VAASCO Group

Grid voltage control for energy and CO2 savings

A managed service model for commercial and industrial customers

22 July 2024

For distribution to customers

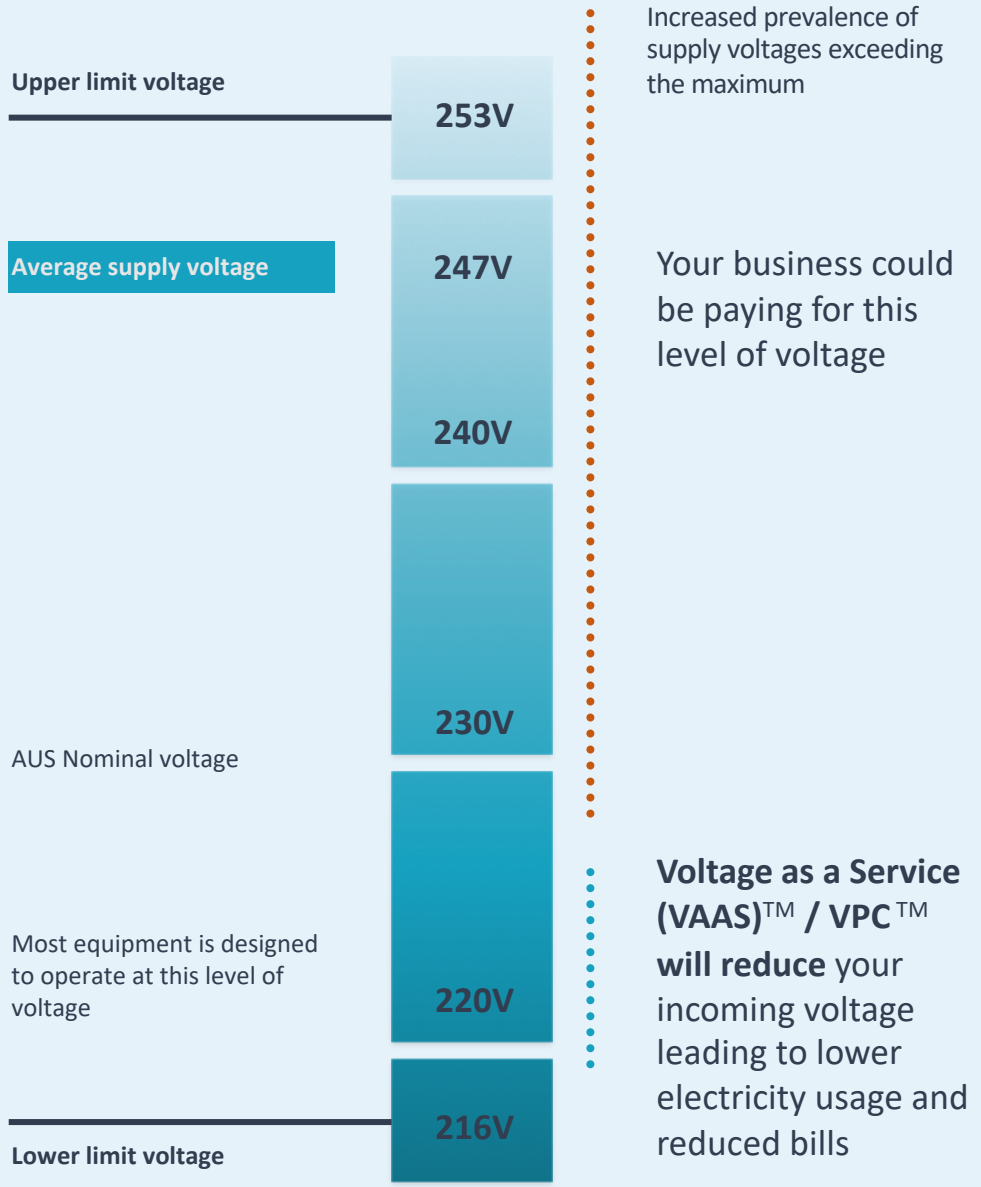
Opportunity
reduce power bills and CO2 emissions

247 V vs 220 V

Supply voltage is materially higher (247 V on average) than is required (> 220 V).

This elevated grid supply voltage results in:

- higher electricity usage, and bills
- higher CO2 emissions
- heightened risk of equipment failure



Opportunity
reduce power bills and CO2 emissions

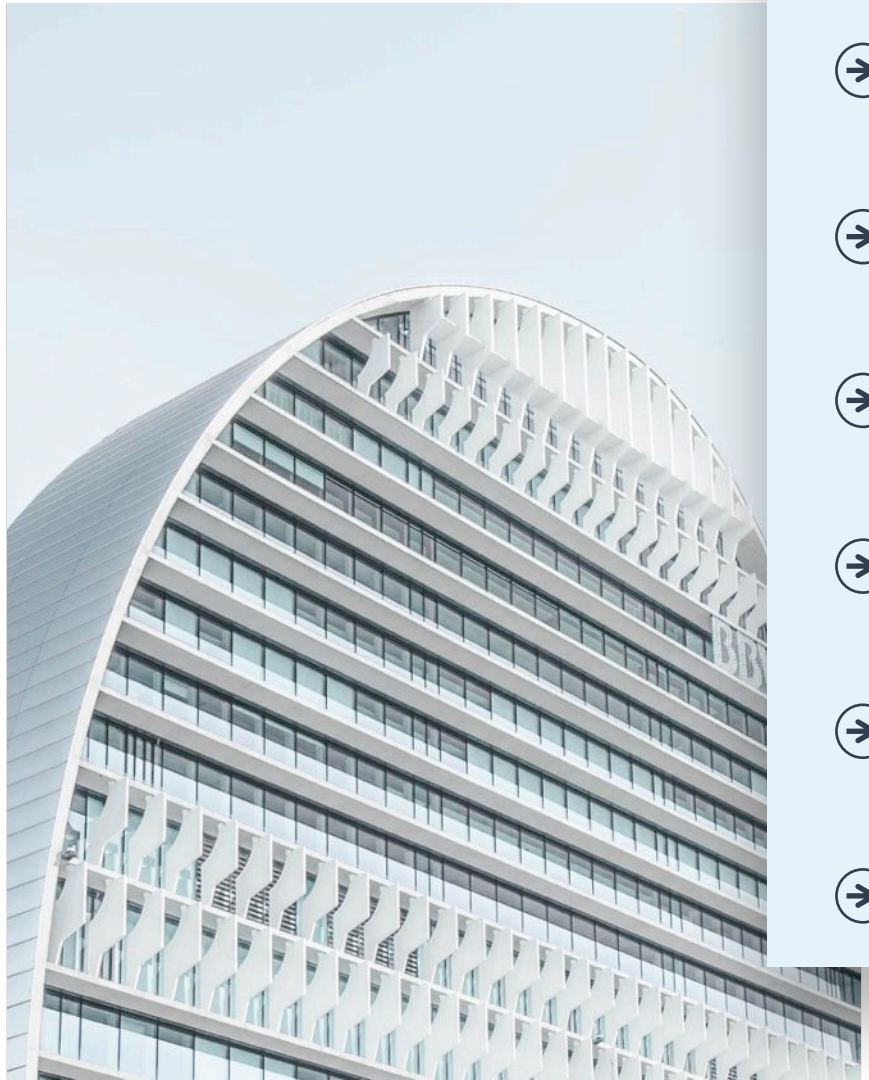
Gain share

VAAS managed service is a performance based gain share model, and importantly **no capital investment by the customer**

VAASCO's turnkey solution, Voltage as a Service (VAAS)™ and Voltage Performance Contract (VPC)™ ensures optimal voltage, saving commercial and industrial customers typically 10 - 15% on electricity bills.

Through a managed service offering, **VAASCO shares the electricity cost savings and carbon benefits with the customer.**

Timing
why now?



- Rising electricity **prices**
- Net zero energy movement (**CO2 reduction)**
- Rising carbon credit **prices**
- **Prevalence** of solar is causing increased voltage fluctuations
- Change in **accounting** standards
- **Protect** expensive plant and equipment
- **Conserve working capital – no investment required**

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Introducing
Voltage as a Service (VAAS)™

monthly service fees, paid from the energy savings, where the customer subscribes to and purchases the voltage management service.

VAAS controls the supply voltage to remain within defined bands, and thereby delivers:

- Reduced energy costs (typically range 10-15%)
- Reduced CO2 footprint
- Asset protection – enhancing asset life
- Generates transparent, high-value carbon certificates (can be sold up to 10 years forward)

VAASCO splits the saving with the customer *

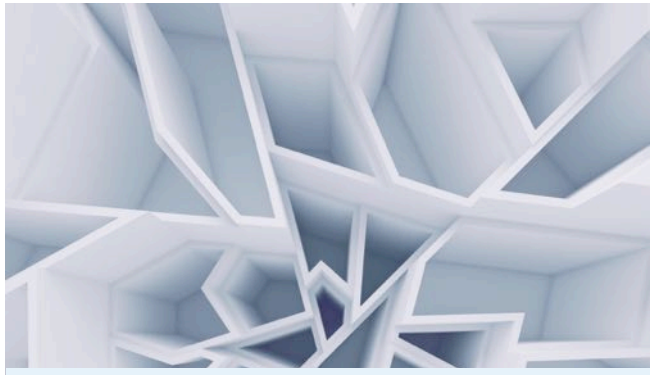
* Depending upon factors such as asset utilization, grid voltage profile, equipment inventory, the nominal 50/50 may be adjusted by VAASCO to another split to ensure the financial viability of the Service for all stakeholders.

Voltage as a Service™ - a managed service

Voltage as a Service (VAAS)™ and Voltage Performance Contract (VPC)™ are alternatives to the capital procurement solution for the supply, install, commission, operation, and maintenance of a wide range of energy assets and services.

VAAS™/VPC™ Managed Service Agreement (MSA)

VAAS/VPC is a Managed Service delivery model whereby customers subscribe to and purchase voltage management services on a outcomes performance basis.



No capital investment by client for VAAS™/VPC™

- Off balance sheet structure and performance-based for a 10-year or other negotiated term of the MSA
- NIL cost of ownership to the energy end-user
- Outperforms lower priced basic transformer (TX) technology or storage technologies

Potential VAAS™/VPC™ Deployments

Other deployments may include a wide class of energy assets, such as generation, storage, Voltage Optimisation, distribution transformer, metering, energy efficiency and other renewable assets, under normal terms and conditions

Markets

Target Market	• Commercial and Industrial (C&I) electrical energy users. • Including Government users.
Scope	• C&I energy users all benefit. • The opportunity is grid wide, not only in Australia but across OECD countries.
Channel Partnerships	• Property asset managers. • Government property portfolios. • Energy companies as channel partners.
Priority customers	• Large C&I for large project values. • Facility fleet operators for enterprise wide rollouts. • Businesses with geographically dispersed facilities.
Vertical industries	• With elevated grid voltages widespread, almost all industry verticals may benefit across their facility fleets • Examples include: retail, office, hospital, manufacturing, hospitality, education, restaurants, warehousing, food processing ……

A large capacity installation (1500 KVA 22KV)

A small capacity outdoor installation (92 KVA)

Solution

VOLTAGE OPTIMISATION reduces the energy usage caused by elevated grid voltages, leading to....

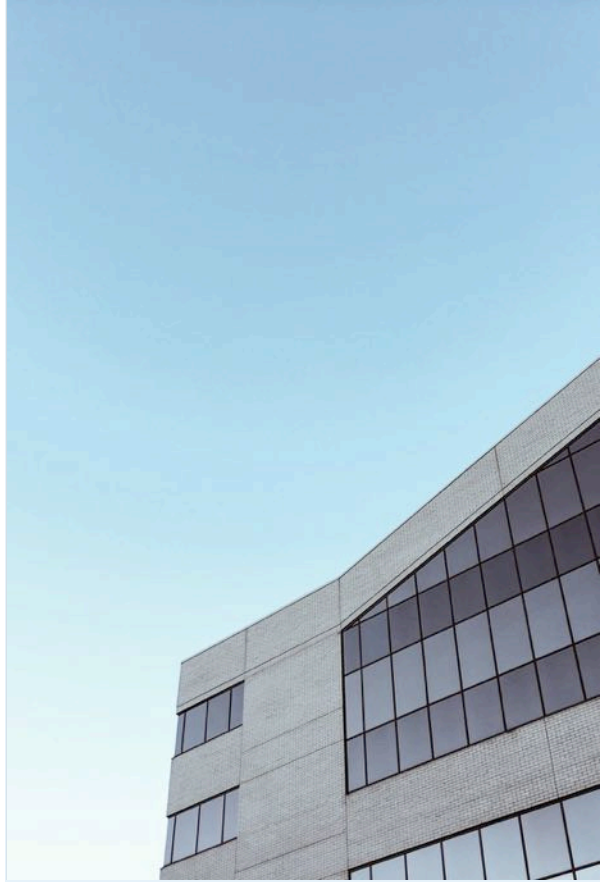
- Reduced energy bill, reduced CO2 footprint range (typically 10 - 15%)
- Cash flow uplift range (net bill reduction shared with VAASCO)
- NIL capital investment requirement (due to the Managed Service Model)
- Creation of Carbon Certificates, where applicable
- Off Balance Sheet for the energy user

\+ Cloud based monitoring for asset management, performance and ESG reporting

\+ Monthly billing by direct debit

Technology

VAASCO sources technologies from a range of globally qualified suppliers, with key technical performance conditions being met:



Adherence to international standards BS, ISO, UL, EU Directives

Certified compliance with Quality, Management and Environmental standards

Proven installation base with low failure rates (typically MRBF > 500 years)

Fail safe performance, with no loss of supply power

No moving parts, with no consumables, and no source of ignition risk

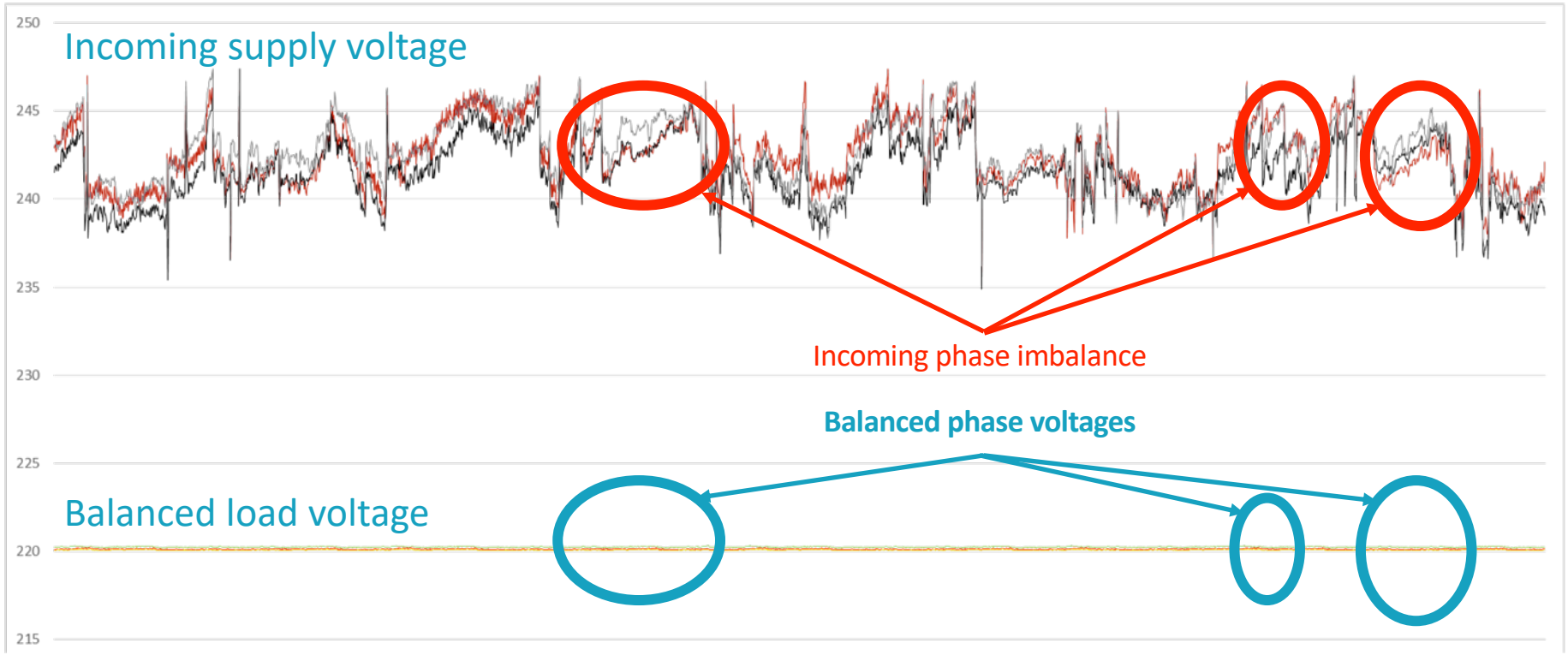
Manufacturer's warranty of 10-year minimum, exceeding services contract life.

Grid metering systems for remote metering and reporting

Stabilisation and phase balancing

independent voltage control for each phase

Responsive Power Optimisation through accurate and precise voltage control ensures the site supply remains optimised irrespective of what happens to the incoming supply voltage



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VAAS complements renewable energy solutions

Co-deployment of VAAS with distributed Solar PV generation

Solar PV is an energy source that may be deployed at a customer facility. It reduces the energy [kWh] imported from the grid to the site load, during daylight hours. It may even export to the grid if generation exceeds site loads. Solar PV installation will typically be limited by available roof area, limiting its generation capacity.

The increasing installed base of distributed Solar PV increases the variability of grid voltages, and the following effects may occur at a customer site:

- Reduced generation availability, dur to inverter back-off and zero generation when near statutory maximum voltage
- Increased load energy consumption, causing increased grid imports

Installing VAAS reduces energy consumed within the site, and enhances Solar PV operation:

- Site voltage is brought to an optimum level (at or about 220V).
- Energy consumption [kWh] of the site load will be reduced at all times, further reducing energy imported from the grid.
- Equipment on the site will not be exposed to high voltages, thus improving the lifespan of the equipment
- Solar PV inverters will not trip on high voltages and perform to the inverter design and specifications.
- Solar PV output will be improved as inverters will operate at maximum output and run cooler due to over voltage removal.

Installing VAAS improves the Solar PV payback years and ROI.

Voltage as a Service (VAAS)™

an effective step towards net zero energy

Outcomes

- Secure facility's most valuable operating assets
- Generate higher savings
- Reduce CO2 footprint
- Transition towards NET ZERO Energy
- Future proof the facility fleet
- Control voltage and power for the first time
- Failsafe uninterrupted supply

Managed service solution

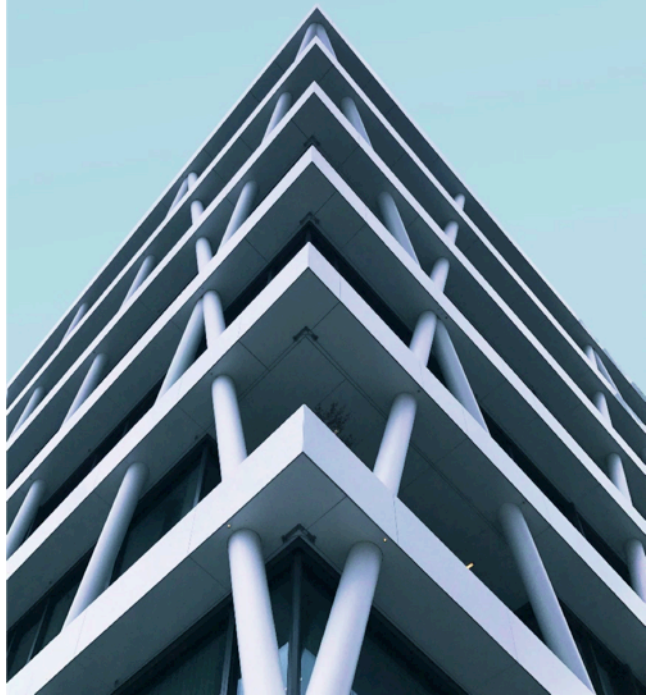
- One Master Service Agreement for global group deployment
- Preserve capital (ZERO client investment required)
- Gain share performance based
- Real time monitoring (Class 1 revenue grade)
- Cloud based dashboard for fleet wide reporting

VAASCO Group provides total solution

- Fully managed and maintained by VAASCO Group, worldwide
- Site evaluation and engineering
- Solution supply, installed and commissioned by VAASCO specialists
- A partnership approach for your organization's global facility fleet

A partnership approach

- for MNC C&I customer global facility fleets



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Next steps

Timing to first saving

From start, first savings within 1st quarter

Fleet wide follow-on scheduled and deployed on an agreed work schedule

1	2	3	4	5	6
START	**CONTRACT**	**DEPLOYMENT PREPARATION**	**SITE SERVICE INSTALLATION**	**COMISSIONING OF SERVICE**	**FIRST SAVING FROM SERVICE**
Site assessment by our engineers	One MSA for enterprise wide access to the VAAS managed service	Equipment & logistics prepared for initial selected sites	Installation of the Service according to an agreed schedule	Same day at site	Immediate

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