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ELECTRICITY SELF-CONSUMPTION

SEPTEMBER 2022 | DECENTRALIZED PRODUCTION IN PORTUGAL

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ABOUT MACEDO VITORINO

WHO WE ARE & WHAT WE DO

ABOUT US

MACEDO VITORINO is a leading Portuguese law firm. We advise domestic and foreign clients in a wide range of business sectors, including banking, distribution, industry, energy, TMT and projects. We are known for our professional and client oriented approach to complex and difficult matters.

Since the foundation of our firm in 1996 we have been involved in several high profile transactions in all of the firm's fields of practice, including banking and finance, capital markets, corporate and M&A, etc.. We have also acted on many complex disputes and restructurings.

We have strong relationships with many of the leading international firms in Europe, Asia and the Americas, which enable us to handle cross-border transactions effectively. The firm recognised by The European Legal 500, IFLR 1000 and Chambers and Partners for its work in its main practice areas.

Our team is committed, hard working, accessible and friendly. We believe in collegiality, teamwork, trust and loyalty. Clients value our team approach, the good management of time and our focus on their business goals.

We advise:

- NATIONAL AND MULTINATIONAL COMPANIES
- BANKS AND OTHER FINANCIAL INSTITUTIONS
- FUNDS
- BUSINESS AND SCIENTIFIC ASSOCIATIONS
- FOREIGN EMBASSIES
- INDIVIDUAL ENTREPRENEURS
- PRIVATE EQUITIES
- START- UP S
- PRIVATE CLIENTS

THE SELF-CONSUMPTION FRAMEWORK



TRANSITION

In Portugal, electricity self-consumption is ruled by <u>Decree-Law 15/2022</u>. Self-consumption promotes electricity decentralized production from renewable sources.

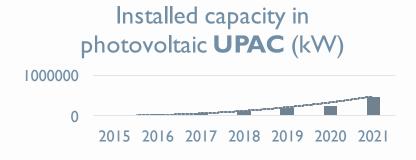
Energy self-consumption is the production of renewable energy by a final consumer through one or more <u>production unit(s)</u> for self-consumption (**UPAC** – unidade de produção para autoconsumo) in a facility owned by that individual that can store or sell in-house produced electricity of a renewable source.

Self-consumption can be:

- Individual, when the final consumer produces renewable energy for themselves; or
- Collective, when the energy produced is to be consumed in two or more facilities of different self-consumers.

According to **DGEG** data: between 2016 and 2021, decentralized installed power increased by 66% and photovoltaic **UPAC** increased by around 90%. The use of **UPAC** from non-solar sources was almost non-existent.

	Decentralized Installed Power in Portugal (kW)					
	2016	2017	2018	2019	2020	2021
Total Power	219 510	262 908	304 849	389 718	430 446	654 836
UPAC	43 110	86 183	130 570	215 704	256 433	480 850
Photovoltaics	43 077	85 774	123 903	204 878	245 606	470 024



PRIOR CONTROL

Both individual and collective self-consumption is subject to a prior control procedure which, depending on the installed capacity of **UPAC**, can be:

- Production and Operation License: installed capacity greater than I MW;
- Prior Registration and Operating Certificate: installed capacity greater than 30 kW and equal to or less than I MW; and
- Prior Notice: installed capacity greater than 700 kW and equal to or less than 30 kW.

The distribution of spare **RESP** injection capacity determines if a Production License can be awarded or not. The license award depends on the payment of a security deposit obtained through (i) a general access request (when there is available capacity), (ii) a request-agreement between the interested party and **RESP**'s operator (the interested party should cover the financial costs of construction or improvement of the grid necessary for the reception of the energy produced by **UPAC**), or (iii) a competitive procedure. Spare **RESP** injection capacity is not necessary where there is:

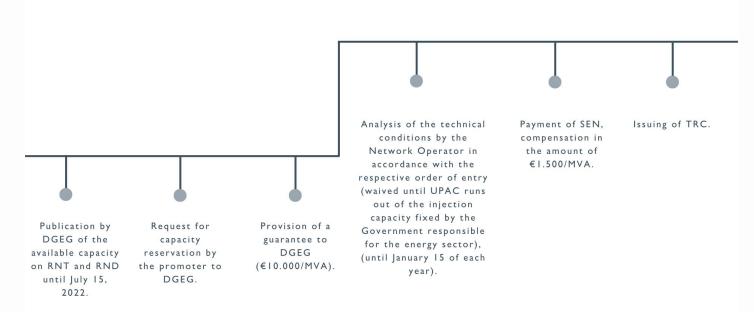
- UPAC with surplus injection into RESP of less than I MW;
- Hybridization by adding a new production unit to a UPAC that uses a different primary source of renewable energy, without changing the assigned injection capacity;
- Over-equipment through the installation of more generating equipment or inverters in UPAC if it means an installed capacity of up to 20% of the assigned connection power;
- Retrofit by replacing the generating equipment totally or partially, without changing the deployment polygon, with a maximum increase of 20% of the power initially assigned.

Until April 19, 2024, the award of an Operation License or Operation Certificate is not necessary whenever the network operator verifies the existence of favorable conditions for connection. The exemption must be requested three years after that verification.

LICENSING



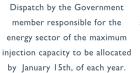
TRC ASSIGNMENT METHOD - GENERAL ACCESS



Rodape

TRC ASSIGNMENT METHOD - AGREEMENT







Request for an agreement signature by the promoter to DGEG until March 15th.

Provision of a guarantee to **RESP** operator

(€I5.000/MVA).

Ranking of requests for agreement by the respective **RESP** operator until August 10th.



Notification to the interested parties whose requests were excluded to give their opinion in a prior



Final validation by DGEG within 10 days after the prior hearing period has elapsed.



Communication to the

interested parties by the

respective operator of RESP of

the budget for the network

studies within 10 days after

publication of the final

validation.



By April 30 of the following year, the RESP's operator will send

the proposal for an

agreement to reinforce

the RESP Infrastructure.

Communication of the

Signing of the agreement

until November 30th.

the conditions for



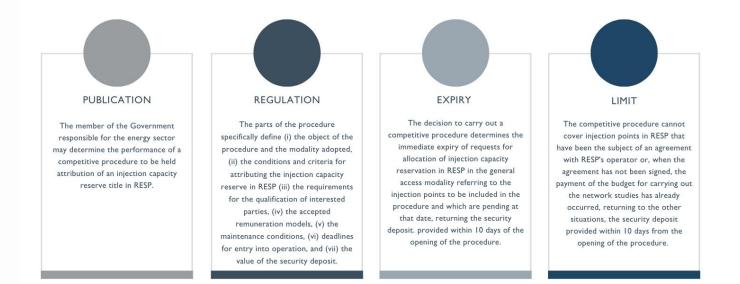
promoter's acceptance of

within 30 days.

hearing.



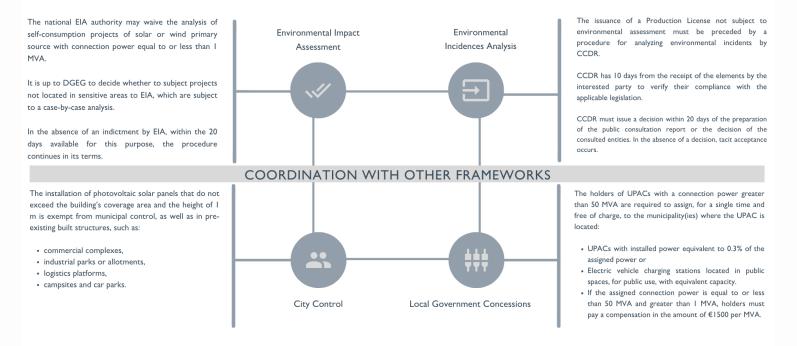
TRC ASSIGNMENT METHOD - COMPETITIVE PROCEDURE



PRODUCTION LICENCE AND PRIOR REGISTRATION

	Production and Exploration License	Previous Registration and Certificate of Operation	
Entity	DGEG	DGEG (through the Self-Consumption website).	
Requesting a Production License / Prior Registration	1 year after the award of the capacity reservation title when environmental impact assessment is required or 6 months if it is not required.	No deadline.	
Initialelements	Established in Annex I of Decree Law No. 15/2022	Defined in article 3 (individual self-consumption) and article 4e (collective self- consumption) of DGEG's Order 46/2019 of 12/30/2019.	
Security deposit	10,000 EUR/MVA (for competitive bidding, the value of the deposit is established in the tender documents).	5000 EUR/MVA.	
Application for an Operating License / Operating Certificate	One year from the issue date of the Production License. It can be extended, once, for another year.	Nine months from the issue date of the Prior Registration. It can be extended, once, for a nother half period.	
Insurance	Civil liability insurance is required for the Operation License issuance request that guarantees the liability of the license holder.	Civil liability insurance is required for the request for the Operating Certificate issue, which guarantees the Previous Registration holder's liability.	

COORDINATION WITH OTHER FRAMEWORKS



ENERGY SHARING AND TRADE

ENERGY SHARING

EGAC must inform network operators about the desired sharing method of collective self-consumption, for distributing **UPAC** production between self-consumers. If **EGAC** stays silent, the network operator shares proportionally each installation based on measured consumption.

Energy sharing can be based on:

- Fixed coefficients differentiated by working days, holidays, weekends, and/or seasons;
- Variable coefficients based on hierarchy or on consumption measured in each period within the time frame established in ERSE regulations;
- The combination of fixed and variable coefficients; and
- The use of specific dynamic management systems, through monitoring, control, and dynamic energy management (being necessary to provide network operators with measuring equipment data and sharing coefficient).

ENERGY TRADE

Both in individual or collective self-consumption, the surplus energy from non-consumed production can be sold and paid:

- In an organized market or through bilateral contracting, for a previously agreed price;
- Through the market participant against payment of a freely agreed upon price;
- Through a market aggregator, who must purchase the energy produced by the producers.

Until the market facilitator license is granted, the last resort supplier (**CUR**) ensures the acquisition of the electricity which authorized power for injection into **RESP** does not exceed I MW.

The Government can also create support schemes for production from renewable energy sources, subject to competitive procedures.

COLLECTIVE SELF-CONSUMPTION

There are collective self-consumers (ACC), Renewable Energy Communities (CER), and Citizens' Energy Communities (CCE).

ACC is a group of at least two end consumers who share the energy produced by both or by only one of them, as well as **RESP** access costs. Joining can be possible or not. ACC organization is subject to the approval of internal regulations and the **EGAC** system manager appointment. ACC should be connected through **RESP** or the internal grid. In ACC, all selfconsumers are jointly responsible for compliance with legal obligations.

DGEG must be informed of any internal regulations until 3 months after the beginning of operation of **UPAC**, to define, at least, the criteria for the free entry of new members and the withdrawal of participants, rules for sharing energy and payment of tariffs, commercial relations, and what happens to surpluses. **CER** and **CEE** are legal persons, created when their members (natural or legal persons of public or private nature, mainly non-profit) join, open and voluntary. Management rules should be set in articles of association or internal regulations. Participants of **CER** and **CCE** must be consumers. **CCE** can also produce, distribute, trade, consume, aggregate, and store energy regardless of whether the primary source is renewable or non-renewable.

The proximity between **UPAC** and consumption facilities is mandatory for production activities. The distance cannot be greater than:

- 2 km or for LV networks, they must be connected to the same transformer station; or
- 4 km for MV connections, 10 km for HV connections, and 20 km for EHV connections.

COLLECTIVE SELF-CONSUMPTION

	ACC	CER / CCE	
Constitution	Two or more individual self-consumers	A legal person formed by self-consumers (natural or legal persons, public o private, including small and medium-sized enterprises or local authorities), and whose purpose is environmental, economic and social benefits for its members or to the sites where it operates, rather than financial gain	
Admission of new members	Subject to the criteria set out in Internal Regulations	Open	
Members leaving	Subject to the criteria set out in Internal Regulations	Open if they fulfill the obligations to which they are bound	
UPAC Ownership	Owned by one or more self-consumers, or by third parties	CER / CCE or by third parties provided that UPAC operates for the benefit and service of the community	
Legal responsibilities	Joint responsibility between self-consumers	Joint responsibility between CER / CCE and its members	
Managementrules	Internal Regulations	Articles of association or internal regulations	
Management responsibility	EGAC (may be one of the self-consumers or a third party)	CER, one of its participants or a third party	

ELECTRO-INTENSIVE SELF-CONSUMPTION

The Electro-intensive Customer Statute (*Estatuto do Cliente Eletrointensivo* - **ECE**) was ruled by Ministerial Order no. 112/2022, establishing obligations and support measures for consumption facilities that stand by this statute through a standard form contract to benefit from:

- Partial reduction (minimum discount of 75%) of CIEG levied on the global use of the system tariff, regarding the consumption of energy that comes from RESP;
- Total exemption from charges corresponding to CIEG levied on the global use-of-system tariff, for energy that is self-consumed and supplied through RESP;
- Access to a risk hedging mechanism, at least 10% of the electricity consumption from renewable sources acquired through long-term contracts, with a minimum duration of five years (still subject to approval by the European Commission); and
- Exemption from the application of the proximity criteria between UPAC and the location of the consumption installation.

Electricity consumers can subscribe to this statute if they:

- Belong to one of the business sectors identified in Annex 3 or Annex 5 of the <u>European Commission Communication 2014/C 200/01</u> on "Guidelines on State Aid for Environmental Protection and Energy 2014-2020";
- Have an EHV, HV, or MV connection to the grid;
- Comply with the requirements established under the EU ETS or the Intensive Energy Consumption Management System;
- Have an annual electricity consumption equal to or greater than 20 GWh and an annual consumption (in the normal off-peak and peak hours) equal to or greater than 40% of the annual electricity consumption; and
- Have an annual electro-intensity level equal to or greater than 1 kWh/€ of gross value added (GVA), by the arithmetic average of the last three years.

HOW TO JOIN ECE

Requests to join **ECE** must be submitted to **DGEG** until June 15. They must include:

- Identification of the applicant;
- Identification of the consumption installation;
- Indication of the sector or sub-sector and the consumption installation's activity code;
- Proof of the electric energy supply contract;
- Proof of compliance with the requirements for the lawful consumption installation's activity performance, where applicable; and
- Gross annual added value of the consumption installation in the last three years, duly certified and audited.

If the request is accepted, **DGEG** will send the consumer the draft of the **ECE** standard form contract published through Order no. 5975-B/2022 for signature. The standard contract is valid for a year and is subject to renewal for an equal period if the consumer submits a new request by June 15 of each year.

By joining **ECE**, the consumer will have to comply with technical duties, such as (i) subjecting the beneficiary installation's measurement, registration and control equipment to the technical terms to be defined by the overall manager of the National Electricity System, and (ii) observing a minimum availability rate of 90% each year.

ECE standard form contract can terminate if the activity ends, if **ECE** eligibility requirements are non-complied with and if contractual terms or the terms of the obligation to install and operate measuring, recording and control equipment are changed and not communicated.

UPAC ELECTRO-INTENSIVE LICENSING PROCESS



WHAT IS EXPECTED FOR THE FUTURE

Solar PV capacity has grown actively in Portugal in the last decade. The country has now a PV capacity of almost 1.8 GW, and it is expected to reach 9 GW by 2030.

Recent statistics from **DGEG** show that 2021 set a record of 1777 MW of photovoltaic power regarding the installation of new solar photovoltaic capacity in Portugal. According to **APREN** (Portuguese Renewable Energy Association), in January 2022 Portugal was the 4th country in Europe with the highest renewable incorporation in electricity generation, with 4085 GWh of electricity generated, of which 59.7% had a renewable origin.

Having in mind the targets set by the Paris Agreement and the National Energy and Climate Plan 2021-2030 (**PNEC**), Portugal committed to achieving a target of 80% electricity production from renewable energy sources by the end of 2030 and electrifying 65% of the economy by 2050. Regarding the decentralized solar photovoltaic energy production, the goals outlined by **PNEC** are ambitious with a target of 0.8 GW of installed capacity by 2025 and 2 GW by 2030.

The development of self-consumption electricity production is key to meeting Portugal's production goals as it faces the infrastructural deficit that is

the lack of reception capacity in the public network since only the energy produced and not consumed is injected into the network. The new National Electricity System Law reinforced the focus on self-consumption, by simplifying procedures and creating the Statute of the Electro-intensive Customer.

The Statute of the Electro-Intensive Customer is especially important for the democratization of self-consumption since it allows heavy industry to consume electricity produced by **UPAC** (owned by third parties) located in other regions of the country with easier installation and solar exposure.

With the most favorable perspectives pointing to the maintenance of high electricity prices during 2022, self-consumption is increasingly drawing the interest of companies tired of **OMIE** prices.

Self-consumption is expected to grow in the next few years in Portugal. New players and business models capable of satisfying the country's energy needs are also likely to develop. M A C E D O • • V I T O R I N O João Vitorino Jvitorino@macedovitorino.com

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