e extraordinário para a instalação e exploração, por municípios... de novas centrais de valorização de biomassa.... com o objetivo fundamental da defesa da floresta, do ordenamento e preservação forestais e do combate aos incêndios*", already published in the official journal.

2.7. Duration

- (44) The duration of the scheme will amount to two years (2018-2020) and the remuneration, as described in section 2.3 above shall be paid to eligible beneficiaries for a period of 15 years starting from the date on which the plant begins operating. This period is within the plants' depreciation period which typically ranges between 20 to 25 years.

²⁵No use will be made of European Agricultural Structural funds.

²⁶ The UGS tariff is determined according to the regulation set by the Energy Services Regulatory Authority, ERSE. ERSE is the independent regulatory entity responsible for regulation of the gas and electricity sectors. ERSE is independent in the performance of its duties, without prejudice to the guiding principles of the energy policy established by the Government. ERSE operations are subject to ministerial approval, and its board of directors is appointed by the Council of Ministers.

- (45) When the benefit period referred to in the previous paragraph ends, the remuneration shall expire and the electricity or thermal energy will be sold at market price without any additional premia.

2.8. Cumulation, transparency and other rules

- (46) Portuguese authorities have ensured that they would apply non-cumulation rules, in particular power plants that would benefit from non-repayable grant or subsidy aid for their setting-up or operation shall be subject to either a reduction or withdrawal of the guaranteed rate until the impact of the non-repayable grant has been completely neutralised. Thereafter the feed-in premium shall be resumed for the duration of the period of the measure, provided that such period is still ongoing.
- (47) Portuguese authorities confirmed that neither "undertakings in difficulty" nor undertakings which have received an outstanding recovery order can be beneficiaries of the aid.
- (48) Portugal committed to implement transparency principles through the publication of all the necessary information, including information on beneficiaries and remuneration levels.
- (49) Finally, Portuguese authorities confirmed that there would be no restrictions as to the origin of the biomass used in the plants and that processing of biomass would comply with applicable environmental rules; in particular the plant operators will have to comply with obligations of operators who place timber and timber products on the market.²⁷

3. ASSESSMENT

3.1. Existence of State aid within the meaning of Article 107(1) of the Treaty

- (50) Pursuant to Article 107(1) of the Treaty, *“save as otherwise provided in the Treaties, 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 shall, in so far as it affects trade between Member States, be incompatible with the internal market”*.
- (51) In determining whether a measure constitutes State aid within the meaning of Article 107(1) of the Treaty, the Commission has to assess whether the measure:

²⁷ The biomass plants may use any kind of biomass. However, the manner in which the measure is structured, by ascertaining a higher value to the energy produced from residual forest biomass, will increase the demand for the residual forest biomass, thus creating a market for the residual forest biomass. Additionally, and due to high transportation cost, the location of the plants is key characteristic for predicting the origin of the biomass (transport of biomass is only feasible within a certain radius). Furthermore, on the basis of the obligation to declare tree felling of forest species intended for marketing and coming from extraordinary cuts and from thinning (under Regulation (EU) 995/2010), a declaration (tree felling and transport manifest) will be issued by the tree felling information system, which will ensure the prior communication of the felling and transport forest trees species act to the Institute for Nature Conservation and Forests. The tree felling and transport manifest will be issued for each cutting plot with a series of minimum requirements that will certify the provenance and the volume of woody material to cut. The information contained in the manifest is subject to confirmation both by the timber acquiring operator and by the forest owner.

- (a) confers an advantage on certain undertakings or certain sectors (selective advantage);
 - (b) is imputable to the State and involves State resources;
 - (c) distorts or threatens to distort competition;
 - (d) is liable to affect trade between Member States.
- (52) The measure aims at providing economic compensation to selected operators of biomass-powered energy plants, located in areas close to Portuguese critical forests. Thus it grants a selective advantage to these specific economic operators, as compared to other producers of energy from renewable sources which do not benefit of such aid measure.
- (53) The granting of operating aid for the eligible beneficiaries is administered by State entities, notably the Portuguese Ministry of Economy. Moreover, the measure is adopted by means of a State legislation. The measure is thus imputable to the State.
- (54) 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.
- (55) The Commission notes that the specific program is financed through an increase of the regulatory tariffs (UGS) imposed on final electricity consumers. The revenues from those tariffs - imposed to all electricity consumers - constitute a State resource²⁸.
- (56) A measure granted by the State is considered to distort or threaten to distort competition when it is liable to improve the competitive position of the recipient compared to other undertakings with which it competes²⁹.
- (57) The measure is applied in favour of undertakings which would sell energy either to the last resort energy supplier or on the free market, and thus is liable to distort competition in the energy sector.
- (58) In accordance with the Court's settled case-law, for the purpose of categorising a national measure as State aid, it is necessary, not to establish that the aid has a real effect on trade between Member States but only to examine whether that aid is liable to affect such trade³⁰. In particular, when aid granted by a Member State strengthens the position of an undertaking compared with other undertakings competing in intra-Union trade, the latter must be regarded as affected by that aid³¹. As indicated above, the measure impacts undertakings operating in the energy sector, which is open to trade between Member States. Since it strengthens

²⁸ See also SA.41694 (2015/N) – Portugal Support to renewable electricity in Portugal- (approved in 2016).

²⁹ Judgment of 17 September 1980, *Phillip Morris*, 730/79, EU:C:1980:209, paragraph 11.

³⁰ Judgement of 8 May 2013, *Libert and Others*, C-197/11 and C-203/11, EU:C:2013:288, paragraph 76.

³¹ Judgement of 8 May 2013, *Libert and Others*, C-197/11 and C-203/11, EU:C:2013:288, paragraph 77

their position as compared with other undertakings competing in intra-Union trade, the measure is therefore also likely to affect trade between Member States.

- (59) The Commission concludes that the measure consisting in the granting of operating aid to undertakings producing energy from biomass-powered plants close to critical forests in Portugal involves State aid within the meaning of Article 107 of the TFEU.

3.2. Legality of the aid

- (60) The notified scheme is applicable only after a positive decision from the European Commission. The Portuguese authorities notified the Commission the draft decree, waiting for the Commission decision before enacting the final version. They have thus complied with the stand-still obligation provided for in Article 108(3) TFEU.

3.3. Compatibility

- (61) Article 107(1) of the TFEU provides for the general principle of prohibition of State aid within the European Union. The provisions of Article 107(2) and 107(3) of the Treaty provide for exemptions to that principle.
- (62) It is an established jurisprudence that the Commission is bound by the guidelines and notices that it issues in the area of supervision of State aid inasmuch as they do not depart from the rules in the Treaty and are accepted by the Member States³². It is therefore necessary to first assess whether the notified aid falls into the scope of application of one or more guidelines or notices. If this is the case, the Commission is bound for the exercise of its discretion under Art. 107 (3) of the TFEU by the respective text. If this is not the case, the Commission needs to verify whether the aid can be declared compatible directly based on Art. 107 (3) (b) and/or 107 (3) (c) TFEU.
- (63) The Commission notes, as argued by the Portuguese Authorities, that the measure falls within the scope of the Energy and Environmental Aid Guidelines (EEAG) 2014-2020. Whereas the program pursues primarily the objective of protection of forests prevention of forest fires, indeed the measure effectively rewards the production of energy from renewable sources (notably biomass powered plants), enabling Portugal to advance towards the 2020 target by 0.12% (see recital (14)), as already mentioned in recital (9). In particular, since the support is granted as a premium on top of the market price during the lifetime of the facility, the measure will be assessed subsequently under the EEAG, section 3.3.2 of the EEAG-referring to operating aid granted to energy from renewable sources.
- (64) As said in recitals (10)(11), the measure pursues the main objective of protection of forests/prevention of forest fires. This stems from the following design features of the measure: the relatively small size/biomass sourcing of the plants and the need to locate them close to critical forest areas, the payment of a premium (so-

³² Case C-313/90 *CIRFS and Others v Commission* [1993] ECR I-1125, paragraph 36; Case C-311/94 *IJssel-Vliet* [1996] ECR I-5023, paragraph 43; and Case C-351/98 *Spain v Commission* [2002] ECR I-8031, paragraph 53.

called PDIF) exclusively linked to the use of biomass originating from nearby critical forests, the inclusion of a burnt area factor in the calculation of the market premium and the designation of municipalities, as main forest management/fires prevention entities, as the sole beneficiaries of the aid.

- (65) These features, namely the remuneration through the PDIF of energy produced by biomass exclusively originating from nearby critical forests, and the choice of municipalities close to critical forests as eligible beneficiaries are not normally related to the support of the production of electricity from renewable resources which should not discriminate on the basis of the origin of biomass or designate specific beneficiaries.
- (66) In particular, the existence of the PDIF as a premium linked to the use of biomass from critical forest as well as other factors included in the formula (percentage of burnt areas) to calculate the amount of aid and the selection of the municipalities close to critical forests as beneficiaries are aimed at triggering a particular behaviour from the beneficiaries in view of ensuring the good management and protection of the forest, in order to make sure that critical forests are cleaned up from residual biomass, which if not removed, can increase the risk of forest fires.
- (67) In view of the further objective of promotion of forest management and fire prevention present in the measure, notably the granting of the environmental premium (PDIF) and the selection of beneficiaries, the Commission will also assess the notified scheme under the 2014-2020 Agricultural Guidelines (“AG”)³³ and in particular its Section 2.1.3. on *Aid for the prevention and restoration of damage to forests from forest fire, natural disasters, adverse climatic events which can be assimilated to natural disaster, other adverse climatic events, plant pests and catastrophic events*. Indeed, pursuant to paragraph (34) AG, where applicable, aid to undertakings active in the forestry sector may also be found compatible under the conditions and in compliance with general Union rules on State aid, in particular, inter alia, the Guidelines on State aid for environmental protection and energy 2014-2020.
- (68) The assessment of the measure will therefore be conducted on the basis of the 2014-2020 AG for the environmental elements of the measure, and on the basis of the EEAG for the RES operating aid aspects.

3.3.1. Objective of Common Interest

- (69) As above said the aim of the notified aid measure is twofold: (i) to achieve the environmental objective of forest protection/prevention of forest fires and – indirectly- (ii) to enable Portugal to advance towards the RES targets.
- (70) As regards the first aim, the Commission notes that forestry is an integral part of rural development and support for sustainable and climate friendly land use should include forest area development and sustainable management of forest. Regulation (EC) No 1305/2013³⁴ on rural development programs, in particular under Recital 20, Article 4 and Article 5, promotes sustainable and climate

³³ OJ C 204, 1.7.2014, p. 1–97.

³⁴ OJ L 347, 20.12.2013, p. 487–548.

friendly land use, which includes forest area development and sustainable management of forests. This is clearly mentioned in the EU Guidelines for State aid in the agricultural and forestry sectors and in rural areas 2014-2020, which devote Chapter 2 to "Aid for the forestry sector ...", including measures to prevent forest fires, and in particular in Section 2.1.3. of the Agri GL, *Aid for the prevention and restoration of damage to forests from forest fire, natural disasters, adverse climatic events which can be assimilated to natural disaster, other adverse climatic events, plant pests and catastrophic events*.

- (71) Furthermore, the objective of protection of EU forests against fires is enshrined in European legislation since 1992. Council Regulation (EEC) No 2158/92³⁵ mentioned that the protection of forests against fire is an urgent and important issue for the Community, based on the essential role played by forests in maintaining basic equilibria, particularly as regards the soil, water resources, climate, fauna and flora, as well as contributing towards the safeguarding and development of agriculture and the countryside. Protection of forests and fire prevention has been object of long-standing structural funds (EAFRD) and other support programs and measures (e.g. Natura 2000). Based on Commission decision practice, "environmental protection tasks in the interest of society as a whole" may constitute a service of general interest, as well as protection of biodiversity³⁶.
- (72) In this context, as explained in recital (64), the design features of the measure (location and size of the plants, the designation of municipalities in critical forest areas as beneficiaries, the system of premia) have a clear link with the objective of forest protection against fires and aim directly at achieving such outcome.
- (73) The Commission observes that operating aid granted to small biomass plants close to critical forest areas can contribute to this objective to the extent that it targets investments and operation of power plants that are primarily powered with biomass residues originated from such areas.
- (74) Second, the measure also helps Portugal advance towards the renewable energy targets set by the EU as part of its 2020 strategy by supporting energy (electricity and heat) generation from renewable energy sources, as it will help Portugal to reduce its greenhouse gas and CO₂ emissions. The scheme provides support to electricity from cogeneration installations that meet the definition of high-efficiency cogeneration as set out in Article 2(34) of Directive 2012/27/EU of the European Parliament and of the Council³⁷ and in line with paragraph 139 EEAG.
- (75) The Commission therefore concludes that, in light of the design and functioning of the measure, the measure contributes to two distinct objectives of common

³⁵ COUNCIL REGULATION (EEC) No 2158/92 of 23 July 1992 on protection of the Community's forests against fire.

³⁶ See cases SA.31243 (2012/N) and NN8/2009.

³⁷ Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC (OJ L 315, 14.11.2012, p. 1).

interest as identified in several pieces of legislation at EU level and in the guidelines, EEAG (section 3.3.2) and AG (Section 3.1.).

3.3.2. *Need for State intervention and appropriateness*

- (76) On the environmental aspects of the measure, Portuguese authorities have shown that the measure targets the main cause of fuel continuity in the territory and its significant risk of wildfires propagation, and is complementary to existing forest policies. Portuguese Authorities have confirmed that the measure is in line with the national plan on forest protection, notably as forest fire prevention measure.
- (77) An instrument is appropriate if there are no other less distortive instruments to achieve the same results. Protection of critical forests against fires is a historical and topical issue in Portugal, due to recurrent fires, which have caused human deaths and devastation of landscape also recently. Similar measures have been put in place since 2006 to incentivize market investments to take place in the forest critical areas, but they have shown to have limited effect (see recital (5)).
- (78) The Commission notes that, while the operating aid to small biomass powered plants is not the only conceivable means to fight forest fires, they can contribute to grant adequate financial incentives to beneficiaries that would not otherwise make the necessary investments. It also seems appropriate to designate municipalities as the potential beneficiaries of the aid, because as explained in recital ((15)), they have acquired the competence and skills to manage forest areas and prevent fire outbreaks and have a particular interest in forest protection. The Commission therefore concludes that the measure complies with the need for State intervention and appropriateness principles specified in Sections 3.2 and 3.3 AG.
- (79) With regard to the assessment of the measure under EEAG, according to chapter 3.2.2 EEAG, the Member State has 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 production of renewable electricity, the Commission presumes that there is still residual market failure, which can be addressed through aid for renewable energy for the reasons set out in paragraph 115 EEAG.
- (80) Paragraph 27(c) 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. Under paragraph 107 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.’*
- (81) In particular paragraph 116 EEAG states that in order to help Member States to achieve their national energy and climate change targets, the Commission presumes aid to energy from renewable sources to be appropriate and have limited distortive effects provided all other compatibility conditions are met.
- (82) The Portuguese system has in place a program to support RES deployment, open to new beneficiaries until end of 2016, as mentioned in recital (9). The current measure is complementary to such general RES support measure, in that it aims to support the development of a specific technology that offers environmental benefits, which would not be economically viable without support, and to help

Portugal to meet the target of 20 % renewable energy of final energy consumption by 2020.

- (83) In combination with the parallel specific environmental objective- of forest management and fire prevention- Portugal has stated that it needs to increase the deployment of a specific biomass-fuelled renewable capacity to meet this target. Based on previous experience, as well as on the observation that biomass electricity LCOE levels are higher than the market price of electricity (see recital (25)), Portuguese authorities have demonstrated that the market alone is not able to generate the necessary incentives to promote a correct use of forest resources and prevent forest fires.
- (84) Based on these considerations, the Commission considers that the aid is necessary and that it is an appropriate instrument to address both objectives of common interest.

3.3.3. Incentive effect

- (85) In line with paragraph 49 EEAG and paragraph 66 AG, an incentive effect is present if the aid induces the beneficiaries to change their behaviour so that they achieve the objective of common interest, which they would not do without the aid.
- (86) According to paragraph 51 EEAG and 70 and 73 AG, Member States must introduce and use an application form for aid, which contains certain information on the project. The granting authority also must carry out a credibility check of the counterfactual scenario.
- (87) The Portuguese authorities demonstrated that for the biomass-powered plants eligible under the scheme the LCOE would be higher than the expected electricity market price. Without the aid and under normal market conditions, the internal rate of return of these projects would be lower than the return beneficiaries normally require to develop that kind of projects. The Commission concludes that without the aid the projects benefitting from the scheme would not be financially viable. The aid therefore allows the beneficiaries to change their behaviour and invest in the renewable projects.
- (88) The Portuguese authorities confirmed that the applicants are required to submit an application form with detailed information about the applicant and the project before being selected for funding under the scheme in a transparent selection process. Furthermore, aid will only be granted to projects that started work after the application for aid.
- (89) Based on those elements, the Commission concludes that the overall program provides the necessary incentive effect to address the objective of common interest.

3.3.4. Proportionality

- (90) The Commission is of the view, in line with paragraph 69 of the EEAG and 81 AG, that 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.

- (91) The Commission assessed proportionality of the aid on the basis of Section 3.3.2 EEAG referring to operating aid to energy from renewable sources. On proportionality under AG see section 3.3.8 below.
- (92) According to paragraph 126 of the EEAG operating aid for electricity from renewable sources aid should be granted in a competitive bidding process on the basis of clear, transparent and non-discriminatory criteria, unless:
- (a) Member States demonstrate that only one or a very limited number of projects or sites could be eligible; or
 - (b) Member States demonstrate that a competitive bidding process would lead to higher support levels (for example to avoid strategic bidding); or
 - (c) Member States demonstrate that a competitive bidding process would result in low project realization rates (avoid underbidding).
- (93) If such competitive processes are open to all generators producing electricity from renewable sources on a non-discriminatory basis, the Commission will presume that the aid is proportionate and does not distort competition to an extent contrary to the internal market.
- (94) In this case, the measure is limited to a specific RES technology (biomass), with restrictions as to the tendering process: only municipalities close to critical forests may be eligible beneficiaries.
- (95) Portuguese authorities have claimed that based on the specificities of the objective and design of the measure, the competitive bidding process requirement cannot be complied with. In particular, as the main objective of this measure is to achieve better management of critical forest areas through consumption of residual forest biomass, one of the selection criteria for the location of new power stations is their distance from the critical forests, based on three variables: history of fires, slope and land cover. Furthermore, there is a capacity restriction for new plants that can be built and, in order to achieve the objective in the most efficient way, it is necessary that the municipalities where the plants are to be built are selected on the basis of the degree of fire risk.
- (96) Given the specificities of the scheme and that its concurring objective is the protection of forests against fires and not exclusively the support to production of RES, the Commission considers that the Portuguese authorities have sufficiently demonstrated that only a very limited number of projects or sites could be eligible and that the above restrictions as to the categories of eligible beneficiaries are justified. Therefore, it concludes that the measure at stake complies with the exception defined in paragraph 126 a) of the EEAG and thus that aid can be granted without a competitive bidding process.
- (97) As specified in paragraph 128 of the EEAG, in the absence of competitive bidding process, the conditions of paragraphs 124, 125 and 131 of the EEAG are applicable³⁸.

³⁸ Paragraph 125 does not seem relevant here, since the plants are likely to have more than 500kW of installed capacity.

- (98) In line with paragraph 124 of the EEAG, the aid granted under the measure takes the form of a premium in addition to the market price whereby the generators sell their electricity directly in the market. In addition, as mentioned in recital (18), Portuguese authorities have confirmed that measures are in place to ensure that generators have no incentive to sell electricity under negative prices. Portuguese authorities have confirmed that beneficiaries will be subject to standard balancing responsibilities, as part of the functioning of the Supplier of Last Resort, in line with the approved Portuguese RES support scheme³⁹. The Commission therefore considers that the measure complies with paragraph 124 of the EEAG.
- (99) As regards the compatibility assessment with recital 131 of the EEAG, as described above in recitals ((25) and (26)), Portugal, assuming a generic discount rate of 7.5%, demonstrated that (i) the average market prices will be lower than the reference LCOE for the relevant technology used in Portugal in the context of the measure and that (ii) the aid per unit of energy will not exceed the difference between the LCOE and the electricity market price. This conclusion applies to both electricity-only and cogeneration plants, as shown in recital (25), Table 1. For cogeneration plants, this conclusion is valid, taking into account all the applicable premia (PER and PEE/HEP, calculated in its maximum value) as well as the PDIF.
- (100) In addition, the Commission verified that the measure allowed for a reasonable profit as specified by point (b) of paragraph 131 of the EEAG⁴⁰, since the foreseen internal rate of return does not exceed the market return expectations⁴¹. This confirms the conclusions of the test presented in recitals (25)(26) and (99).
- (101) As mentioned in recital ((24)), Portugal also confirmed that LCOE costs will be revised on a yearly basis and that projects eligible under the scheme will not be eligible for other type of aid. Finally, they also confirmed that aid will be granted only to new installations and the duration of the aid will not exceed the normal depreciation period of the plant.
- (102) In light of the above, the Commission concludes that remuneration granted to the biomass-powered installations satisfies the conditions of paragraph 131 EEAG and is, therefore, proportionate. Based on those elements, the Commission concludes that the operating aid to the biomass-powered installations granted through the present measure is proportionate to the objective pursued.

³⁹ See the latest measure, notified by Portugal, to support energy production from renewable energy production, SA.41694 (2015/N) – Portugal Support to renewable electricity in Portugal- (approved in 2016). As clarified by Portuguese Authorities, the supplier of last resort (Comercializador de ultimo Recurso/CuR) is supposed to pass the bill to the generators for this service and deduct this from the market price.

⁴⁰ See recital (131) b) of the EEAG: "the LCOE may include a normal return on capital. Investment aid is deducted from the total investment amount in calculating the LCOE."

⁴¹ Given by the WACC, computed based on reasonable assumptions, accordingly with market practice.

(103) Finally, the Commission takes note that Portuguese authorities restricted aid to cogeneration to *highly-efficient* CHP installations, as mentioned by paragraph 139 of the EEAG⁴².

3.3.5. Avoidance of undue negative effects on competition and trade between Member States

(104) The negative effects of the measure on competition and trade must be sufficiently limited, so that the overall balance of the measure is positive (see section 3.2.6 of the EEAG and paragraph 108 AG).

(105) The Commission observes that the measure at stake has an extremely limited impact on the energy market, as the overall capacity of the plants would represent a maximum of 60MW out of the 19,4 GW electricity capacity currently installed in Portugal. This amounts to a coverage of around 0,3% of the overall Portuguese market. Also, given the limited output of such plants, impacts on the biomass sourcing market can be excluded.

(106) In addition, while the measure is clearly targeted at protecting forests from fires through the creation of incentives for the removal of residue biomass from critical forests, it does not exclude the use of biomass originating from other areas and other Member States. As said in recital ((16)), the electricity produced from biomass not originating in the critical forest areas still receives a market premium.

(107) According to paragraph (113) AG, due to its positive effects on the development of the sector, the Commission considers that where an aid fulfils the conditions and does not exceed the relevant maximum aid intensities, laid down in the applicable Sections of Part II of these Guidelines, the negative effect on competition and trade is limited to the minimum.

(108) Furthermore, according to paragraph 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. Furthermore, 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.

(109) According to paragraph 116 of the EEAG, in order to allow Member States to achieve their targets in line with the EU 2020 objectives, the Commission presumes the distortive effects of the aid are limited, provided that all other conditions set therein are met, as above shown.

(110) Considering that the measure enables to achieve an environmental objective (protection of forests) as well as to enable Portugal to advance towards the achievement of the renewable support targets, and that its impact on the electricity market is small (due to the limited installed capacity and the non-exclusion of residue biomass originating from other areas and Member States), the Commission finds that the aid does not lead to undue negative effects on competition and trade between Member States.

⁴² Given the higher production costs of cogeneration- as shown in recital 25 and Table 1- as compared to energy market price, paragraph 151 a) would also be complied with.

3.3.6. *Transparency*

- (111) The Commission takes note of Portugal's commitment referred to in recital (48). In light of these commitments, it considers that the aid complies with the transparency requirements of Section 3.2.7 of the EEAG and Section 3.7. AG.

3.3.7. *Duration*

- (112) The measure has a duration of two years, while its implementation would have a time-horizon of twenty years. This appears to be reasonable in view of the lifetime of the plants, and in line with support measures for RES.

3.3.8. *Compliance with Part II of the AG*

- (113) Pursuant to paragraph (519) AG, any aid for, inter alia, the prevention of damage to forests from forest fire, may be considered compatible with the internal market if it complies with the common assessment principles of these Guidelines and with the following conditions.
- (114) Pursuant to paragraph (520), aid may be granted to private and public forest holders and other private and public bodies and their associations. As explained in recitals 31, 33 and 37 above, the beneficiaries are selected municipalities, designated by Ministerial Implementing Order, that are exposed to the "wildfire hazard" defined by reference to the distance from critical forest zone, established after consulting relevant ministries and institutions (both for Energy and for protection of forests). Paragraph (520) is complied with.
- (115) The maximum eligible intensity amounts to 100% of the eligible costs, pursuant to paragraph (527) AG. As assessed above at recital (99), the aid per unit of energy will not exceed the difference between the LCOE and the electricity market price, in other words, it will never exceed 100% of the eligible costs.
- (116) Paragraph (521)(b) allows for the aid to cover local, small-scale prevention activities against fire. This is considered to be the case for the notified measure, which is aimed at setting up and operating new small biomass power plants close to the forest at risk.
- (117) Furthermore, based on paragraph (524), eligible operations must be consistent with the forest protection plan established by the Member States, and, according to paragraph (525), aid can be eligible only to forest areas which are classified as a medium to high forest fire risk according to the forest protection plan established by the Member States. Portuguese authorities confirmed that these conditions are complied with for the notified measure, see also recital (11). In particular, the installation of the biomass-fuelled plants by beneficiaries located in critical forest areas and the remuneration of energy produced using residual forest biomass originating from the municipality located in the critical forest areas (of the beneficiary) through the PDIF are consistent with the (updated) 2006 forest protection plan established by Portugal⁴³.

⁴³ See footnote 1. As clarified by Portuguese Authorities, the 2006 Forest protection Plan is based in 5 axes of action: (1) increase the resilience of the territory to forest fires; (2) reducing the incidence of fires; (3) improving the effectiveness of the attack and fire management; (4) recover and rehabilitate the

- (118) In light of the above, the Commission concludes that, provided that the general and specific conditions of the AG are met, and that the aid granted to the beneficiaries for production of RES energy is furthermore compliant with the EEAG, and notably with its section 3.3 on aid to energy from renewable sources, the aid can be declared compatible with the internal market on the basis of those Guidelines.

3.3.9. Compliance with other Treaty provisions

- (119) In accordance with paragraph 29 of the EEAG, provided that the aid is financed through specific fees, aimed at financing the support for RES electricity (see recital (42)), the Commission has examined the compliance of these fees with Articles 30 and 110 TFEU.
- (120) According to the case-law, a charge which is imposed on domestic and imported products according to the same criteria may nevertheless be prohibited by the Treaty if the revenue from such a charge is intended to support activities which specifically benefit the taxed domestic products. If the advantages which those 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, contrary to Article 30 TFEU. 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 TFEU and will be contrary to this provision as regards the proportion used to offset the burden borne by the domestic products⁴⁴.
- (121) If the 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 RES electricity and thereby violates Articles 30 and/or 110 of the Treaty⁴⁵.
- (122) The aid scheme subject to the present notification will be financed through an increase in the level of the "regulated tariff" (UGS), levied on energy consumption. In this regard, the present measure is identical in its functioning to the last general RES support measure approved by the Commission⁴⁶. As also

ecosystems; (5) adaptation of a functional and efficient organic structure. As argued by Portuguese Authorities, biomass plants clearly contribute to the achievement of the objectives in the first and second axes of action. In fact, these biomass plants can have an important contribution to promote the forest residue market and indirectly to promote good practices in sustainable forest management and exploitation, as well as the local economy. In this way, the choice of the location of these plants will be based mainly on the pursuit of the fundamental objective of forest protection, planning and prevention of rural fires.

⁴⁴ Joined Cases C-128/03 and C-129/03 AEM [2005] ECR I-2886, paragraphs 44 to 47; Case C-206/06 Essent [2008] ECR I-0000, paragraph 42.

⁴⁵ Case 47/69 France v Commission, EU:C:1970:60, paragraph 20. See also Case SA.38632 (2014/N) Germany – EEG 2014 – Reform of the Renewable Energy Law (not yet published in the OJ).

⁴⁶ See the latest measure, notified by Portugal, to support energy production from renewable energy production, SA.41694 (2015/N) – Portugal Support to renewable electricity in Portugal- (approved in 2016).

stated with regard to such program, the Commission is therefore concerned that the financing mechanism could entail discrimination against imports within the meaning of Articles 30 and 110 of the Treaty.

- (123) Portugal notes that the UGS tariff covers the costs of a wide range of activities, including costs for maintenance and the operation of the system. Hence, the revenues from the UGS tariff are not necessarily allocated for the financing of the aid schemes for renewable energy. The Commission notes, however:
- that the notified aid scheme is financed through a charge imposed on electricity consumed in Portugal, domestic and imported production alike;
 - that the charge is calculated on the amount of electricity consumed (and thereby imposed on the product itself).
- (124) Where a Member State finances aid for domestic producers through a charge that is levied on imported and domestic products alike, the charge may have the effect of further exacerbating the distortion on the product market caused by the aid as such. For that matter, it is not necessary that the charge exclusively finances the aid, since the additional distortive effect can already be present if a sizable share of the revenues from the charge is used to finance the aid.
- (125) As regards the impact of new installations in terms of trade in energy, the scheme under examination will only represent a marginal increase in installed capacity in Portugal, 60 MW in a total of 19,4 GW. As a result, the energy production of the new plants will, on average, increase Portugal electricity production by around 0.3/0.5%.
- (126) Therefore, the impact of the new plants on the wholesale market should be considered negligible.
- (127) In order to alleviate any concern regarding compliance with Articles 30 and 110 TFEU, Portugal ensured stepping up and increasing interconnection capacity between Member States and of mandatory interconnection capacity targets, financed as well under the UGS revenues.⁴⁷
- (128) Currently, the level of interconnection between Portugal and Spain accounts for around 8% of the total installed capacity. The ongoing and planned investment projects will increase the interconnection capacity to about 3 000 MW in the Portugal-Spain and Spain-Portugal until 2022 and to 3 500 MW in the Portugal-Spain direction and 4 200 MW in the sense Spain-Portugal until 2030.
- (129) The Commission considers that the increases in the interconnected capacity, based on the commitments by Portugal, reduce the risk of possible discrimination against producers of green electricity in other Member States.

⁴⁷ In addition, in 2016, Portugal and the Kingdom of Morocco signed an agreement for the preparation of a study aimed at analysing the technical and economic viability of an interconnector between the two countries. By the end of the year, the TSOs of the two countries will submit a proposal based on the results of the technical-economic feasibility study of the Morocco-Portugal interconnector.

(130) In consideration of the commitments already taken by the Portuguese authorities, as well as of the limited impact of the program on the electricity market, the measure can be considered in compliance with Articles 30/110 TFEU for the whole duration of the scheme.

4. CONCLUSION

(131) 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.

Yours faithfully,

For the Commission

Margrethe VESTAGER
Member of the Commission