

# VAAS™ Energy Infrastructure Managed Services Commercial & Industrial NET ZERO ENERGY

## Target Customers

Commercial and Industrial energy users (your “Company”).

## Background

VAASCO Group (VAASCO) offers a grid management solution, using Voltage Power Optimization, to enhance a Company’s Energy Transformation Program (“ETP”).

Voltage as a Service™ (VAAS) addresses the **strategic, operational, security and sustainability (decarbonization) objectives** at each site, and across the Company’s **entire facility fleet**.

The VAAS solution forms an essential part of a Company’s **NET ZERO ENERGY** strategy.

## Outline

Create and liberate significant and ongoing **energy and CO2 savings** across the entire facility fleet, by a managed service solution that manages grid supply to a facility ....

- **NIL capital investment required by the Company.**
- **An off balance sheet managed service solution.**
- **Performance based gain share service.**
- **Enhances NET ZERO ENERGY outcomes.**

STAGE 1 of the ETP is focused on Voltage Power Optimization (“VPO”), for voltage control and energy savings.

It is applicable to all existing facilities for immediate deployment, and should also be designed into all new facilities. STAGE 1 is applicable to low voltage (LV) installations, as well as medium voltage (MV) (11kV – 33kV) installations.

## Energy effects

- VPO **decreases the grid supplied energy**, by reducing the load consumption. Load consumption is reduced by managing the load voltage, overcoming grid limitations.
- VPO also **enhances the performance of solar PV generation installations**, increasing the solar system availability, by reducing the load increases the % of load provided by solar generation.

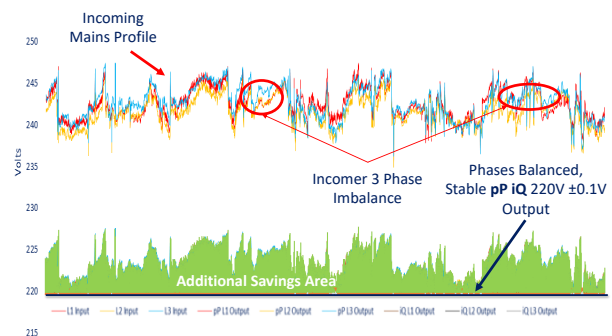
## Method

Deploy proven Voltage Power Optimization across all Company facilities under a Voltage as a Service™ (VAAS) off balance sheet managed service solution.

Energy and carbon savings are continuously reported, and are validated to support compliance and performance measurement requirements.

## Control incoming grid voltage for energy and CO2 savings

- Grid voltages are elevated and highly variable.
- Across Australian grids, the average voltage exceeds 247V, whereas your equipment is designed for 220V.
- As load energy consumption varies with the square of voltage, managing the voltage leads to **significant load power, energy, cost and CO2 reduction**.
- Grid voltages are managed with **fast dynamic performance** (100ms, 0.1Vrms, independent phase balancing, buck and boost wide range).



## Customer benefits

- Reduced energy usage kWh and associated energy costs (range 10-20%).
- Reduced Maximum Demand kW.
- Reduced CO2 footprint.
- Asset protection from excessively high voltages.
- Extended asset life on all power equipment (reduction of typically 25% in recurring electrical equipment O&M costs).
- Non-stop operational resilience, and security of supply for critical operations.
- Increased energy productivity, and competitiveness.
- Rapid deployment, avoiding delays traditionally associated with budget and procurement cycles.
- No ongoing maintenance costs.
- Saves valuable management time, as fully managed by VAASCO.
- Eligible CO2 certificates (ESC in NSW and VEECS in VIC).
- Enhances the operational and financial performance of all connected load equipment, as well as attached solar PV generation installations.

## VAASCO GROUP

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## Managed Service - key features

- **VAAS™ off balance sheet managed service solution.**
- Performance based gain share service, **Zero capital expenditure.**
- **Energy gain share** pays for the managed service, and is performance based.
- Guaranteed energy savings performance (% kWh pa), underpinning every Company's NET ZERO ENERGY strategy.
- No other fees.
- Engineered, installed, commissioned, fully maintained and serviced by VAASCO.
- Periodic (monthly) energy savings share distribution.
- Master Service Agreement automatically covers new or upgraded facilities.
- May be extended to include renewable & storage solutions for non-stop power.
- Business wide cloud based energy monitoring and reporting platform.

## Technology

- Grid voltages are managed with **fast dynamic performance**, 100ms response time.
- **Precision output voltage control**, 0.1Vrms per phase.
- **Independent phase voltage balancing.**



- Wide **buck and boost** range.
- Cloud reporting interface.
- Fail safe, uninterruptible power.
- Suitable for **all commercial and industrial applications** through to MVA range.
- No moving parts.



The technology inside basic Voltage Optimisation



The technology inside Dynamic IQ Controller

## Performance Guarantee

- A guarantee that the service will achieve a minimum % kWh per annum energy savings (the "Performance Guarantee").
- Should the service at any facility not achieve the Performance Guarantee, then a credit for any shortfall that would have been due to the Client under the Guarantee will be paid annually.
- Site specific measurement prior to sizing and installation of equipment.
- Measurement and verification of savings using the international gold standard method (EVO-IPMVP) as used by government and independent auditors across Australia and internationally.
- In simple terms ZERO % savings performance means ZERO payment by the Company to VAASCO.

## Mobilisation

- Commercial and technical feasibility review by VAASCO, at no cost to Company.
- Preparation of **Managed Service Agreement** for execution by Company.
- Commencement of technical planning by VAASCO.
- Site implementation always subject to prior approval and scheduling.

## Suitability

- **Suits all facility fleets** owned and or operated by publicly listed companies, multi-national companies, government, large private companies.
- **Universal application** across the widest range of facility types, including aged care, cold storage, hospitality, hotels, fuel distribution networks, food outlets, industrial, medical, manufacturing, offices, warehousing, retail, rural, utility services.
- **VAAS Managed Service may be extended to deliver a wider suite of NET ZERO ENERGY solutions for approved clients.**
- Extensive range of case studies and performance results available.
- NMI supply capacity range from 50 KVA to 3MVA.
- Available across Australia, New Zealand, Europe, North America and APAC region.

## Enquiries

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