

Petition No. 1067  
Hartford Steam Company  
Hartford, Connecticut  
Staff Report  
July 22, 2013

On May 31, 2013, the Connecticut Siting Council (Council) received a petition from the Hartford Steam Company (HSC) for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the installation of an approximately 1.4 MW combined heat and power fuel cell at HSC's generation facility at 19 Jefferson Street that serves Hartford Hospital in Hartford, Connecticut. Council member Robert Hannon and Siting Analyst David Martin visited the site on July 22, 2013 to review the proposal. Andrew Lord of Murtha Cullina and Jim Elsner and Bruce Linder of HSC represented HSC at the field review.

HSC's proposed fuel cell facility would be located directly adjacent to its existing 7.5 MW cogeneration plant that provides steam and electricity to Hartford Hospital, steam to the Institute of Living, and hot water and chilled water to the Learning Corridor, a five building magnet school system. The proposed facility would be a DFC 1500 power plant that uses a carbonate fuel cell technology and is manufactured by FuelCell Energy. The overall dimensions of the fuel cell facility would be approximately 57 feet long by 39 feet wide by 20 feet tall. It would be installed near the northwest corner of HSC's existing generating plant. The installation would occupy several existing parking spaces, replacements for which would be created in another location on HSC's property. HSC would also have to create a new curb cut on Jefferson Street.

The proposed fuel cell would use natural gas supplied by Connecticut Natural Gas. Gas lines are in the adjacent streets. The heat generated by the chemical process that converts natural gas fuel into electricity would be converted into steam for use at the hospital.

HSC was selected by CL&P as a 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, HSC has entered into a standard contract for the purchase and sale of Class I renewable energy credits.

HSC's cogeneration plant is located at the corner of Jefferson Street and Retreat Avenue in a densely commercial area of Hartford. The nearest residences are apartments to the east of HSC. A noise study was performed and concluded that the proposed fuel cell would comply with all applicable requirements at any off-site noise receptors.

The fuel cell design includes a fire detection system with an automatic shutdown mechanism that complies with Fuel Cell Safety Standard, FC-1 (2004).

HSC has discussed the project with land use officials of the City of Hartford, who submitted a letter of support with stipulations that the fuel cell be screened with evergreen trees and wrought iron fencing that matches the existing fence around HSC's facility.

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. If approved, the Council should require the Hartford Steam Company to comply with the Docket 2010NT Fuel Cell Decision and Order.

**Simulated Photograph of Proposed Fuel Cell Installation**



**Aerial View of HSC/Hartford Hospital Facility**



Aerial photograph taken from bing.com/maps