

High voltage storage Portugal

Who owns the low voltage distribution grid in Portugal?

Portugal's 308 municipalities own the low voltage distribution grid contained within their physical territory. Each municipality can directly operate its section of the low voltage distribution grid or transfer operation to a third party through an exclusive 20-year concession.

How is low-voltage electricity distributed in Portugal?

Concessions for the distribution of low-voltage electricity are awarded by each municipality or association of municipalities, following a public tender [Decree-Law N.º 15/2022, of 14 January], on the basis of a standard contract approved by the Government, having heard the National Association of Portuguese Municipalities (ANMP) and ERSE.

How many PV power installations are there in Portugal?

Four PV power installations are studied, namely 0.50 kWp, 0.75 kWp, 1.50 kWp and 3.45 kWp, either off-grid or grid-connected, for three different Portuguese locations - Évora, Porto and the Azores archipelago.

Is self-consumption suitable for PV solar energy in Portugal?

All the configurations implemented self-consumption, considered to be the current most adequate context to implement PV solar energy in Portugal in the residential sector, regarding the Portuguese legislation.

How many smart meters are there in Portugal?

Portuguese national DSO E-REDES has announced surpassing the 5.5 million smart meter mark with meters with active remote services, which corresponds to a coverage of 80% of customers in mainland Portugal.

Holders of generating or storage facilities with a connection power exceeding 50 MVh are obliged to install (i) UPAC with an installed power equivalent to 0.3% of the connection power, or (ii) electric vehicle charging stations for collective use in public spaces with equivalent capacity in municipal buildings.

While Portugal's revised National Energy and Climate Plan (NECP) and Long-Term Strategy for Carbon Neutrality (LTS) have raised targets for decentralised solar photovoltaic (PV) capacity, they remain below the country's solar potential.

Portugal's high and medium voltage distribution systems consisted of 67 451 km of overhead lines, 14 985 km of underground cables and 423 substations. The low voltage distribution system consisted of 109 725 km of overhead lines, 33 715 km of underground cables, and 69 000 secondary substations.

The main supplier and distributor of electricity in Portugal, EDP, has presented plans to install the first PV plant (3.8 MW) coupled with lead-acid batteries storage, focused on self-consumption, in Castanheira do Ribatejo and Azambuja [19].

EDP - Distribui  o SA is the distribution system operator (DSO) of the high and medium voltage distribution grid, and the concessionaire of most low voltage municipal distribution systems. In the autonomous regions of the Azores and Madeira, the distribution operators are ...

Distribution grids ensure the transit of electricity between the national transmission grid and consumers: electricity conveyed over long distances by the transmission grid at extra-high voltage (EHV) is then delivered to substations from the distribution grid, in order to convey it over shorter distances at high, medium and low voltage (HV, MV ...

Portugal's high and medium voltage distribution systems consisted of 67 451 km of overhead lines, 14 985 km of underground cables and 423 substations. The low voltage distribution system consisted of 109 725 ...

REN operates the 400 kV, 220 kV, and 150 kV extra-high-voltage grid, lines, and respective substations. The Operation has the task of keeping all equipment and systems operational, in order to meet high safety and service quality standards in an efficient manner.

Web: <https://ecomax.info.pl>

