

Welcome to the March 2011 e-newsletter providing you with product updates and the latest news from Ontario's electricity sector.

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What's On

The 10th Annual Basler Distributed Generation School will take place March 29-April 1 in Fairview Heights, Illinois. For details see basler.com

The ION Regional Training course will be held April 18-21 at 6675 Rexwood Road, Mississauga. Training is scheduled as two 2-day courses and participants can opt whether to attend a single session or both. The course is designed for technicians, system engineers or system integrators and starts with a focus on how to use the ION Enterprise System with the second half concentrating on using Designer software to modify and customize ION meters for specific applications. For further information contact alex@langford-assoc.com

Ontario News

Banning Off-Shore Wind - On February 11, the Ministry of the Environment released a press release stating it would not approve or accept any new offshore wind projects until more scientific research has been done on the installation of turbines in freshwater lakes. No Renewable Energy Approvals for offshore have been issued and no offshore projects will proceed at this time. Applications for offshore wind projects in the Feed-In-Tariff program will no longer be accepted and current applications will be suspended. The ministry said offshore wind in freshwater lakes was "early in development" and that there were no projects operating in North America. The 10-turbine Lake Vanern pilot project in Sweden is the only operational freshwater offshore project in the world. For release see news.ontario.ca

Light at the End of the Tunnel - Mining on the Niagara Tunnel Project is nearing completion. Big Becky, the 4,000-tonne boring machine, is currently tunneling under the City of Niagara Falls. Approximately 90 per cent of the machine's 10.2-kilometre journey has been completed. When the project is finished, the Sir Adam Beck Generating Station will increase its generating capacity by the equivalent of 200 MW. For press release news.ontario.ca

Moving Forward - The province has issued the final directive that requires the OPA to implement the key aspects of the Long Term Energy Plan supply mix. The OPA will consult with partners and the public as it develops the comprehensive energy plan for submission to the Ontario Energy Board later this year. The province is also instructing Hydro One to move forward immediately with several priority transmission projects. These projects include upgrades to existing lines and building a new one west of London, and upgrades in Southwestern Ontario. Hydro One will also immediately begin upgrading key transformer stations. These improvements will enable the connection of small-scale renewable energy projects across the province. For full release see ontario.ca

Second Round - The OPA has announced the next round of Feed-in Tariff contracts. Contracts have been awarded for 35 additional solar projects, representing 257 MW, four wind projects, representing 615 MW and one water project totalling 500 kilowatts. Of these contracts, five have been awarded to community groups and one Aboriginal project has been approved. Last year, the OPA signed the first 180 contracts for large-scale (larger than 500 kW in capacity) projects. For details see powerauthority.on.ca

Ontario Innovation - This spring, the Ontario government is expected to launch a \$50 million fund for smart grid research and demonstration projects. The Toronto area is actually a hotbed for smart grid innovation. Not smart

meters or home-energy management devices, which are a high-profile (and overhyped) component at the outer edge of the smart grid, but the guts of the grid — substations, transmission and distribution lines, and control systems. For full article see moneyville.ca

Stepping Up - Clean-energy technologies received a windfall of funding from the federal government on February 27, as Natural Resources Minister Christian Paradis announced nearly \$64 million in funding to projects across the country. The money goes to projects such as a wind farm in Nova Scotia, a one-of-a-kind "wind storage" initiative in Saskatchewan, and an ethanol plant in Varennes, Que., where Paradis announced the funding. For full story see ottawacitizen

Nuclear Footprint - In early February, the Canadian Nuclear Safety Commission's granted a licence to Bruce Power to allow the shipment of steam generators to Sweden for recycling of certain components. Following the hearing in Ottawa last year, Bruce Power took the step to launch an information website to provide the public and stakeholder's additional factual information on the company's proposal. Through public opinion polling, Bruce Power found strong public support for the plan to reduce its environmental footprint. For press release see brucepower.com

Abandoning Ship - The Netherlands is planning to slash its renewable energy targets as well as reduce its solar and wind subsidies. According to the Financial Times Deutschland, the government states the subsidies are unaffordable. The plan is for the subsidies to be cut from €4 billion annually, to €1.5 billion. Holland becomes the first European Union country to abandon the mandated target of producing 20% of its domestic power from renewable sources by 2020. See energybusinessdaily

Product Spotlight!... - LinelQ

With the full-scale implementation of the smart grid throughout Ontario, the importance of effectively monitoring the transmission and distribution system has never been more important or more challenging. In February, Gridsense announced the commercial launch of its latest transmission and distribution line monitoring system, the LinelQ. The LinelQ™ system provides time-critical information on the performance and condition of overhead power lines up to 138kV, enabling utilities to respond to failing equipment, over-loading, and faltering power reliability. New functionalities like accurate voltage measurement, which in the past was only possible by hard wiring equipment typically during a planned outage, have made it possible for monitoring at a level previously not possible. The advanced sensor at the heart of the LinelQ™ system is self-powered, autonomous and maintenance-free. With capabilities such as load and temperature profiling, event logging and analysis, power factor measurement and other monitoring parameters, the LinelQ addresses essential smart grid and distribution automation applications like outage management, line balancing and capacity optimization and overall power factor improvement. Using various communication options, data collected from the sensors can be retrieved locally or from remote locations. For details see gridsense.com

Schneider Electric- Tenant Metering Commercial Edition

PowerLogic's commercial submetering solution is designed for new construction or for retrofitting in existing apartments, shopping centers, offices — anywhere where electrical information is needed for multiple tenants. PowerLogic Tenant Metering Commercial Edition combines a utility proven billing engine with reporting features that promote accountability from energy users and improve tenant retention with fair and transparent billing. Automatic bill generation and data retrieval from new or legacy meters improves meter reading efficiency and accuracy, while software that supports complex interval-based tariffs, demand and other utility charges enables your occupant billing to match your facility's utility charges. Data collection across corporate networks, the Internet or wireless lets you accommodate the regulatory requirements of a single site, or a longer distance portfolio. For details see powerlogic.com

Basler - DECS-200N

On many machines, one quadrant voltage regulators provide positive field control but no negative field forcing into the exciter field in response to system disturbances. For generators having small machine time constants, the lack of negative field forcing generally is not an issue. However, as the size of the generator becomes larger, performance expectations increase. A non-negative field forcing voltage regulator will have limitations when asked to provide corrective generator voltage change in response to system disturbances. The lack of negative field forcing creates nonlinearity in the system when fast response is desired, such as during system transients, because it limits the exciter field decay. For hydros, which are slow speed spinning machines with large time constants, tuning the digital excitation system can be a challenge when negative field forcing is not available. For updated application note see basler.com

ERLPhase - Sub-harmonic Protection Relay

Undamped sub-harmonic current oscillations created by series capacitors interacting with the wind system can cause serious damage to wind turbine controllers and also to conventional generators. The wind turbines own mechanical system interactions (tower-to-blade) can also generate sub-harmonics, which are detrimental to induction generators, transformers, and may cause resonance at the point of common coupling in the electrical grid. The S-PRO 4000 relay detects these sub harmonic oscillations and allows the utility to monitor and protect the power system by isolating the healthy grid from sub-harmonic generation sources. For details see erlphase.com

Did you know...

Cutting DOE Funding and Neutering the EPA- Early February brought a flurry of news from across the U.S. about challenges to the Environmental Protection Agency's (EPA's) measures to curb greenhouse gases. Republican Senators Jay Rockefeller and James Inhofe are spearheading separate measures to delay or block the EPA's authority, and Arizona withdrew its supports from the EPA in a massive legal challenge concerning its 'endangerment finding.' The bill proposes to overturn the agency's so-called "Endangerment Finding" that GHGs are harmful to public health and environment, and it would preempt any action by the EPA to limit GHG emissions without a green light from Congress. The bill would also make it illegal to use federal laws such as the Clean Air Act, the Clean Water Act, the National Environmental Policy Act, and the Endangered Species Act to curb climate change. For details see powermag.com

The U.S. House of Representatives on February 19 passed, with a 235-189 vote, a short-term government funding measure that cuts more than \$61 billion from the remainder of the fiscal year 2011 budget—including a \$3 billion slash to the EPA's budget. The continuing resolution seeks to block the EPA from implementing or enforcing statutory or regulatory GHG rules affecting stationary sources that became effective after January 1, 2011. The bill additionally cuts more than \$1 billion from the budget of the Department of Energy through the end of FY2011, affecting programs like the Advanced Research Projects Agency-Energy, the Office of Energy Efficiency and Renewable Energy, the Office of Science, and the Office of Nuclear Energy (which would lose 23% of its budget). The Office of Fossil Energy would also see an 11% reduction in its budget. See powermag.com

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