

Petition No. 1086  
Bloom Energy/Home Depot  
Bridgeport, Connecticut  
Staff Report  
January 9, 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 656 Reservoir Avenue in Bridgeport, 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.

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.

In the petition filing, the fuel cell was specified to be behind the central section of the store, beyond a service access drive, in the location of a sheer traprock ledge. At the field review, Bloom determined that this location was not viable given the significant amount of rock removal/excavation required to install the fuel cell. To reduce site installation costs, Bloom submitted a new site plan to the Council on December 18, 2013 that shifted the fuel cell beyond the northeast side of the building where there is less rock and more manageable grades.

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 paved service access way. Some rock would also have to be excavated to install these conduits.

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.

An apartment complex is located approximately 85 feet north of the new proposed site, beyond a band of trees. Bloom would be required to install an eight-foot high sound barrier/retaining wall on the north and east side of the fuel cell to meet applicable noise criteria. 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, 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.

On November 8, 2013, Bloom notified abutting property owners and the City of Bridgeport of the proposal. No abutters or City officials attended the field review or submitted comments to the Council regarding the proposal. A revised site plan depicting the new site location and an associated noise study was sent to the City.

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.

**Site Location at Home Depot, 656 Reservoir Avenue, Bridgeport**



Aerial photograph taken from google earth