

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

ReNew Developers, LLC petition for a declaratory ruling, : Petition 1533
pursuant to Connecticut General Statutes §4-176 and §16- :
50k, for the proposed construction, maintenance and :
operation of a customer-side 4.99-megawatt fuel cell facility :
and associated equipment to be located at 42 Old Amston :
Road, Colchester, Connecticut. : June 12, 2023

PETITION ADDENDUM - 18 MW FACILITY

I. Introduction

ReNew Developers, LLC (“ReNew” or the “Company”) submits this addendum in support of their motion to reopen and modify Petition 1533 based on changed conditions, filed pursuant to Conn. Gen. Stat. § 4-181a(b). The proposed changes consist of the construction of an 18-megawatt (“MW”) fuel cell facility (the “Second Facility”), in addition to the 4.99 MW fuel cell facility previously approved by the Connecticut Siting Council (the “Council”). The proposed 18 MW and 4.99 MW fuel cell facilities (together, the “Modified Project”) will be located on adjacent parcels at 42 Old Amston Road in Colchester, Connecticut.

As discussed more fully in this addendum, the construction, operation and maintenance of the Modified Project satisfies the statutory elements of Conn. Gen. Stat. § 16-50k¹ and will not have a substantial adverse environmental effect. Accordingly, pursuant to Conn. Gen. Stat. § 16-50k, the Modified Project will not require a Certificate.

¹ Conn. Gen. Stat. § 16-50k(a) provides, in pertinent part:

“Notwithstanding the provisions of this chapter or title 16a, the council shall, in the exercise of its jurisdictions over the siting of generating facilities, approve by declaratory ruling . . . (B) the construction or location of any of any fuel cell, unless the council finds a substantial adverse environmental effect, or of any customer-

II. Background

A. Petitioner

ReNew is a limited liability company that has a principal place of business at 103 South Main St-#734, Colchester, CT 06415. The Company is engaged in sustainable real estate development, including the construction of renewable energy facilities in Connecticut. ReNew is significantly invested in the energy sector and currently has a diverse portfolio of renewable energy projects in their pipeline. The Company specializes in Class I renewable energy sources such as solar and fuel cells and they partner with world-class manufacturers that are able to customize their products to meet customer needs. In 2022, ReNew obtained the Council's approval for the construction of a fuel cell facility in Bristol. See Petition No. 1540.

As it has done in the past, ReNew will work with industry experts in the development of the Modified Project. Bloom Energy Corporation ("Bloom Energy") will provide the sixty (60) Bloom Energy Servers for the Second Facility and will be responsible for the installation, maintenance and operation of the units. Bloom Energy has installed over 700 of its non-combustion solid oxide fuel cell systems across the U.S., including over 60 systems operating in Connecticut, as well as in other countries such as Japan, South Korea, and India. These installations also include more than 100 microgrids and over 65 MW deployed in data centers across the country.

side distributed resources project or facility or grid-side distributed resources project or facility with a capacity of not more than sixty-five megawatts, as long as: (i) Such project meets air and water quality standards of the Department of Energy and Environmental Protection, (ii) the council does not find a substantial adverse environmental effect...".

B. Second Facility

As previously stated, in addition to the 4.99 MW fuel cell facility, ReNew proposes to construct an 18 MW natural gas behind-the-meter fuel cell facility that will be configured as a microgrid and will be used to power an on-site data center. The Bloom Energy Servers will also have carbon capture functionalities that should the owner of the data center choose to configure the fuel cells to operate in such a manner; the units would be able to further reduce carbon dioxide emissions.²

Similar to the 4.99 MW fuel cell facility, all of the electricity generated by the Second Facility will be used to power an on-site data center.³ For this reason, the Second Facility will not operate as an emergency generating device or participate in a demand response program. Further, for the most part, the data center's electricity will be supplied by the proposed fuel cells with approximately one percent (1%) coming from The Connecticut Light and Power Company dba Eversource ("Eversource") grid during fuel cell maintenance downtime or in the unlikely event of fuel cell failure. Upon obtaining approval from the Council, ReNew will file an Interconnection Application with Eversource for the Second Facility. Because the Company does not intend to export power to the grid, ReNew does not expect the Interconnection Application for the Second Facility to be reviewed by ISO New England.

The anticipated cost of the 18 MW fuel cell facility is approximately \$80 million, which will be paid in its entirety with private funds. Lastly, the Second Facility will also

² The Bloom Energy Servers will reduce carbon dioxide emissions by displacing conventional fuel combustion sources that are used to generate electricity. Additionally, the units' carbon capture technology is capable of reducing carbon dioxide emissions by 95%.

³ The data center is still in its conceptual stage, but the Company expects that it will be a four-story building of approximately 146,000 square feet that will be located adjacent to the 18 MW fuel cell facility. The data center will be constructed concurrently with the fuel cell facility.

not be undertaken by any state entities and it was not selected in a state or public utility-sponsored procurement.

III. Description of the Second Facility

A. Overview

1. Site

The Second Facility will occupy one of the two parcels at 42 Old Amston Road in Colchester, Connecticut, specifically, the 16.16-acre parcel (the “Second Parcel”).⁴ The Second Facility will be located on the southeast corner of the Second Parcel and it will occupy an area of approximately 3.03 acres (the “Site”). The 4.99 MW fuel cell facility and associated data center will be located to the north of the Second Facility. The Site will comprise of the Second Facility, an electrical service interconnection line, stormwater management features and vehicular and utility access.

The Second Parcel is a remediated brownfield, which formerly housed an automotive salvage yard. It is located in the Town’s Suburban Zoning District and it is predominantly surrounded by vacant tracts of land and some residential properties to the east and west. See Figures 1 and 2. Specifically, to the east of the Second Parcel, there is the Air Line State Park Trail, Eversource’s Judd Brook electric distribution substation, an existing Bloom Energy fuel cell facility (beyond the trail) and residential properties beyond. To the north of Old Amston Road, there is the Colchester Transfer Station and the Colchester Dog Park. To the west of the Second Parcel, there is the Colchester Fish

⁴ The subdivision of 42 Old Amston Road was approved by the Colchester Zoning Department in 2022 and a mylar was filed with the Colchester Land Records on March 17, 2022. The 4.99 MW facility will be located on the adjacent 1.15-acre parcel.

and Game Club. The existing topography at the Site ranges from approximately 404 feet to 429 feet above mean sea level and it is generally level.



Figure 1: Aerial view of the Site



Figure 2: Site view along Old Amston Road

2. Second Facility Design Specifications

The Second Facility will consist of sixty (60) solid oxide fuel cell Bloom Energy Servers, forty (40) 325-kW units and twenty (20) 250-kW units, capable in combination of producing 18 MW of power. The Bloom Energy Servers will each contain dedicated water distribution modules and telemetry cabinets. Additionally, the 18 MW fuel cell facility will be equipped with power distribution modules and step-up transformers. See Bloom Energy Equipment Specification Sheets attached hereto as Exhibit A, Appendix B. The 18 MW fuel cell facility will be installed within an approximately 125'9" by 347'9" gravel-surfaced compound.

The Second Facility will be interconnected to the distribution line on Old Amston Road. As previously discussed, during fuel cell maintenance downtime or in the unlikely event of fuel cell malfunction/failure, the data center will be powered with electricity from the grid. The interconnection line for the Second Facility will extend out to Old Amston Road from the northern end of the gravel-surfaced equipment area and it will require the installation of one new overhead utility pole for interconnection to the existing electrical distribution system.

The Second Facility will also use natural gas and it will require 18,000 gallons of water on startup. The fuel cell equipment will not burn natural gas, but merely use it in a chemical reaction to generate electricity. The natural gas will be digested almost immediately upon entering the fuel cell unit and will no longer be combustible. Additionally, other than the initial water injection, the Second Facility will not use water once operative, and thus, there will not be any water discharges from the Second Facility under normal operating conditions.

Underground service connections will supply the Second Facility with the required water and natural gas. A dedicated gas main will be constructed for the 18 MW facility at Old Amston Road by Yankee Gas Services Company and a service connection to the water line that will also be used by the 4.99 MW facility will be constructed. The Modified Project is not expected to negatively impact the water supply to all other facilities interconnected to the same water line. The existing water main is located approximately 90 feet from the Second Facility, while the gas main will be located approximately 80 feet from the Second Facility. The Second Facility will be accessed from Old Amston Road via an existing gravel drive located on the eastern Site boundary. Construction access will be provided from Old Amston Road directly north of the proposed Site.

B. Modified Project Benefits

As a Class I renewable energy facility, the Modified Project will contribute to Connecticut's renewable energy portfolio standards and will advance the state's renewable energy goals by providing constant and reliable generation of electricity. The Modified Project will deliver on-site generation that increases power quality and resiliency and will reduce energy costs, as well as deliver other energy and environmental benefits.

The Bloom Energy Servers are designed to generate power on a continuous basis, and thus, they can be configured to reduce the need for traditional backup power equipment. Further, because the Bloom Energy Servers are in continuous operation, there is no risk associated with cold starts and load transfers. Additionally, the Second Facility will be configured as a microgrid, which will ensure that the data center connected to the facility receives uninterruptable power even when the electric grid becomes unavailable for an extended amount of time due to a blackout and/or weather disruptions.

The Bloom Energy Servers will also deliver clean power, consistent with the goals of Connecticut's Global Warming Solutions Act to reduce greenhouse gas emission levels. In addition, because the proposed fuel cell units for the Second Facility have carbon capture capabilities, if configured to operate in such mode, the Bloom Energy Servers can further reduce greenhouse gas emissions. Lastly, the Modified Project will foster the redevelopment and reuse of an underutilized property - the former junkyard at the 42 Old Amston Avenue property.

C. Municipal/Local Input or Community Outreach

The Company discussed the construction of the Second Facility with the Town of Colchester's First Selectman, Andreas Bisbikos. As stated in the letter dated January 31, 2023, attached hereto as Exhibit B, the Town of Colchester strongly supports the construction of the 18 MW fuel cell facility that will power the proposed data center and will grant to ReNew all local permits needed for the construction of the project.

D. Public Notice

ReNew has provided notice of their proposal to construct another fuel cell facility via certificate of mailing to all persons and appropriate municipal officials and governmental agencies to whom notice is required to be given for a petition filed pursuant to RCSA § 16-50j-40(a),⁵ including the Town of Hebron, which has a boundary not more

⁵ RCSA § 16-50j-40(a) in part provides:

"Prior to submitting a petition for a declaratory ruling to the Council, the petitioner shall, where applicable, provide notice to each person other than the petitioner appearing of record as an owner of property which abuts the proposed primary or alternative sites of the proposed facility, each person appearing of record as an owner of the property or properties on which the primary or alternative proposed facility is to be located, and the appropriate municipal officials and government agencies... The term "appropriate municipal officials

than 2,500 feet from the Second Parcel. Sample copies of the notice letters and service lists are attached. See Exhibit C.

IV. No Substantial Adverse Environmental Effect

As discussed more fully in the Environmental Assessment, prepared by All-Points Technology Corporation, P.C. (“APT”), attached hereto as Exhibit A, construction of the Second Facility will have no substantial adverse environmental effect. Because the Council determined in Petition 1533 that the construction and operation of the 4.99 MW fuel cell facility will not result in any adverse environmental effects, this assessment primarily focuses on the environmental impacts, if any, resulting from the construction of the Second Facility. Nonetheless, to the extent any impacts are cumulative, such as those associated with noise, this analysis has evaluated the cumulative impacts of the Modified Project. Consequently, any statements made in this addendum relating to the environmental impacts of the Modified Project are based on the assessments of the individual and cumulative impacts, where applicable, of the construction and operation of the 4.99 MW and the 18 MW fuel cell facilities.

A. Environmental Effects

1. Air Quality Impact

The Modified Project will not cause any adverse air quality impacts. The Second Facility will meet all applicable state and federal air quality standards. The Modified Project will be located in a serious non-attainment area for ozone. The total potential

and government agencies" means, in the case of a facility required to be approved by declaratory ruling, the same officials and agencies to be noticed in the application for a certificate under Section 16-50I of the Connecticut General Statutes...”.

emissions for the Second Facility, assuming continuous year-round full power operation without any add-on controls, are calculated to be:

Criteria Pollutant/ Greenhouse Gas	Total Potential Emissions (lb/MWh)
Nitrogen Oxides (NO _x)	<0.01
Carbon Monoxide (CO)	<0.05
Particulate Matter (PM)	Negligible
Sulfur Oxides (SO _x)	Negligible
Volatile Organic Compounds	<0.02
Carbon Dioxide (CO ₂) ⁶	679-833

Table 1: Project Total Emissions

Table 1 shows that the total potential emissions for the Second Facility will be less than fifteen (15) tons per year for any individual criteria air pollutant. Consequently, construction and operation of the 18 MW fuel cell facility will not require a New Source Review permit. Additionally, the facility-wide emissions will be below levels that will render the Modified Project a “major stationary source” as defined in RCSA § 22a-174-1(65) or a major source of hazardous air pollutants. Thus, a Title V permit will also not be required for the construction and operation of the Modified Project. Lastly, given that the Modified Project will be considered a minor stationary source, it will not be subject to Non-Attainment New Source Review or require emission offsets for its construction.

Emissions resulting from construction-related activities including those associated with mobile sources will be minimal and temporary. Such emissions will be mitigated using available measures, including limiting idling times of mobile equipment; proper

⁶ Carbon dioxide emissions are measured at Bloom Energy’s stated lifetime efficiency level of 53-60%.

maintenance of all vehicles and equipment; and watering/spraying to minimize dust and particulate fugitive emissions. In addition, all on-site and off-road equipment will meet the latest state and federal emission standards for diesel engines.

The Second Facility will ultimately displace less efficient fossil fueled marginal generation on the ISO New England system. Based upon the most recent US Environmental Protection Agency (“EPA”) “eGrid” data (EPA EGRID 2021 (January 2023) US, the Second Facility is expected to reduce carbon dioxide emissions by approximately 13.6% while emitting virtually no criteria air pollutants.

2. Water Quality Impact Including Aquifer Protection Areas

The Modified Project will comply with the applicable water quality standards. The construction and operation of the Second Facility will not result in an adverse environmental effect on ground water or surface water quality. After the Second Facility becomes operational, there will be no potable water uses or sanitary discharges associated with the facility, under normal operating conditions.⁷ The Second Facility will also not be located within a mapped (preliminary or final) CT DEEP Aquifer Protection Area, as such, the Modified Project will not have an adverse environmental effect on ground water quality.⁸ In addition, because the Second Facility will not be located within

⁷ As previously mentioned, the Second Facility will only require a 18,000-gallon water injection on start-up.

⁸ Although, the Site is located within a Town-designated Aquifer Protection Zone, the modified Project does not constitute a “regulated activity” as defined in Section 2 of the Town of Colchester Zoning and Planning Commission Aquifer Protection Area Regulations. For this reason, the modified Project is not prohibited.

a mapped Public Drinking Supply Watershed and the nearest mapped waterbody, Judd Brook, is located approximately 195 feet west of the Site, the Modified Project is not expected to have an adverse effect on surface water quality.

Similar to the 4.99 MW facility, the Second Facility has been designed to meet the 2004 Connecticut Stormwater Quality Manual and the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control. Additionally, as the Site is more than one acre, a Connecticut Department of Energy and Environmental Protection (“CT DEEP”) General Permit for Discharge of Stormwater and Dewatering Wastewaters for Construction Activities will be needed for construction. Compliance with the aforementioned standards, including the General Permit, will address stormwater runoff peak attenuation, water quality volume treatment and erosion and sediment (“E&S”) control during construction of the Second Facility.

An increase in stormwater runoff is expected after installation of the Second Facility’s gravel pad, concrete equipment pads and gravel surfacing of the access drive. To manage this increase, a grass-lined stormwater management basin with a low flow outlet pipe and rip-rap lined overflow weir has been proposed to collect the surface runoff from within the Second Facility and thereby, reduce post-development peak discharges to the waters of the State for the 2-, 25-, 50- and 100- year storm events compared to the pre-development peak discharges. This basin will also provide for adequate treatment of water quality associated with effective impervious cover. Lastly, to safeguard water resources from potential impacts during construction, the Company will implement protective measures by means of a Stormwater Pollution Control Plan that will include monitoring of established E&S controls in accordance with CT DEEP guidelines. Some

of these controls include perimeter erosion controls to capture sediment potentially mobilized during construction work and the utilization of quick growing annual seed during construction and permanent New England semi-shade grass and forbs mix upon completion of construction. In combination, all of these protective measures will help prevent adverse impacts to water quality resulting from stormwater runoff. A Stormwater Management Report attached hereto as Exhibit A, Appendix C that will be submitted to CT DEEP contains the technical details, mapping and HydroCAD modeling results of this analysis.

3. Hazardous Materials (Natural Gas Desulfurization Process, Materials Storage/Shipping)

The Second Facility will not produce any by-products or hazardous materials. Although sulfur odorant compounds will be removed as a part of the routine operation of the fuel cell units, these compounds will not be released on-site and the containers storing them will be shipped off-site to be recycled and/or repurposed.

The first step in the production of electricity in a Bloom Energy Server consists of the removal of sulfur odorant compounds that the gas utility company injects into the natural gas. This process occurs in a desulfurization unit (the “Desulf Unit”), a specialized canister within the Bloom Energy Server comprising of filtering media and a composite copper catalyst that are used to remove the sulfur odorant compounds from the natural gas feedstock. The desulfurization process takes place entirely within the Desulf Unit, which is constantly monitored by Bloom’s Remote Monitoring and Control Center (the “RMCC”) to detect any leaks and institute the appropriate shut down procedures. To this date, there has never been a leak from a Bloom Desulf Unit.

Approximately every fifteen to thirty-six months, the Desulf Units are removed and replaced with units containing fresh composite copper catalyst. When the Desulf Units are removed from the Bloom Energy Servers for periodic replacement, the units automatically seal shut to ensure that there is no release of natural gas. The spent canisters, including the used media, are transported to the state of Indiana by a licensed waste transporter, where the Desulf Units are opened for the first time (since they were removed from the Bloom Energy Servers), cleaned, refilled and sent back to the field for reuse. It should be noted that according to the Indiana Department of Environmental Management, Bloom's spent Desulf Units that are sent to the state are excluded from hazardous waste requirements because the contents of the spent media are used to make copper products.

4. Wildlife and Habitat

The Company expects minimal to no impact to wildlife and habitat resulting from the Modified Project. Two distinct habitat types, Developed and Riparian, were identified within the Site.⁹ Nonetheless, the Second Facility will be located entirely within existing Developed habitat area and will redevelop limited portions within such area. The Developed habitat is characterized by disturbed, level and graded areas that include fill material and altered soil profiles. This area has been historically disturbed as a result of some site work, including the recent construction of a 10 MW fuel cell facility along Old Amston Road. For this reason and because of the limited area that will be redeveloped, construction of the Second Facility is not expected to negatively impact the habitat area.

⁹ These habitats were initially assessed using remote sensing and publicly available datasets followed by a field inspection conducted in October 2022.

The Riparian habitat consists of open water, emergent, and vegetative communities associated with and bordering Judd Brook. This habitat area also contains historic disturbances including anthropogenic ones, such as filled and/or altered soils along the jurisdictional boundary to the Site. However, construction and operation of the Second Facility will not directly impact the Riparian habitat area and any potential secondary impacts will be mitigated by the proposed S&E controls and a Resource Protection Plan incorporated in the project plans. See Exhibit A, Appendix A for additional information.

Project-related impacts to wildlife are also not anticipated because the Modified Project will be constructed within the Developed habitat area, which provides limited value to wildlife due to the current disturbed condition and the lack of vegetation. Species that utilize this area are likely accustomed to human disturbances and habitat fragmentation. And although some generalist wildlife species common to the region such as migratory bird species and some mammals might traverse the area, they are more prone to use surrounding higher quality habitat. Additionally, as previously discussed, the Second Facility will not extend over the Riparian habitat, thus, aquatic habits will remain relatively uninterrupted. Any possible disruptions will be temporary and will not disrupt breeding or foraging activities. Further, operation of the Second Facility will not result in an adverse effect to wildlife because the facility will not generate any significant noise or traffic.

State consultation, through CT DEEP's Natural Diversity Data Base ("NDDB"), and Federal consultation, in accordance with Section 7 of the Endangered Species Act through the U.S. Fish and Wildlife Service's ("USFWS") Information, Planning and Conservation System ("IPaC") for state and/or federally-listed endangered, threatened

and special concern species was completed, as applicable. Based on a review of the most recent CT DEEP NDDDB mapping (December 2022) for the Town of Colchester, APT concluded that the Second Facility will be located in an NDDDB polygon that extends onto the north end of the Second Parcel, including a portion of the access road and interconnect route. Consequently, APT submitted a request for NDDDB review to CT DEEP on March 26, 2023. This request included a protection plan for wood turtles and spotted turtles (the “Rare Turtles Protection Plan”), two state-listed Special Concern species known to be associated with this NDDDB polygon and previously identified during review of the 4.99 MW adjacent fuel cell facility. The Rare Turtles Protection Plan, attached hereto as part of Exhibit A, Appendix D, proposed installing an isolation barrier to prevent conflicts between construction activities and turtles, routine monitoring and turtle sweeps of isolation barriers, contractor awareness training, and environmental sensitivity signage indicating sensitive rare species during construction of the Second Facility to prevent any adverse impacts to the identified turtle species. In a letter dated April 11, 2023, CT DEEP indicated that it had identified the same turtle species, it highlighted the recommended protective measures to implement during construction of the facility to ensure the continued conservation of these turtle species and avoid incidental mortality, and it concurred with the proposed Rare Turtles Protection Plan. See Exhibit A, Appendix D.

Based on the results of the IPaC review, the federally-listed threatened species, the northern long-eared bat (“NLEB”), was not identified to occur within 150 feet of the Site. Although the NLEB’s range encompasses the entire State of Connecticut, the nearest NLEB habitat resource to the Site is located in North Branford, approximately

27.2 miles to the southwest. Additionally, APT reviewed the newly issued NLEB Determination Key¹⁰ and concluded that construction of the Second Facility is not likely to result in an adverse effect or incidental take of NLEB and does not require a permit from USFWS. In a letter dated, May 10, 2023, the USFWS confirmed this determination. See Exhibit A, Appendix D. Consequently, no further consultation with USFWS is required for the Modified Project at this time.

5. Wetlands and Watercourses

The Modified Project is not expected to adversely affect wetlands or watercourses. On October 13, 2022, APT completed a field inspection of the Site, which also included the delineation of any nearby wetlands. A wetland was identified on the western portion of the Second Parcel, consisting of a large wetland and floodplain system with a diversity of hydrological conditions, vegetation communities, and morphologies. The wetland generally drains west toward Judd Brook and evidence of historic and anthropogenic influence was observed in the form of filled/altered soil profiles along the jurisdictional wetland boundary and in proximity to the Second Facility, as well as some disturbances along the northern wetland edge associated with previous automotive salvage yard activities. The nearest permanent point of the Second Facility to this wetland will be a grass lined stormwater management basin at the southwest corner of the Site, located approximately 22 feet east of the wetland. See Figure 3.

¹⁰ As of March 31, 2023, the NLEB has been reclassified as an “endangered species” under the Endangered Species Act. Consequently, the USFWS prepared a new Determination Key to replace the previous key that was based on the 4(d) rule biological opinion and that could only be utilized for consultation relating to threatened species.

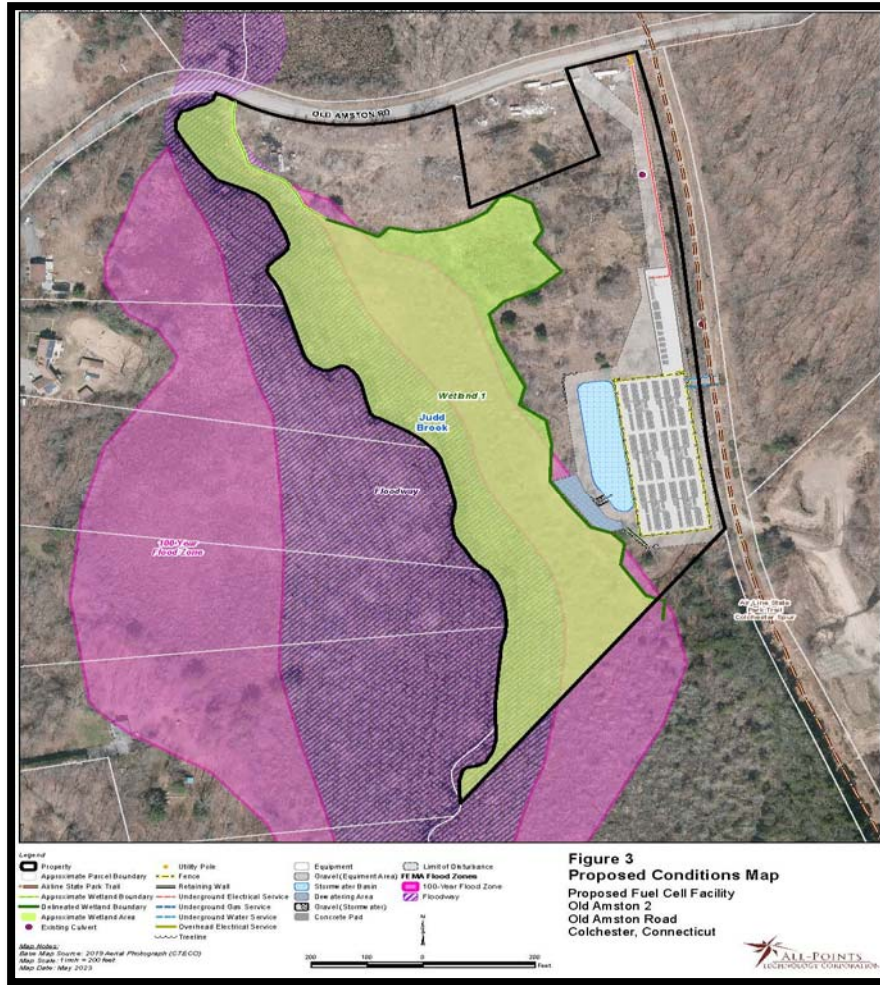


Figure 3: Proposed Site Conditions Map

A modular block retaining wall is proposed to be constructed at the nearest point of the Second Facility to the wetland (the southwest corner), to maximize the distance of permanent components to the wetland boundary. The construction of this retaining wall will cause temporary impacts in adjacent upland areas within approximately 1.5 feet of the wetland. However, construction of the fuel cell facility itself is not expected to adversely affect the Site's wetland resources due to the existing disturbed nature of the Site and the minimal clearing of mature vegetation and grading required. Additionally, ReNew will implement a Resources Protection Plan as a precautionary measure to

mitigate any potential impacts. See Project Plans, Sheet No. GN-2 in Exhibit A, Appendix A.

6. Flood Zones

The Second Facility will not be located within a 100-year or 500-year flood zone. See Exhibit D. A review of the United States Federal Emergency Management Agency's ("FEMA") National Flood Insurance Program ("NFIP") flood mapping data for Colchester showed that the Site is designated as Zone X, an area of minimal flooding, generally above the 500-year flood level. Given that no portion of the Modified Project will be located in or impact 100- or 500-year flood zones, the Modified Project will not impact floodplain or downstream areas. Thus, no special design considerations or precautions relative to flooding will be required for construction of the Modified Project.

7. Prime Farmland and Core Forest Resources

The Modified Project will not impact Prime Farmland or Core Forest accordance with the Connecticut Environmental Conditions Online Resource Guide, no Prime Farmland Soils are found within the Second Parcel. In addition, a review of publicly available GIS-based datasets designed to assess impacts to core forest habitat, as well as an analysis of aerial photography and field observations demonstrated that no core forest exists on the Second Parcel or within the immediate surrounding area to the Second Facility. Further, because the majority of the Site is cleared, minimal clearing of edge forest at the eastern boundary of the Site (in the area abutting the Air Line State Park Trail) is expected. See Figures 1 and 2.

8. Noise Impact

The Modified Project will not produce a noticeable impact on the acoustic environment at existing nearby residences and will not have an unreasonable adverse effect to surrounding properties. In addition, the sound produced by the Modified Project will comply with the Connecticut Regulations for the Control of Noise, RCSA §§ 22a-69-1 to 22a-69-7.4. The Town of Colchester does not have sound ordinances applicable to the Modified Project.

The Company commissioned Cavanaugh Tocci Associates (“Cavanaugh Tocci”) to conduct an environmental sound impact analysis of the Modified Project. More precisely, to evaluate environmental sound impacts associated with the Second Facility and the adjacent 4.99 MW fuel cell facility in light of the existing environmental sound levels. See Exhibit A, Appendix G. To this end, Cavanaugh Tocci conducted an environmental sound survey to quantify and characterize the existing acoustic environment in the vicinity of the fuel cell facilities. Sound was monitored continuously for a weeklong period to document the typical background sound levels in the Modified Project area and corrected as needed to avoid sounds produced by insects and spring peepers. The sound levels associated with the fuel cell facilities equipment were then calculated using CadnaA environmental sound modeling software (Version 2022 DataKustic GmbH). The CadnaA sound modeling software uses the most universally accepted approach for environmental sound modeling of industrial and transit sound sources. Further, the sound impacts for the fuel cell facilities were based on source emission data derived from measurements performed near similar fuel cell equipment located in Cambridge, Massachusetts and Colchester, Connecticut. The results of the

survey along with the data on the sound impacts associated with the fuel cell facilities were then used to analyze the facilities' noise impact on the existing acoustic environment.

The acoustic levels associated with the fuel cell facilities were estimated at residential, commercial and industrial receptors. The nearest residential receptors, defined under the regulations as Class A, are approximately 350 feet west of the Second Facility and where the most stringent limit of 51 Dba applies. Other nearby properties include facilities owned by Eversource in the northwest corner of the Second Parcel and vacant land owned by the Town of Colchester on the north and south sides of the Second Parcel. Based on its review of the modeling results, Cavanaugh Tocci concluded that the sound produced by the proposed fuel cell power plants will comply with the most stringent requirements of the state noise regulations. See Figure 4. Consequently, the Second Facility and the adjacent 4.99 MW fuel cell facility will have no material noise impact on the surrounding area.

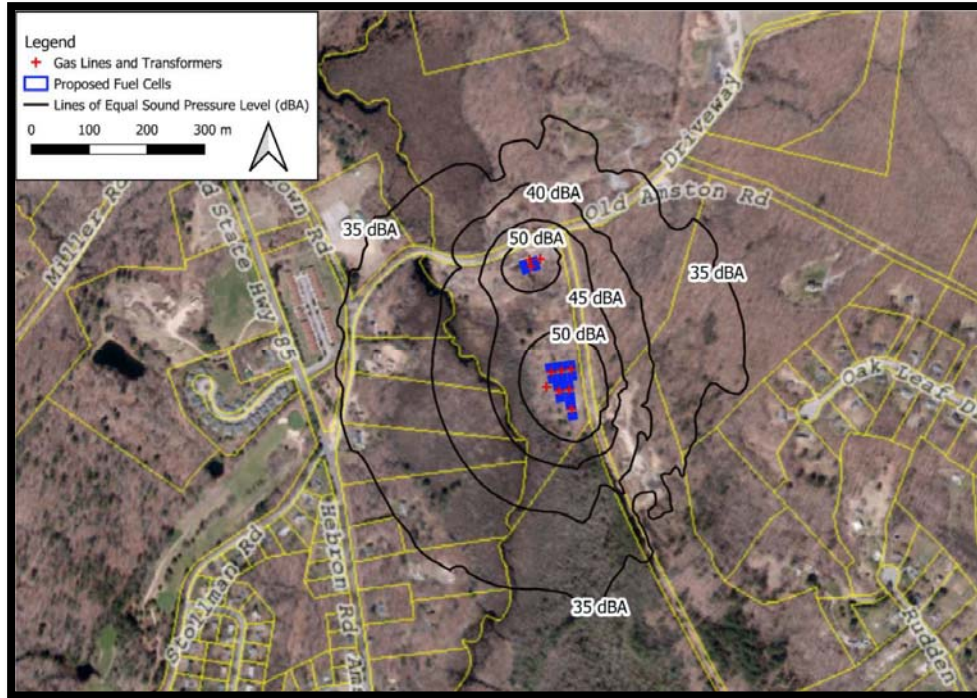


Figure 4: Estimates of the Modified Project Sound

9. Visual Impact and Scenic Values

The Modified Project will have minimal to no impact on the visual character of the views experienced from the vicinity of the Second Parcel, including the existing Air Line State Park Trail. Although open views of the Modified Project will be experienced from nearby vantage points along Old Amston Road and the trail, it should be noted that for the most part, the Second Parcel is surrounded by vacant tracts of land and the nearest residential property lines are 200-225 feet west of the Second Facility. See Figures 5 and 6 for a rendering of the proposed 18 MW fuel cell facility and expected views, as well as a representation of resources within a one-mile radius of the Second Facility. Further, no state or local designated scenic roads, scenic areas or CT Blue Blaze Hiking Trails are located near the Site. Consequently, scenic and recreational areas will be minimally impacted by construction of the Modified Project.



Figure 5: Proposed Site (Street view from Old Amston Road)

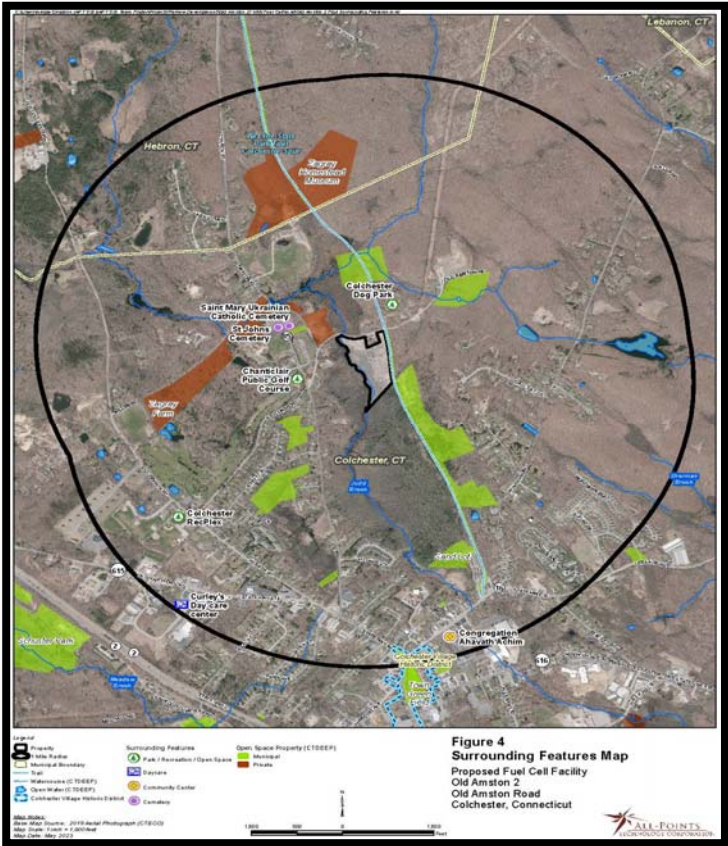


Figure 6: Resources located within a one-mile radius of the Site

10. Public Health and Safety

The Second Facility will be designed, constructed and operated in such a manner as to ensure compliance with all applicable local, state, national and industry health and safety standards and requirements related to electric power generation. In accordance with Bloom Energy's protocols, the Second Facility will be factory-assembled and tested prior to its installation at the Site. The fuel cell units will be equipped with extensive hardware, software and operator safety control systems and will be remotely monitored by Bloom Energy through their RMCC. If warranted, an RMCC operator can initiate an emergency shutdown of the Second Facility. Additionally, the units will have internal sensors that will continuously monitor system operation and other system components capable of shutting down the units if safety circuits detect a condition outside normal operating parameters.

The Second Facility will be installed in accordance with the National Fire Protection Association 853 standards, and thereby meet all applicable fire prevention and fire protection requirements for safeguarding life and physical protection associated with facilities that employ stationary fuel cell systems.

The Second Facility will be enclosed by an eight (8)-foot tall chain link fence with anti-climb mesh. The entrance to the Second Facility will also be gated. Each fuel cell facility will have its own chain link fence and gate. Only authorized personnel and emergency responders will have access to the Second Facility. All Town emergency response personnel will be provided access via a Knox padlock and ReNew will offer to provide training. An Emergency Power Off ("EPO") button will be installed on-site that can be used to power off the Second Facility if an external issue arises. The EPO will be

accessible to the local fire department and any trained personnel with the appropriate security clearances. The RMCC will also have the ability to remotely de-energize the Second Facility in the case of an emergency.

In accordance with the Council's Final Decision in Docket NT-2010, the Modified Project will have a customized Emergency Response Plan ("ERP"). See Exhibit E. Prior to commencement of operations, ReNew and/or Bloom Energy will discuss the Modified Project and ERP with the Town of Colchester's Fire Department and provide on-site training to local emergency responders, if requested. Training will include, among others, the use of appropriate fire extinguishing media and/or fire suppression equipment, as stipulated in the ERP. Copies of the ERP will be provided to the Town's Fire Department personnel and local emergency responders. The fuel cell facilities' maintenance and pipe cleaning procedures will meet the requirements of Public Act 11-101 and Docket NT-2010. Nitrogen will be used to complete the required pipe cleaning.

The Modified Project will not have any adverse impacts on local roadways or traffic conditions. Due to its location, ReNew does not anticipate that the Modified Project will have a significant impact on traffic flow. In addition, any potential construction-related traffic will be temporary and restricted to the Modified Project's construction period. During operation, there will be no traffic disruptions because the Site will be operated remotely. Prior to the delivery of any large equipment, if necessary, ReNew will coordinate with local authorities to minimize potential impacts of project-related construction on existing traffic patterns and roadways.

11. Historical Values

The Modified Project will have no adverse effects on the state's historic, architectural or archaeological resources. An archaeological assessment of the Second Facility, prepared by Heritage Consultants, LLC ("Heritage"), which examined data obtained from the Connecticut State Historic Preservation Office ("SHPO"), as well as GIS data including mapping, aerial photographs, and topographic quadrangles, maintained by Heritage, revealed that there is one previously identified archaeological site, Site 28-1 also known as the Martell Site, within one mile of the Site. See Exhibit A, Appendix E for a copy of Heritage's Preliminary Archaeological Assessment. The assessment also revealed that there are two State Register of Historic Places ("SRHP") listed properties, Zagray Sawmill and the Old Railroad Station, located within one mile of the proposed fuel cell development. Neither the archaeological site nor the SRHP-listed properties will be impacted by the Second Facility. Further, no National Register of Historic Places properties or districts were identified to be located within one mile of the Site. Lastly, the review of the Site showed that the area has been disturbed throughout the twentieth century and that it does not contain soils of archaeological sensitivity. For this reason, Heritage concluded that no additional archaeological examination of the area was needed prior to development of the Second Facility.

Heritage also consulted with SHPO about the Second Facility. In a letter dated April 25, 2023, SHPO stated that it concurred with Heritage's conclusions that the Second Facility will not impact previously identified cultural resources, that no additional archaeological investigations are warranted and that no historic properties will be affected

by the fuel cell facility. See Exhibit A, Appendix E. Based on the foregoing, the Modified Project will have no adverse effect on the state's historic or archaeological resources.

12. FAA Determinations

The nearest airports and/or heliports to the parcels are: Skis Airport approximately 2.3 miles to the southeast, Salmon River Airfield approximately 5.5 miles to southwest, Somers Field approximately 6.8 miles to the southwest, and Gager Private Airfield approximately 7.5 miles to the southeast. The Second Facility will have a maximum height of approximately ten (10) feet above ground level, below the Federal Aviation Administration ("FAA") notification requirements of 14 Code of Federal Regulations, Part 77.9. Consequently, ReNew will not be providing notification to the FAA of the Modified Project.

V. Project Construction, Maintenance and Decommissioning Plan

As previously discussed, the data centers are projected to be constructed concurrently with the fuel cell facilities, for which, subject to the Council's approval, construction is anticipated to commence on the fourth quarter of 2024 and be completed by the end of the third quarter of 2025. The Company will coordinate construction hours for the Modified Project with the Town of Colchester, as needed, but generally construction will take place Monday through Friday, between 7:00 a.m. to 7:00 p.m. If construction work is required during the weekends, such work will occur between 9:00 a.m. to 6:00 p.m.

The operational life of the Second Facility is 25 years, as stipulated in the operations and maintenance agreement (the "O&M Agreement") between ReNew and

Bloom Energy. Upon termination of the agreement, including any extension(s) thereof, the Second Facility will be decommissioned in accordance with the following Decommissioning Plan:

- A. Isolate, lock out and disconnect all piping for natural gas fuel infrastructure at the gas utility meter set assembly at the site to the fuel processing modules at each Energy Server. Remove gas piping to the unit.
- B. Isolate, lock out and disconnect all electrical feeders to the Energy Servers and associated upstream electrical distribution required to safely disconnect the solution from the point of common coupling. This includes power to all the Energy Servers and balance of plant ancillary equipment.
- C. Return the portion of the Site where the fuel cell facility is located to its original condition with the exception of the Site foundations and retaining walls.
- D. The decommissioned fuel cells will be removed from the Site, disassembled, and the parts will be separated and either recycled, reclaimed or transported to a landfill.

Similar to the 4.99 MW fuel cell facility, Bloom Energy will be responsible for performing the appropriate maintenance to the fuel cell equipment, in accordance with the terms of the O&M Agreement. This includes replacing the solid oxide media in the fuel cells approximately every five years.

VI. Conclusion

For the reasons stated herein, ReNew respectfully requests that the Council rule that the Modified Project as described will not have a substantial adverse environmental effect, and consequently, pursuant to CGS § 16-50k, the Modified Project will not require a Certificate of Environmental Compatibility and Public Need.

Table of Exhibits

Exhibit A: Environmental Assessment

Exhibit B: Municipal Correspondence

Exhibit C: Public Notice Documentation (Service Lists, Sample Notice Letters, Affidavits and Abutters Map)

Exhibit D: FEMA Flood Map

Exhibit E: Emergency Response Plan