



Non-Synchronous Energy Electronics, LLC

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For immediate release;

## **NSEE designed 1.1MW Distributed Generation Micro-grid gets conditional interconnection approval from Connecticut Light & Power**

Pareto Energy Ltd. ([www.paretoenergy.com](http://www.paretoenergy.com)) has contracted NH based NSEE for systems design, consulting and supply of a power converter based Micro-grid system. The approval of the power converter based design includes agreement from CL&P that the distributed generation (DG) integrated into the Micro-grid will have no negative impacts to the existing utility grid, and therefore no system studies or upgrades are required to accommodate the DG.

The system is designed as a "Load Reduction Micro-grid", where the 60Hz building feeds will be isolated from the utility grid by way of AC/DC/AC converters, with no power flow back to the utility. This enables power to be purchased from the utility if necessary, or generated on-site, up to the amount consumed.

The main advantage of the patent pending design is the ability to integrate load reduction DG without any limitations of penetration depth or interconnection queues usually imposed by grid operators. The whole building will run on UPS quality power, requiring at least 2 major component failures before power disruptions will be noticed.

The highly efficient Combined Heat and Power (CHP) project will use a 700kW variable speed natural gas engine and a 400kW fuel cell for energy sources, along with lead acid battery energy storage for bridging power to enable the existing 350kW back-up diesel generator to be brought on-line as well.

For more information, please contact;

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