

September 15<sup>th</sup>, 2020

Lakeland Holding's Bracebridge Generation Ltd. Implementing One of the World's Most Innovative Smart Energy Projects

#### FOR IMMEDIATE RELEASE

September 15th, 2020

Lakeland Holding's subsidiary Bracebridge Generation Ltd. has developed one of the world's most innovative smart energy projects.

Termed **DEMOCRASI** (Dispatchable Energy Market Optimized Constraint Real-time Aggregated System Interface) this \$4M innovative demonstration project will be taking place in Parry Sound, Ontario where it builds on other Lakeland project assets.

From all 44 applications received, the company ultimately finished in the top three of seven Canadian semi-finalists after presenting in Ottawa before a full room of other world-class semi-finalists and a judging panel of industry experts. Bracebridge Generation is receiving up to \$3 million (£1.8 million) from <u>Natural Resources Canada</u> (NRCan) and the <u>UK Department for Business Energy & Industrial Strategy</u> (BEIS) *Power Forward Challenge* to start building its smart energy systems solution. The overall winning project between the two countries (7 competing projects in total) will receive an additional \$1M Grand Prize by the end of 2021.

The three Canadian projects that were chosen to be eligible to receive up to \$3M each were subsequently announced by NRCan. Bracebridge Generation is honoured to have been selected to move forward with the DEMOCRASI project. This project will show how it can move the current energy grid to a future of expanded Distributed Energy Resource (DERs including solar, battery, wind, and waterpower) integration.

Bracebridge Generation (under parent company Lakeland Holding Ltd.) with consortium members Opus One Solutions (Toronto, Canada), and Kiwi Power Ltd. (London, UK), submitted the successful DEMOCRASI project. It combines two existing technologies to provide a management solution for the increasing number of DERs. Simply put with ever increasing numbers of generation and energy solutions connecting the grid, this innovative hardware and software monitors and controls how each are utilized so the grid is used most efficiently



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benefiting consumers with lower cost electricity. This product can be utilized in both competitive and non-competitive electrical systems worldwide.

"Innovation in the electrical industry is changing at a rapid pace. We at Lakeland Holding have challenged ourselves to become innovation leaders. Under the leadership of our Chief Operating Officer, Vince Kulchycki, with the assistance of Advanced Planner Jennifer Montpetit, we have met that challenge. Lakeland's Bracebridge Generation looks forward to working with our partners to successfully carry out one of Canada's most innovative projects. Once proven, this type of project can be deployed worldwide making distribution systems more clean, efficient, creating jobs, and lowering electrical bills. Ultimately this could lead to a better quality of life and improve business competitiveness." Chris Litschko, CEO, Lakeland Holding.

Stephan Marty, Chief Commercial Office at Kiwi Power adds that "we are excited to be part of the DEMOCRASI project, bringing a Virtual Power Plan (VPP) to the Ontario market. Kiwi Power's DERMS platform will monitor, control, and monetize a variety of assets such as hydro and battery energy storage in the town of Parry Sound, Ontario, which has made a commitment **to becoming a net-zero community.** By partnering Kiwi Power's VPP platform with Opus One Solutions' Optimization Engine, Parry Sound will benefit from an end-to-end solution predicting and alleviating grid constraints and opening up new revenue streams for DERs."

"We are thrilled to be partners with Lakeland Holding / Bracebridge Generation and Kiwi Power on the DEMOCRASI project, the world's first utility-wide implementation of an Optimization Engine – Distributed Energy Resource Management System (OE-DERMS). Our optimization engine creates accurate 3-phase alternating current optimal power flow across grid network feeders, offering utilities complete situational awareness of what is happening on their grid. Combined with Kiwi Power's powerful VPP platform, this enables utilities to connect and optimally dispatch DERs for improved stability, flexibility, and reliability of the electricity system. As a finalist in the Power Forward Challenge, we believe DEMOCRASI offers a model that other utilities can replicate to decarbonize their grids, monetize new clean energy resources, and help keep rates low," says Hari Subramaniam, Chief of Strategic Growth, Opus One Solutions.



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DEMOCRASI is currently underway to ensure this project meets the criteria set out by the challenge. The four key objectives of the *Power Forward Challenge* are :

- Demonstrate innovative technology solutions that can aggregate and manage increasingly large and complex groups of distributed energy resources to support grid flexibility, stability and reliability;
- Build on Canadian and United Kingdom (UK) strengths in smart grid technology and bring together innovators from both countries to design solutions for the grid of the future;
- Create concrete opportunities for Canadian firms looking to expand into UK (and European) markets and UK firms looking to expand into Canadian (and North American) markets;
- Support Canadian and UK leadership and competitiveness in clean technology innovation and the anticipated market opportunities for smart grid technologies in 2030 and beyond.

By the end of 2021, analysis of the project outcomes will determine the team with the highestperforming solution, who will be awarded a \$1-million grand prize.

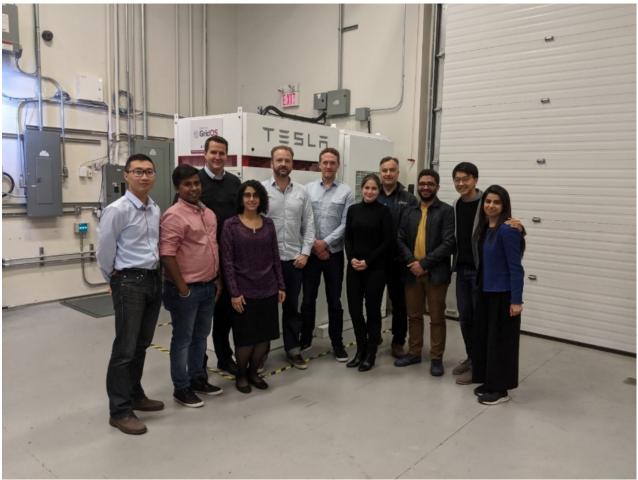
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#### <u>Photos</u>



Location: Opus One Solutions (Toronto, Ontario) Front: Left to right

Jing Guo (Opus One), Kushal Shah (Opus One), Stephan Marty (Kiwi Power), Lobna El Gammal (Opus One), Chris Agmen-Smith (Kiwi Power), Rob Greenoak (Kiwi Power), Jennifer Montpetit (Lakeland Holding Ltd), Vince Kulchycki (Lakeland Holding Ltd), Nima Tabatabai (Kiwi Power), Cedric Tai (Opus One ), Nikita Vajani (Kiwi Power)



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# Location: Bracebridge Generation Ltd. - Cascade Street Generation Plant (Parry Sound, Ontario) Front: Left to right

Nima Tabatabai (Kiwi Power), Roger Alexander (Lakeland Holding Ltd.), Chris Litschko (Lakeland Holding Ltd.), Vince Kulchycki (Lakeland Holding Ltd), Stephan Marty (Kiwi Power), Rob Greenoak (Kiwi Power), Bryan Ingram (Bracebridge Generation Ltd), Chris Agmen-Smith (Kiwi Power), Jennifer Montpetit (Lakeland Holding Ltd), Nikita Vajani (Kiwi Power).



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#### **Company Information**

**Bracebridge Generation Ltd**. (www.bracebridgegeneration.com) is a subsidiary company of Lakeland Holding Ltd. wholly owned by the municipalities of Bracebridge, Parry Sound, Huntsville, Burk's Falls, Sundridge and Magnetawan. Respecting the natural environment, this innovative company generates environmentally friendly electricity; promotes the efficient use of electrical energy; maintains safety and operating standards for electricity generation; provides informative and instructional tours; maintains the historic richness of our facilities and continues to be a progressive industry leader.

**Opus One Solutions** (www.opusonesolutions.com) is a software engineering and solutions company with the vision of a digitalized, decentralized and decarbonized planet. Its intelligent energy networking platform, GridOS<sup>®</sup>, optimizes complex power flows so that it can deliver real-time energy management and integrated planning to distribution utilities and other managers of distributed energy assets. GridOS is modular, scalable, and integrates seamlessly with existing data systems to unlock greater potential for distributed energy resources, including renewable generation, energy storage, and responsive demand. GridOS also facilitates the management of microgrids — from homes to businesses to communities — for unparalleled grid resiliency and value to the electricity customer.

**Kiwi Power Ltd** (www.Kiwipowered.com) is a leading global energy technology company delivering Virtual Power Plant (VPP) technology and expertise. Recognized by global independent research firms as a leader among VPP providers and ranked #1 on execution, Kiwi Power brings more than a decade of expertise from their European practice into the North American market. Their simple, yet powerful technology solution, combined with an attractive commercial model and expertise, gives clients the confidence to participate in the growing flexibility markets and maximize the value of their distributed energy resources.



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