

# Fundamentals launches Total Voltage Control to deliver voltage compliance for a low carbon grid

*New voltage control solutions are necessary to meet the demands from increasing low carbon technology connections*

WILTSHIRE, UNITED KINGDOM, August 21, 2024 /EINPresswire.com/ -- [Fundamentals Ltd](#), the experts in intelligent grid voltage control, has launched a new product ecosystem designed to deliver voltage compliance for increasingly complex power grids. Total Voltage Control is a suite of coordinated, wide area voltage control solutions that will deliver greater control of electricity grid systems. It will enable system owners and operators to comply with voltage regulation requirements on any part of the network.

Total Voltage Control expands on Fundamentals' existing, well-established solutions for High Voltage (HV) networks by introducing a new suite of technology for Low Voltage (LV) networks to include voltage regulation, phase balancing and energy storage. This will help manage power flows and voltage profiles caused by Low Carbon Technologies (LCT) such as electric vehicles, heat pumps, battery storage and distributed energy resources and reduce the equipment malfunction, energy wastage and energy bills associated with non-optimal voltages. It will also support network planners in accelerating LCT connection requests with advanced and coordinated voltage control methodologies.

"Today's power grids are ageing and not designed to cope with the dynamics of a low carbon world - [225GW of capacity needs to be released](#) to decarbonise the grid by 2035 with [demand on the grid set to double](#) by 2036," explained Dr. Jon Hiscock, CEO of Fundamentals. "The grid inevitably requires reinforcement with high costs and long lead times. However, with the implementation of whole system voltage control, these could be alleviated or even obviated in some cases. It will allow system owners and operators to use existing assets more efficiently, delay reinforcement and replacement, and ultimately save money."

By combining Fundamentals' solutions with its proven expertise from more than 30 years in the industry, continuous investment in R&D and industry partnerships, Total Voltage Control will deliver:

- Low Voltage Network Control – improving the performance of a modern dynamic network with voltage regulation, phase balancing and energy storage to reduce energy wastage and

equipment malfunction.

- Automatic Voltage Control (AVC) - optimised network voltages through advanced control and monitoring of on-load tapchangers, providing transformer paralleling, load and DER compensation, runaway prevention, management of reactive power and network load, and frequency response.
- Control Scheme Services - engineering excellence to guarantee operational integrity of tapchanger control schemes, including application engineering, scheme design and drawings, panel and cubicle build, modernisation of tapchanger motor-drive mechanisms, installation and commissioning.
- Tapchanger Services – ensuring operational availability with expertise and support for transformer and in-line regulator tapchangers, including OEM spares, kits, repairs, troubleshooting and refurbishment.

“When it comes to energy networks, high voltages can be dangerous - accelerating ageing of equipment, causing failures, energy wastage and higher energy bills. On the other hand, low voltage can be disruptive, sometimes causing equipment malfunction,” concluded Dr. Jon Hiscock, CEO of Fundamentals. “Expanding our current portfolio to offer a ‘one stop’ service for voltage compliance will ensure electricity network operators are prepared for a low carbon future and can provide energy within statutory, legal voltage limits on any part of their network.”

Fundamentals

3THINKRS

[email us here](#)

+44 2080872843

Visit us on social media:

[Facebook](#)

[X](#)

[LinkedIn](#)

---

This press release can be viewed online at: <https://www.einpresswire.com/article/737096199>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2024 Newsmatics Inc. All Right Reserved.