Petition No. 1115
Bloom Energy/ IBM
Southbury, Connecticut
Staff Report
October 2, 2014

On August 14, 2014, the Connecticut Siting Council (Council) received a petition from Bloom Energy Corporation (Bloom), on behalf of IBM, for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the installation of a one megawatt fuel cell facility at the IBM campus at 150 Kettletown Road in Southbury, Connecticut. Council member Dr. Barbara Bell, Acting Executive Director Melanie Bachman, and Siting Analyst Robert Mercier visited the site on September 19, 2014 to review the proposal. Other persons at the field review included Bloom representative Richard Procanik, the Town of Southbury Zoning Official Mark Massoud, and IBM representatives Joshua Moberger and Dan Dispenza.

The IBM campus consists of a 227-acre parcel developed with a large office complex (800,000 square feet). The parcel is zoned Residential R-60. The nearest developed residential parcels are approximately 1,500 feet to the northwest, beyond Interstate 84 and Route 6. The fuel cell facility would be located in a lawn area between the south end of the Central Services Building and Bullet Hill Road. A small gravel parking area on a portion of the lawn area would be maintained.

Bloom's fuel cell facility would be a customer-side, distributed resources project that would provide 20 percent of IBM's electrical needs. The facility would consist of four 250 kilowatt solid oxide Bloom Energy Servers arranged in a linear fashion on a concrete pad. The overall dimensions of each fuel cell would be approximately 26' -5" long by 8'-7" wide by 6' -9" tall.

The fuel cell would connect to an electrical room located on the northeast side of the building. A new natural gas feeder would be installed from an existing Yankee Gas line located under Bullet Hill Road. The fuel cell would feature bollard protection on three sides.

There would be no visual or noise impacts as the installation is remote from adjacent properties. The fuel cell facility would comply with all applicable Department of Energy and Environmental Protection air and water quality standards.

The facility would be remotely monitored by Bloom using software and hardware safety circuits that can detect abnormalities in operation. The fuel cell facility 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 both automatic and manual shutdown mechanisms that comply with pertinent engineering standards.

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, IBM was selected by The Connecticut Light and Power Company (CL&P) as the winning bidder in a joint UI/CL&P request for proposals for their "Low and Zero Emissions Renewable Energy Credit Program." As a result of its selection and with the approval of the PURA, IBM entered into a standard contract for the purchase and sale of Class I renewable energy credits with CL&P, where CL&P will purchase renewable energy credits from IBM for a 15 year term.

Bloom mailed notification of the project to abutting property owners and Town of Southbury officials on August 8, 2014. One abutter contacted Mr. Procanik for additional information. The Council did not receive any comments.

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 contribute to the state's use of renewable energy.

Aerial View of Site Location at IBM Campus

Aerial photograph obtained from google earth