

Petition No. 1088
Bloom Energy/Walmart
Cromwell, Connecticut
Staff Report
December 4, 2013

On November 8, 2013, the Connecticut Siting Council (Council) received a petition from Wal-Mart Stores (Walmart) 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 Walmart store at 161 Berlin Road in Cromwell, Connecticut. Council member Larry Levesque and Siting Analyst David Martin visited the site on December 4, 2013 to review the proposal. Rob Streker and Jay Stevenson, engineers with Core States Group, represented Walmart at the field review.

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 Walmart. 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 directly adjacent to the rear of the store on a currently grassy area. The Cromwell Walmart fuel cell would include an Uninterruptible Power Module (UPM) to ensure that power outages do not stop the fuel cell's production of electricity.

Gas and electric utility lines are located reasonably proximate to the fuel cell's proposed location. The fuel cell would be interconnected to the Walmart store's existing switchgear along the exterior of the store building near to the location of the fuel cell.

Nearby properties on Berlin Road are commercial and multi-family residential. There are a few nearby residences on Kirby Road, which runs behind the Walmart store.

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 require a noise mitigation barrier due to the proximity of the residences along Kirby Road. 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.

Bloom has notified abutting property owners of its proposal and has discussed the project with the town planner of Cromwell.

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 Walmart, 161 Berlin Road



Aerial photograph taken from bing.com/maps