E-Redes Report

Prepared By :

MAHMOUD ALSHARNOPY

Table of Content

→

Table of Content

$\rightarrow$

1. EXECUTIVE SUMMARY

This report tells the story of energy consumption, orders trends, and CPE's (Collected Direct Current) data, weaving together key performance indicators (KPIs) and patterns. Through years, seasons, and regions, this analysis highlights critical insights and offers actionable recommendations to optimize operations and enhance efficiency.

2. Active Energy Insights

2.1. Understanding the Metrics

Imagine a world where energy is the lifeblood of progress. In 2024, this lifeblood totaled 174.43bn kWh. The peaks, like the 75.49M kWh maximum, and anomalies, such as the unusual -758.00 minimum, show the pulse of energy across regions.

2.2. The Journey Through the Years

Over five years, energy usage painted a story of steady growth and change:

- From a modest 8bn in 2020 to a significant 46bn by 2021 and 2022.
- A dip to 31bn in 2023 hints at challenges, only to recover to 45bn in 2024.

2.3. Quarterly Energy Stories

Energy flows differently each quarter, much like the seasons:

- Q1: The busiest, symbolizing new beginnings with 47bn kWh.
- Q2 & Q3: Slightly slower, echoing summer relaxation.
- Q4: A strong finish with 42bn kWh.

→

2.4. Monthly Energy Patterns

The months tell their tale too:

- Peaks in January and February mirror winter's energy demand.
- June's lull feels like a summer break, recovering from July onward.

2.5. District-Wise Narratives

In the districts, Lisboa's 33bn kWh dominance speaks volumes, followed by Porto and Setúbal. It's a story of urban energy needs driving regional patterns.

2.6. Municipal Energy Highlights

Zooming further, Lisboa's 11.16bn kWh crowns it the leader, while other municipalities like Maia and Porto support the broader tale of regional energy.

3. Orders Insights

3.1. Key Metrics at a Glance

From a lone minimum order to a bustling maximum of 2K, the year saw a remarkable 3M total orders, averaging 16 orders.

3.2. The Annual Growth of Orders

The journey of orders reveals a dramatic rise:

- Starting at 1.072M in 2022.
- Peaking at 1.852M in 2023 before a quieter 0.333M in 2024.

3.3. Seasonal Order Trends

Orders, much like energy, follow the seasons:

- Q1: A buzzing start with 941K orders.
- Q4: Closing strong with 805K orders.
- Mid-year dips reflect quieter times.

3.4. District Contributions to Orders

Lisboa once again leads, contributing 815K orders, followed by Porto and Setúbal.

3.5. Municipality Order Stories

Municipalities highlight the bustling activity in Lisboa (237K orders) and the steady contributions from Sintra and Porto.

3.6. Monthly Order Patterns

Monthly variations echo high early-year demand, a mid-year lull, and renewed vigor by year-end.

→

4. CPE's DC Insights (Collected Direct Current)

4.1. The Bigger Picture: Key Metrics

The world of CPE's is vast, with 183M total devices and 81M DC-enabled devices, reflecting the expanding technological landscape.

4.2. Annual Growth in CPE's DC Collection

The tale of collection unfolds:

- From 15.73M in 2022 to a peak of 46.60M in 2023.
- Slightly lower in 2024 at 18.68M.

4.3. Quarterly CPE Stories

Every quarter contributes to the narrative:

- Q1: Leads with 24.25M collections.
- Q4: Ends the year strong at 22.59M.

$\rightarrow$

4.4. District Insights for CPE's DC

Lisboa's dominance continues, collecting 17.45M, followed by Porto and Setúbal.

4.5. Municipal Contributions

Lisboa's 5.2M collections tower above Porto and Vila Nova de Gaia, showcasing its vital role in the infrastructure.

4.6. Monthly Trends in CPE's DC

January and February lead with 10M collections each, dipping mid-year before a final surge in Q4.

→

5. Conclusion and Recommendations

Key Findings:

- Lisboa's story of leadership is consistent across energy, orders, and CPE's DC metrics.
- Seasonal dips and mid-year slowdowns hint at areas for potential intervention.
- Growth in CPE's DC showcases progress in infrastructure and operational efficiency.

Recommendations:

- Address Anomalies: Investigate and correct the unusual negative energy value.
- Optimize for Seasons: Target mid-year dips with operational adjustments.
- Focus on Lisboa: Enhance efficiency in high-performing regions like Lisboa to sustain growth.
- Expand Collections: Leverage the growth in CPE's DC to build capacity in lagging districts.

→