RENEW IBERIA
ENERGY ENGINEERING AND MANAGEMENT

RENEW ENGINEERING: ENERGY MANAGEMENT SYSTEM

ENERGY HARMONY: SMART ENERGY CONTROL

Transforming Energy Utilization for a Sustainable Future

R E N E W IBERIA
ENERGY ENGINEERING AND MANAGEMENT

REEMS is a smart energy platform for SMEs that runs solar plants, storage and EV from the cloud — *all equipment work as a unified, effective system*

1 Lower bills

REEMS optimizes energy usage and storage, making your produced solar profitable instead of selling it for cents

2 Hands-free

REEMS runs 24/7 on weather forecasts and market prices, reports your savings automatically, and lets your plant earn from the grid

3 Every brand, one system

Inverters, panels, batteries and EV chargers added over the years finally work smoothly together — in one app

THE ENERGY LANDSCAPE IS CHANGING RAPIDLY.
WE ARE AT THE FOREFRONT OF TRANSFORMATION.

PROBLEM

INEFFICIENT USE OF SOLAR ENERGY AND MISSED REVENUE OPPORTUNITIES:

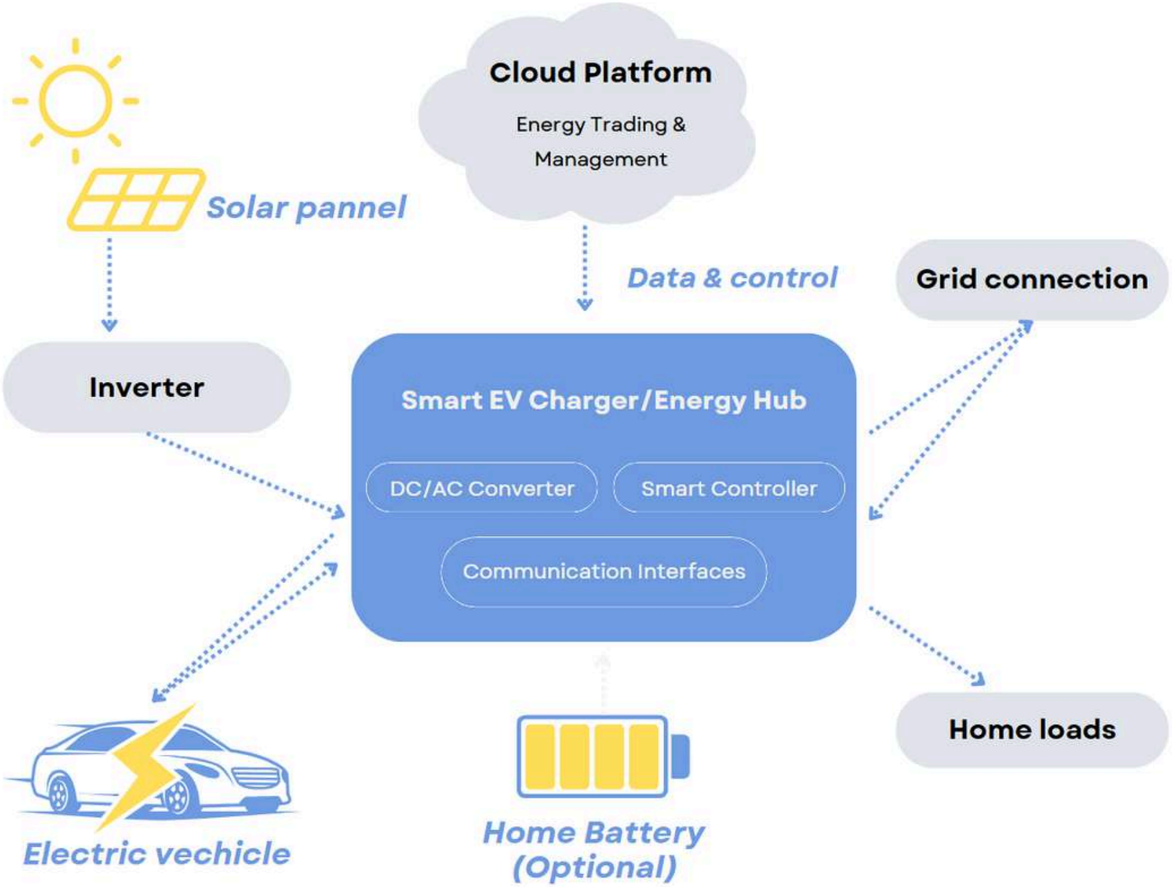
Portugal is reaching a point where distributed energy optimization is becoming commercially viable, especially for C&I customers. Regulatory changes and emerging market access are opening new monetization pathways for distributed flexibility.

Yet, as in many fast-transitioning renewable markets, one key challenge remains:

Context of the Problem	Details
Massive growth of solar energy, different rates of market development	• EU target: 42.5% renewable energy by 2030. • Rapid growth in residential and commercial solar panel and energy storage systems. • Lack of harmonised regulatory and subsidy approaches.
Limited functionality of existing systems and flexibility to dynamic prices	• Most installations are only used for basic own consumption or simple feed-in, leaving significant value unutilised. • Traditional systems cannot adapt to changing energy prices, missing savings and income opportunities. • Loss of access to sophisticated markets (e.g., grid services such as FCR, aFRR, mFRR) due to technology gaps.
Losses due to excess generation	• During peak times, solar panels generate more power than can be used or fed into the grid. • Significant electricity loss reduces ROI.
Limitations of the grid infrastructure	• Grids are not always equipped to handle numerous decentralised energy sources. • High grid load during peak periods causes congestion and outages.
Operational complexity still blocks mass adoption	• Complexity of technologies and lack of consumer education limit active use. • Smaller customers still lack simple tools to connect existing solar and storage assets to energy balancing markets • Energy trading in the market is too complex and strictly regulated for mass adoption.
Lack of integration of electric vehicles	• Electric vehicle batteries are underutilised as a resource for grid operations. • This limits the development of Vehicle-to-Grid (V2G) systems.

OUR SOLUTION

REEMS
AN INTELLIGENT ENERGY MANAGEMENT SYSTEM:



- One unified platform instead of fragmented apps, platforms, and vendor-specific tools
- Real-time visibility, control, and optimization of energy generation, storage, and consumption
- Software-driven efficiency without complex infrastructure changes
- Product customization based on each client's energy system, technical setup, and operational needs
- Compatibility with existing infrastructure, without major hardware replacement
- Access to high-value energy markets
- Protection from blackouts and downtime optimisation

TARGET CLIENTS



Commercial Enterprises

Energy is a significant operating cost, but these businesses lack the resources to actively optimize and manage energy system.

Problems:

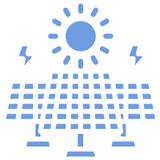
- Underutilization of installed assets
- Repetative blackouts & system downtimes
- Dependency on unstable energy sources
- Energy assets are spread across different vendors and software and are likely to operate in passive mode.

Goal:

Reduce operational expenses, decrease carbon footprint & optimise production cycle

Solution:

- Energy flow and consumption optimization
- Performance, CO_2 and energy savings reports



Solar parks

Solar park operators and independent power producers who aim to maximize solar asset performance and protect from system volatility.

Problems:

- Lose of excess generation value;
- Grid failures, storms, overloads
- Equipment faults
- Limited real-time system visibility and optimization
- Long ROI period

Goal:

Optimise plant stability, increase asset value and get faster ROI

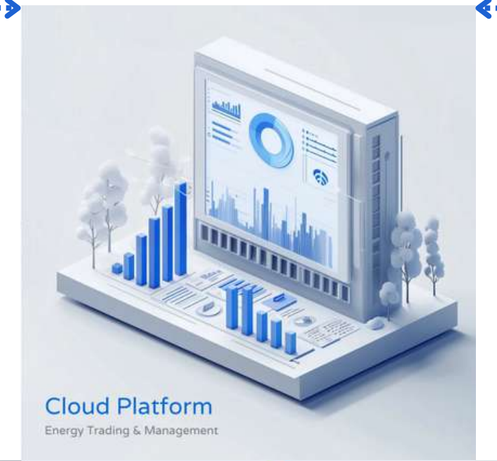
Solution:

- Performance and plant KPI reporting
- Real-time monitoring and fault detection

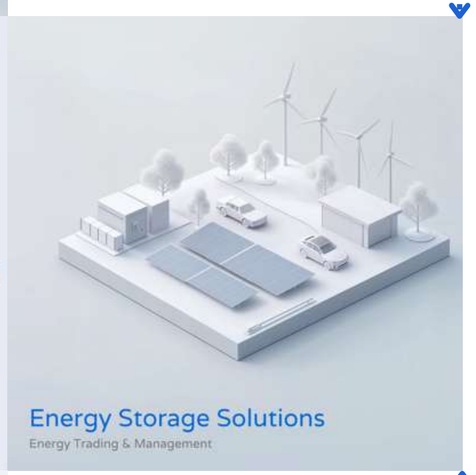
EMS: INDUSTRIAL ENERGY MANAGEMENT

OPTIMISATION DATA (REAL-TIME EMS)

- Generation Data
- Storage Status
- Charging Status
- Consumption Data
- System Status









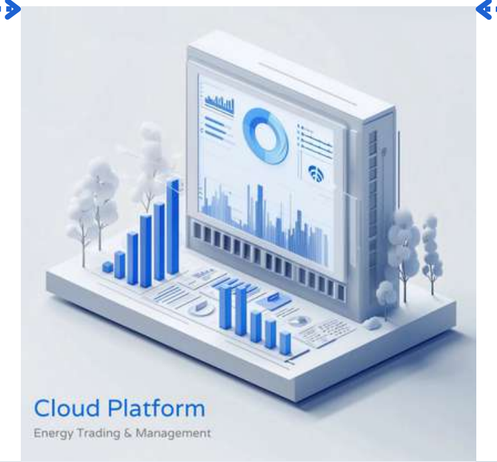
GRID INTERACTION

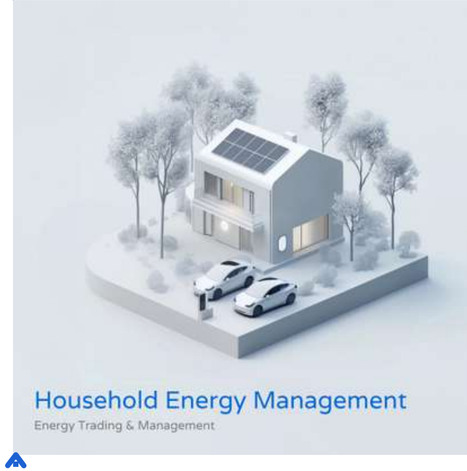
- Optimisation Data
- Analytics
- Grid Status
- Market Signals
- Grid Services

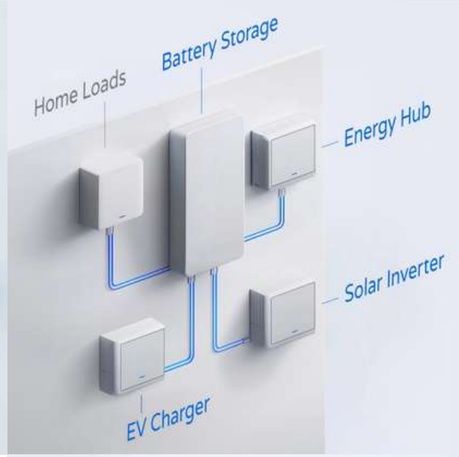
EMS: HOUSEHOLD ENERGY MANAGEMENT

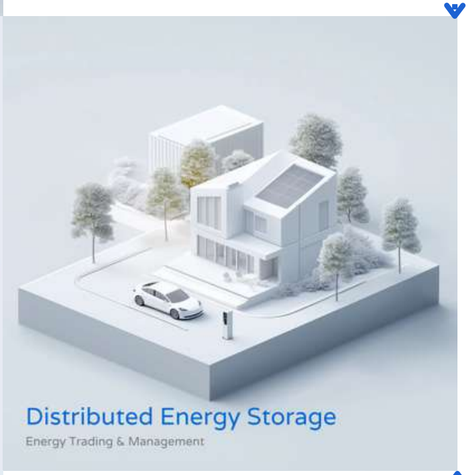
OPTIMISATION DATA (REAL-TIME EMS)

- Generation Data
- Storage Status
- Charging Status
- Consumption Data
- System Status











GRID INTERACTION

- Optimisation Data
- Analytics
- Grid Status
- Market Signals
- Grid Services

HOW IT WORKS

1. Connects Energy Assets:

REEMS integrates solar inverters, batteries, EV chargers, and other distributed energy assets at the customer site through an IoT Hub and vendor-specific connectors.

2. Collects Real-Time Data:

The IoT Hub securely sends operational data to the REEMS cloud platform, where connectivity, data ingestion, monitoring, and visualization is managed

3. Optimizes Energy Performance

The optimization engine analyzes generation, consumption, storage status, and market conditions to determine the most efficient way to use, store, or dispatch energy.

4. Executes Control Actions

REEMS sends commands back to the on-site system to improve self-consumption, battery usage, and overall asset performance, while detecting the faults and alerting for abnormal performance, overloads and equipment failures.

PROJECT UNIQUENESS

REEMS combines optimization, visibility, and market-access readiness in one simple product built on top of existing infrastructure, without requiring major hardware replacement. The product can be customized to each client's specific energy system, technical setup, and operational needs, rather than forcing all users into fixed configuration.

Project enables renewable energy assets value and maximisation of ROI by:

- Using AI-based energy management to optimise participation in multiple revenue streams.
- Creating virtual energy power plants that benefit both: system owners (improving ROI) and grid operators (improving grid stability)
- Connecting private solar and storage systems to high-value energy markets (FCR, aFRR, mFRR) previously only available to large power plants.

Category	What they do well	What's missing
EMS / BMS	Monitoring and basic control, closed internal system	No revenue generation, no intelligence, no control over energy prices
BESS systems	Energy independence and backup, internal system	Limited optimization, rule-based logic, no entrance for trading market
Energy analytics SaaS	Insights and reporting	No real-time control or automation
VPP & energy trading platforms	Market access and aggregation	Not accessible to small users, high complexity
BESS + EMS + AI	External and internal system with potential to enter energy balancing markets (FCR, aFRR, mFRR)	Complex international scalability due to energy markets regulation and hardware integration complexity, usually with limited providers f.e Huawei

VALUE PREPOSITIONS

MISSION:

We aim to transform distributed energy resources from passive plants into active, profitable grid assets while supporting Europe's transition to renewable energy.

WHY IT MATTERS NOW:

- Distributed energy optimization is becoming commercially viable;
- Growing demand for optimization of solar asset value;
- Support for national energy systems.
- Aligment with EU renewable targets.

SOCIAL AND ENVIRONMENTAL IMPACT:

- Reducing CO2 emissions through increased solar energy efficiency;
- Through increased interest in alternative energy solutions which should look like an interesting investment;
- Support of faster payback for users while strengthening grid resilience and energy independance;



THE TEAM

RENEW IBERIA
ENERGY ENGINEERING AND MANAGEMENT

Our team is made up of professionals with 20+ years of global energy experience, collaborating with top brands to deliver tailored solar solutions.



MARYNA KUSHNIAREVICH
Founder & CEO

Sets the strategy and vision. Drives key business areas, including strategic partnerships and digital transformation. With expertise in international project leadership, digital transformation, and scaling businesses in renewable energy, she guides the team towards long-term objectives.



MAXIM ZHOGAL
Founder & CTO

Defines technical strategy and ensures project quality, managing technical aspects. With expertise in renewable energy and large-scale construction projects, he specializes in solar solutions, strategic business development, and technical operations in Renew Engineering.



MARYIA ZHOGAL
Project Manager

Coordinates project development and cross-functional communication across stakeholders. With expertise in international business management, she supports operational alignment, product and market development, and brings strong organizational and commercial structure to the project.



DANIEL DEDOV
Growth & Partnerships Consultant

Leads fundraising readiness, partnerships, and REEMS positioning as a credible investment opportunity. With a background in fundraising and current research in BESS, electricity markets, and storage economics, he brings commercial and analytical insight to project development.

OUR PARTNERS

We collaborate with the world's leading brands and partners to realize complex projects.



Contact Us

WE BELIEVE IN THE POWER OF COLLABORATION TO DRIVE REAL CHANGE.
LET'S TURN IDEAS INTO IMPACT — GET IN TOUCH TODAY!

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CLEAN ENERGY – THE PATH TO HARMONY, STEP BY STEP

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