

PETITION NO. 1592A – Santa Fuel, Inc. petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 3.85-megawatt AC solar photovoltaic electric generating facility located at 159 South Road, Somers, Connecticut, and associated electrical interconnection. Reopening of this petition based on changed conditions pursuant to Connecticut General Statutes §4-181a(b).	} Connecticut
	} Siting
	} Council
	April 3, 2025

Opinion

Introduction

On September 19, 2023, Santa Fuel, Inc. (SFI) submitted a petition to the Connecticut Siting Council (Council), pursuant to Connecticut General Statutes (CGS) §4-176 and §16-50k, for a declaratory ruling for the construction, maintenance, and operation of a 3.85-megawatt AC solar photovoltaic electric generating facility located at 159 South Road in Somers, Connecticut, and associated electrical interconnection (Petition 1592 Project).

The party to the Petition No. 1592 proceeding was SFI.

At a public meeting held on March 14, 2024, the Council voted to deny the Petition 1592 Project on the bases it would have an adverse effect on water quality by not including adequate buffer areas to on-site wetlands and waterbodies that support a diverse amphibian population, insufficient information regarding the potential redesign of the site to create buffers to an abutting residential property and South Road, and insufficient information regarding a potential redesign of the electrical interconnection route to either eliminate utility poles or place them in an area with less of a visual impact.

Changed Conditions

On September 18, 2024, pursuant to CGS §4-181a(b), SFI filed a Motion to Reopen and Modify (Motion to Reopen) the Council’s decision not to issue a declaratory ruling for the Petition 1592 Project. In its Motion to Reopen, SFI noted several changed conditions and modifications to the Petition 1592 Project. This proposed reconfiguration (hereinafter referred to as the Petition 1592A Project) includes, but is not limited to, the following changed conditions:

- a) The Project output was reduced from 3.85 MW to 3.57 MW;
- b) The array was shifted to the north and 442 panels eliminated from the southern and southwestern portions of the array to increase buffers to nearby property lines;
- c) The buffer to 187 South Road was increased from 57 feet to 172 feet and the buffer to South Road increased from 123 feet to 178 feet;
- d) Stormwater management basin #2 was relocated from 34 feet to 198 feet from South Road, and the riprap slope adjacent to the road was eliminated;
- e) Evaluation of water quality impacts to adjacent wetlands and waterbodies;
- f) Landscaping was extended to include the western edge of the fence line between the array and South Road;
- g) Tree/orchard clearing was reduced by 1.75-acres;
- h) Site disturbance was reduced by 0.5 acre;
- i) Site access to the solar array for routine maintenance was relocated to the north end of the host property;

- j) The point of interconnection was relocated from South Road to Mountain View Road, eliminating visual impacts on South Road and reducing the length of off-site interconnection improvements;
- k) Addition of an access drive extending from Mountain View Road that will only serve the interconnection utility poles;
- l) A permanent sight line easement was obtained from the land property owner for the interconnection access road entrance to conform to state Department of Transportation (DOT) intersection design criteria;
- m) Equipment pad #2 (northern pad) was relocated to increase the distance from the eastern property line from 80 feet to 137 feet;
- n) Sound mitigation measures were included at the inverter locations to reduce noise levels at the east property line; and
- o) The chain link fence was replaced with an agricultural style fence.

At a public meeting held on October 10, 2024, the Council voted to grant SFI's Motion to Reopen and to schedule a public hearing on the Petition 1592A Project.

Pursuant to CGS §16-50m, the Council, after giving due notice thereof, held a public hearing on January 30, 2025, beginning with the evidentiary session at 2:00 p.m. and continuing with the public comment session at 6:30 p.m. via Zoom remote conferencing.

Jurisdiction

As it applies to the Petition, CGS §16-50k states in relevant part, "...the Council shall, in the exercise of its jurisdiction over the siting of generating facilities, approve by declaratory ruling...(B) the construction or location... of any grid-side distributed resources project... with a capacity of not more than sixty-five megawatts, as long as such project meets the air and water quality standards of the Department of Energy and Environmental Protection and the Council does not find a substantial adverse environmental effect..." The Petition 1592A Project is a "grid-side distributed resources" facility, as defined in CGS §16-1(a)(37) and has a capacity of approximately 3.57 MW.

Public Act (PA) 17-218 requires, for a solar photovoltaic facility with a capacity of two or more megawatts, to be located on prime farmland or forestland, excluding any such facility that was selected by the Department of Energy and Environmental Protection (DEEP) in any solicitation issued prior to July 1, 2017, pursuant to section 16a-3f, 16a-3g or 16a-3j, the Department of Agriculture (DOAg) represents, in writing, to the Council that such project will not materially affect the status of such land as prime farmland or DEEP represents, in writing, to the Council that such project will not materially affect the status of such land as core forest. PA 17-218 also requires that the Council not find a substantial adverse environmental effect in its exercise of jurisdiction over the facilities eligible to be approved by declaratory ruling under CGS §16-50k. There are no exemptions from this provision of PA 17-218.

By letter dated April 25, 2021, DEEP determined the proposed solar facility would not have a material impact on the status of core forest. The Petition 1592A Project site does not contain prime farmland soil. Therefore, SFI did not seek a written determination of no material impact to prime farmland from DOAg under PA 17-218.

Local zoning regulations do not apply to facilities under the exclusive jurisdiction of the Council. Pursuant to CGS §16-50x, the Council has exclusive jurisdiction over solar facilities with a generating capacity greater than 1 MW throughout the state. It shall consider any location preferences provided by the host municipality as the Council shall deem appropriate.

Pursuant to CGS §16-50x, **the Council has exclusive jurisdiction over the construction, maintenance and operation of the proposed solar photovoltaic electric generating facility.**

PA 17-218 does not confer the Council's exclusive jurisdiction upon DOAg or DEEP nor does it permit DOAg or DEEP to impose any enforceable conditions on the construction, maintenance and operation of solar photovoltaic electric generating facilities under the exclusive jurisdiction of the Council. The proposed site is to be used principally for an electric generating facility as defined by CGS §16-50i(a)(3).

Furthermore, the Council does not have jurisdiction or authority over any portion of the host parcel beyond the boundaries of the facility "site". This includes portions of the host parcel retained by the property owner and portions of the host parcel the property owner may lease to third parties. Once a facility is decommissioned, the Council no longer has jurisdiction or authority over the facility "site."

Public Benefit

Pursuant to CGS §16-50p(c), a public benefit exists when a facility is necessary for the reliability of the electric power supply of the state or for the development of a competitive market for electricity. Public benefit exists if the Council finds and determines a proposed electric generating facility contributes to forecasted generating capacity requirements, reduces dependence on imported energy resources, diversifies state energy supply mix and enhances reliability.

The Petition 1592A Project would be a distributed energy resource facility as defined in CGS §16-1(a)(49). CGS §16a-35k establishes the State's energy policy, including the goal to "develop and utilize renewable energy resources, such as solar and wind energy, to the maximum practicable extent."

SFI intends to the to sell the power via a retail supply contract with a wholesale provider that is an ISO-New England, Inc. (ISO-NE) Market Participant. SFI anticipates it will secure a 20-year power purchase agreement with options for contract extensions.

Proposed Site

Pursuant to a lease agreement with the property owner, SFI would construct the solar facility on an approximate 16.8-acre site on an approximate 108.5-acre host parcel at 159 South Road in Somers. The host parcel is zoned residential, has frontage on South Road to the west and Mountain View Road to the south.

The host parcel contains fields, an abandoned orchard, forest, and a farmhouse and associated outbuildings accessed from existing driveways extending from South Road (Route 83). Land use in the surrounding area consists of residential to the west and south, land trust and undeveloped properties to the east, and Geissler's Supermarket and other land owned by the host parcel owner to the north.

Proposed Facility and Associated Equipment

The Petition 1592A Project consists of 8,268 mono-facial photovoltaic panels rated at approximately 550 Watts. The panels would be installed on a single-axis tracker system supported by posts, arranged in linear rows in an east-west direction, separated by 11.2-foot wide vegetated aisles. At maximum tilt, the panels would be approximately 15 feet above grade at the highest point and 3 feet at the lowest point. The tracker motors are self-powered using a solar panel between the racking tables.

Two concrete/gravel equipment pads would be installed in the northeast section of the site to support transformers, switchgear, and inverters.

The 16.8-acre Petition 1592A Project area would be enclosed by a 7-foot tall perimeter fence. The Council will order SFI to install an agricultural-style fence as part of the Development and Management (D&M) Plan.

The nearest property line and residence (not owned by the host parcel owner) to the solar array perimeter fence is approximately 172 feet and 214 feet, respectively, to the south at 187 South Road.

The solar array would be accessed by using an existing 630-foot long gravel drive extending east from South Road along the north property line. At the end of the existing drive, SFI would construct a new 15-foot wide, 1,850-foot long access road continuing along the north property line and then turning east to the two equipment pads. This access road would be used for routine maintenance of the solar array.

A second access drive, 15 feet wide and 135 feet long, would be constructed off Mountain View Road for dedicated access to the utility interconnection poles. This dead-end access drive does not connect to the solar array. To address sight line issues at the access drive entrance area, SFI would regrade a hillside to meet DOT vehicle sight line standards.

Electrical Interconnection

The Petition 1592A Project is comprised of one metered system with a total design capacity of approximately 3.57 MW AC that would interconnect to an Eversource 23-kV overhead electric distribution line on Mountain View Road. The facility interconnection would extend underground from the switchgear, extending south through the array and an adjacent forest, transition to overhead, supported by six new utility poles hosting meter equipment and switches.

The facility interconnection was approved by Eversource. Three of the poles would be on the customer side with the remaining three on the utility side. A 135-foot long gravel dead end drive would provide access to the poles.

Site Selection

SFI selected the host parcel for the solar facility site based on availability, suitability, environmental compatibility, and proximity to electrical utilities for interconnection,

Pursuant to CGS §16-50p(g), the Council has no authority to compel a parcel owner to sell or lease property, or portions thereof, for the purpose of siting a facility¹.

Cost

The estimated construction cost of the Petition 1592A Project is approximately \$9.6 million.

The Petition 1592A Project is not proposed to be undertaken by state departments, institutions or agencies, and is not to be funded in whole or in part by the state through any contract or grant. SFI is a private entity.

¹ *Corcoran v. Conn. Siting Council*, 284 Conn. 455 (2007); CGS §16-50p(g) (2024).

Neighborhood Concerns

The Council held a public comment session via Zoom remote conferencing on January 30, 2025, commencing at 6:30 p.m. No members of the public made oral limited appearance statements at the public comment session. While the public comment period was open, the Council received 5 written limited appearance statements expressing concerns that include, but are not limited to, wildlife, noise, stormwater, visibility, interconnection access drive location on Mountain View Road, geology and tree clearing. These concerns are addressed in the Public Health and Safety and Environmental Effects and Mitigation Measures sections of the Council's Findings of Fact document, pursuant to CGS §16-50p.

The Town provided written comments in support of the Petition 1592A Project.

Public Health and Safety

The Petition 1592A Project would comply with the current National Electrical Code (NEC), the National Electrical Safety Code (NESC) and the National Fire Protection Association code.

The facility would be remotely monitored 24/7 by a data acquisition system, including but not limited to, site operation and performance and local weather conditions.

Prior to commencement of operation, SFI would conduct outreach and coordinate training with municipal emergency responders to provide information regarding facility operations and equipment necessary to respond to site emergencies. Site access would be provided via a universal key box at the entrance to the facility.

A solar panel/electrical component fire would be contained using methods prescribed by the fire department. Typically, fires are allowed to burn out with fire suppression efforts focused on preventing the fire from spreading to adjacent areas.

The Council will order SFI to submit a copy of the final Emergency Response Plan to local emergency responders prior to commencement of operation and provide emergency response training that includes an itemized list of necessary fire suppression equipment and adequate water supplies for any fire issues at the facility site.

Notice to the Federal Aviation Administration (FAA) is not required for the solar facility. Under FAA rules, a glare analysis is not required.

The Petition 1592A Project is not located within a Federal Emergency Management Agency designated 100-year or 500-year flood zone.

Noise

Noise emissions from the solar facility would be from the daytime operation of the two transformers and 14 inverters. The facility would not operate at night.

Noise generated during facility startup would produce noise from the northern and southern equipment pads at sound levels of 58 dBA and 54 dBA, respectively, at the property line with a passive recreation parcel owned by the Northern Connecticut Land Trust, 137 feet and 209 feet to the east of the pads. After startup, noise levels would be below 43 dBA at the property line.

Although the Petition 1592A Project meets state standards, SFI would install noise mitigation blankets around the inverters to reduce noise levels to less than 48 dBA at the property line during facility startup. The Council will order SFI to install the noise mitigation measures at the inverter locations as part of the D&M Plan.

The Council will also order SFI to conduct a post-construction operational noise study that documents compliance with state standards and, if necessary, the identification of any additional noise mitigation measures that are employed to adhere to the standards.

Noise resulting from construction is exempt from DEEP Noise Control Standards.

Electric and Magnetic Fields

Operation of the facility would result in electric and magnetic fields (EMF) derived from the solar panels, cables connecting the panels to the inverters, the inverters and the transformers. However, none of the equipment would increase pre-existing EMF levels outside the site boundaries.

Electric fields (EF) and magnetic fields (MF) are two forms of energy that surround an electrical device. Scientific evidence indicates that exposure to EF, beyond levels traditionally established for safety, does not cause adverse health effects, and as safety concerns for EF are sufficiently addressed by adherence to the National Electric Safety Code. Health concerns regarding EMF focus on MF rather than EF.

International health and safety agencies, including the International Agency for Research on Cancer (IARC), and the International Commission on Non-Ionizing Radiation Protection (ICNIRP), have studied the scientific evidence regarding possible health effects from MF and have established maximum exposure guidelines of 9,040 mG, and 2,000 mG, respectively. The Petition 1592A Project is expected to generate a MF level of less than 0.5 mG at the property line, well below ICNIRP and IARC recommended public exposure levels.

Environmental Effects and Mitigation Measures

Air and Water Quality

The Petition 1592A Project would meet DEEP air quality standards. There would be no air emissions associated with facility operation.

Operation of the facility would not require water use. The site is not located within a DEEP-designated Aquifer Protection Area.

Private water wells serve the residences in the area. Vibrations from the installation of the racking system are not expected to cause sediment releases, and thus, no disruption to well water flow or quality is expected.

SFI would employ measures to protect subsurface water quality that include, but are not limited to, impermeable containers, implementation of an emergency spill response plan and a stormwater management plan. SFI would not store hazardous materials within the area and would refuel vehicles within a specific area using a dedicated vehicle.

To protect subsurface water quality, the Council will order SFI to submit a final Fuel Storage and Spill Prevention Control Plan as part of the D&M Plan.

Stormwater

Pursuant to CGS §22a-430b, DEEP retains final jurisdiction over stormwater management and administers permit programs to regulate stormwater pollution. DEEP regulations and guidelines set forth standards for erosion and sedimentation control, stormwater pollution control and best engineering practices. The DEEP Individual and General Permits for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (Stormwater Permit) require implementation of a Stormwater Pollution Control Plan (SWPCP) to prevent the movement of sediments off construction sites into nearby water bodies and to address the impacts of stormwater discharges from a project after construction is complete. A DEEP-issued Stormwater Permit is required prior to commencement of construction.

DEEP has the authority to enforce Petition 1592A Project compliance with its Stormwater Permit and the SWPCP, including, but not limited to, the installation of site-specific water quality protection measures in accordance with designs consistent with the applicable *Connecticut Guidelines for Soil Erosion and Sediment Control* (E&S Guidelines) and the *Connecticut Stormwater Quality Manual*.

The Petition 1592A Project has been designed to comply with DEEP Stormwater Permit Appendix I and E&S Guidelines.

A stormwater analysis prepared by SFI concluded that two permanent stormwater detention basins and perimeter swales are necessary to manage construction peak stormwater flows. Both basins would be installed on the west side of the site and have outfall structures designed to maintain existing stormwater flow patterns. The northern basin would discharge towards a wetland on the host property. The southern basin would discharge via an underground pipe to a riprap outfall structure on the west end of the host property, adjacent to South Road.

The Stormwater Permit requires the designing qualified professional to conduct the SWPCP Implementation Inspection that confirms compliance with the General Permit and the initial implementation of all SWPCP control measures for the initial phase of construction. The SWPCP also requires the qualified professional or a qualified inspector to inspect the work area at least once per week and within 24-hours after a rain event that meets certain permit criteria. Once work is complete, the qualified soil erosion and sediment control professional or a qualified professional engineer would inspect the area and confirm stabilization and compliance with the post-construction stormwater management requirements. The regional conservation district would also conduct inspections of the site.

Wetlands and Watercourses

The Inland Wetland and Watercourses Act (IWWA) strikes a balance between economic activities and wetlands preservation. The impact of a proposed activity on the wetlands and watercourses that may come from outside the physical boundaries of the wetlands or watercourses is a major consideration. Defined upland review areas, such as 100 feet, provide a trigger for reviewing whether a regulated activity is likely to affect wetlands and watercourses. Under CGS §22a-41(d), regulatory agencies shall not deny or condition an application for a regulated activity in an area outside wetlands or watercourses on the basis of an impact or effect on aquatic, plant, or animal life unless such activity will likely impact or affect the physical characteristics of such wetlands or watercourses.

Two ponds are located in the western portion of the host parcel, north of the farmhouse. The ponds are permanent features with bordering wetlands that were created by past excavation. The ponds do not exhibit vernal pool characteristics.

The construction limit of disturbance (LOD) for the northern stormwater basin and associated swale is approximately 50 feet from the northern pond at its closest point, in conformance with DEEP Stormwater Permit Appendix I criteria. A small amount of tree/shrub clearing 50 feet from the northern pond would be required to construct a stormwater detention basin outfall structure.

The stormwater management system would have no effect on water quality within the ponds. The stormwater basins provide water quality treatment prior to discharge. Development of the solar array and basins would be within an existing agricultural field which does not offer optimal habitat for amphibian species. The Council finds there would be no adverse impact to the water quality of the ponds or related habitat for amphibian species.

Forest and Parks

The site is approximately 0.9 mile northwest of the Shenipsit State Forest at its closest point.

Development of the Petition 1592A Project would require the removal of approximately 2.9 acres of edge forest in the southeast portion of the site and approximately 3.7 acres of clearing within an abandoned orchard in the southwest portion of the site. The Petition 1592A Project would not have a material impact on the status of core forest.

Scenic, Historic and Recreational Values

The State Historic Preservation Office determined the Petition 1592A Project would have no impact on historic and identified cultural resources.

There are no town or state designated scenic roads or “blue-blazed” hiking trails maintained by the Connecticut Forest and Park Association near the site.

The Northern Connecticut Land Trust McCann Farm Reserve abuts the site to the east and the site would be visible from a hiking trail that comes close to the property line.

No comments were received from the Office of Policy and Management, DEEP or the Town regarding impacts to scenic quality or resources.

Existing vegetation (orchard trees) would remain between the site and the abutting residential property to the south (187 South Road), and between the site and residential properties along the west side of South Road. To provide additional site screening from these areas, SFI would install 46 white spruce, 4 to 5 feet high, along the southwestern corner of the perimeter fence. SFI has a one-year warranty on the plantings. The Council will order SFI to submit a Landscaping Plan as part of the D&M Plan. To ensure the plantings are maintained and replaced, when necessary, the Council will also order SFI to submit an Operations and Maintenance Plan that incorporates an annual vegetation maintenance plan to be implemented for the life of the facility.

The Petition 1592A Project is consistent with the State Plan of Conservation and Development as it would be a Class I renewable zero emissions electric generation facility that is compatible with state goals for environmental protection and minimization of potential impacts to historic, agricultural and scenic resources.

Fish, Aquaculture and Wildlife

The Petition 1592A Project site is not located within a NDDB buffered area. DEEP issued a NDDB Determination Letter for the facility, stating that there are no extant populations of Federal or State Endangered, Threatened or Special Concern species known to occur within the Petition 1592A Project site.

The northern long-eared bat (NLEB), a federally-listed and state-listed Endangered Species occurs in Connecticut. However, there are no known occurrences of NLEB in Somers. The U.S. Fish and Wildlife Service determined that the Petition 1592A Project would not likely have an adverse effect on the NLEB, and no additional action is necessary.

The agricultural-style perimeter fence would feature a six-inch gap at the bottom to allow for the passage of small wildlife.

The site is within the watershed of Abbey Brook, a DEEP-designated cold-water stream. In accordance with the DEEP Stormwater Permit, the Petition 1592A Project is not within 100 feet of the cold-water stream.

Agriculture

The Petition 1592A Project site does not contain mapped prime farmland soils. The host parcel has been used for a hay crop.

The host parcel is currently enrolled in the PA 490 Program for agricultural land tax abatement. Once constructed, the solar facility site portion of the host parcel would not be eligible for the program.

SFI does not intend to implement agricultural activities at the site. The primary use of the site is for the construction, maintenance and operation of a solar electric generating facility that is under the exclusive jurisdiction of the Council. Any other uses within the boundaries of the solar facility site, such as an agricultural activity, would be secondary and subject to the discretion of the Council.

Facility Construction

Construction of the solar facility would maintain existing grades through a majority of the site except for the hillside in the southeast corner where an approximate 5-acre area would be regraded to attain slopes of 15 percent, and grading required to construct the stormwater management system.

Site construction would disturb an approximate 21.6-acre area. Due to the presence of gravel and sandy soils, ledge is not expected and blasting is not anticipated.

Construction of the Petition 1592A Project is expected to take six months. Construction hours would be Monday through Saturday from 7:00 AM to 7:00 PM, and Sunday, if necessary.

Operations and Maintenance

A post-construction Operations and Maintenance (O&M) Plan has been developed that includes provisions for remote monitoring, equipment and site maintenance, and site safety and security. As noted above, the Council will order the incorporation of an annual vegetation maintenance plan to be implemented for the life of the facility into the post-construction O&M Plan as part of the D&M Plan.

The inverters and tracker motors have a lifespan of 10 to 15 years and 10 to 20 years, respectively, and would be replaced as necessary. Replacement equipment would not be stored on-site.

Vegetation management would be performed mechanically and is expected to occur 2-3 times annually.

O&M activities would be conducted by a third-party contractor.

Decommissioning

The facility has a life of 30-35 years; however, the Petition 1592A Project may be decommissioned after 25 years based on the lease arrangements. At the end of the Petition 1592A Project's lifespan, the facility would be decommissioned, and components would be removed in accordance with the lease. The Council does not have the authority to supersede restoration provisions of the site lease or require additional site restoration conditions beyond those established by the site lease.

After removal of equipment, the site would be regraded and seeded. The stormwater management system would remain in place for future use by the property owner.

SFI would install solar panels that meet current Toxicity Characteristic Leaching Procedure (TCLP) criteria for characterization as nonhazardous waste at the time of disposal.

Conclusion

Based on the record of this proceeding, the Council finds that there are changed conditions and a public benefit for the construction, maintenance and operation of an approximate 3.57 MW solar photovoltaic electric generating facility and an associated electrical interconnection located at 159 South Road, Somers, Connecticut.

The Petition 1592A Project is a grid-side distributed resources facility with a capacity of less than 65 MW under CGS §16-50k, is consistent with the state's energy policy under CGS §16a-35k, and it would not have a substantial adverse environmental effect under CGS §16-50p. Therefore, the Council will issue a declaratory ruling for the proposed Petition 1592A Project.