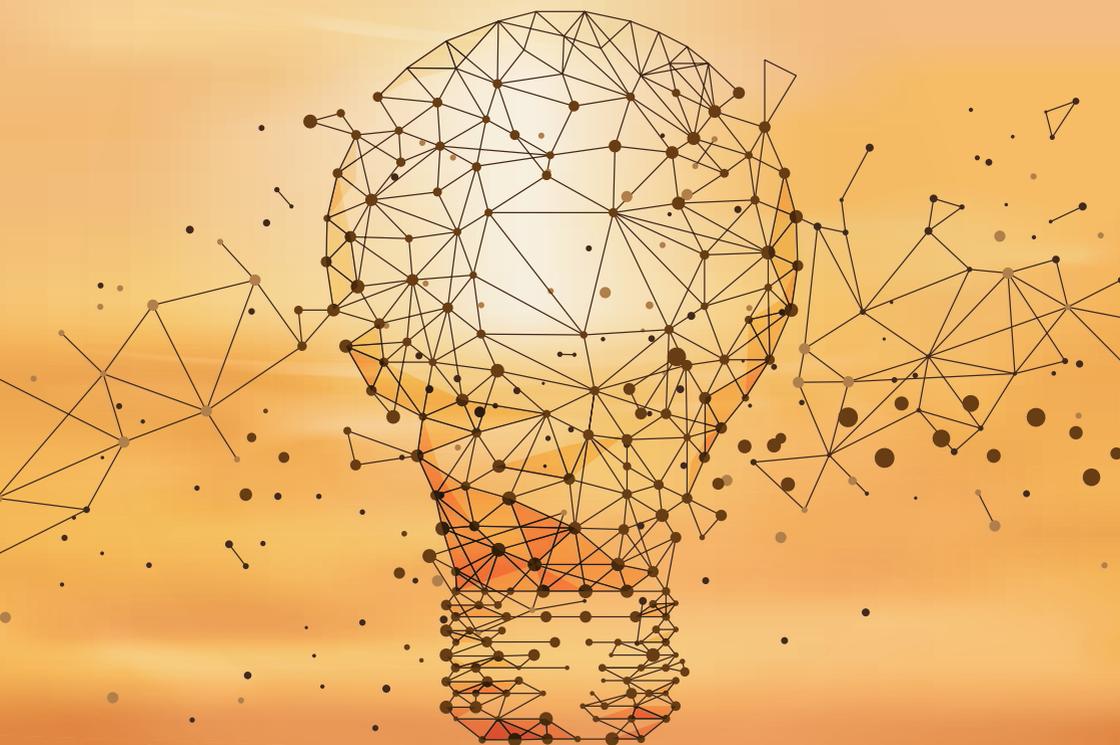


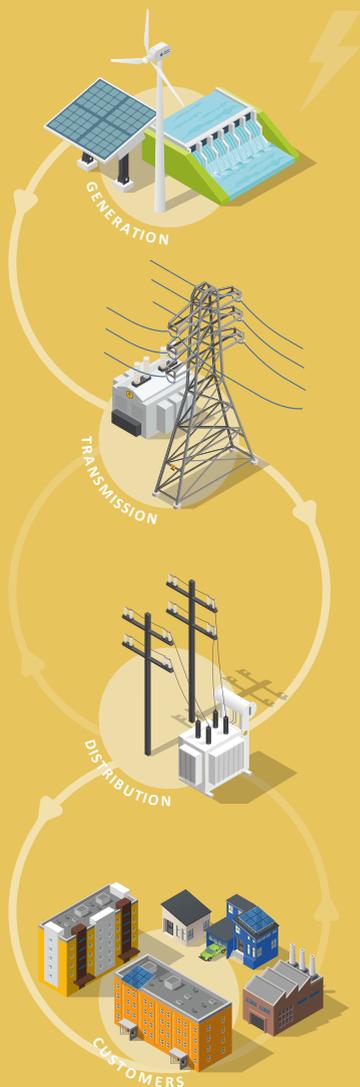
# ELECTRICITY

## Technical Quality of Service Report 2024





## ELECTRICITY VALUE CHAIN



## NATIONAL TRANSMISSION NETWORK

**88**  
delivery points

**9 661 km**  
of EHV network



**98,26%**

Availability of main elements of the transmission network

► Average number of long interruptions



**0,01**

Interruption/delivery point

-87,5% compared to 2023

► Average duration of long interruptions

**0,04**

Minutes/delivery point

-99,9% compared to 2023





## DISTRIBUTION NETWORKS

MAINLAND PORTUGAL

AUTONOMOUS REGION OF THE AZORES

AUTONOMOUS REGION OF MADEIRA



9 771 km of HV network  
75 442 km of MV network  
151 709 km of LV network

1 879 km of MV network  
3 005 km of LV network

1 272 km of MV network  
3 350 km of LV network



6 421 908 LV customers

130 085 LV customers

146 751 LV customers



Average number of long interruptions affecting LV customers

1,56

interruptions/customer  
-11,9% compared to 2023

3,29

interruptions/customer  
-33,7% compared to 2023

0,63

interruptions/customer  
-13,7% compared to 2023



Average duration of long interruptions affecting LV customers

+9,1% compared to 2023  
95,55  
minutes/customer



-34,5% compared to 2023  
104,26  
minutes/customer



-14,7% compared to 2023  
36,92  
minutes/customer



Compensations paid to LV customers

820 019 €

>100% compared to 2023

56 €

-75% compared to 2023

1 330 €

+1% compared to 2023



## TECNHICAL QUALITY OF SERVICE

Energy Services Regulatory Authority (ERSE), responsible for regulating the electricity sector, assesses the quality of electricity supply perceived by customers and the performance levels of electricity network operators, in accordance with the provisions of the **Quality of Service Code**. This ERSExplica focuses only on the low-voltage distribution network, i.e., the network that carries electricity to the consumer.

### What is Technical Quality of Service?

The quality of the electricity supply provided to customers by the network operator is measured using a set of indicators, such as the number and duration of interruptions. In the Technical Quality of Service Report, ERSE assesses whether the quality of electricity supply provided to customers by transmission and distribution network operators complies with established quality standards. If network operators fail to meet the expected quality standards, affected customers are automatically compensated.

### Main Findings of the Report

In 2024, the general standards established for continuity of supply indicators (number and duration of interruptions) for the low-voltage distribution network were all met by distribution network operators in mainland Portugal, the Autonomous Region of the Azores and the Autonomous Region of Madeira.





## ELECTRICITY NETWORK OPERATORS

**Electricity** produced by dams, wind and solar farms, or other technologies reaches consumers' facilities through transmission and distribution networks. The transmission network carries electricity at extra high voltage (EHV) from power plants to substations that deliver it to the distribution network. Distribution networks carry energy to consumers over shorter distances at different voltage levels: high voltage (HV), medium voltage (MV) and low voltage (LV).

In **mainland Portugal**, the electricity networks are operated:

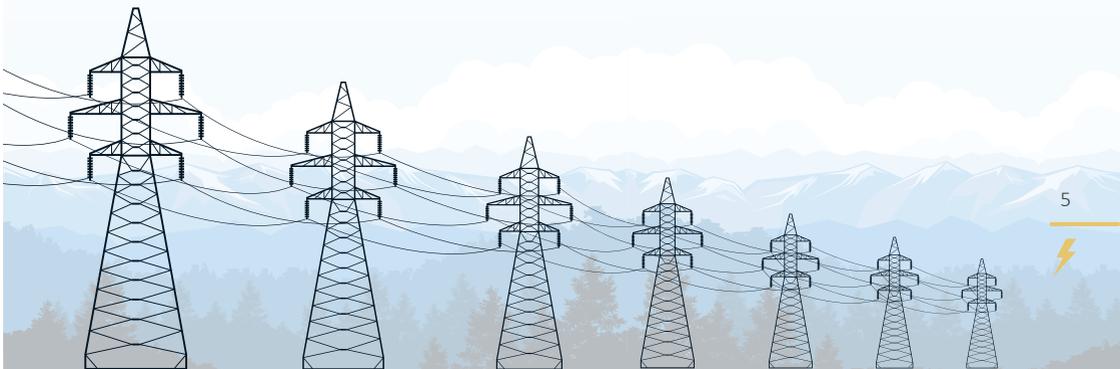
- At EHV, by **REN - Rede Eléctrica Nacional**
- At HV, MV and LV, by **E-REDES - Distribuição de Electricidade**
- Exclusively at LV:
  - A Celer - Cooperativa Electrificação de Rebordosa
  - A Eléctrica de Moreira de Cónegos
  - Casa do Povo de Valongo do Vouga
  - CEL - Cooperativa Eléctrica de Loureiro
  - CEVE - Cooperativa Eléctrica de Vale D'Este
  - Cooperativa Eléctrica de Vilarinho
  - CESSN - Cooperativa Eléctrica S. Simão de Novais
  - Cooperativa de Electrificação A Lord
  - Cooproriz- Cooperativa de Abastecimento de Energia Eléctrica
  - Junta de Freguesia de Cortes do Meio

In the **Autonomous Region of the Azores**, the electricity networks are operated by:

- **EDA – Electricidade dos Açores**

In the **Autonomous Region of Madeira**, the electricity networks are operated by:

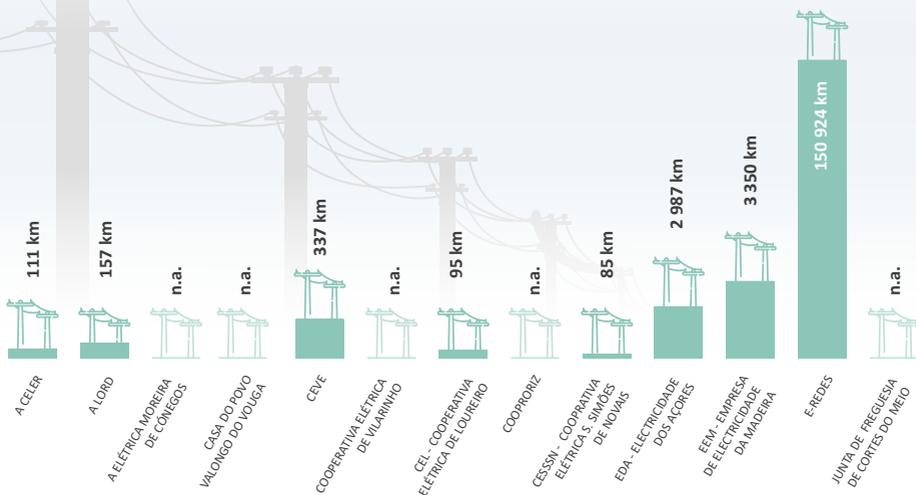
- **EEM – Empresa de Electricidade da Madeira**





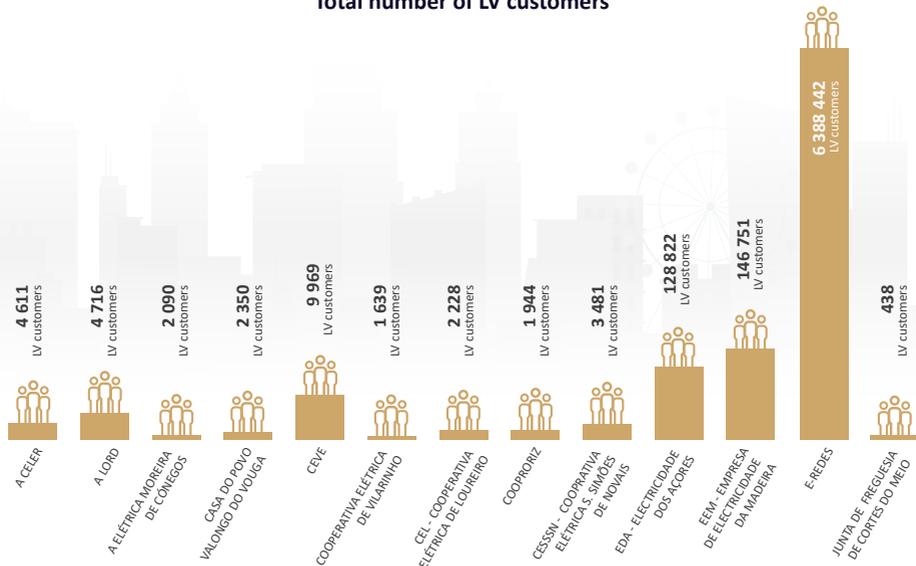
## CARACTERIZATION OF THE LOW VOLTAGE DISTRIBUTION NETWORK

Length of LV circuits



n.a. - not available

Total number of LV customers



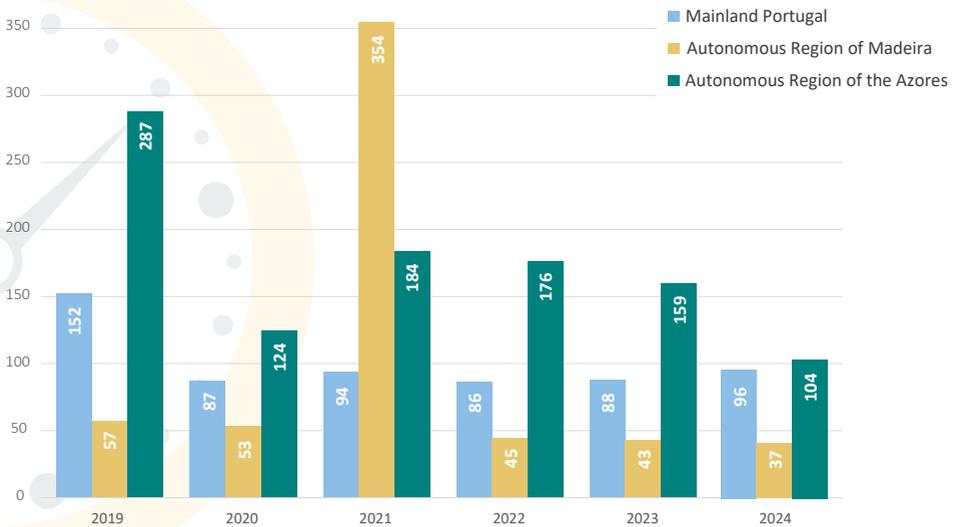


## LOW VOLTAGE DISTRIBUTION NETWORKS

### SAIDI LV (minutes/customer)

Average interruption duration per customer

The SAIDI LV indicator represents the average amount of time that customers experience long interruptions – more than 3 minutes – in a given year.



In **mainland Portugal**, the SAIDI LV indicator deteriorated compared to previous years, due to major impact events – wildfires and Storm Kirk – which affected large areas of the distribution networks and required more time-consuming repair operations.

In the **Autonomous Region of Madeira**, the SAIDI LV indicator recorded its best performance in recent years in 2024. This positive performance was the result of the absence of significant incidents, without influence from atmospheric phenomena, and the absence of interruptions originating from production.

In the **Autonomous Region of the Azores**, SAIDI LV improved compared to 2023. These results were driven by a reduction in unplanned interruptions caused by production and networks.

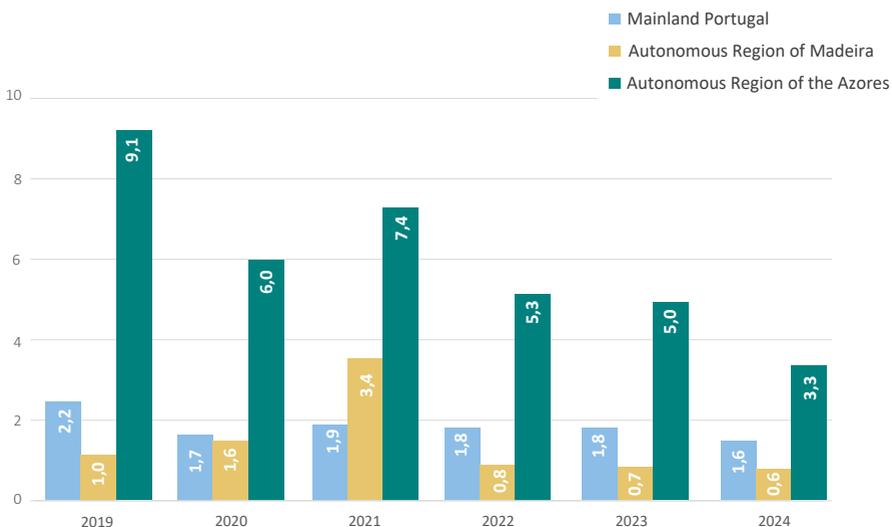




### SAIFI LV (interruption/customer)

Average number of interruptions per customer

The SAIFI LV indicator represents the average number of long interruptions that the average LV customer experiences in a year.



In **mainland Portugal**, the SAIFI LV value in 2024 was lower than in previous years, reflecting a reduced frequency of interruptions in the LV network. However, the average duration of interruptions increased, due to longer electricity supply restoration times.

In the **Autonomous Region of Madeira**, the SAIFI LV indicator in 2024 achieved the best value compared to recent years, due to the absence of interruptions caused by production.

In the **Autonomous Region of the Azores**, the SAIFI LV value in 2024 is lower than in the previous year due to the reduction in unplanned interruptions caused by production and networks

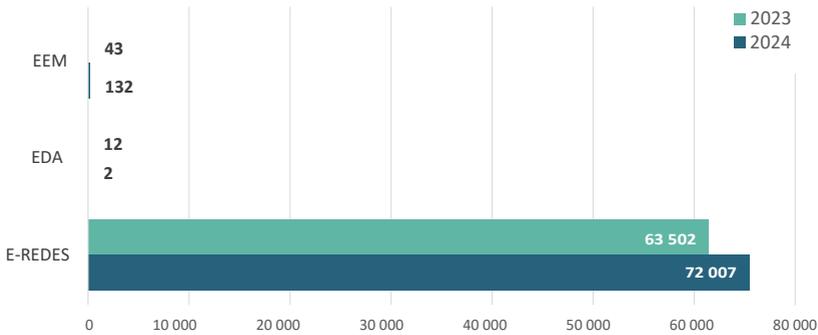




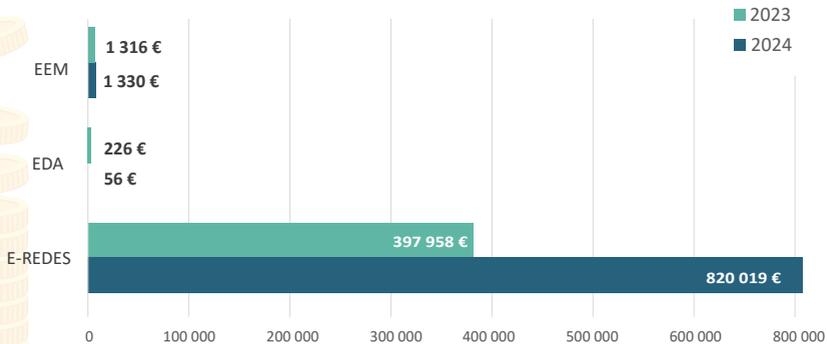
## COMPENSATION PAID TO LOW VOLTAGE CUSTOMERS

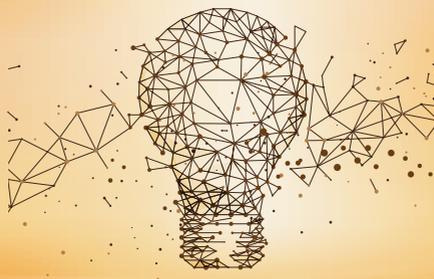
When the distribution network operator fails to meet individual continuity of supply standards (number and duration of long interruptions), affected customers are automatically compensated. In 2024, network operators paid around **821 thousand euros in compensations to LV customers**.

**Non-compliances with the number and duration of interruptions for LV customers**



**Compensations paid to LV customers for non-compliances with the number and duration of interruptions**





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