

EDP P.A.U.L.A

An Intelligent Energy Assistant
Driving Digital Utility
Innovation





Challenge

The widespread adoption of small-scale energy generation solutions depends on clear, predictable returns on investment within a reasonable timeframe. Customers evaluating photovoltaic solar panels must consider not only the acquisition cost but also installation and ongoing maintenance expenses, which can create uncertainty and delay investment decisions.

EDP Comercial, responsible for product and service offerings within the EDP Group –including traditional electricity supply and renewable energy solutions–needed a way to ensure that installation and maintenance activities were managed efficiently. With dedicated teams deployed to install and maintain photovoltaic systems for domestic energy production, EDP Comercial sought a solution to optimize field operations, reduce delays, and enhance service quality.

Solution & Functionalities

Caixa Mágica Software developed the EDP P.A.U.L.A platform to fully manage field teams and their schedules, combining advanced algorithms, automation, and geolocation technologies to streamline operations. The platform integrates a web-based frontend for data input, automated processing of requests through bots, and rule-based calculations derived from spreadsheets. Reports are generated in PDF format and sent directly to customers for review, simplifying communication and follow-up.

Key functionalities include:

Team Scheduling & Optimization

Advanced algorithms allocate the ideal team for each task and day, optimizing travel routes and minimizing time on installations or service calls.

Automated Calculations & Reporting

Bots process data inputs, generate PDF reports, and ensure accurate and timely information for both internal teams and customers.

Geolocation & Travel Optimization

Integration with Google APIs calculates travel times and distances, enhancing the efficiency of field operations.

Activity Management & Control

The platform allows monitoring and reporting of all team activities, ensuring accountability and operational visibility.

Robust & Scalable Architecture

Designed to meet the demands of large-scale deployment, the system is flexible, reliable, and capable of handling increased workloads.

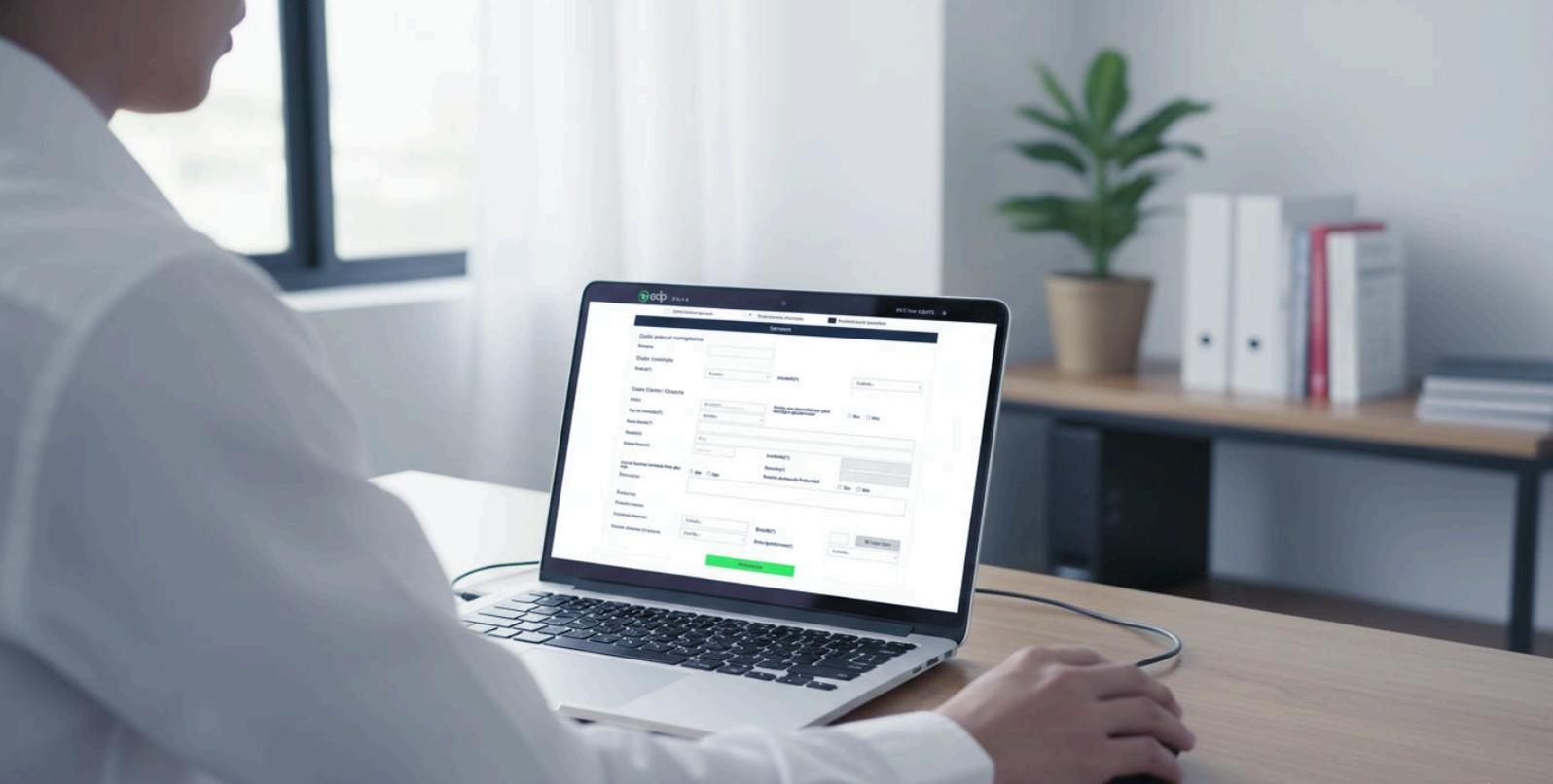
Impact

The EDP P.A.U.L.A platform has become a cornerstone for managing field teams and orchestrating daily interventions across EDP Comercial's renewable energy operations. By intelligently optimizing routes, balancing workloads, and automating key operational processes, the platform has transformed the way field teams operate, allowing technicians to dedicate more time and attention to delivering high-quality installations and maintenance services rather than focusing on logistics or administrative tasks.

The positive effects are visible across multiple dimensions of EDP Comercial's operations:

Enhanced Operational Efficiency

The platform reduces unnecessary travel and idle time, enabling teams to complete more installations and maintenance tasks within the same timeframe. By automating scheduling and resource allocation, EDP P.A.U.L.A ensures that every technician is deployed optimally, minimizing overlaps and bottlenecks.



Improved Customer Satisfaction

More reliable scheduling translates into timely service delivery for customers. With clear appointment planning and proactive reporting, clients experience reduced wait times and increased confidence in the service, contributing to stronger customer loyalty and a more positive perception of EDP Comercial's.

Accelerated Decision-Making

Transparent scheduling and reporting provide management with real-time insights into team availability and service timelines, reducing delays and improving operational agility.

Scalability & Data-Driven Growth

The platform supports team and service expansion without compromising performance, while collected data offers actionable insights for improvement and operational sustainability.

EDP P.A.U.L.A demonstrates how digital transformation can improve field operations, delivering measurable benefits to both technicians and customers while supporting EDP Comercial's goal of promoting sustainable, small-scale energy production.