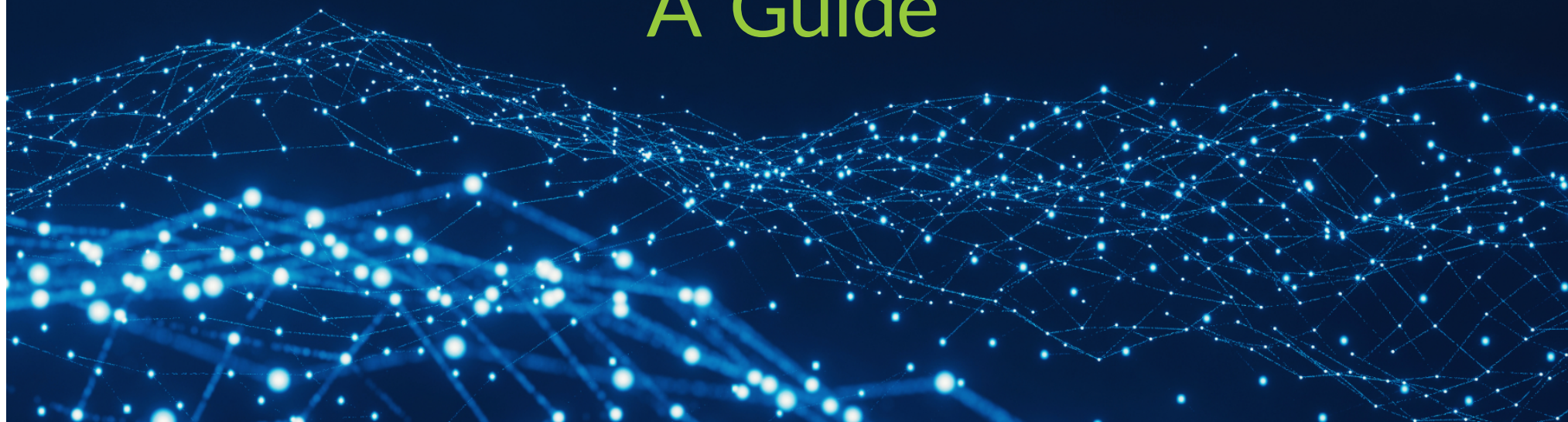# Innovating Energy Management with Galooli

A Guide

The world is wising up to the importance of being conscientious about its energy use. Beyond domestic households, SMBs, enterprises, and governments are starting to get serious about improving their efficiency. Since 2020, the world has surpassed over $1 trillion in investment into energy-efficiency-related projects, and over $560 billion came in 2022 alone.

Why this sudden jump?

Global energy insecurity has caused fuel prices to jump across all sectors, and in several instances, entire countries had energy shortages due to these price fluctuations. In addition, access to natural gas has been disrupted, causing countries to turn back to sources like coal. However, the outlook is far from bleak.

Energy efficiency endeavors since the turn of the millennium will save IEA countries nearly $700 billion in energy costs, nearly a sixth of global annual costs. Additionally, global energy use has been 2% more efficient than in 2021, a four-fold improvement compared to the last two years

A significant part of these investments has been energy management and monitoring solutions, which are an intrinsic part of any organization or government's successful energy efficiency efforts. The market has grown accordingly, expected to more than double from $27.3 billion in 2022 to over $60.5 billion in 2030.
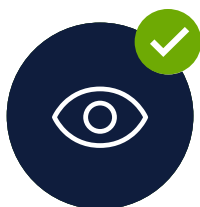
What is energy management?

Energy management is the process of monitoring and controlling energy assets to minimize consumption and maximize efficiency and operations. This includes optimization of energy use towards reaching the best possible outcomes economically and environmentally as well as its conservation.

The process also aims to proactively prepare an organization for the production and future storage of energy, to eventually achieve environmentally sustainable or even Net Zero operations. Energy management systems and solutions are especially helpful by

reducing the necessity for on-site maintenance and upkeep and offering full control over remote locations and energy assets.

The next leap forward will be leveraging AI and automations into the energy management process. Just as these resources have transformed IT management, monitoring and optimizing energy assets and facilities as a whole can require significantly fewer manual actions and human resources. Comprehensive energy management solutions can streamline your operations by providing your sites and assets:

Overarching visibility

Remote asset management
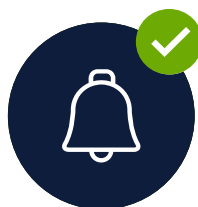
Threshold-based performance alarms

Live data tracking and organization

Actionable Insights

Remote control capabilities

What sets Galooli apart?

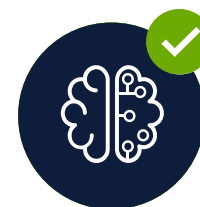Energy management solutions are a dime a dozen, and oftentimes difficult to truly tell apart. Galooli has been driven to provide the most overarching and complete solution to address all of your remote management needs.

The ultimate way to monitor and control your assets

Galooli's remote monitoring and platform allows you to track, analyze and optimize your remote sites' and energy assets' performance, and provides you with data, knowledge, and conclusions that enable you to make evidence-based decisions.

Gets You Right to the Point

Regardless of how much data you have, Galooli's Insight-to-Action solution features and processes it in a way that helps you get to the bottom line and respond accordingly, minimizing your efforts and time waste.

Easily track your financial and energy KPIs

Galooli's remote monitoring and management platform is where the real return on investment occurs. Using our platform, your organization can track your site's performance in terms of relative cost, along with potential and actualized savings.

Control your remote sites and assets from afar

With Galooli, you can control your remote sites and assets without even setting foot on site and avoid unnecessary trips. Our platform enables you to turn on and shut down generators, batteries, vehicles, and HVAC systems, and even change and sync configuration settings remotely.

All your remote assets and sites in one platform

With Galooi's, there is no need to switch between platforms to monitor and manage your different remote energy assets. Our holistic remote monitoring and management solution provides you with complete visibility and analysis over all your remote assets simultaneously while comparing their relative performance.

A Flexible Solution that Meets Your Needs

Galooli's solution fits your needs with customizable dashboards and reports, easy access to your chosen data, and a simple way to share information within your organization.

3

How do we do it?
Our Solutions

Our team is constantly looking for ways to bring the best services and tools to our customers. We've already developed some amazing including:

☑ Set parameters & values

☑ Spot misconfigurations

☑ Fix settings remotely & automatically
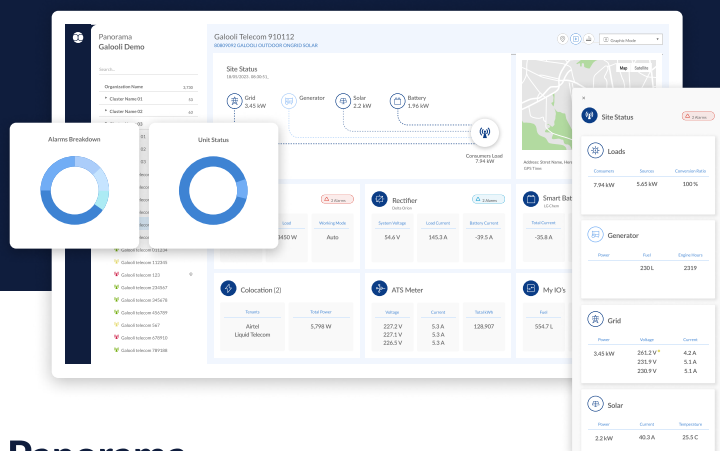
Panorama
The World's Most Powerful Energy Management Experience

Our revolutionary web-based and mobile energy management platform. Using the latest patented prediction technology we actively manage, monitor, and control remote energy assets and facilities to optimize usage and preserve asset longevity.
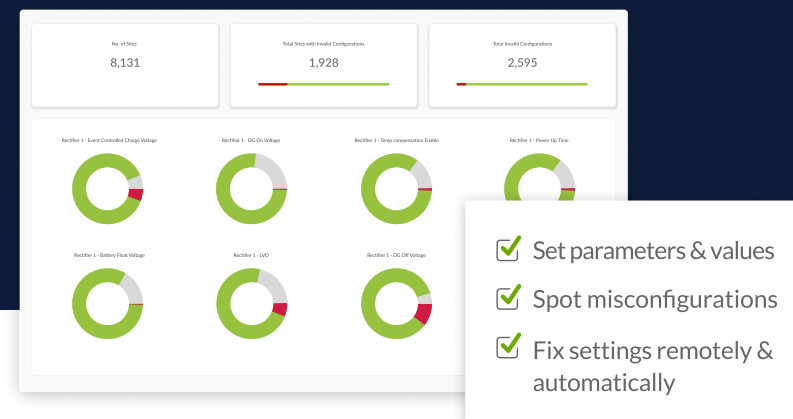
X-Ray Set
Identify and Mitigate Configuration Issues Remotely

An enhanced configuration tool for our energy management platform. Identify and rectify misconfigured assets without ever having to step foot on-site. Remotely sync networks of assets all at once with automated error checks to ensure mitigation.

Galooli Oracle

Predict Energy Usage and Avoid Unnecessary Costs

We provide forecasting for energy, fuel, and grid credit usage, along with potential renewable energy output. Oracle helps our clients prioritize site visits, and minimize operational costs and time onsite.
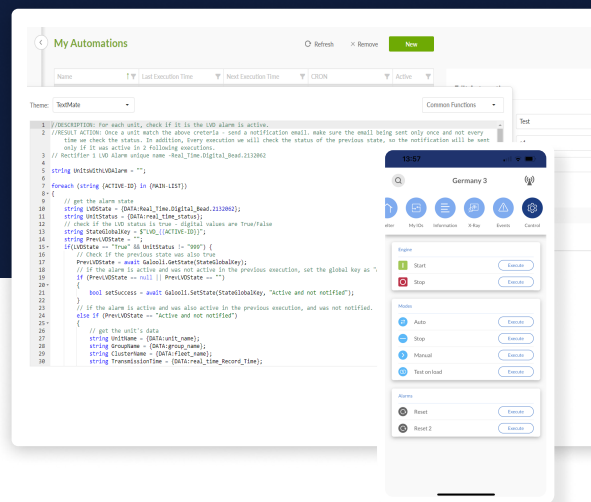
My Automation

Adjust Our System to Your Needs

A solution for building your Galooli system integration from the ground up. For advanced customers and specialized needs, we offer an almost limitless tool for crafting new logic systems and configurations.
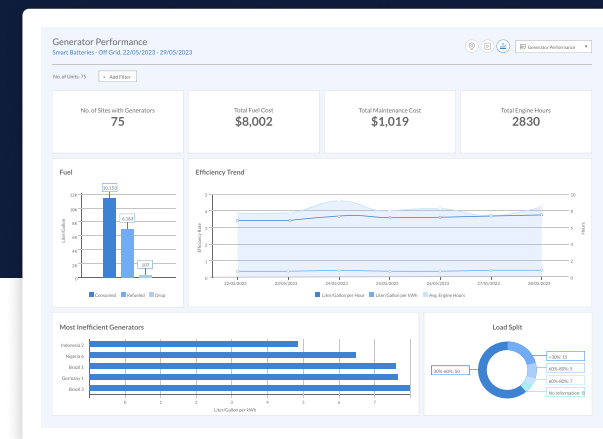
Visual Designer

Visualize Your Data Your Way

Arrange our detailed dashboards however you want. If our standard dashboard lineup doesn't fit, make your own! Combine any available data in almost any kind of display to maximize precise and relevant site visibility.

How we solve the challenges of automation in energy monitoring

Keeping renewables one step ahead of nature

Challenge – Customer A has multiple off-grid solar-based microgrid deployments. They would like to rely on solar energy during the day, avoid more expensive and polluting energy sources like diesel generators. and charge their energy storage when demand slows down.

Unfortunately, they cannot monitor solar performance or adjust usage according to the weather. It is also difficult to sift through all the data to record the organization's efforts and demonstrate their ESG achievements.

Solution – Galooli's Sustainability Management tool provides active monitoring and management for renewable assets. It calculates how much your renewable use reduces carbon emissions - along with the related KPIs - in a centralized dashboard.

Furthermore, our patented SolCycle24 algorithm considers both real-time and future load and output as well as weather and geographic data to provide forecasts, predict potential output, detect any unexpected shifts and adjust load balances accordingly.

Automating your manual workflows

Challenge – Customer B has a network of facilities, each reliant on relatively similar arrays of energy assets. Even with an energy management platform, there are simply too many pieces running simultaneously to check each one individually. In addition, alerts for malfunctions and maintenance issues have created a backlog due to unclear prioritization, lengthening outages and reducing overall customer satisfaction.

Finally, each asset needs alarms or custom settings to be added to it manually, limiting the effectiveness of the energy management platform.

Solution – Galooli's web solution provides a clear live and historic overview of your entire site network, and a card-based interface that displays all relevant assets, their status, and alerts based on severity.

My Automations helps users create their own automations to provide conditional events like triggering alarms when an asset is active for too long, or when too much fuel is expended.

Balancing grid use with the power of the past and future

Challenge –Customer C pays for several power sources and fuels, with manual sensors that track the energy usage for their network of buildings. They are able to monitor remote assets and their status, but too often the expected usage doesn't line up with reality.

It is unclear if the issue is caused by issues with on-site maintenance or if out-of-date and bugged software is at fault.

Solution – With tools like Galooli Oracle, they can see trends in historical grid and fuel usage, track live KPIs, and generate accurate forecasts for usage spikes in advance. These predictions help plan a more efficient schedule for maintenance and refuels.

Galooli X-Ray provides an all-encompassing remote tool for scanning assets en masse and isolating configuration issues. X-Ray can also detect hardware issues that require more unique remediation and error detection. It then updates the affected assets in bulk, cutting through red-tape and side-stepping the need for site visits.

6

Galooli Stats

40%
Reduced
Operational Costs

90%
Reduced
Energy Loss

OVER
50%
Reduced Average
Fuel Consumption

OVER
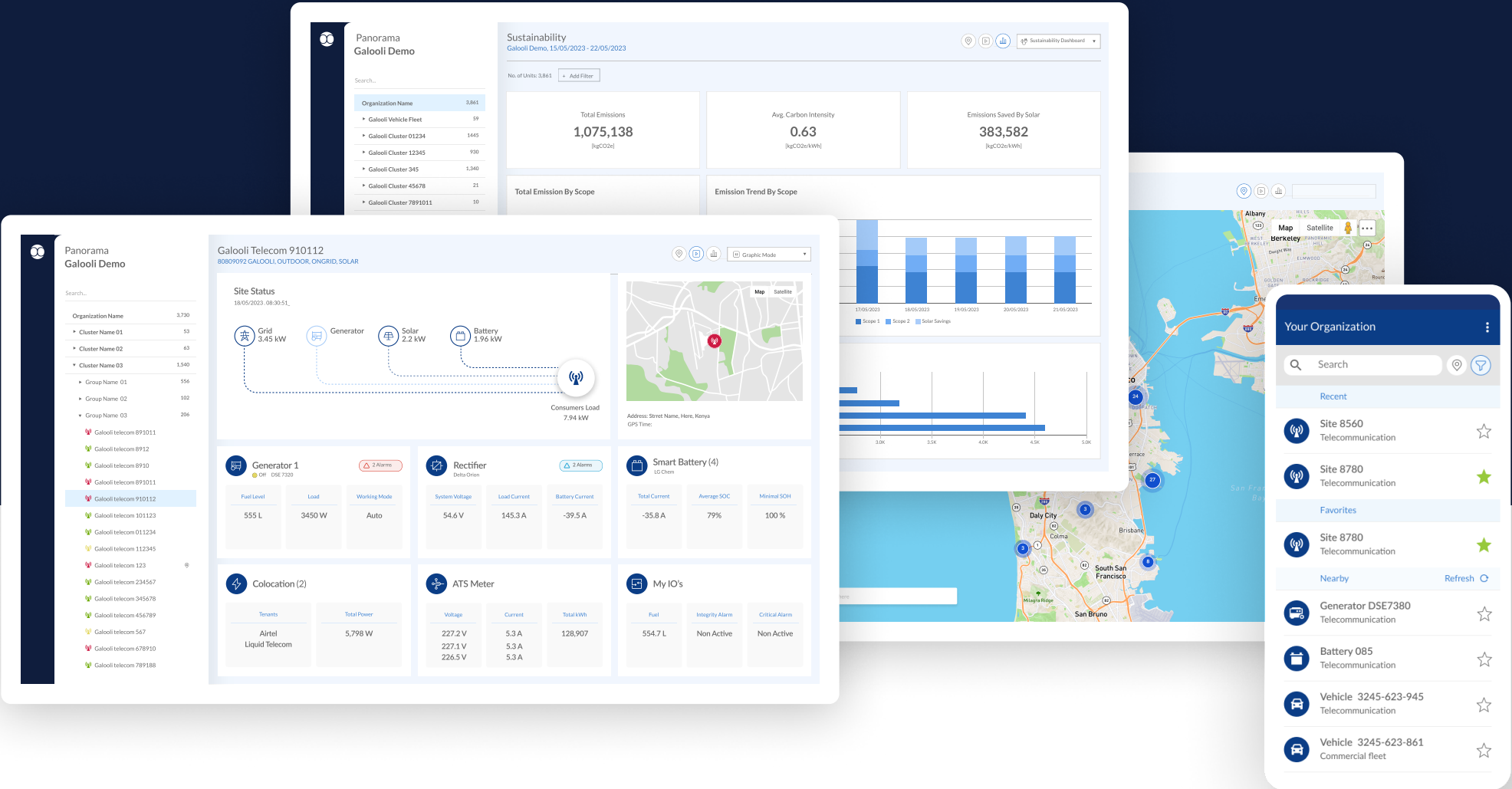**3B**
Data Points
Collected Daily

OVER
1,300 GWh
Monitored Last Year

TOTAL
$ 300 M
In Energy Costs Saved
Last Year

galooli

Panorama
Galooli Demo

Search...

Organization Name	3,861
▸ Galooli Vehicle Fleet	59
▸ Galooli Cluster 01234	1445
▸ Galooli Cluster 12345	930
▸ Galooli Cluster 345	1,340
▸ Galooli Cluster 45678	21
▸ Galooli Cluster 7891011	10

Sustainability
Galooli Demo, 15/05/2023 - 22/05/2023

No. of Units: 3,861 · + Add Filter · Sustainability Dashboard ▾

Total Emissions	Avg. Carbon Intensity	Emissions Saved By Solar
1,075,138	0.63	383,582
[kgCO2e]	[kgCO2e/kWh]	[kgCO2e/kWh]

Total Emission By Scope

Emission Trend By Scope

17/05/2023 18/05/2023 19/05/2023 20/05/2023 21/05/2023

■ Scope 1 ■ Scope 2 ■ Solar Savings

3.0K 3.5K 4.0K 4.5K 5.0K

Panorama
Galooli Demo

Search...

Organization Name	3,730
▸ Cluster Name 01	53
▸ Cluster Name 02	63
▾ Cluster Name 03	1,540
▸ Group Name 01	556
▸ Group Name 02	102
▾ Group Name 03	206
Galooli telecom 891011	
Galooli telecom 8912	
Galooli telecom 8910	
Galooli telecom 891011	
Galooli telecom 910112	
Galooli telecom 101123	
Galooli telecom 011234	
Galooli telecom 112345	
Galooli telecom 123	
Galooli telecom 234567	
Galooli telecom 345678	
Galooli telecom 456789	
Galooli telecom 567	
Galooli telecom 678910	
Galooli telecom 789188	

Galooli Telecom 910112
80809092 GALOOLI, OUTDOOR, ONGRID, SOLAR

Graphic Mode ▾

Site Status
18/05/2023, 08:30:51

Grid 3.45 kW	Generator	Solar 2.2 kW	Battery 1.96 kW

Consumers Load
7.94 kW

Map Satellite

Address: Strret Name, Here, Kenya
GPS Time:

Generator 1 ⚠ 2 Alarms
○ Off DSE 7320

Fuel Level	Load	Working Mode
555 L	3450 W	Auto

Rectifier ⚠ 2 Alarms
Delta Orion

System Voltage	Load Current	Battery Current
54.6 V	145.3 A	-39.5 A

Smart Battery (4)
LG Chem

Total Current	Average SOC	Minimal SOH
-35.8 A	79%	100 %

Colocation (2)

Tenants	Total Power
Airtel Liquid Telecom	5,798 W

ATS Meter

Voltage	Current	Total kWh
227.2 V	5.3 A	128,907
227.1 V	5.3 A	
226.5 V	5.3 A	

My IO's

Fuel	Integrity Alarm	Critical Alarm
554.7 L	Non Active	Non Active

Map Satellite
Albany
Berkeley
San Francisco
Daly City
Colma
South San Francisco
San Bruno

Your Organization

Search

Recent

| ⚡ | Site 8560 — Telecommunication | ☆ |
| ⚡ | Site 8780 — Telecommunication | ★ |

Favorites

| ⚡ | Site 8780 — Telecommunication | ★ |

Nearby · Refresh ↻

⚙	Generator DSE7380 — Telecommunication	☆
🔋	Battery 085 — Telecommunication	☆
🚗	Vehicle 3245-623-945 — Telecommunication	☆
🚗	Vehicle 3245-623-861 — Commercial fleet	☆

Book a Demo