

## GridON's novel Fault Current Limiting Interrupter for connection of distributed generation successfully tested at KEMA laboratories

GridON, a leading provider of fault current mitigation solutions, has released its first Fault Current Limiting Interrupter (FCLi). Following successful testing at KEMA Labs High Power Laboratories as part of Western Power Distribution (WPD)'s EDGE-FCLi Network Innovation Allowance (NIA) project, the first device was shipped to the UK for a live trial at one of WPD's customer sites.

The electricity market is undergoing a global revolution in an effort to connect thousands of Distributed Generation (DG) sources. Synchronous generators, such as gas and CHP, contribute significant fault currents – in some cases increasing fault levels beyond equipment ratings. The traditional solution - to install higher rated equipment - can be costly and cause significant disruption on the network, which is why Distribution Network Operators (DNOs) are looking for quicker and less expensive ways of connecting DG sources in areas with low fault level headroom.

GridON's novel FCLi enables the cost-effective connection of Independent Power Producers (IPPs) and industrial generators, while mitigating excessive fault current from these additional sources. The FCLi allows for increased supply of power, as well as improving network availability and safety of supply.

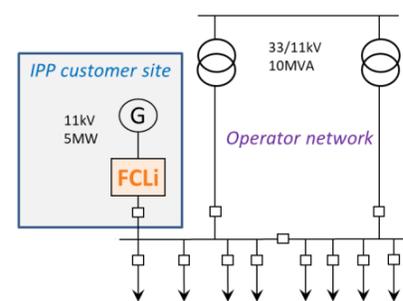
The product was successfully tested at KEMA laboratories where it was subjected to multiple prospective fault currents – phase-to-earth, phase-to-phase and three-phase up to 25kA RMS, and fully interrupted the currents well before the first peak. Before short circuit testing, the FCLi has undergone extensive factory acceptance tests: functional tests, temperature rise tests and dielectric tests including lightning impulse test at 95kV.

The first device was recently shipped to WPD for a pilot trial at a customer site, where a 5MW private generator connects to WPD's 33/11kV primary substation. GridON is looking forward to demonstrating the effectiveness and robustness of the FCLi and to approving it as a commercially ready product.



GridON's electronic FCLi is a series-connected solid-state based device which instantaneously interrupts the AC current upon detection of short circuit conditions.

The FCLi limits and interrupts excessive fault infeed from the generator to the grid - before the first current peak. It also limits short circuit currents from the grid to the generator. Once the short-circuit condition is cleared, the FCLi immediately returns to normal conduction.



By controlling excessive fault currents, the FCLi enables fast and cost-effective connection of IPPs, and increased utilization of existing generation capacity on the network. Return on investment in an FCLi is expected within one year.

Yiango Mavrocostanti, Innovation Team Manager at WPD, said: "WPD is looking forward to trialing GridON's power electronic FCLi for mitigating excessive fault current from one of its customers' generator infeed. The planned testing and trialing of the device as part of our innovation project will provide us with valuable learning that we are keen to share with the rest of the industry."

Yoram Valent, GridON's co-founder and CEO, said: "We would like to thank WPD for supporting the commercialization of our novel FCLi and we look forward to demonstrating the product's capabilities and its great potential to expedite the approval of hundreds requests for connection of distributed generation. The FCLi successfully passed extensive tests at KEMA labs, and following a successful trial in a live network, we expect network operators and independent power producers to adopt it as a cost-effective solution worldwide."

### **About GridON Ltd**

GridON is a leading provider of Fault Current Limiting solutions for increased capacity in electricity networks and for cost-effective connection of distributed generation and renewable energy sources. Short circuit currents in electricity grids are rising with new generation sources added to meshed networks, often exceeding existing switchgear ratings. GridON provides fault mitigation solutions for network operators, Independent Power Producers, and industrial customers.

GridON is offering scalable solutions from low to very high transmission voltage ratings.

GridON's commercial saturated-core Fault Current Limiters (FCL) have been operating flawlessly in live networks for more than 5 years, proving the reliability and maturity of the product, and are being offered in partnership with Wilson Transformer Company - Australia's leading manufacturer of high-quality transformers.

GridON's solid-state Fault Current Limiting Interrupters (FCLi) are offered for low-to-medium voltage networks. Designed with a compact footprint and low price tag, the FCLi is a cost-effective solution for connecting distributed generation sources from industrial plants and Independent Power Producers.

GridON's FCL and FCLi improve grid resilience and reliability and significantly lower capital expenditures and operating costs, while eliminating network upgrades and early retirement of fit-for use equipment.

For further information, please visit [www.GridON.com](http://www.GridON.com) or email [sales@GridON.com](mailto:sales@GridON.com) or call +972.3.711.1183

### **About Western Power Distribution**

WPD is responsible for delivering electricity to approximately 7.9 million homes and businesses across the Midlands, South West England and South Wales. Its network consists of over 225,000km of lines and cable and 296,000 pieces of switchgear, covering an area of 55,300km<sup>2</sup>. WPD is committed to investing around £1 billion on its network annually. The distribution element makes up around 18% of an average customer's annual bill which is around £100 a year or 27p a day.