

[Decree-Law 120/2019, of 22 August](#) (“Decree-Law 120/2019”), adapted the biomass power plants regime, in one hand, as a consequence of the [State Aid granted by the European Commission for biomass-operated power plants close to forests in Portugal](#) and, on the other hand, targeting at promoting the maximum energetic efficiency.

Back in 2017, the Portuguese Government approved four Decree-Laws aimed at reforming the forest sector, based on three main areas of intervention: territorial planning and management of the forest, ownership of the property and protection of the forest in the areas of prevention and firefighting. These diplomas were published on 12<sup>th</sup> June 2017 and adopted:

- The new rules for the construction and operation, by municipalities, of power plants to produce energy (electricity and heat) from forest biomass ([Decree-Law 64/2017, of 12 June](#), meanwhile also [amended](#));
- The update to the Legal Framework for Forest Management, Intervention, and Zoning Plans, approved by, as amended, aiming at a better clarification of the relation between the regional forest zoning programs and other programs and plans for territorial management and a stronger protection of the forests by providing the authority to monitor compliance with such rules to the Institute for Nature Conservation and Forests (*Instituto da Conservação da Natureza e Florestas*) (“ICNF”) ([Decree-Law 65/2017, of 12 June](#), meanwhile also amended by [Decree-Law 11/2019, of 21 January](#));
- The conditions and procedure for the recognition of forest management entities (agricultural cooperatives, private limited-liability companies or public limited-liability companies), who shall manage forest areas belonging to several owners in order to enhance their profitability by means of joint management ([Decree-Law 66/2017, of 12 June](#), meanwhile also amended by [Decree-Law 111/2017, of 19 December](#), and regulated by [Order in Council 63/2018, of 2 March](#));
- The update of the rules for creating forest intervention areas (ZIFs), approved by Decree-Law 127/2005, of 5 August, as amended, as well as enhancing the creation of new ZIFs and improving the operation of existing ones ([Decree-Law 67/2017, of 12 June](#)).

Considering the relevance of this regime in complying with the 2020 indicative targets – as well as the National Energy-Climate Plan (PNEC) 2030, currently under public consultation on Strategic Environmental Assessment – and in supporting the protection of the forest, land and forest preservation and firefighting, we highlight Decree-Law 64/2017, of 12 June (“Decree-Law 64/2017”) as now amended. For that purpose we will refer to the following aspects: (I) scope and purpose, (II) requirements for installation of power plants, (III) initiative, (IV) procedural rules and (V) price support mechanism.



## I. Scope and purpose

The main goal of this regime is to assign the power which has not been converted into plants in the context of the international tenders launched in 2006 by the Directorate General of Energy and Resources (Direcção Geral de Energia e Geologia) (“DGEG”), while ensuring a higher energetic efficiency by making full use of thermal energy.

The power to inject (*potência a injectar*) in the electric grid of public service (“Public Grid”) assigned to such power plants shall be limited to 60 MW, in the mainland, and each power plant to 10 MW. The previous limit of 15 MW per power plant has been decreased as a result of the preference for smaller power plants and for the production of thermal energy.

The definition of biomass power plant has been altered, being now required the production of both electric power and thermal energy for the purposes of this special regime. The production in trigeneration (or combined cooling heat and power) has also been contemplated. Biomass shall be used as fuel even though a 5% use, on an annual basis, of fossil fuels (made from coal, petroleum and natural gas) as ancillary and starting fuel is permitted.

## II. Requirements for installation of power plants

In order to achieve the greatest impact on fire fighting and forest preservation the location and power attributed to each power plant shall be selected on the basis of the following cumulative requirements:

- The requests for installation and operation of power plants must be submitted to DGEG during the first quarter of 2020;
- The proximity to critical fire zones (*zonas críticas*)<sup>1</sup> or areas with forest stands;
- Local biomass availability, proving long term sustainability of the fuel and promoting local logistic chains of fuel gathering and transportation. This requirement shall be substantiated on a study to be issued by January 2020 by the ICNF (the Institute for Nature Conservation and Forests), in articulation with the Agency for Rural Fire Integrated Management (*Agência para a Gestão Integrada de Fogos Rurais*);
- The proximity to industrial areas or collective equipment which can use the produced thermal energy;
- The installed capacity shall be determined by the amount of thermal energy power to be installed.

In the event the requests to inject power in the Public Grid exceed its capacity, DGEG shall launch a bidding procedure (*procedimento de licitação*) through which the bidders shall offer market premium discounts.

The final decision shall be adopted on the basis of the following criteria:

- Highest discounts to the market premium<sup>2</sup>;
- Largest percentage of energy produced for self-consumption.

The Public Grid capacity reservation titles issued to the non successful bidders shall expire and the respective bonds shall be released.

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<sup>1</sup> As defined by Decree-Law 127/2005, of 5 August as amended.

<sup>2</sup> As explained further, on number V



### III. Initiative

The following entities are entitled to request the installation and operation of these biomass power plants:

- Municipalities, either directly or through intermunicipal communities (*comunidades intermunicipais*);
- Municipal associations (*associações de municípios*) with specific purposes (both created under Law 75/2013, of 12 September, as amended);
- Public or private entities to which the operation and installation rights have been transferred, selected in accordance with public procurement rules.

### IV. Procedural rules

For the construction and operation of the biomass power plants, the following specific rules apply:

- Prior to the issuance of the production and operation licenses (*licença de produção e exploração*) it is necessary to obtain a Public Grid capacity reservation title (to be issued according to the procedural rules set forth in Decree-Law 172/2006, of 23 August, as last amended by [Decree-Law 76/2019, of 3 June, "Decree-Law 172/2006"](#));
- The issuance of the operation license shall follow general provisions set forth in Decree-Law 172/2006;
- Should the license applicant so determines, the inspection (*vistoria*) can be performed by a certified entity, in which case the issuance of an inspection report ascertaining the compliance of the power plant with the applicable legal framework leads to the issuance, within 5 days, of the operation license by the DGEG.

An Order in Council is yet to be issued by the member of Government responsible for energy affairs, setting forth the instructive elements of the licenses' applications and the bidding procedure.

### V. Price support mechanism

A major change introduced in 2019 refers to the remuneration regime the update of payment system as set forth by the decision adopted in January 2019 by the European Commission, under EU State Aid, not to raise objections to the special regime of support for biomass-operated plants close to forests in Portugal ([State Aid SA.48881 \(2018/N\) – Portugal](#)).

The power injected in the Public Grid shall now be priced according to the Iberian Electricity Market ("MIBBEL") to which the following supplements are added: (i) the market premium – expressed in euros per MWh injected in the Public Grid due from the beginning of production and differentiated according to the installed power – and (ii) a premium for the power plant's contribution to the protection against fires and forest preservation (PIDF) – per MWh, being due in the year following entry into operation and only in cases where the biomass used is supplied in critical areas. When it comes to thermal energy, the price is freely determined through contracts celebrated between producers and buyers.

Non-cumulation rules have been adopted, in line with [Order in Council 69/2017, of 16 February](#), , being expressly prohibited the accumulation of the price support mechanism with public subsidies or non-repayable grants either to the construction or operation of the power plants. In such cases, the power plants will be subject to a



reduction or even elimination of the applicable price support mechanism. Also, the granted premiums are suspended until the full neutralization of the impact of the non-refundable subsidy. After that they can resume the guaranteed remuneration and premiums for the remaining duration of the same, if still at course.

As regards the sale of electricity produced in these biomass power plants, the last resort supplier (*comercializador de último recurso*)<sup>3</sup> shall enter into a contract with the producer in order to purchase the electric power; the thermal energy's price and purchase is freely negotiated by the producer.

## VI. National Plan of Bio-refineries

The National Plan of Bio-refineries (adopted by [Resolution of the Council of Ministers 163/2017, of 31 October](#)) defined a 2030 horizon strategy, having thereby assumed to promote all types of advanced bio-refineries from biomass, so far not valued, waste or low economic value, such as agricultural and forestry waste biomass.

Portugal has biomass residues available throughout the continental territory, with potential to be used in bio-refineries and for energy purposes (electricity, heat and advanced biofuels).

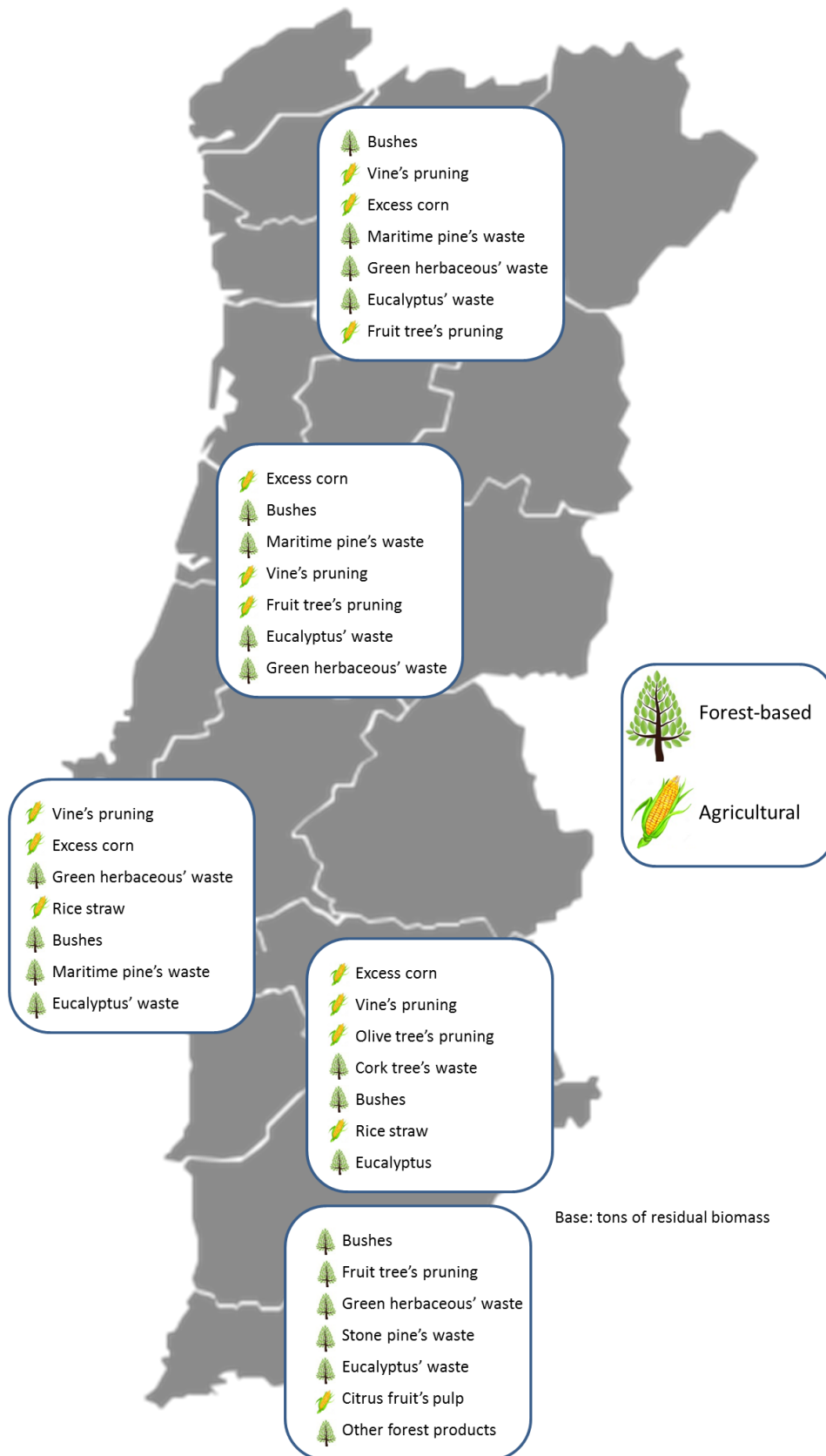
Please find below a chart identifying the estimated quantity of residual forest biomass for energy purposes (ton/year), by forest species and by NUTS II (i.e. Nomenclature of Territorial Units for Statistical Purposes):

NUTS II Region	Maritime Pine	Stone Pine	Eucalyptus	Cork Tree	Holm Oak	Oak Tree	Other Forest Species	Green herbaceous waste	Bushes
North	168 547	-	82 401	2 792	1 396	65 376	57 204	100 000	373 979
Centre	331 474	-	216 733	9 504	4 752	34 770	20 862	100 000	342 613
Lisbon MA*	9 108	5 443	9 108	5 108	-	432	2 160	52 000	24 041
Alentejo	31 108	53 449	124 432	130 441	78 265	-	8 484	89 000	129 611
Algarve	3 630	17 820	15 246	7 306	2 977	-	8 172	100 000	155 126

Lisbon AM = Lisbon Metropolitan Area

Also, please find below the main categories of residual biomass produced by NUTS II:

<sup>3</sup> Currently EDP Serviço Universal S.A., pursuant to article 73 of Decree-Law 29/2006, of 15 February, as amended.





## VII. Final remarks

The scope of the special regime set forth in 2017, aiming at providing attractive conditions to build and operate such biomass power plants, has been the protection of the forest in close proximity with the areas of prevention and firefighting as well as the potential boost in local and regional development; whilst the greatest challenge will be how the relevant municipalities will be able to put together the know-how and funding necessary to implement such projects, namely since the scale of the project is a relevant factor.

The amendment to the regime which came into force in August 2019 aims at boosting the implementation of biomass power plants at a local scale (since the municipalities have not managed to launch such projects yet).

Some of the major changes are based in the assumption that the production of thermal energy is more energetically efficient than the (mere) production of electric power. The proliferation of biomass powered plants as well as the lack of Public Grid capacity also explains the newly imposed limits and the bidding procedure (designed to address the capacity scarcity).

The rules for the issuance of the Public Grid capacity reservation titles and the production license and key aspects of the remuneration applicable to the sale of electricity produced in the biomass power plants are now set. This is a result of the approval by the European Commission of the regime of support for biomass-operated power plants close to forests in Portugal, and the development of the legal framework. Nevertheless, the instructive elements of the licenses' applications and the bidding procedure are yet to be determined by an Order of Council to be adopted, which is expected to be issued within the next quarter.