



**FOR IMMEDIATE RELEASE**

### **TDX and Beacon Combine on Innovative Wind-Flywheel Energy Storage**

(TYNGSBORO, MA) August 19, 2014 – Beacon Power and TDX Power announced their partnership on the Saint Paul Island Flywheel Demonstration project. Located in the middle of the Bering Sea, this project will integrate Beacon Power’s flywheel energy storage system into TDX’s existing wind-diesel microgrid. Beacon’s technology will stabilize and support the grid and is expected to increase diesel-off time by an additional 10 to 15 percent.

This project received sponsorship from the Alaska Energy Authority’s Emerging Energy Technology Fund to demonstrate the flywheel energy storage system’s ability to improve system efficiencies in remote and harsh environments and create a model for use across Alaska’s remote grid community and other island and remote grid systems.

TDX Corporation is the Alaska Native Village Corporation, (ANC) for the Community of St. Paul. TDX financed and built the first and only North American owned and operated high penetration hybrid power plant in Alaska on St. Paul Island. The generation for the high penetration hybrid microgrid system is provided by a 225kW Vestas V27 wind turbine, and two 150kW Volvo diesel generators, along with smart switch technology and a synchronizing condenser. Originally commissioned in 1999, the plant supplies electricity and heat to an industrial/airport facility, and has reduced the cost of electricity and heat to 40% of the original diesel based generation cost. Beacon’s technology will enable TDX to further improve wind utilization, delivering projected fuel savings of up to 30 percent over existing (pre flywheel) consumption levels.

Beacon flywheel energy storage systems store and inject power to compensate for fluctuations in wind generation. During periods of excess wind, the flywheel energy storage system absorbs energy and then recycles it back into the system to ride through subsequent drops in wind production providing time to start-up backup generators. As a result, TDX will reduce both wind curtailment and its diesel fuel consumption.

“Beacon Power is excited to be involved in such a groundbreaking project,” said Barry Brits, President and Chief Executive Officer for Beacon Power. “This is an opportunity for us to demonstrate the extended storage capabilities of the Beacon Power flywheel system which will increase integration of wind power into the local grid. We are thankful to both TDX Power and the Alaska Energy Authority for their support of the project.”

Adding the BP 400 Series flywheel to the Saint Paul project is a model for how agile and responsive flywheels can help shape the future of sustainable island grid systems.

“TDX is pleased to be working with Beacon Power on this groundbreaking project,” said Ron Philemonoff, Chief Executive Officer for TDX Corporation. “We are also thankful to both TDX Power and the Alaska Energy Authority for their support of this project. This is another step forward into our future, and an opportunity for us to demonstrate the use of extended storage capabilities, such as the Beacon Power flywheel system to capture and tame our friend, the wind.”

Adding this innovative technology to TDX’s high penetration hybrid wind system will allow for enhanced integration of increased wind power into the local community grid. Sustainability is a key value of TDX and the Aleut Community of St. Paul Island (ACSPI). Providing the innovative technology to leverage the natural energy sources available on-island, dramatically increases energy security and contributes directly to improving social and economic security.

“There are significant opportunities for Alaskans to utilize reliable, cost-effective renewable wind energy for combined heat and power (CHP) needs. This demonstration project will further quantify and show how renewable wind-energy systems can be used to achieve optimal fuel savings for both electricity and heating, showcasing its compelling economics, environmental stewardship and system reliability that are important to Alaskans” said Kord Christianson, President of TDX Power.

### **About Beacon Power**

Beacon Power is a pioneer and global leader in the design, development and commercial deployment of flywheel-based energy storage systems offering proven solutions at the utility-scale for power grid efficiency, frequency regulation, grid security, renewable power integration and other ancillary services. Beacon Power has been providing grid stability services to electric power grids in the US since 2008. Our goal is to improve the efficiency of the world’s electricity infrastructure. By acting as a partner and advisor for our customers, we can help them achieve the most efficient and economic power generation from their renewable resources while at the same time maintaining power system stability and resiliency. For more information visit: [www.beaconpower.com](http://www.beaconpower.com).

### **About TDX Power**

TDX Power, a wholly owned subsidiary of TDX Corporation was specifically created to find and implement sustainable energy solutions for the island of St. Paul and to leverage cutting edge renewable energy technology. From this start, TDX Power has become a recognized expert in small utility systems and a leader in renewable energy power generation integration. TDX Power is now the leading expert in developing and operating remote power systems using alternative energy and smart grid technologies. The company operates four regulated electric utilities and two wholesale generation facilities in Alaska, maintaining critical, must-run

generation services for commercial, residential and industrial customers in extremely demanding environments. For more information visit: <http://www.tdpower.com>

**Contact information**

Barry Brits  
President and CEO  
brits @ beaconpower.com  
978-661-2024

Karen Saffery  
Director of Marketing  
saffery @ beaconpower.com  
978-661-2028

*Note: Photos and illustrations available upon request.*