

Petition No. 1087
Bloom Energy/Wal-Mart
Putnam, Connecticut
Staff Report
January 16, 2014

On November 8, 2013, the Connecticut Siting Council (Council) received a petition from Wal-Mart Stores (Wal-Mart) for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the installation of an approximately 250 kW Bloom Energy (Bloom) fuel cell facility at a Wal-Mart store at 625 School Street in Putnam, Connecticut. Council member Jerry Murphy Jr., and Siting Analyst Robert Mercier visited the site on December 18, 2013 to review the proposal. Jay Stevenson, an engineer with Core States Group, represented Wal-Mart at the field review. The Putnam Town Planner, Donald Johnson, was in attendance.

Bloom's fuel cell facility would be a customer-side, distributed resources project that would consist of an approximately 250 kW Bloom solid oxide fuel cell Energy Server to be owned and operated by Wal-Mart. The overall dimensions of the fuel cell would be approximately 30' long by 8'-7" wide by 6' - 9" tall. It would be installed on a pre-cast concrete pad located at the outer edge of the rear access drive in an area currently used for pallet storage.

The Wal-Mart property consists of 17.7 acres and is on the south side of Route 44. Residences are located northwest of the fuel cell site, beyond several evergreen trees. The nearest residence is approximately 230 feet from the proposed fuel cell.

Gas and electric utility lines are located reasonably proximate to the fuel cell's proposed location. The fuel cell would be interconnected to the Wal-Mart store's existing switchgear along the exterior of the store building near to the location of the fuel cell. The fuel cell would include an Uninterruptible Power Module to ensure that power outages do not stop the fuel cell's production of electricity, thus enabling the store's refrigeration units to remain operational during outages.

The fuel cell is designed in accordance with American National Standards Institute and Canada Standards Association (ANSI/CSA) America FC 1-2004 for stationary fuel cell power systems and includes extensive safety control systems, including an automatic shutdown mechanism, that comply with pertinent engineering standards.

A noise study conducted for this installation determined that the fuel cell will not require noise mitigation. The proposed fuel cell facility would comply with all applicable air and water quality standards of the Department of Energy and Environmental Protection.

The Connecticut Public Utilities Regulatory Authority (PURA), in its Final Decision in Docket No. 12-02-09, determined that Bloom's Energy Server qualifies as a Class I renewable energy source as defined in Conn. Gen. Stat. § 16-1(a)(26)(A). Furthermore, Bloom was selected by CL&P as the winning bidder in the joint UI/CL&P request for proposals for their "Low and Zero Emissions Renewable Energy Credit Program." As a result of its selection, Bloom has entered into a standard contract for the purchase and sale of Class I renewable energy credits.

Wal-mart notified abutting property owners and Town officials of the project on November 7, 2013. No abutters commented to the Council in regards to the proposal. Mr. Johnson did not have any comment.

The proposed installation of the fuel cell is not expected to have any substantial adverse environmental impacts. It would reduce the emission of air pollutants that contribute to smog, acid rain, and global climate change. It would also contribute to the state's use of renewable energy.

Aerial View of Wal-Mart, 625 School Street, Putnam



Aerial photograph taken from google earth