



COGENERATION: NEW REMUNERATION AND LEGAL FRAMEWORK

What is cogeneration? This is a technology that allows the leverage of residual heat originating from thermodynamic electrical power generation processes, resulting in the simultaneous production of thermal energy (heat and/or cold) and electrical (or, if applicable, mechanical) energy from a single fuel source.

With rare exceptions, this option has not been used in urban environments, in contrast to the situation in Northern and Central Europe, where it is widely used as an alternative and environmentally cleaner technological resource for air conditioning purposes. This technology has thus been particularly successful in industrial projects, the vast majority of which are dedicated to specific closed-circuit projects.

With this new legislation, opportunities are expected to open up within the sector, and it is hoped that the government will encourage the use of this technology.

Decree-law no. 23/2010, of 25 March, **introduces the legal framework for cogeneration activities and a new remunerative framework for cogeneration operators**, adapting the rules of this activity to progress towards a free market restricted by climate concerns.

The new framework implements parliament and council directive 2004/8/EC of February 11, on the promotion of cogeneration, which amended directive 92/42/EEC, of May

21 on the yield of hot-water boilers fed with liquid or gaseous fuels. Great technological advances have been made since then, in an attempt to adapt the available technology to the legal and economic realities in order to make the most of the technology.

The new scheme proposes the **stipulation of remunerative criteria**, mainly based on production efficiency, and **determines legal procedures** for pursuing the activity.

1. Distinctive criteria and remuneration

The application of the remunerative criteria may be summarised as follows:

Special Mode - Undertakings Covered	General Mode - Undertakings Covered
Cogeneration operators whose production undertakings have an installed electrical capacity \leq 100 MW.	Cogeneration production not covered by the Special Mode.

In the case of the **special mode**, the **prior connection of the cogeneration undertakings** to the Public Service Network (**RESP**) is still **mandatory** and the provisions of Decree-law 312/2001 of 10 December – Prior Information Request, attribution of Reception Point, etc. – are applicable at the procedural level.

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“Corporate Law Firm of the Year - Southern Europe”
ACQ Finance Magazine, 2009

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Clients Choice Award - International Law Office, 2008, 2010

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International Tax Review - Tax Awards 2006, 2008

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The **remuneration** of the energy supplied is effected through the following market relationships:

Special Mode - Remunerative Scheme	General Mode - Remunerative Scheme
Remuneration for thermal energy supply to customer(s), the price being established contractually.	Remuneration for thermal energy supply to customer(s), the price being established contractually.
Remuneration for supply of electrical power to the supplier of last resort, with the sale price being equal to a reference tariff ¹ .	Remuneration for supply of electrical power to customer(s) directly linked to the undertaking, with the sale price to be established between the parties, the global system use tariff and commercialisation tariff being applicable.
Efficiency premium ² calculated on the basis of the primary energy saving for each undertaking.	Remuneration for supplies established in bilateral contracts concluded with customers and suppliers, the sale price being freely established between the parties.
Renewable energy premium ³ , on the basis of the proportion of fuels from renewable sources consumed.	Remuneration for supplies within organised markets where the price results from sales in the market.
----	Market share premium (percentage of the reference tariff) for undertaking with installed capacity ≤ 100 MW.

¹ Valid for 120 months from the date operations commence, except for renewable cogeneration while it maintains the generation classification provided for in art. 3. of the Decree-law.

² Attributed for 120 months from the date operations commence.

³ Attributed for 120 months from the date operations commence.

⁴ A cogeneration operator covered by the special mode, with an installed capacity ≤ 100 MW, may change to the general mode, and vice-versa, after 3 years have elapsed from the start of operations. Changes of mode should be notified to the DGEG with at least 60 days notice.

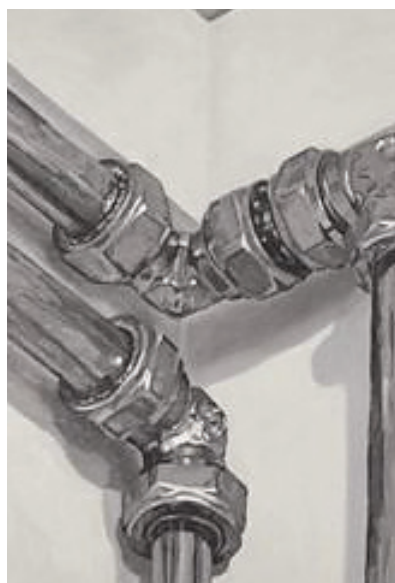
2. Efficiency classification

Generation by cogeneration has two classifications: “**high-efficiency cogeneration**” and “**efficient cogeneration**”.

Generation is considered to be high-efficiency when it is generated in (i) cogeneration undertakings with an installed electrical capacity greater than 25 MW, overall efficiency greater than 70% and a primary energy saving in relation to the separate generation of electricity and heat of at least 10%; (ii) cogeneration undertakings with an installed electrical capacity of between 1 MW and 25 MW, which results in a primary energy saving in relation to the separate generation of electricity and heat of 10%; and (iii) small-scale cogeneration undertakings, which result in a primary energy saving in relation to the separate generation of electricity and heat.

Cogeneration not falling within the above definition is considered to be efficient cogeneration.

The above-mentioned saving in primary energy is calculated annually, taking into account thermal efficiency and electrical efficiency factors, an efficiency reference value for the separate generation of heat and the same value for the separate generation of electricity. The calculation formula is defined in Annex III of the Decree-law.



The **harmonised reference values for efficiency in the separate generation** of electricity and heat, and for determining the efficiency of cogeneration, **will be published by order** of the Director-General for Energy and Geology.

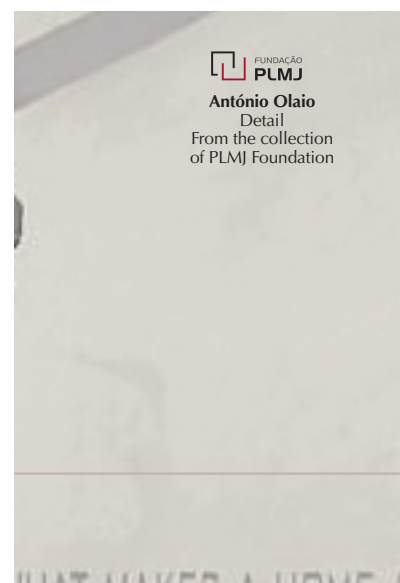
3. Licensing

The licensing of cogeneration undertakings by the DGEG or DRE is done under the rules **established in the Decree-law** as complemented by the rules **appearing** in Licensing Regulation for Electrical Installations (**RLIE**) of 1936.

Under the Decree-law and the RLIE, **establishment, generation** and, finally, **exploration licences** should be obtained, the latter being issued after an inspection to check that the undertakings comply with previously issued licences and current law (namely pollution control and the EU Emissions Trading Scheme).

In the case of small-scale cogeneration undertakings (installed capacity below 1 MW⁵), the exploration licence will be issued based on a written declaration of responsibility from the technician responsible for the exploration of the electrical facilities.

⁵ Should the maximum capacity be below 50 kW, it is called **micro cogeneration**, and is not covered by this statute.



It is clearly open to the legislature to evolve to a more liberalised market framework, offering the possibility of direct supply by the producer and providing customers with the possibility of connecting to the cogeneration undertaking.

	Jurisdiction for Commencing of the Process	Types of Undertaking
Production Licence	DGEG	Undertaking with installed power > a 5MW
		Undertaking with installed power ≤ 5 MW
Operating Licence	DGEG	Undertaking with installed power ≥ 10 MW
	Regional Directorates responsible - DRE	Undertaking with installed power < 10 MW

The requirements for the granting of licences are:

(i) **connection to the RESP** in undertakings with **special mode** remuneration schemes, the reception point being assigned up to 18 months prior to the submission of the application for a generation licence. This period may be renewed on request, and is tacitly approved if the DGEG does not act within 45 days; or

(ii) the existence of **conditions for connection to the RESP** (including public service electricity undertakings for the transmission and distribution of electricity as a whole) for **general mode** remuneration. There is inadequate capacity within the receiving RESP where injected power exceeds the total capacity of the reception point.

The costs of linking the undertaking to the RESP are borne by the owner of the same, with the costs of building common line sections in shared extensions being shared.

Priority in the granting of generation licences will be given to cogeneration undertakings that use fuels with **emission coefficients** equal to or lower than that of natural gas. Provision is also made for **priority in the dispatch of electricity from cogeneration undertakings that do not participate in organised markets**, to be assigned by the operator of the National Transmission Grid (NTG).

Among other developments under this New Cogeneration Framework, the following are worth noting:

- The creation of an **electronic platform to be used in the context of the licensing of the undertakings**;

- For **high-efficiency cogeneration**, the applicability of the **guarantee of origin** to be issued by an issuer of guarantees of origin (**EEGO**) – the NTG concessionaire, that is, REN, S.A. - with the purpose of proving the amount of energy produced and certifying that the undertakings allows primary energy saving pursuant to Annex III of the Decree-law;

- For **efficient cogeneration**, the applicability of a **certificate of origin** with the same objectives as the guarantee of origin;

- All cogeneration undertakings must be **audited by the EEGO** at least every 3 years;

- Undertakings with a production licence that generate energy by cogeneration on the date the Decree-law comes into force may opt for the new remunerative arrangement. Should they not opt for the new arrangement, they will be remunerated in accordance with its provisions after 180 months have elapsed from the commencement of operations, or 120 months from when the Decree-law comes into force, whichever occurs first.

This piece of legislation came into force on 30 March 2010. However, ministerial orders are still to be published, in particular those regulating the applicable tariffs, which are indispensable for the practical application of this new framework. Thus, the framework may only be applied when the ministerial orders are published and the tariffs set. The period mentioned in the preceding paragraph in relation to the mandatory application of the framework should be counted from 30 March 2010.

It is clearly open to the legislature to evolve to a more liberalised market framework, offering the possibility of direct supply by the generator and providing customers with the possibility of connecting to the cogeneration undertaking.

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