Press Release 6 June 2013

GridON's breakthrough commercial Fault Current Limiter

is in service at a UK Power Networks substation

GridON Ltd has installed and commissioned its revolutionary new fault current limiter (FCL) into service at a UK Power Networks main substation in Newhaven, East Sussex. The Energy Technologies Institute (ETI) has procured and funded this £5m development and demonstration project, aiming to drive the technology development to a point at which network operators could deploy this product which is now fully tested, and commercially available. E.ON New Build & Technology provided technical assurance and network modeling support.

The FCL suppresses the damaging currents which result from electricity distribution network faults and thus it increases network capability and reliability.

Developed and manufactured together with GridON's Australian partner Wilson Transformer Company, this innovative state-of-the-art FCL enables the cost-effective growth and increased flexibility of electricity networks.

Removing the fault level constraints without costly network upgrades enables the installation of more low carbon and other electricity generation directly onto the distribution system, with shorter connection times and reduced connection costs. It also enables smart distribution networks with increased network efficiency, flexibility, reliability and resilience. The breakthrough in design removes the need for superconducting components which results in a simple, reliable and low maintenance solution. It is fully scalable for use at all voltage levels on both distribution and transmission systems. This will potentially help minimize the costs of upgrading the UK's electricity distribution and transmission networks over the next 20 to 30 years.

The design is based on combining industry-standard, proven transformer technology with GridON's unique and proprietary concept of magnetic flux alteration to saturate the iron core. GridON's device offers performance benefits including instant, self-triggering response to a fault, immediate recovery following clearance of the fault without network interruption, and suppression of multiple consecutive faults. It is the first such fully tested, commercially viable non superconducting pre-saturated fault current limiter.

The FCL has been comprehensively tested by a certified high power laboratory in Australia, where it underwent more than 50 fault tests. UK Power Networks and E.ON New Build & Technology have fully approved the design and testing, before being shipped to the UK. The FCL is now in service on the 11kV distribution network.

"The successful commissioning of GridON's fully-tested FCL into service on UK Power Networks' system demonstrates the potential for increasing generation and network connectivity, and for significant cuts in system upgrade costs, by providing operators and network designers with FCLs as part of their toolkit," said

Yoram Valent, Co-founder and Chief Executive of GridON. “The ever-increasing network complexity, competitive power markets, rapidly growing intermittent renewable supply and aging infrastructure conspire to challenge system operators daily. Our use of well-established manufacturing technology and our product’s inherent simplicity and minimal maintenance requirements, combined with its superior fit-to-purpose performance, will significantly cut capital expenditures and operating costs and extend the useful life of existing network assets.”

Nick Eraut, ETI Project Manager - Energy Storage & Distribution, said: “Upgrading the UK electricity distribution network to meet radically changing requirements will potentially cost tens of billions of pounds over the next 20 to 30 years. This investment is critical to ensuring that we have a system that is able to support a range of energy technologies now in development. This is the first of two FCL developments commissioned and funded by the ETI. We believe that GridON’s new FCL will offer major advantages to distribution network operators and suppliers of distributed generation equipment.”

Martin Wilcox, Head of Future Networks, UK Power Networks commented: “High fault levels impact both how we operate and the connection offers we are able to provide to generation customers. GridON’s fault current limiter looks to be a good solution to avoid having to replace switchgear prematurely or unnecessary interruptions to customers supplies. The similarity in design to our existing transformer fleet minimises additional impact on our operation and maintenance teams. It should also enable us to better work with generation customers to provide the best value solution on fault level constrained parts of our network.”

Andrew Ellis, Head of Electrical Power Engineering at E.ON New Build & Technology, said: “High fault levels in distribution networks are increasingly becoming a constraint for the connection of environmentally friendly distributed generation. Active fault current management through fault current limiters is an ideal way forward in mitigating this risk, both technically and commercially. We expect that the FCL device that has been developed under this project will take us much closer to the realisation of a viable solution for our distribution networks and distributed generation projects.”

Notes to Editors

GridON Ltd

GridON is offering commercially available and fully tested saturated-core based FCLs. GridON’s FCLs enable grid inter-connectivity and capacity increase, and facilitate connection of additional power generation and renewable energy sources. They are an essential element in improving grid resilience and reliability, can significantly lower capital expenditures and operating costs, and extend the useful life of substations and grid infrastructure.

GridON has recently won the 2013 UK Energy Innovation Award for the Best Energy Network Improvement. Topping thousands of other innovative technologies, GridON was also the proud recipient of the 2011 GE ecomagination “Powering the Grid” award and the 2012 European ACES Smart Grid award.

For further information, please visit www.GridON.com or email pr@GridON.com or call +972.3.711.1183

The Energy Technologies Institute

The Energy Technologies Institute (ETI) is a public-private partnership between global industries – BP, Caterpillar, EDF, E.ON, Rolls-Royce and Shell – and the UK Government.

Public sector representation is through the Department for Business, Innovation and Skills, with funding channelled through the Technology Strategy Board and the Engineering and Physical Sciences Research Council. The Department of Energy and Climate Change are observers on the Board.

The ETI is focused on accelerating the deployment of affordable, secure low-carbon energy systems for 2020 to 2050 by demonstrating technologies, developing knowledge, skills and supply-chains and informing the development of regulation, standards and policy. www.eti.co.uk

For further information, please call Richard Robinson, Media Relations Manager, at the ETI on 01509 202026 or 07500 049626.

UK Power Networks

UK Power Networks distributes power to a third of Britain's population through its electricity networks serving London, the South East and the East of England. The company was named Utility of the Year 2012 and also won the Team of the Year award in the prestigious Utility Industry Achievement Awards.

The company's 5,000 employees are dedicated to delivering a safe, secure electricity supply to about eight million homes and businesses via its networks of substations, overhead lines and underground cables.

E.ON

E.ON is one of the UK's leading power and gas companies - generating electricity, retailing power and gas, developing gas storage and undertaking gas and oil exploration and production. It is part of the E.ON group, one of the world's largest investor-owned power and gas companies. E.ON employs around 12,000 people in the UK and more than 79,000 worldwide.

In the UK, E.ON supplies power and gas to around five million domestic, small and medium-sized enterprise and industrial customers - meaning the company has to buy approximately 122.7 billion kWh of power and gas each year to meet their needs. E.ON also offers innovative energy services and technologies tailored to meet its customers' needs, and is helping customers become energy fit by encouraging them to insulate their homes, moderate their energy usage and even generate their own power.

Wilson Transformer Company

Australia's leading manufacturer of power and distribution transformers, Wilson Transformer Company provides transformer engineering and service solutions to power utility and industrial customers. Products also include quad-boosters and fault current limiters. From design, manufacture and test, to installation, maintenance and refurbishment, Wilson Transformer Company has been providing high-quality transformers and service since 1933. For further information, please visit www.wtc.com.au