

Petition No. 1082
Bloom Energy/Home Depot
Fairfield, Connecticut
Staff Report
January 23, 2014

On November 8, 2013, the Connecticut Siting Council (Council) received a petition from Bloom Energy Corporation (Bloom), acting as an agent for Home Depot USA, Inc., 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 541 Kings Highway Cutoff, Fairfield, Connecticut. Council member Dr. Barbara Bell and Siting Analyst Robert Mercier 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. On November 8, 2013, Bloom has notified abutting property owners of its proposal and discussed the project with Town of Fairfield officials prior to filing with the Council.

The Fairfield Zoning Enforcement Officer Matthew Decker and Planning/Zoning Director Joseph Devonshuk, Jr. attended the field review. Concerns discussed were the loss of three parking spaces, noise, property setbacks and wetlands. After the field review, at the request of the Town, Bloom filed for a parking space modification permit for the Home Depot parcel. One abutter did attend the field review but was concerned about a Home Depot issue and not the fuel cell.

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 located in the southeast corner of the parking lot. The fuel cell would occupy three parking spaces and a small grassy area adjacent to the parking lot. A residence is located approximately 75 feet northeast of the site.

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 and to the store's gas line via underground conduits across the parking lot.

The fuel cell is designed in accordance with American National Standards Institute and Canada Standards Association 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 background noise in the surrounding area is high due to the proximity of Route 1 and Interstate 95. Thus, the fuel cell would not be discernible and its operation would comply with applicable noise regulations without any sound barriers or treatments. The proposed fuel cell facility would comply with all applicable air and water quality standards of the Department of Energy and Environmental Protection. No wetlands would be affected.

The Connecticut Public Utilities Regulatory Authority, 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.

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.

Petition 1082, Fuel Cell Site Location, 451 Kings Highway Cutoff, Fairfield, Connecticut.

