TOWN OF NEEDHAM
MASSACHUSETTS

BOARD OF APPEALS

Special Permit Amendment

ENGIE Distributed Renewables Development, LLC, Applicant
Franklin W. Olin College of Engineering, Owner
1000 Olin Way
Map 309, Parcel 20

April 27, 2023

ENGIE Distributed Renewables Development, LLC applied for an Amendment to a Special Permit, issued to Franklin W. Olin College of Engineering, under Sections 5.1.3 and any other applicable Sections of the By-Law to waive parking plan and parking design requirements to permit the installation of a 480kW AC solar canopy array over the existing Main Parking Lot A at Olin College. The property is located at 1000 Olin Lane, Needham, MA in the Institutional District. A public hearing was held on Zoom on Thursday, April 27, 2023 at 7:30 p.m.

Documents of Record:

- Application for Hearing, Clerk stamped April 3, 2023.
- Letter prepared by Jeremy Goodman, Head of Campus Operations, dated March 30, 2023.
- Renderings of proposed canopy.
- Preliminary SWPP Report, prepared by Will Maidment, SoCore Engineering, dated March 31, 2023.
- Plans C1.00, C2.00, C2.10, C3.00, C3.10, C0.10 prepared by ENGIE Distributed Solar and Storage and SoCore Engineering signed and stamped by John Gantner, Professional Engineer, dated March 31, 2023.
- Existing Conditions Plan, Sheet 1-2, prepared by Precision Land Surveying, Inc. stamped and signed by Michael A. Pustizzi, Professional Land Surveyor, dated March 15, 2023.
- Report of the Design Review Board, dated April 10, 2023.
- Letter from Dave Roche, Building Commissioner, dated April 25, 2023.
- Email from Tara Gurge, Assistant Public Health Director, April 18, 2023.
- Letter from Lee Newman, Director of Planning and Community Development, dated April 25, 2023.
- Letter from Thomas Ryder, Town Engineer dated April 14, 2023.

- Email from Chief John Schlittler, Fire Department, April 4, 2023.
- Memo from Clay Hutchinson, Conservation Specialist, dated April 18, 2023.

April 27, 2023

The Board included Jon D. Schneider, Chair; Howard S. Goldman, Member; and Nik Ligris, Associate Member. Mr. Schneider opened the hearing at 7:30 p.m. by reading the public notice.

Kristen Tarr, ENGIE Project Director, introduced the team: Will Maidment, Civil Engineer; Tommy Pudje, Civil Engineer; Mujahid Ahmed, Electrical Engineer; Charlie Branham, Senior Project Developer; Jeremy Goodman, Olin Head of Campus Operations; and Claire Rodgers, Olin Associate Energy Engineer.

Ms. Tarr reported that ENGIE has been in business for over 200 years. It is the largest distributor and owner of storage facilities of solar energy in the US with over 500 projects of which 27 projects are in Massachusetts. Olin's solar array will be the 28th project in Massachusetts. ENGIE will be the long-term owner-operator of the solar array.

Mr. Goodman reported that the project will be one of the major steps in implementing Olin's Climate Action Plan. The project has been in the planning stages for the past four years.

Ms. Tarr highlighted the benefits of the project: it allows the generation of clean energy for Olin's campus; serves as a living classroom for its engineering students; provides electricity savings and provides covered parking during increment weather.

The solar carport will provide 480kwac of electricity. It will be located on the existing parking lot A, the largest parking lot on campus. Olin will enter into a 25-year power purchase agreement with ENGIE which coincides with the operational life of the project. The solar canopies will be located over the parking lot's five vegetative islands. They will tie into an Eversource transformer on site behind Milas Hall. The project is expected to be built in the summer when students are off campus, be completed in the Fall and operational by November of 2023.

Mr. Schneider asked if there will be any reduction of parking spaces. Ms. Tarr responded there will be no reduction in parking spaces. Mr. Schneider noted there is no need for the team to go into the technical details of the project as there has been no opposition from the reviews conducted by the Town or its boards.

Ms. Tarr noted that emergency vehicles will not be impacted by the project. The minimum height of the solar equipment is 12 feet and there will be a minimum width clearance between the equipment of 30 feet. The canopy is a metal structure with PV modules mounted on the canopy.

Mr. Ligris asked about the blue color selected for the vertical supporting structures. Mr. Goodman said that the blue color is specific to the college and is known as *Olin Blue.*

Ms. Tarr said the operation of the project will be monitored with emergency shutdown implemented remotely. Also, an emergency shutdown can be initiated at a switch by the transformer behind Milas Hall.

The existing lighting in the parking lot will be replaced by LED lights which are located under the carport. The lights will have the same lighting density and color as the existing lighting. The light spillage will be decreased from the existing lighting as it will be shaded by the carport.

Mr. Goldman asked how much energy was 480kwac going to offset for Olin. Ms. Rodgers said that 15% of Olin's annual electrical load per year would be offset by the project. Mr. Goldman asked if there was surplus could it be available to the Town. There is no surplus available and Mr. Goodman added that they are limited by what Eversource can accommodate to feedback in.

A Vegetation Plan was described. The current island plantings are a mix of juniper bushes and grass. The project will return the vegetation to existing conditions and will replant non-invasives and native plants. If the plants are not successful, a more shade tolerant plant will be planted. The panels are semi-translucent which allow light and will support the vegetation.

Ms. Tarr noted that the project will not alter, fill or impact the nearby wetlands. A small portion of the project is within the 100-foot buffer zone but does not extend past the existing parking lot and landscaped area. To ensure the project complies, the applicant has submitted a request for determination (RDA) to the Conservation Commission and is scheduled on May 11, 2023.

The project is also in compliance with the Town stormwater By-Law. The structures will have gutters and downspouts to filter the rainwater into the existing catch basins. Temporary erosion controls will be implemented with best management practices.

Mr. Schneider asked about the lifespan of the solar array. Ms. Tarr responded that the project panels are designed to have a 25-year life expectancy. Its useful life is 30 to 35 years. At the end of the project life, ENGIE will be responsible for removing the system and returning it to its original condition and will be responsible for all decommission costs.

Comments received:

- Engineering Department requested that plans be revised showing the calculations that the infiltration system is sized to contain a minimum of 1-inch of the total impervious area o for infiltration prior to obtaining a Building Permit.
- Design Review Board agrees with the project approach and were supportive.
- Health Department had no comment.
- Building Department noted that the current Town By-Law does not address this type of structure; and that the Planning Board and Climate Action Committee are looking at zoning changes to allow these installations. He had no issues with the project.
- Planning Board asked that the project comply with any relevant Town drainage requirements.
- Conservation Commission. The applicant submitted an RDA and is scheduled on the May 11, 2023 meeting.
- Police Department had no issue.

There were no comments from the public.

Mr. Ligris noted that the applicants for the 2000 Decision and this amendment were not the same. The applicant for the 2000 Decision was Franklin W. Olin College of Engineering; ENGIE is the applicant for this amendment. Mr. Ligris was supportive of the project.

Mr. Goodman believed that the Town By-Law did not have parking design requirements that were applicable to Olin College in 2000. Mr. Schneider noted that the 2000 Decision appears to address the number of parking spaces and not parking design specifically. He believed that the parking lot is being changed so it would be appropriate to seek an amendment.

Mr. Schneider thought, that even though the equipment is owned by someone other than the owner, it was appropriate to amend the Special Permit with Olin. Mr. Ligris asked whether the amendment would be issued to Olin. Mr. Schneider thought the application and notice should have been by Olin and not ENGIE since Olin holds the Special Permit. However, he felt that the notice to the public was adequate to issue an amendment to Olin.

Mr. Ligris moved to amend the Decision of September 25, 2000 granted to Franklin W. Olin College of Engineering for requirements under Sections 5.1.3 of the By-Law to allow a tenant to install solar array carports over parking lot A as described in the plans submitted and presented by ENGIE conditioned that the applicant comply with the stormwater drainage requirements of the Town. Mr. Goldman seconded the motion. The motion was unanimously approved.

The meeting adjourned at 7:50 p.m.

Findings:

Based on the evidence presented at the hearing, the Board finds as follows:

1. Franklin W. Olin College of Engineering holds a Special Permit dated August 24, 2000 waiving the number of parking spaces required under the By-law and authorizing operations with 458 parking spaces as shown on plans submitted with the application ("Existing Permit") for property formerly addressed as 1735 Great Plain Avenue in the Industrial District.

2. The applicant, ENGIE Distributed Renewables Development, LLC, proposes to install an array of solar panels over Parking Lot A, the main parking lot. The solar panels will be held up by metal supports located in existing landscape areas. The panels will have a minimum height of 12 feet and angle upward to face sunlight. They will provide a carport that protects automobiles parking underneath. They will have water collection that directs runoff into existing storm drains. The output of the solar installation will be sold to Olin College for 25 years and provide approximately 15% of its electrical needs.

3. The Town currently has no zoning that explicitly addresses solar installations. However, these solar arrays will be Structures as defined in the By-law. The installation will meet the dimensional requirements for the Industrial District.

4. The installation will cause no loss of parking spaces.

5. The installation will modify the plans submitted in connection with the Existing Permit, so the applicant is seeking an amendment.

6. No one has objected to the installation. It is consistent with the climate objectives of the Town and provisions the Zoning By-law.

Decision:

On the basis of the foregoing findings, following due and open deliberation, upon motion duly made and seconded, the Board by unanimous vote, the Existing Permit is amended to allow the installation and operation of the solar array described in the plans presented with the application and discussed at the hearing, subject to approval by the Town Engineer that the installation complies with the Town's storm water management requirements.

Jon D. Schneider, Chair

Howard S. Goldman, Member

Nikolaos M. Ligris, Associate Member