

Petition No. 1068
Bloom Energy/AT&T
New London, Connecticut
Staff Report
October 24, 2013

On June 24, 2013, the Connecticut Siting Council (Council) received a petition from Bloom Energy Corporation (Bloom) for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the installation of an approximately 400 kW fuel cell facility at an existing AT&T building at 26 Washington Street in New London, Connecticut. Council Vice Chairman Jerry Murphy and Siting Analyst Robert Mercier visited the site on July 17, 2013 to review the proposal. Richard Procanik, an engineer with Core States Group, represented Bloom at the field review. Harry Smith, the New London City Planner, was also in attendance. Notification was provided to the City and abutters on June 21, 2013.

Bloom's fuel cell facility would be a customer-side, distributed resources facility that would consist of two 200 kW Bloom Energy Server solid oxide fuel cells, installed on a pre-cast concrete pad in the north parking lot on the property. The fuel cell facility would provide a portion of the electrical load for the AT&T facility. The project would be connected to Connecticut Light and Power's distribution network via switchgear in the building's basement to allow for the export of any excess electricity to the grid. The overall dimensions of the fuel cell installation would be approximately 25 feet long by 8 feet wide by 7 feet tall.

AT&T's building is located on property that fronts Washington Street to the east, Methodist Street to the south, and Union Street to the west. The north side of the property abuts the rear masonry walls of several commercial buildings. The AT&T building is in the downtown area of New London, a designated historic district. Land use around the site consists of commercial and mixed use (commercial/residential/religious). A mixed use building (residential/commercial) is located west of the site at 13 Washington Street. The fuel cell site is located in the northwest corner of the parking lot, adjacent to Washington Street and the masonry wall on the property line. The fuel cell would be located approximately 7 feet from the masonry wall.

Due to concerns discussed at the field review regarding the visibility and noise impacts to the 13 Washington Street property, the City of New London requested a hearing on this petition on July 29, 2013. Although Bloom redesigned the site after the initial hearing request to address certain concerns, the City continued with the hearing request. At a Council meeting on September 19, 2013, the Council voted to hold a hearing on this petition, scheduled for October 29, 2013. Bloom and the City continued dialogue to resolve issue before the hearing.

On October 23, 2013, the Council received correspondence from the City detailing modifications made to the proposed facility in relation to noise and visual impacts to the 13 Washington Street property. In the letter, the City indicated it would withdraw the request for a hearing if Bloom met certain conditions. Bloom responded on October 23, 2013 indicating they would comply with the City's conditions. Further, Bloom requested cancellation of the hearing. On October 23, 2013, with consent of Robert Stein, Chairman of the Council, the Council canceled the public hearing in this matter.

As a result of the City's negotiations with Bloom, Bloom would relocate the fuel cell 21 feet from Washington Street and install a 16-foot tall brick sound attenuation wall on the west side and 14 feet of the south side of the fuel cell. The sound attenuation wall would reduce sound levels to 45 dBA or less at the residential units at 13 Washington Street. The east side of the fuel cell would remain open, allowing access from the existing parking lot. Landscaping featuring a variety of shrub plantings would be installed between the sound wall and Washington Street. A raised curb with aborbait plantings would be installed along the south side of the fuel cell facility.

In response to the City's concerns, on August 20, 2013 Bloom revised the project by moving the fuel cell so that it is 18 feet from the Washington Street sidewalk, ensuring installation of the fuel cell would not reduce the number of parking spots on the property, and ensuring the project meets City and State noise regulations by installing an eight-foot noise attenuation wall along the west and part of the south sides of the fuel cell. Bloom would also landscape the area between the sound wall and the Washington Street sidewalk. In a letter dated September 18, 2013, the City renewed its request for a public hearing, stating noise was still an issue and that the site was located in a historic district.

Sound levels generated by the fuel cell will meet all applicable state and local requirements at any off-site noise receptors. Under State and City of New London requirements, the AT&T property is classified as a Class B emitter (commercial). The adjacent property at 13 Washington Street is a mixed use property with residential and commercial use and thus is classified as a Class B receptor. The permitted noise level from a Class B emitter to a Class B receptor is 62 dBA. The expected noise level at 13 Washington Street would be 51 dBA with the fuel cell noise attenuation wall.

The fuel cells would use natural gas in a chemical reaction rather than combustion. Natural gas would be obtained from a Yankee Gas Company main along Washington Street. 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 standard and fire safety codes. 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.

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 AT&T New London Facility



Aerial photograph taken from bing.com/maps