

Petition No. 1083  
Bloom Energy/Home Depot  
Enfield, Connecticut  
Staff Report  
December 4, 2013

On November 8, 2013, the Connecticut Siting Council (Council) received a petition from Bloom Energy Corporation (Bloom), acting as agent for Home Depot, for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the installation of an approximately 200 kW fuel cell facility at a Home Depot store at 136 Elm Street in Enfield, 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 Bloom at the field review.

Bloom's fuel cell facility would be a customer-side, distributed resources project that would consist of an approximately 200 kW Bloom solid oxide fuel cell Energy Server to be owned and operated by Home Depot. The overall dimensions of the fuel cell would be approximately 26' -5" long by 8' -7" wide by 6' -9" tall. It would be installed on a pre-cast concrete pad that would displace approximately five parking spaces in the paved area behind the store. This space is currently being used primarily for storage. Directly beyond where the fuel cell would be located is a Honda dealership. The nearest residences are located 775 feet to the north.

Gas and electric utility lines are located close to the fuel cell's proposed location. The fuel cell would be interconnected to the Home Depot store's electrical system via an underground connection across the parking lot.

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 sound levels generated by the fuel cell will meet all applicable requirements at any off-site noise receptors and would not require any noise barriers to be erected. 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. 12-02-06, 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 land use officials with the Town of Enfield.

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 Home Depot, 136 Elm Street**



Aerial photograph taken from bing.com/maps