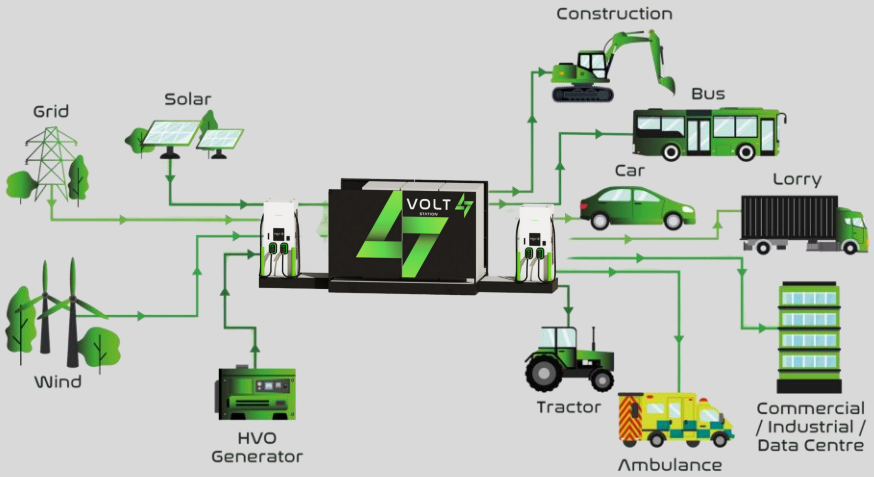
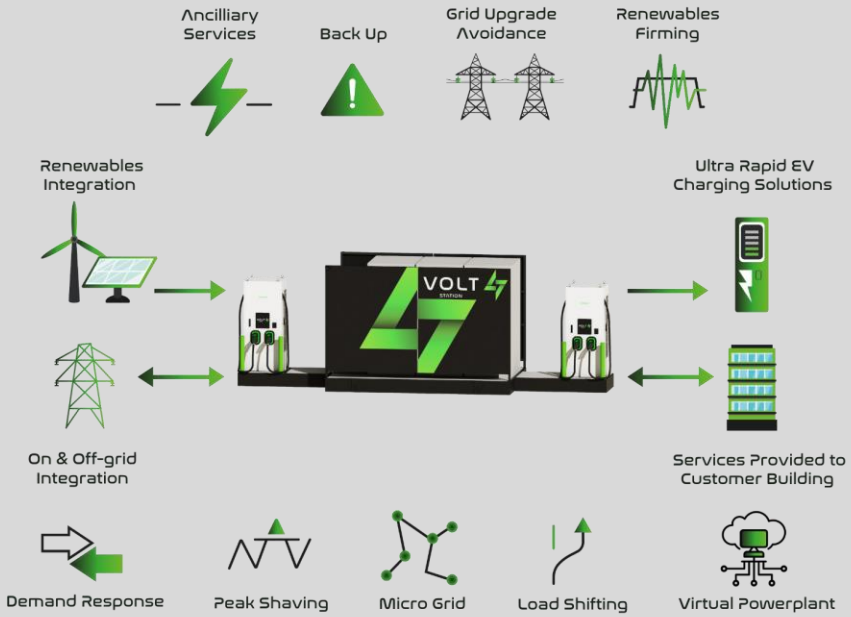
VOLT STATION

Valor Power

Valor Power

Your All-in-one Energy Solution





Centralised Volt Station Building Block Based on integrated microgrid enabled switchboard

Microgrid Switchboard Enabled

No external ethernet required, Starlink enabled

Whole Ecosystem Operating System. Cloud and Onsite controllers

AC chargers directly modularly connected via powerlocks

AC or DC Charging directly modularly connected via powerlocks

Valor Power

Your All-in-one Energy Solution

Volt Station is more than an EV charger – it's a **transportable, microgrid-enabled platform** that arrives **fully commissioned from the factory** and requires **no civil engineering works** to install. Simply plug it in, and it's ready to operate.

Key features include:

- ⚡ **Plug & Play modularity** – Rapid deployment with no site works; scalable modules adapt to mixed fleet requirements.

- 🌍 **Starlink connectivity** – No ethernet or terrestrial network dependency; Volt Station is remotely manageable anywhere, while also offering **free high-speed WiFi access for users on-site**.

- 🏙️ **Ecosystem software** – A comprehensive platform that goes beyond EV charging, incorporating **building energy management** for holistic site optimization.

- 🌞 **Renewable integration** – Direct connection of solar, wind, or other renewable sources into the Volt Station microgrid switchboard.

- 🔋 **Battery energy storage** – Enables load shifting, peak shaving, and resilience, ensuring reliable charging even in constrained or intermittent grid conditions. Provides resilience and flexibility while also unlocking **new revenue streams** through system services, energy arbitrage, and demand response participation.

- 🔌 **On-grid & off-grid flexibility** – Operates in on-grid, off-grid, or hybrid mode, boosting limited grid connections to meet EV charging demand.

- 🌱 **Carbon-positive impact** – By facilitating renewable energy integration and offsetting grid reliance, Volt Station can deliver measurable **carbon abatement**. In many deployments, it represents a **carbon offset asset**, helping operators achieve sustainability targets and potentially generate additional ESG credits.

- 🛡️ **Integrated security** – Equipped with a **fully integrated AI CCTV system with geofencing**, Volt Station ensures site safety, access control, and compliance from day one.

- 💰 **Financing options** – Available as a **fully financed package**, enabling operators to deploy infrastructure without upfront capital barriers

- 🛠️ **Installation & maintenance** – We provide a **full turnkey installation and maintenance package**, ensuring seamless deployment and long-term operational reliability.

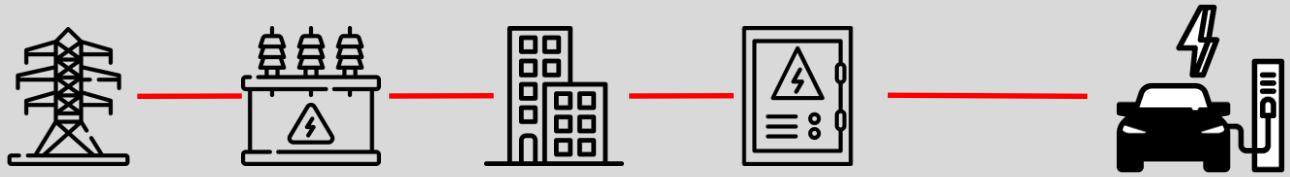
- ♻️ **Sustainability value-adds** – Reduces diesel generator reliance and enables operators to demonstrate tangible progress toward net-zero commitments by matching battery charging times to times with high renewable grid penetration times or full integration of renewable sources beyond a level capable if having to rely on the grid.

Together, these capabilities make Volt Station a **future-proof, bankable solution** for operators seeking reliable, flexible, and sustainable EV charging infrastructure.

Valor Power

The All-in-One Energy Hub for a Smarter, Stronger Grid

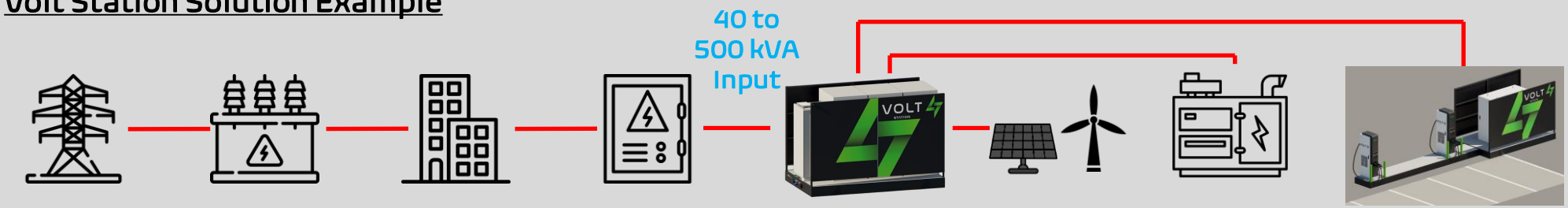
Conventional EV Charging Solution Example



Total Power Requirement:
1.45 MVA
Not possible without grid upgrade

- Grid upgrade required
- Switchboard may not be able to supply a 1MVA load without upgrade or extension
- Lengthy period to install with all civils and electrical work required

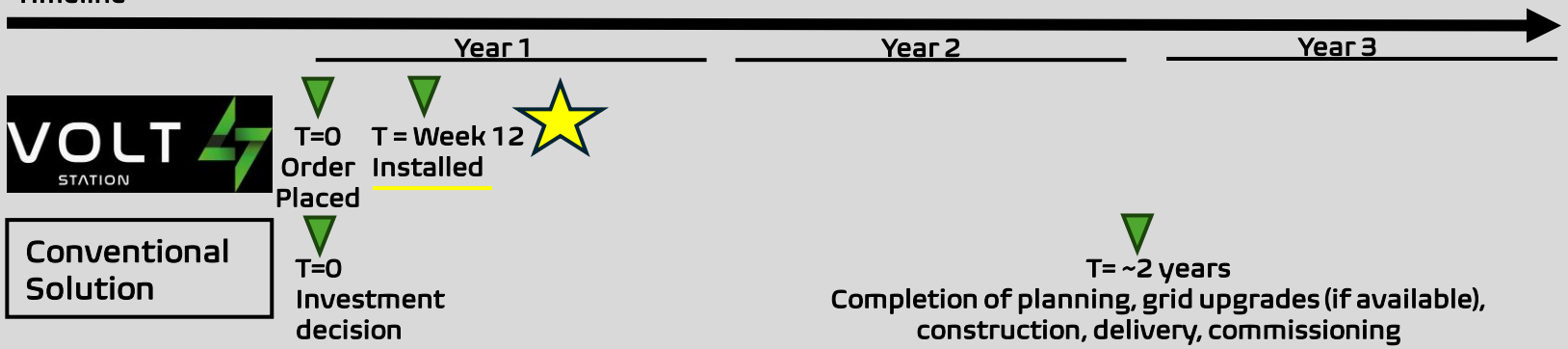
Volt Station Solution Example



Total Power Requirement: 1.45 MVA
Made possible with Volt Station. Existing grid 500kVA + Volt Station Boost
1MVA = 1.5MVA with no grid upgrade. Can be extended with renewables.

- No grid upgrade required
- One single supply to Volt Station
- Significantly reduced deployment time as plug and play
- Boosts grid supply depending on the input available to avoid upgrade costs and standing charges

Timeline

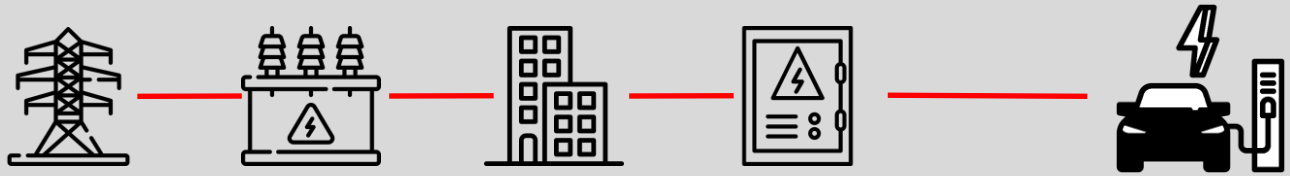


- Avoided grid upgrade costs. Ranging from £400K+ per MVA depending on upgrades required
- Avoided grid standing charges costs. Ranging from £75-£100/kVA/yr
- Volt Station qualifies for 100% Year 1 capital allowances. For a company paying tax at 25%, this can reduce the effective cost by up to 25%
- Earn revenue from the asset from 12 weeks after order

Valor Power

The All-in-One Energy Hub for a Smarter, Stronger Grid

Conventional Site Solution Example



Grid

Transformer
500 kVA

Building
450 kVA

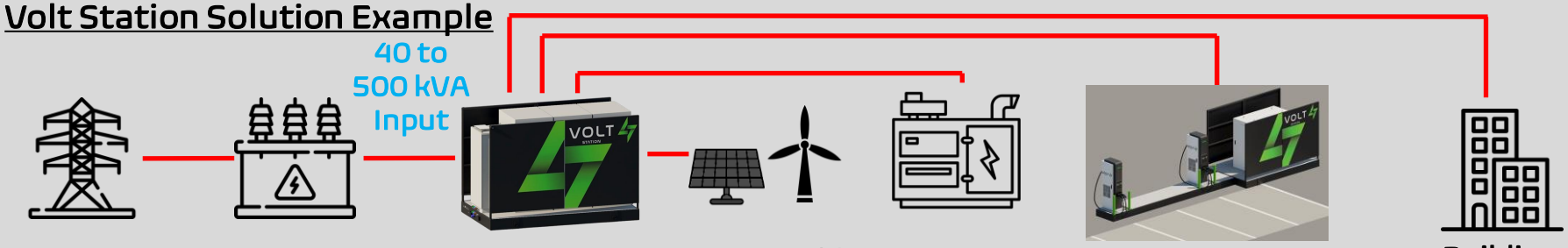
Switchboard

EV Charging
1 MVA

Total Power Requirement:
1.45 MVA
Not possible without grid upgrade

- Grid upgrade required
- Switchboard may not be able to supply a 1MVA load without upgrade or extension
- Lengthy period to install with all civils and electrical work required

Volt Station Solution Example



Grid

Transformer
500 kVA

Volt Station
1 MVA

Renewable Energy

Generator

MCS Charger
1 MVA

Building
450 kVA

Total Power Requirement: 1.45 MVA
Made possible with Volt Station. Existing grid 500kVA + Volt Station Boost
1MVA = 1.5MVA with no grid upgrade. Can be extended with renewables.

- No grid upgrade required
- One single supply to Volt Station
- Significantly reduced deployment time as plug and play
- Boosts grid supply depending on the input available to avoid upgrade costs and standing charges

Timeline

Year 1 | Year 2 | Year 3

VOLT STATION

T=0
Order Placed

T = Week 12
Installed

Conventional Solution

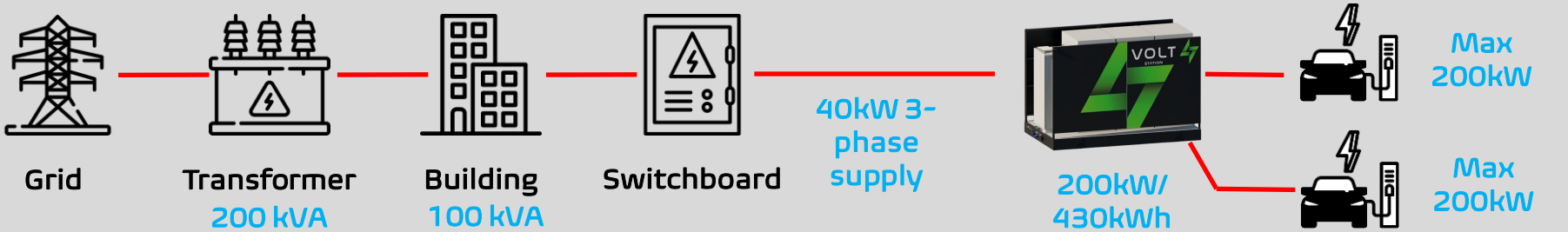
T=0
Investment decision

T= ~2 years
Completion of planning, grid upgrades (if available), construction, delivery, commissioning

- Avoided grid upgrade costs. Ranging from £400K+ per MVA depending on upgrades required
- Avoided grid standing charges costs. Ranging from £75-£100/kVA/yr
- Volt Station qualifies for 100% Year 1 capital allowances. For a company paying tax at 25%, this can reduce the effective cost by up to 25%
- Earn revenue from the asset from 12 weeks after order

Valor Power

Volt Station In Action

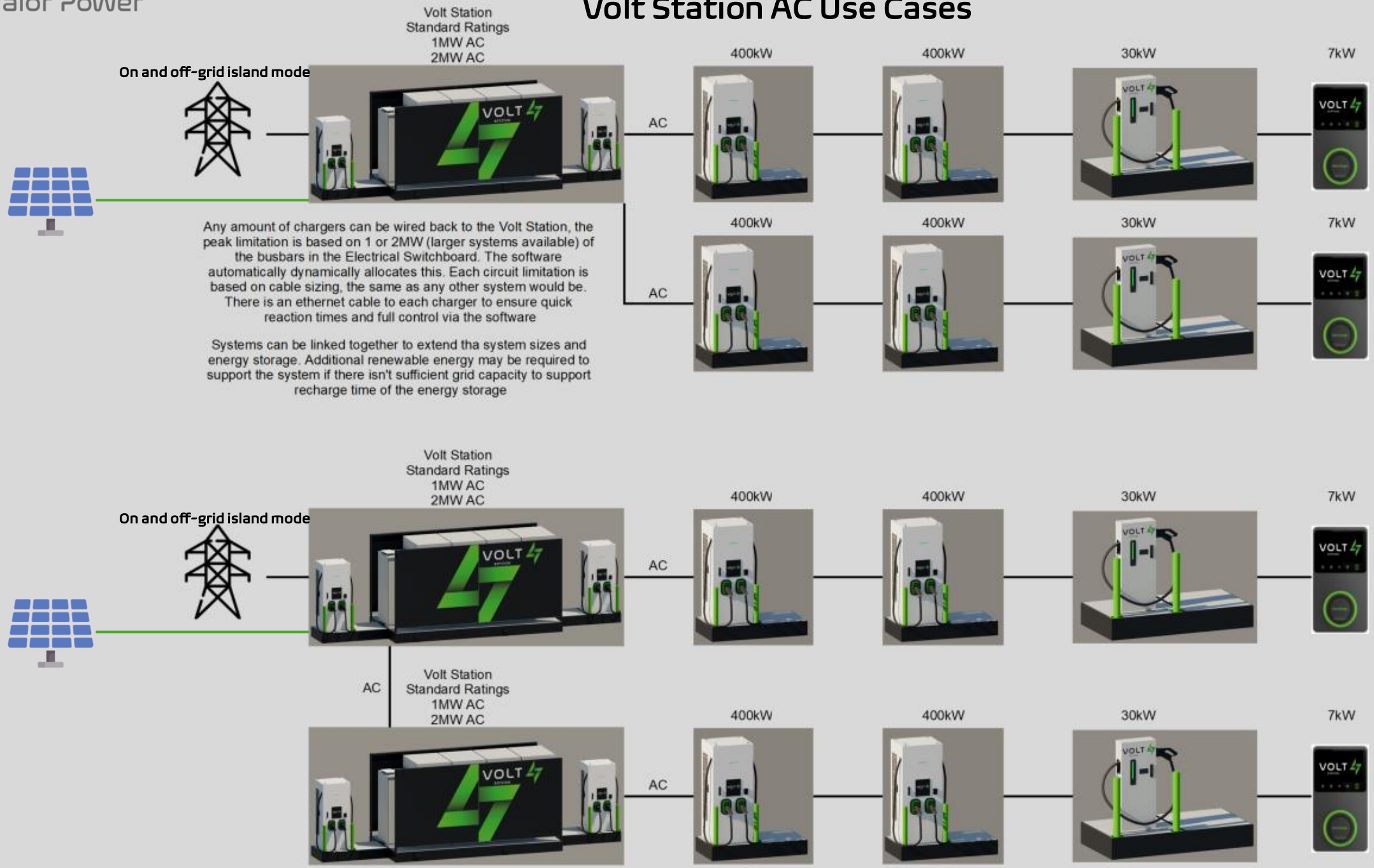


Total Charge power from 40kW grid supply:

Max 240kW Charge Power

Valor Power

Volt Station AC Use Cases



Valor Power

Volt Station DC Use Cases

Volt Station
Standard Ratings
1MW AC
2MW AC

Energy Storage
from
100kW/215kW
to
MW/MWh scale

On and off-grid island mode

Renewable energy integration

AC

1280kW Distributed DC Charging
allowing up to 16 dispensers

DC

1.28MW MCS Charger

DC

700A DC Charger

DC

200A DC Charger
Wall, pedestal or gantry mount

Any amount of chargers can be wired back to the Volt Station, the peak limitation is based on 1 or 2MW (larger systems available) of the busbars in the Electrical Switchboard. The software automatically dynamically allocates this. Each circuit limitation is based on cable sizing, the same as any other system would be. There is an ethernet cable to each charger to ensure quick reaction times and full control via the software

Megawatt Charging is available and can be built up from the Volt Station blocks

AC

1280kW Distributed DC Charging
allowing up to 16 dispensers

DC

700A DC Charger

DC

500A DC Charger

DC

200A DC Charger
Wall, pedestal or gantry mount

Volt Station
Standard Ratings
1MW AC
2MW AC

Energy Storage
from
100kW/215kW
to
MW/MWh scale

On and off-grid island mode

Renewable energy integration

AC

480kW Distributed DC Charging
allowing up to 6 dispensers

DC

700A DC Charger

DC

500A DC Charger

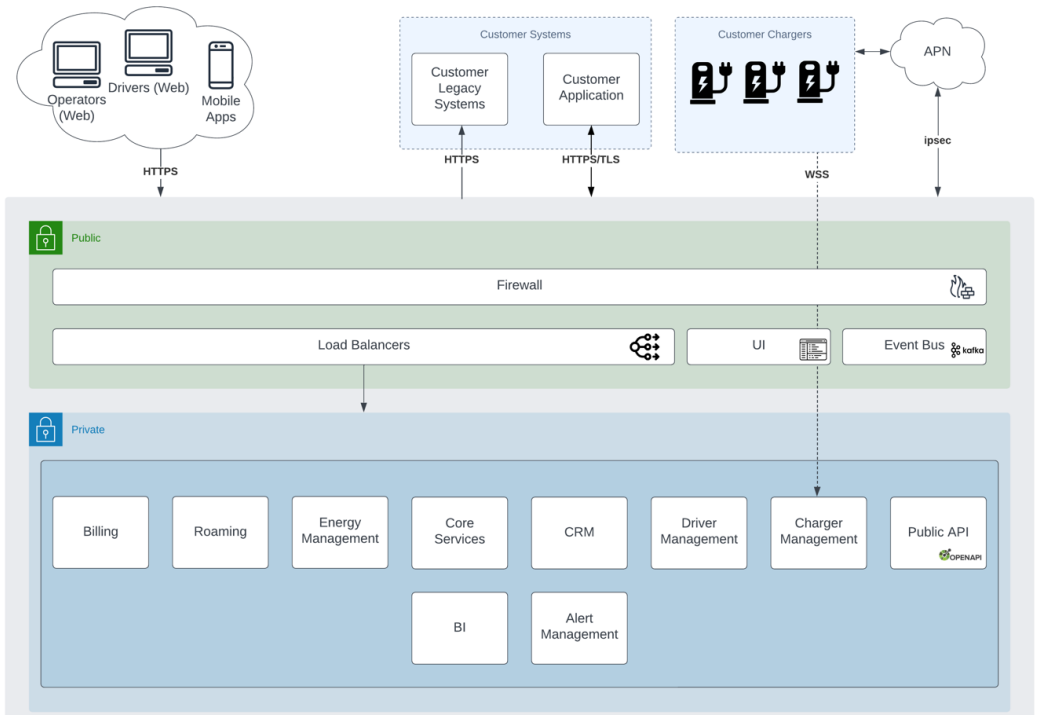
DC

200A DC Charger
Wall, pedestal or gantry mount

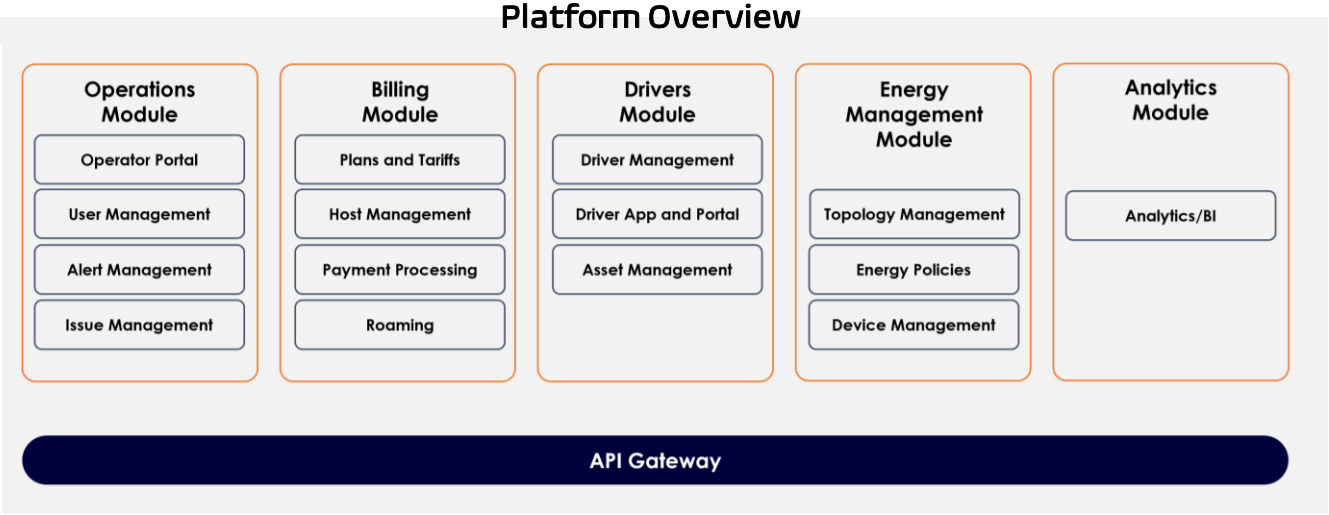
Valor Power

Volt OS Platform

Platform Architecture



Platform Overview



Fleets

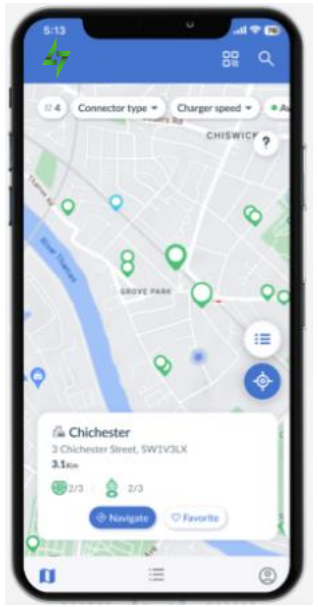
Buildings

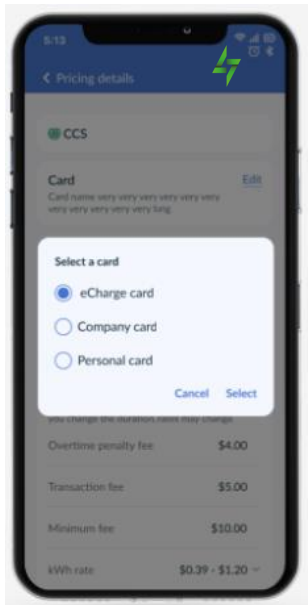
Operations | Drivers | Energy | Analytics

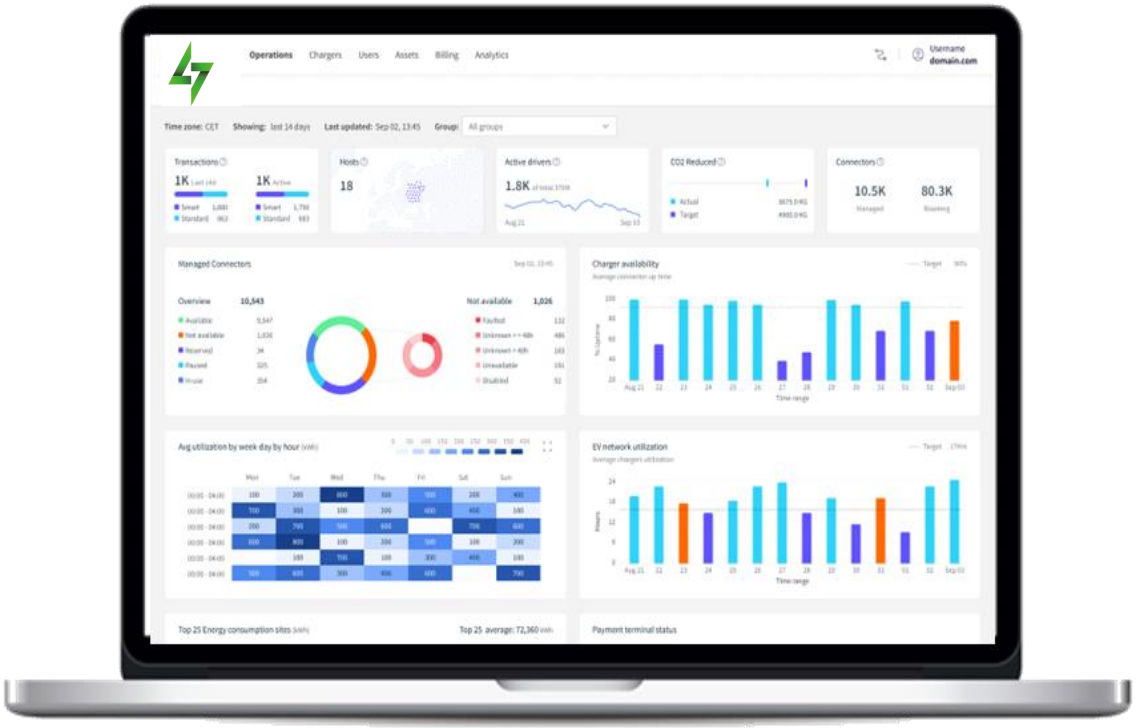
stripe | Braintree (A PayPal Company) | adyen | payter

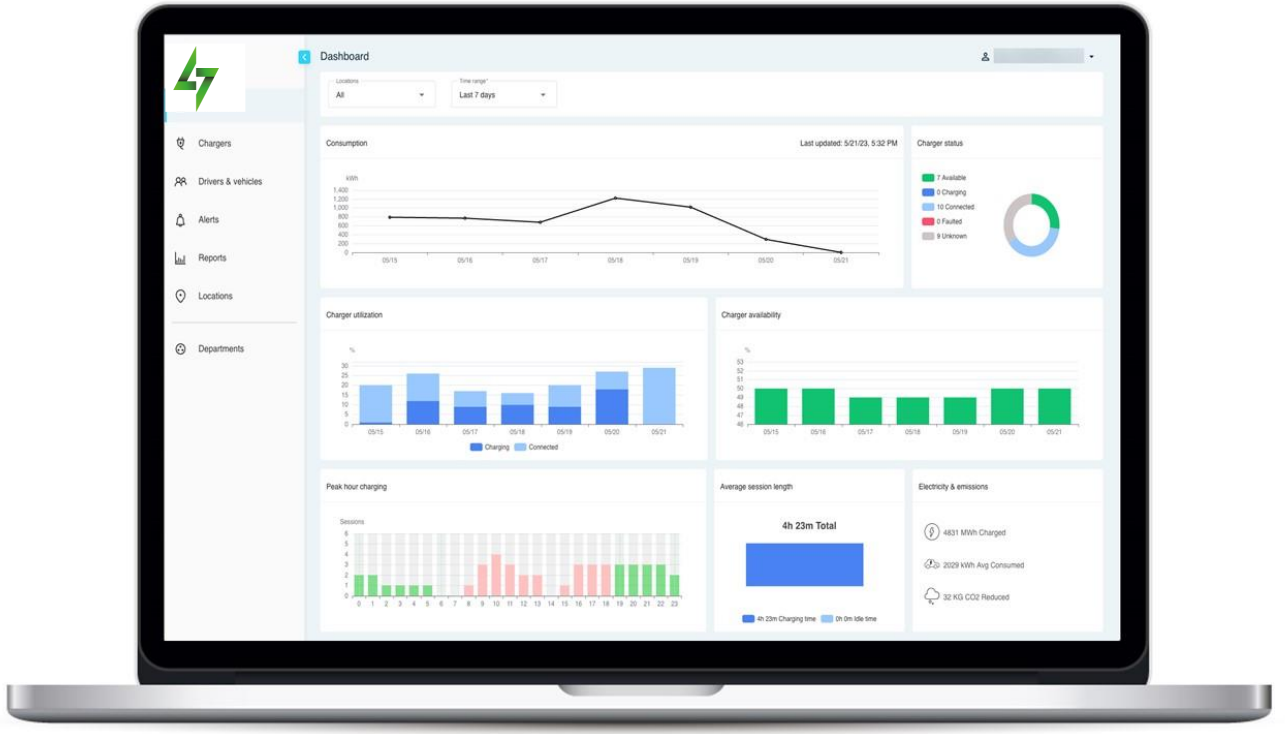
Valor Power

Operator Portal



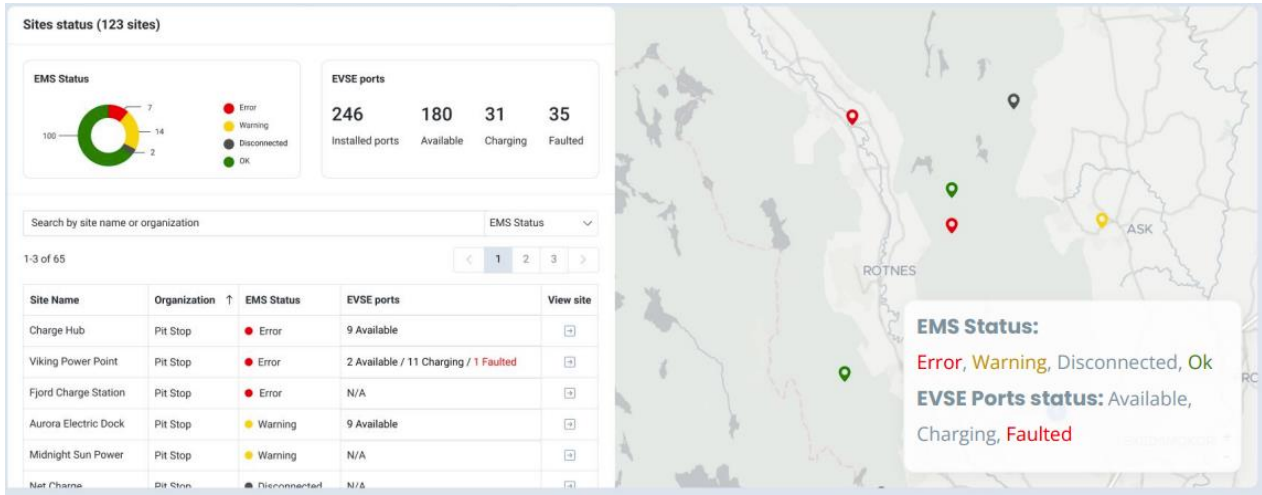


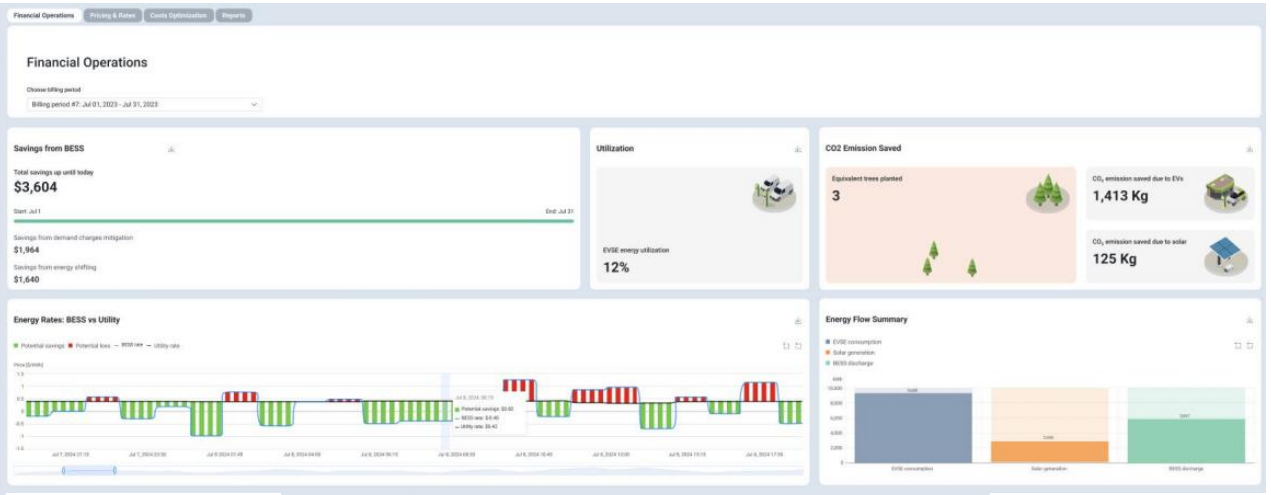


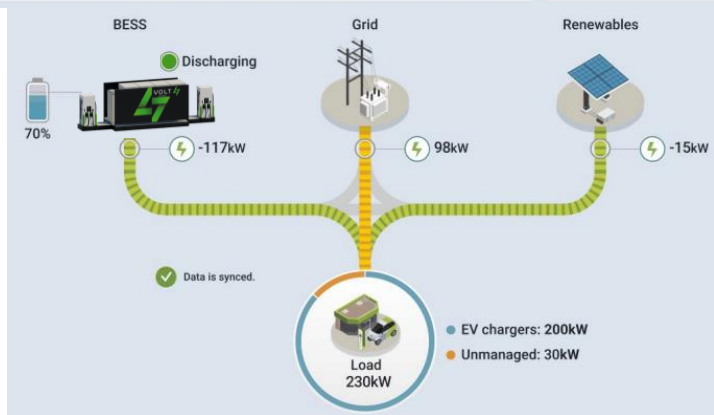


Valor Power

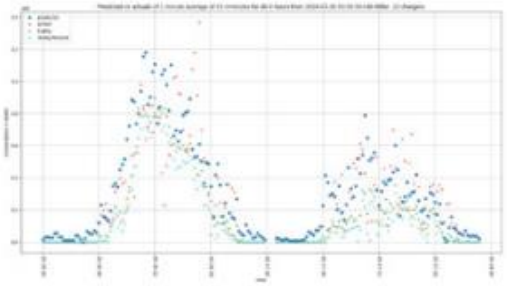
Control Centre



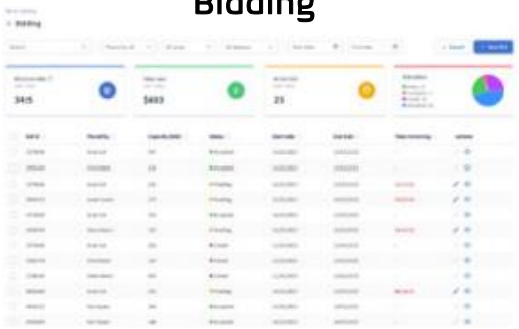




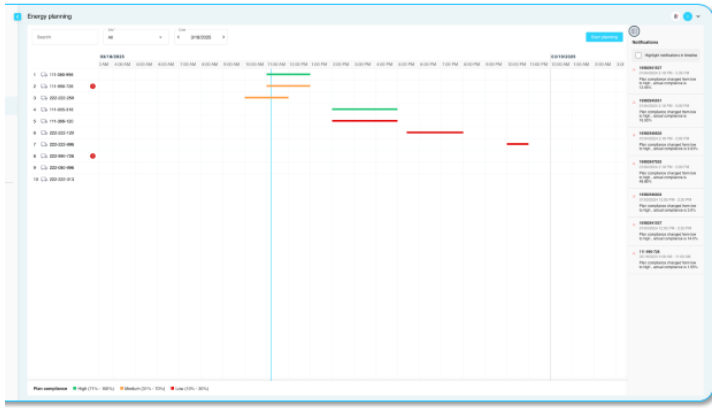
Prediction



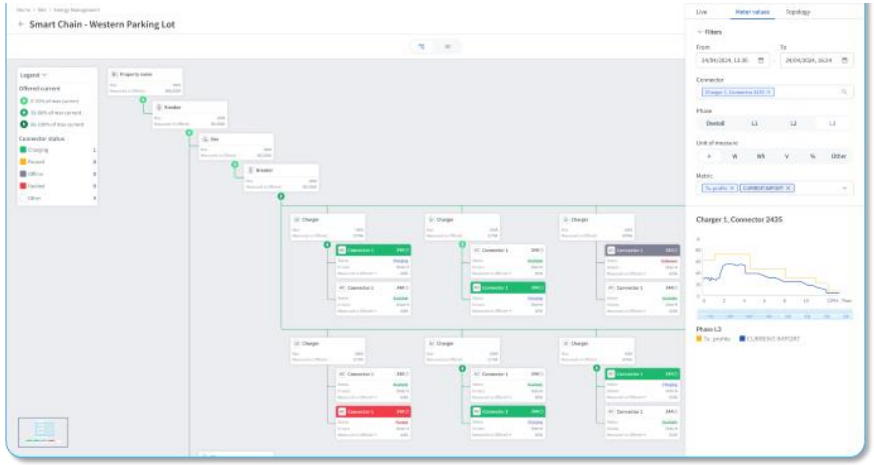
Bidding



Delivery



Wake-up functionalities built into the software to suspend the EV charging session during the night, resuming the charging session after the pre-heating is enabled to ensure the battery is charged to full when the driver is picking up the vehicle the next morning.



V2X

Scheduling Charges

Dynamic Load Balancing

Volt OS

Demand Charge Mitigation

Fleet Management

Renewable Integration

Battery Storage Integration

Grid System Services

Volt Station Onsite Controller

Volt Station Onsite Controller

Volt Station Onsite Controller

500kW

1.2MW

750kW

Valor Power

CONTACT US

Ready to power your future?

Contact us today to learn how Volt Station can be customised to fit your specific energy and charging needs.

028 7930 1599
info@valorpower.co.uk
valorpower.co.uk

Valor Power