ECOJOULE ENERGY
TECHNOLOGIES FOR THE FUTURE GRID

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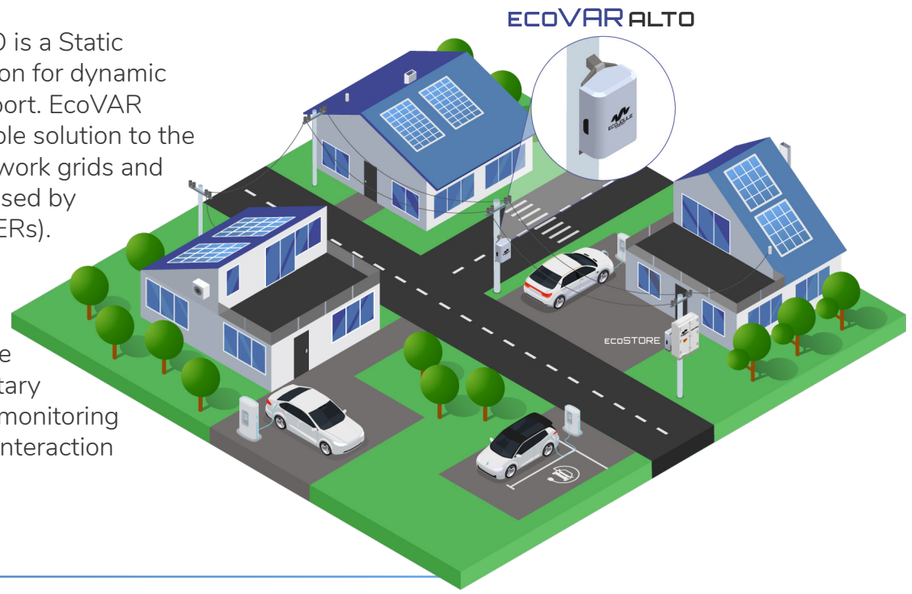
ECOVAR ALTO

Pole-Mounted Static Compensator (STATCOM) Voltage Regulator

About EcoVAR ALTO

EcoJoule Energy's EcoVAR ALTO is a Static Compensator (STATCOM) solution for dynamic voltage regulation and grid support. EcoVAR ALTO offers a scalable and flexible solution to the growing instability of global network grids and helps address the challenges posed by distributed energy resources (DERs).

EcoVAR ALTO is much more than a STATCOM. It is an intelligent, pole-mounted voltage regulator equipped with proprietary control algorithms and a robust monitoring platform that enables real-time interaction with grid conditions.



Simple, Effective, Proven

EcoVAR is a highly efficient Static Compensator (STATCOM) rated at 40 kVAr (three-phase) that helps resolve voltage issues, reduce phase imbalance and improve grid stability.

Autonomous Grid Support

EcoVAR's sophisticated control algorithms automatically adjust the current to reduce high network voltages and increase low network voltages, reducing the total voltage variation.

Designed for the Energy Transition

EcoVAR supports utilities & communities in their transition to a cleaner, more distributed energy future by supporting the expansion of distributed energy resources and the growth of rooftop solar.

Built for Performance and Longevity

Engineered to last, EcoVAR's IP56-rated robust construction and longevity mean a design life of > 15 years. The highly sophisticated design delivers a world-leading efficiency of around 99%.

Real-Time Monitoring and Analytics

Custom software supports easy deployment while a user-friendly interface enables real-time performance tracking and diagnostics.

Australian Made for Global Use

Designed and tested for the harsh Australian climate and grid environments, EcoVAR is adaptable to a range of grid environments across multiple countries.

Build A Stronger Grid, With Less Investment

Traditional grid upgrades to address voltage variance are capital intensive and time-consuming. By installing EcoVAR ALTO units at critical points on a network, utilities can defer or completely avoid the need to upgrade ageing infrastructure, especially in fringe-of-grid or high-growth areas. This offers a more flexible, lower-cost, and faster-deployment alternative to conventional grid investment.

By regulating voltage and balancing load more efficiently, EcoVAR helps optimise the use of existing grid assets. Rather than overbuilding capacity to handle peak conditions, utilities can use EcoVAR to enhance performance during periods of instability, increasing the resilience and lifespan of existing transformers, conductors, and other grid components.

In the event the local network needs a Battery Energy Storage System (BESS) to address peak demand and/or thermal capacity constraints, EcoVAR can be seamlessly upgraded to a pole-mounted EcoSTORE BESS. The upgrade simply involves adding the battery enclosure on the same pole as EcoVAR and enabling the upgrade via remote software updates. This provides a cost-effective path from STATCOM functionality to full energy storage, solving peak demand constraints while also improving power quality.

Phase Imbalance Correction for a Safer Grid

Phase imbalance is a growing challenge, driven by the increasing rooftop solar, home battery and EV charger adoption on single-phase residential connections. Consumer voltage levels can fluctuate dynamically throughout the day in ways that traditional re-balancing methods cannot resolve.

EcoVAR ALTO's patented technology not only transfers real power between phases but also injects reactive power on a per-phase basis. This unique approach delivers highly effective phase imbalance correction across all networks, improving reliability while at the same time reducing neutral voltages and enhancing safety.

Scan to learn more about EcoVAR ALTO
or visit ecojoule.com/ecovar-alto