



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: [siting.council@ct.gov](mailto:siting.council@ct.gov)

[www.ct.gov/csc](http://www.ct.gov/csc)

### CERTIFIED MAIL RETURN RECEIPT REQUESTED

September 5, 2017

Benjamin S. Proto, Esq.  
2885 Main Street  
Stratford, CT 06614

RE: **PETITION NO. 1078** - CTS Energy, LLC petition for declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the installation of a 5 megawatt fuel cell facility located at 515 John Fitch Boulevard, South Windsor, Connecticut.

Dear Attorney Proto:

At a public meeting held on August 31, 2017, the Connecticut Siting Council (Council) considered and approved the request for modification of the above referenced facility, dated July 26, 2017, to relocate the facility from 245 Chapel Road, South Windsor, Connecticut, to 515 John Fitch Boulevard, South Windsor, Connecticut.

All work is to be implemented as specified in the request and associated site plans submitted on July 27, 2017 and additional information received on August 18, 2017, and is subject to the following conditions:

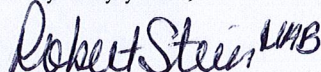
1. A current version of the Emergency Response Plan shall be provided to the Council prior to commercial operation of the fuel cell facility;
2. A Decommissioning Plan shall be provided to the Council prior to commercial operation of the fuel cell facility; and
3. Approval of any minor project changes be delegated to Council staff.

Also, during the August 31, 2017 public meeting, the Council granted an extension of the operational date of the facility from December 31, 2017 to June 30, 2019.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction.

Enclosed for your information is a copy of the staff report on this project.

Very truly yours,

  
Robert Stein  
Chairman

Enclosure: Staff Report dated August 31, 2017

RS/MP/lm

c: The Honorable Carolyn Mirek, Mayor, Town of South Windsor  
Matthew B. Galligan, Town Manager, Town of South Windsor  
Michele R. Lipe, AICP, Director of Planning, Town of South Windsor



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### **Petition No. 1078**

### **CTS Energy, LLC**

**515 John Fitch Boulevard, South Windsor**

### **Staff Report**

**August 31, 2017**

### **Introduction**

On December 12, 2013, the Connecticut Siting Council (Council) approved Petition No. 1078 from CTS Energy, LLC (CTS) for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed installation of a 4.98 megawatt (MW) fuel cell facility at 245 Chapel Road, South Windsor. At that time, CTS sought to install two 2.49 MW molten carbonate fuel cell systems on the property of an upcoming motion picture studio complex (Studios Project).

CTS is wholly and solely owned by an entity known as Connecticut Studios, LLC. Connecticut Studios, LLC (Studios) is wholly and solely owned by entity known as dck North America, LLC. In April, 2016, CTS, Connecticut Studios, LLC, and dck Leasing, LLC entered into an assignment agreement with South Windsor, whereby CTS assigned all of its rights, title and interest in the power purchase agreement (PPA) to the Town of South Windsor.

On September 6, 2016, the Town of South Windsor, together with CTS Energy, LLC, filed a Motion to Reopen Docket No 13-06-27 for the purposes of having the Public Utilities Regulatory Authority (PURA) approve the assignment of the Power Purchase Agreement (PPA) to the Town of South Windsor and to approve a revised PPA. On October 14, 2016, PURA approved the Assignment of the PPA to the Town of South Windsor.

Subsequent to the approval by PURA of the Assignment of the PPA to South Windsor, South Windsor, together with the Department of Energy and Environmental Protection (DEEP) and The Connecticut Light & Company d/b/a Eversource Energy (Eversource), entered into negotiations to reach an agreement on the orders set forth by PURA in the October 14, 2016 Final Decision.

On January 27, 2017, after negotiations broke down, and final proposals were presented to PURA for compliance with the PURA orders set forth in the October 14, 2016 Final Decision, PURA issued a letter ruling setting forth its decision related to compliance with its orders of October 14, 2016. Upon the issuance of the ruling, the Amended and Restated PPA between Eversource and Town of South Windsor was finalized.

South Windsor proposed moving the fuel cell from the approved location at 245 Chapel Road in South Windsor to 515 John Fitch Boulevard in South Windsor. This proposed alternative location was necessitated by a number of factors. The approved fuel cell was part of a multi-purpose redevelopment project for the Chapel Street location which included the fuel cell, a multi sound stage movie and television production facility and ancillary buildings to support the studio operations. The proposed and approved Chapel Road location is privately owned real estate. As a result of not being able to reach a mutual agreement on the purchase price of the Chapel Road property, it was determined that the Chapel Road location would no longer be a viable location for either the fuel cell or the movie studio.



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Affirmative Action / Equal Opportunity Employer

When it was determined that the Chapel Road property was no longer a viable location for the fuel cell and movie studio projects, South Windsor entered into discussions with Mestek and MacKeeber to move the fuel cell project to 515 John Fitch Boulevard property. As a result of these discussions, South Windsor, Mestek and MacKeeber joined together, with South Windsor as the lead party, to seek PURA's approval of the assignment of the PPA to South Windsor.

### **Request for Modification**

On July 27, 2017, CTS submitted a request for modification (Request for Modification) of Petition No. 1078 to the Council to install two 2.8 MW Fuel Cell Energy SureSource 3000 (f/k/a DFC3000) fuel cell units on the property of 515 John Fitch Boulevard. Although two units would have a combined nameplate capacity of 5.6 MW, the equipment would be installed with governors to limit the total power output to 5 MW.

Formal notice of the Request for Modification was provided to the abutting property owners on or about July 27, 2017. To date, no comments have been received.

The property located at 515 John Fitch Boulevard is owned by MacKeeber. The subject property was previously leased and utilized by Mestek as a manufacturing facility. Mestek shut down manufacturing operations at this location in October, 2009, and the subject property has been unused since that time. The proposed modification of the location of the fuel cell facility at 515 John Fitch Boulevard is approximately 1,950 feet from the Council-approved location at 245 Chapel Road.

The project would remain a "customer-side distributed resources" facility, as defined in Connecticut General Statutes (CGS) § 16-1(a)(34). CGS § 16a-35k establishes the State's energy policy, including the goal to "develop and utilize renewable energy resources...to the maximum practicable extent." The 2013 Connecticut Comprehensive Energy Strategy emphasizes low- or no-emission sources of electric generation and development of more distributed generation. The proposed facility is distributed generation. Specifically, the proposed facility will contribute to fulfilling the State's Renewable Portfolio Standard as a low emission Class I renewable energy source.

The proposed fuel cell uses non-combustion molten carbonate technology that consumes natural gas as fuel and uses water for fuel processing to generate electrical power. The use of waste heat is not proposed at this time. However, it may be considered in the future upon development of the motion picture and television studio.

Each of the two fuel cell units would consist of a water treatment skid, a main process skid, desulfurization equipment, and an electrical "balance of plant" portion. The maximum height of a SureSource 3000 is approximately 25-feet 6-inches. The fuel cell facility would be surrounded by an eight-foot tall chain link fence with privacy slats. Electric, natural gas and water utilities would be run underground in roughly an easterly direction from the proposed site to John Fitch Boulevard. The proposed modified natural gas connection for the relocated facility avoids crossing beneath the railroad and would result in less environmental impacts than the original natural gas connection.

The fuel cell facility would comply with all applicable Department of Energy and Environmental Protection (DEEP) water quality standards. Average water consumption would be approximately 9 gallons per minute (gpm) per SureSource 3000 fuel cell unit or a total of about 26,000 gallons per day (gpd) based on the two proposed units. Average water discharge would be approximately 4.5 gpm per SureSource 3000 fuel cell unit or a total of about 13,000 gpd.

Air emissions produced during fuel cell operation would not exceed DEEP applicable limits, as shown in the table below – thus, no air permit is required.

Comparison of the Fuel Cell Facility with RCSA Criteria *		
Compound	Fuel Cell Facility (lbs/MWh)	Emissions standards (lbs/MWh)
NO <sub>x</sub>	0.01	0.01
PM <sub>10</sub>	0.00002	0.00002
CO <sub>2</sub>	980 Without waste heat recovery	980

\* Regulations of Connecticut State Agencies Section 22a-174-42(b)(3)(C); 22a-174-42(d)(2)(B)(ii) & Table 42-2

Visual impact from the proposed project would not be expected to be significant because of the industrial nature of the site, as well as existing trees to the east (across John Fitch Boulevard), north and west. No trees with a diameter greater than six inches would be expected to be removed as a result of the project. The privacy slats would also reduce the visual impact of the fuel cell equipment and could also serve as an anti-climbing measure.

The nearest historic resource on the National Register of Historic Places is the Windsor Farms Historic District, which is over 500 feet to the west of the proposed modified site. A response from the State Historic Preservation Office (SHPO) has not yet been received; however, in December 2014, SHPO found that no historic properties would be affected by this project at its original location, which is approximately 850 feet west of the Windsor Farms Historic District.

There are no known DEEP-designated Aquifer Protection Areas in South Windsor.

The proposed project would not be located within a 100-year or 500-year flood zone.

The nearest wetland to the site is a narrow floodplain riparian wetland system associated with the Podunk River, which extends onto northern portions of the subject parcel. The wetland is located roughly 50 feet north of the proposed modified fuel cell site at its closest point.

CTS included a Podunk River Protection Plan (PRPP) that is also protective of associated wetland resources. The PRPP would protect rare species and special habitats during construction, with particular attention to erosion controls to avoid sediment discharge to and siltation of the Podunk River. The PRPP includes the following: isolation measures and erosion and sedimentation controls; contractor education, petroleum materials storage and spill prevention; herbicide and pesticide restrictions; and reporting requirements.

There is a collapsed stormwater outfall on the subject property. However, CTS notes that repair of such outfall would be an appropriate activity during the redevelopment of the large underlying parcel. CTS would install a 2-foot gravel perimeter around the fuel cell yard base to manage site stormwater. The existing drainage patterns would not be altered by the project. Post-development peak discharge rates would not exceed existing. With the stormwater infiltration design, no mature vegetation would be impacted by the proposed project, and no direct or indirect impacts to the Podunk River or bordering wetlands would be expected to occur. Notwithstanding, the PRPP would be implemented as a precaution.

The project is located within the shaded area of the DEEP Natural Diversity Database. A request was submitted to DEEP but a response has not yet been received. Notwithstanding, a review of federally-listed species was performed. Two federally-listed species are known to occur in the vicinity of the subject parcel: the northern long-eared bat (NLEB), a federally-listed Threatened Species (and State-listed Endangered Species) and the dwarf wedgemussel, a federally-listed Endangered Species.

The proposed modified project would not be located within 150 feet of a known NLEB maternity roost tree or within 0.25 miles of a known NLEB hibernaculum. Thus, the project would not be expected to adversely impact the NLEB.

The Podunk River is known to support habitat for the dwarf wedgemussel. However, the PRPP would be protective of the dwarf wedgemussel, and the stormwater infiltration design would prevent work from occurring in close proximity to the river and potential siltation of dwarf wedgemussel habitat.

Noise related to construction is exempt per DEEP Noise Control Standards. With the proposed modified project as an industrial emitter and conservatively assuming residential receptors, the daytime DEEP Noise Control Limit would be 61 dBA and the nighttime limit would be 51 dBA. Post-construction noise levels at the property boundaries are not expected to exceed 45 dBA. Thus, the proposed project would comply with DEEP Noise Control Standards.

If approved, construction is expected to commence by December 2017 with the plant completed and in-service by September 2018.

The proposed installation would not have any substantial adverse environmental effect. It would reduce the emission of air pollutants that contribute to smog and acid rain, and to a lesser extent, global climate change.

Staff recommends the following conditions:

1. A current version of the Emergency Response Plan shall be provided to the Council prior to commercial operation of the fuel cell facility;
2. A Decommissioning Plan shall be provided to the Council prior to commercial operation of the fuel cell facility; and
3. Approval of any minor project changes be delegated to Council staff.

Staff further recommends that the Request for Extension submitted with the Request for Modification for an extension of the operational date of the facility from December 31, 2017 to June 30, 2019 be granted.

**Proposed Relocation of Fuel Cell Units from Chapel Road Site to John Fitch Boulevard Site**



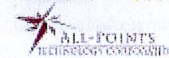
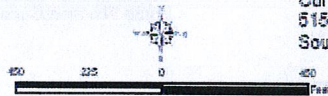
- Legend**
- Proposed Modified Site Location
  - Originally Approved Site Location
  - Approximate Assessor Parcel Boundary (CTDEEP)

**Originally Approved Site Location and Proposed Modified Site Location**

Proposed Fuel Cell  
 Currently Proposed at  
 515 John Fitch Boulevard  
 South Windsor, Connecticut



**Map Notes:**  
 Data Map Source: © 2010 2011 Aerial Photograph  
 Map Scale: 1 inch = 450 feet  
 Map Date: July 2017



**Proposed Modified Fuel Cell Location**



- Legend**
- Subject Property
  - Proposed Fuel Cell Energy Layout
  - Proposed Underground Electrical Line
  - Proposed Underground Gas Line
  - Proposed Silt Fence
  - Approximate Assessor Parcel Boundary (GTD/EEP)

**Map Notes:**  
 Data Map Source: ©2015 Aerial Photograph  
 Map Scale: 1 inch = 250 feet  
 Map Date: June 2017



**Figure 4  
 Proposed Conditions Map**

Proposed Fuel Cell  
 515 John Fitch Boulevard  
 South Windsor, Connecticut



**ALL-POINTS  
 ELECTRICITY COOPERATIVE**

**Photo-simulation as viewed from John Fitch Boulevard**

