## WirelE and UOIT Release Collaborative Smart Grid White Paper

Nov. 5, 2009 (Richmond Hill, ON) – WireIE Holdings International Inc. and University of Ontario Institute of Technology (UOIT) are pleased to release a comprehensive White Paper entitled, "Developing a Communication Infrastructure for the Smart Grid".

The White Paper walks through two future Distributed Generation (DG) scenarios, as envisioned by the authors V.K. Sood, D. Fischer, and J.M. Eklund from UOIT, and WirelE CTO Tim Brown.

The paper is a collaborative effort and details the communication network and data management facilities required to meet the strict latency requirements associated with the with DG scenarios discussed.

The WireIE/UOIT partnership is a long-term commitment by the partners and focuses on the advancing of Smart Grid. A computer simulation based on the White Paper is currently being worked on in order to validate the conceptual design of the communication network and data management facilities. The results of the computer simulation will be released in Feb. 2010.

The White Paper may be found here:

http://www.wireie.com/pdfs/Developing a Communication Infrastructure for the Smart Grid.pdf.

## Abstract:

The Smart Grid of the future, while expected to affect all areas of the Electric Power System, from Generation, to Transmission, to Distribution, cannot function without an extensive data communication system. Smart Grid has the potential to support high levels of Distributed Generation (DG); however the current standards governing the interconnection of DG do not allow the implementation of several applications which may be beneficial to the grid. This paper discusses some of the Smart Grid applications, and estimates the communication requirements of a medium data intensive Smart Grid device. Two issues that will become very important with the spread of DG are DG Islanding and DG Availability. For each issue, we propose data communication enabled solutions and enhancements.

## About WireIE

WireIE Holdings International Inc. is a global provider of wireless network transformations and extensions. These solutions scale from large urban, regional, and national networks, to campus and enterprise networks. With unique expertise in wireless/IP integration, WireIE offers a whole product solution in support of wireless technologies including but not limited to, UMTS and EV-DO (3G/3.5G), along with fourth generation technologies including WiMAX and LTE. WireIE can provide a suite of solutions for Local Electricity Distributors who are adding enhanced intelligence and control to their grid. We can design, build and operate the broadband communication network that will enable Smart Grid applications and devices. More information about WireIE is available at <a href="http://www.wireie.com/">http://www.wireie.com/</a>.

## **About UOIT**

As an innovative university, UOIT delivers a leading-edge learning environment that uniquely combines academic knowledge, research opportunities, hands-on skills and a vibrant student life. UOIT's more than 5,500 students are taught by professors who are experts in their fields from around the world. UOIT's commitment to research excellence has resulted in millions of dollars in grants and awards, including five Canada Research Chairs. More information about UOIT is available at <a href="https://www.uoit.ca">www.uoit.ca</a>.

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For more information please contact:
Jennifer Marron
Marketing Specialist
Jennifer.marron@wireie.com
www.wireie.com