GLENVALE LLC

APPLICATION FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, OPERATION AND MAINTENANCE OF A 4.0 MWAC SOLAR PHOTOVOLTAIC PROJECT AT 56 RIVER ROAD IN PUTNAM, CONNECTICUT

March 7, 2023



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EXHIBITS

- Exhibit A Detailed Project Development Plans
- Exhibit B Decommissioning Plan
- Exhibit C Public Outreach Information
- Exhibit D Abutting Property Owner Information and Notice Letters
- Exhibit E Contact to Governmental Officials
- Exhibit F Operations and Maintenance Plan
- Exhibit G Environmental Assessment

I. Introduction

A. Purpose and Statutory Authority

Pursuant to Conn. Gen. Stat. §§ 4-176(a) and 16-50k and Regs. Conn. State Agencies § 16-50j-38 et seq., Glenvale LLC, d/b/a Glenvale Solar ("Glenvale" or "Applicant") is pleased to submit this Application for a Certificate of Environmental Compatibility and Public Need ("CEPN") for the proposed construction, operation and maintenance of a the Applicant's proposed installation and development of a solar-based electric generating facility of approximately 4 megawatts (MW AC) (the "Project"), which will be located at a parcel located east of River Road, at 56 River Road in Putnam, Connecticut, on a property identified in the Putnam Town Assessor's records as Map 37, Lot 39 (the "Project Site"; or the "Site").

Conn. Gen. Stat § 16-50k(a) states, in relevant part: a) Except as provided in subsection (b) of section 16-50z, no person shall exercise any right of eminent domain in contemplation of, commence the preparation of the site for, commence the construction or supplying of a facility, or commence any modification of a facility, that may, as determined by the council, have a substantial adverse environmental effect in the state without having first obtained a certificate of environmental compatibility and public need, hereinafter referred to as a "certificate", issued with respect to such facility or modification by the council. Any facility with respect to which a certificate is required shall thereafter be built, maintained and operated in conformity with such certificate and any terms, limitations or conditions contained therein.

Notwithstanding the provisions of this chapter or title 16a, the council shall, in the exercise of its jurisdiction over the siting of generating facilities, approve by declaratory ruling (A) the construction of a facility solely for the purpose of generating electricity, (B) the construction or location of any fuel cell, unless the council finds a substantial adverse environmental effect, or of any customer 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 such project meets air and water quality standards of the Department of Energy and Environmental Protection, and (C) the siting of temporary generation solicited by the Public Utilities Regulatory Authority pursuant to section 16-19ss. In accordance with the above, Glenvale respectfully requests that the Council issue this Project a CECPN. As demonstrated by the information included herein, the proposed Project will result in no air emissions, has been designed to minimize natural resource impact(s), and complies with the applicable air and water quality standards of the Connecticut Department of Energy and Environmental Protection ("CTDEEP"). In addition, the Project will not have an adverse environmental effect in the State of Connecticut and will contribute to the State's efforts in promoting the deployment of clean, renewable energy sources.

II. Legal Name, Background and Address of Applicant

Glenvale is located at 179 Green Street, Suite 100, Boston, MA 02130. Formed in 2019 by industry veterans, Glenvale is a utility-scale solar developer that focuses on one thing - developing New England's next generation of power plants. Glenvale's solar projects generate affordable clean energy and are carefully sited to use existing infrastructure and minimize impact on natural resources. With a net-zero grid in mind, Glenvale helps the region reduce its reliance on fossil fuels while supporting affordable energy, the regional energy market, and local communities.

Working with its host communities, Glenvale views its projects as opportunities for long-term impactful savings to electric ratepayers, meaningful career opportunities, and investments in the local communities through taxes, while emphasizing environmental conservation. Glenvale puts focus and energy into working with state and local stakeholders to meet their objectives while supporting a robust grid. Glenvale protects natural resources by using pollinator-friendly grass seed mixes, relocating environmental features where necessary, and minimizing impact to habitat and native species.

Since its formation four years ago, Glenvale has developed or is in the process of developing solar projects in New England with a total installed capacity of close to 300 MW AC. Five of these solar projects, totaling 135 MW AC, have energy contracts with Central Maine Power Company ("CMP"). These projects have completed their interconnection approvals and permitting and will begin construction in 2023-24.

Following the team's success in Maine, Glenvale submitted its Putnam Meadow Solar Station into Connecticut's Shared Clean Energy Facility (SCEF 2021) program. The Putnam project was one of six selected projects among 29 bidders. The project has executed a 20-year power purchase agreement with The Connecticut Light & Power Company, d/b/a Eversource ("Eversource") and will supply affordable clean energy to ratepayers. In the last year, Glenvale has continued development of new solar and battery storage projects In Maine,

New Hampshire, and Connecticut.

Glenvale's projects, once completed, will provide the equivalent energy for more than 36,000 New England homes. New Englanders are advancing toward climate goals with a new generation of clean power plants, and Glenvale is proud to contribute to the future decarbonized grid.

For purposes of this Application, the Applicant may be contacted as follows:

Aidan Foley, Manager Lisa Raffin, Sr. Director, Corporate Development Glenvale LLC, Putnam Meadow Solar Station LLC 179 Green Street, Suite 100 Boston, MA 02130 (617) 435-5268 <u>lisa@glenvale.solar</u>

Lee D. Hoffman Pullman & Comley, LLC 90 State House Square Hartford, CT 06095 (860) 424-4315 Ihoffman@pullcom.com

III. Project Description

The Project will be built on an area of approximately 16.93 acres as part of a 31.39-acre parcel of land located at 56 River Road, Putnam, Connecticut and owned by the Sylvia Hankin Revocable Intervivos Trust. The Project Site is bounded on the North by the following residential properties: 10 River Road, 16 River Road, 23 River Road, and 24 River Road. The parcel is bounded on the west by River Road, on the south by residential property known as 102 River Road, and on the east by land owned by the Sylvia Hankin Revocable Intervivos Trust ("Putnam Airline Trail"), which is the same owner as the Project Site.

The property is undeveloped. There are three acres in the northwestern corner of the site that are currently under lease with a local farm for feed corn cultivation, and the remaining 28.39 acres are currently wooded. Historically, the center of the parcel has been used by the current landowner for tree harvesting via sustainable tree cutting practices. On the southern portion, a wetlands complex exists. The southern half of the parcel has gentle sloping topography, while the northern half contains a higher degree of sloping that flows down towards the northern portion of the parcel.

A. Site Selection

The Applicant chose the Project Site based on several key criteria that collectively lead to a well-developed solar facility. These criteria consist of direct and indirect traits including:

- Ability to acquire site control;
- Proximity to existing electrical infrastructure;
- Evaluation of existing sloping, wetlands, and other natural conditions present at the Site; and
- Potential effects on the local community.

Project development begins with site control where there's an important balance between the landowner and developer. The Applicant found a positive relationship with the current landowner of the Site, which led to the initial selection of this land. In addition to site control, the electrical infrastructure plays a key role in turning a piece of land into a solar facility. Typically, the Applicant looks for 3-phase distributed generation lines that are estimated to contain enough capacity to support the additional generation of a new project without significant system upgrades being required. Through initial research and analysis, the Applicant found that the circuit by the Site had a positive outlook for potential solar development.

As part of the Applicant's standard operating procedures, the Site was assessed for physical traits such as sloping, wetland soils, floodplains, and site access, while considering a view of the potential effects the Project may have. Items related to local viewshed, local water resources, core forest habitat, historical and archaeological resources, and rare and endangered species were all considered.

Based on the assessments to date, this Project will be a benefit to the public and will help the State of Connecticut reach its clean energy goals, with minimal, if any, environmental impact.

B. Project Description

The Project is expected to utilize 8,925 panels, equivalent to 4.37 MW DC, a single central inverter limited to 4.0 MW AC, pad-mounted switchgear, a transformer, and 1 pole-mounted recloser. Single axis tracker solar racking attached to either pile-driven or ground screw foundations will allow the Project to maximize its energy yield. The proposed access road extends 350 feet into the Project area at the north end of the Site from River Road. Chain link fence, 7-feet in height, will be installed around the perimeter to comply with applicable electrical code requirements, with the exception of 8-foot high fencing with privacy slats being used along River Road.

The Project will begin with an entrance road originating from River Road, flanked by a single electrical equipment pole. Further into the Site, north of the access drive, will be pad-

mounted electrical equipment that will be owned by the utility. Beyond the initial padmounted equipment, the facility will be surrounded by seven (7) foot high chain link fencing, as previously mentioned, with the exception of some eight (8) foot high fencing with green privacy slats woven in to create a visual buffer. This enhanced fencing is in direct response to comments from the town and local abutters regarding visual mitigation. Tree plantings will also be proposed outside the fence line, along the northern property boundary abutting Map 37, Lot 33, to further decrease any visual disturbances. The full project plans, included as <u>Exhibit A</u>, shows further detail on the aforementioned Project and proposed screening.

In its first year of operation, the Project is expected to produce 6,708,000 kWh of energy, equivalent to the energy consumed by 810 Connecticut homes. The Project will deliver energy to the grid and sell its electricity to Eversource via a 20-year Power Purchase Agreement ("PPA"). As mentioned previously, the Project was selected as a Shared Clean Energy Facility. Therefore, pursuant to the PPA, the Project will deliver power for its full nameplate capacity at the rate specified by the PPA. The Project's selection occurred via PURA Docket 19-07-01RE02 and had its Tariff Terms Agreement executed by PURA on 11/18/2021. The Project is expected to have an operational life of 40 years.

The Applicant anticipates a construction schedule for the Project as follows:

- Start, sitework and land preparation soon after Certificate and CTDEEP stormwater permit are issued
- Construction, installation of PV and electrical equipment Q3/Q4-2023
- Final site stabilization, testing and commissioning Q2-2024

While the Applicant aims for the aforementioned schedule, the dates are subject to change based on various external factors, including but not limited to the solar panel market, other project agreements, and global electrical equipment shortages. At the Project's end of life, the equipment will be decommissioned and the site restored as described in the Decommissioning Plan included as <u>Exhibit B</u>.

C. Interconnection

The Project's point of interconnection will be via an electrical pole on the West side of River Road. From there, an overhead electrical line will cross the road to the East, where the Project is located, to a single, proposed electrical pole on-site on the Northwestern corner of the development area. The interconnection cable will run from the single pole to ground level to connect to utility-owned pad-mounted electrical equipment. This equipment will then feed into the Site via below-grade wiring. The interconnection of the Site is not expected to impact any wetlands features. The Project is planned to interconnect to Eversource's 23kV River Road 14M29 circuit. In accordance with Eversource Guidelines for Generator Interconnection in the State of Connecticut and ISO New England ("ISO-NE)," the Project is expected to safely connect to the electrical distribution grid. To date, the Project has completed an Interconnection Application Request and subsequent completeness review, a utility-sponsored Scoping Meeting, a System Impact Study, and an ASO transmission study, and the Applicant expects to execute a Generator Interconnection Agreement this year.

D. Operations and Management

Throughout operation of the Project, periodic inspections and maintenance will be performed as required, however, only limited maintenance is anticipated and will be performed in accordance with an Operations and Maintenance Plan.

Anticipated management/maintenance activities for the Project are as follows:

- Applicant and/or its authorized subcontractors will inspect and maintain electrical and PV equipment in accordance with the manufacturers' respective requirements to maintain proper operation and warranty status of the equipment.
- Ground cover around and under the array will either be grazed by sheep (if approved by the Council, as discussed in greater detail below) or be mowed at least once per year and will be maintained at a height intended to mitigate the risk of fire.
- It is not anticipated that the panels will require active cleaning; rainwater and precipitation should be sufficient to clean the panels. However, in the unlikely event that the panels were to experience enough soiling to adversely affect production, the panels will be cleaned using water brought in by tanker truck(s) and soft bristle brooms. No chemicals will be used in connection with panel cleaning.
- Snow maintenance will be minimal as Applicant and/or its authorized subcontractors will clear snow from the access roads to all the electrical equipment pads onsite. Snow will be plowed or removed in a manner to maintain emergency turnarounds. Applicant does not intend to remove snow from the panels, as they will be positioned in such a fashion that snow should sheet off in the ordinary course of events.

IV. Project Benefits and Need

The Project is anticipated to provide multiple benefits to the town of Putnam, State of Connecticut, and the rest of New England. As the Council is aware, the State of Connecticut aims to meet specific clean energy goals that this Project helps support. At its core, solar energy generation supplies cleaner energy that helps reduce greenhouse gas emissions, supports regional habitat conservation, promotes energy independence, and supports a robust and reliable grid.

High levels of greenhouse gas emissions have been linked to changes in the climate, as well as health risks for the population. The resulting climate change alters regional and nationwide habitat and threatens our natural resources. The Project is able to produce energy in a way which sheds significantly fewer greenhouse gases than fossil fuel generation over the course of the Project's lifetime. With fewer harmful emissions, this Project is also able to help mitigate the health risks people face by smog and similar poor air quality conditions.

Leaving behind a need for fossil fuel generation directly corresponds to an ability for National energy independence. Reducing the need to purchase fuel from foreign countries enables the United States to keep more financial capital within the country.

Moreover, the Project's energy generation will align with Connecticut's seasonal and time of day peak energy needs. Given that the Project will produce energy during the day when power is generally consumed, it is anticipated that it will have benefits that the Council has recognized pursuant to Conn. Gen. Stat. § 16-50p. The timing of this generation can help the grid support changes in the loading of the system and thus supports a more robust grid. The ability of this solar project to generate electricity in a de-centralized way means that the grid can support customers more reliable during day-to-day and emergency circumstances.

As has been mentioned previously, the Project has received a 20-year PPA through the Shared Clean Energy Facilities (SCEF) program. This further demonstrates that the state has evaluated the Project and has determined that the Project will help to satisfy the state's need to meet its clean energy and zero-carbon goals.

V. Local Outreach and Public Notice

In May 2022, the Applicant began its outreach with the Town of Putnam to notify the Town of the proposed generation project. On June 7, 2022, the Applicant met with the town's Land Use Agent, Zoning Enforcement Officer & Building Official, and the Town Administrator at the Town Hall to present the proposed Project. The Applicant showed a brief slide show with the then-current site plan and information about the Project and its developer. The Town officials had questions throughout the review, which the Applicant responded to verbally. The Town's questions focused in particular on the Project's visual screening and ensuring that the Project development team would work with those individuals who directly abutted the Site.

One of the other areas of inquiry from the Town was whether the Applicant could move the point of interconnection and reduce the number of new electrical utility poles from the three that were shown on the then-current plans. Since meeting with the Town, and following meetings with the abutters to the Project, the Applicant revised the Site's plans to address these issues. The Applicant consulted with Eversource and was allowed to reduce the number of new utility poles to one. This therefore provided for pad-mounting the rest of the

electrical equipment at the Site and running most of the electrical lines below grade. Due to the preferred location of the road to maximize module efficiency, the Applicant is keeping the point of interconnection at pole Utility Pole 1184 as per the current plan set. The Applicant's contacts with the Town are described in greater detail in <u>Exhibit C</u>, attached hereto.

As is discussed in greater detail below, the Applicant had originally conceived of filing a Petition for Declaratory Ruling with the Council to seek approval for this Project. When it became apparent that the Project would need to file an Application, rather than a Petition, the Applicant provided the Town with a copy of the draft of the Petition in September of 2022. A copy of the cover letter and draft that was sent to the Town can be accessed at: https://drive.google.com/drive/folders/1NymU3nkbD0918xGIMAaXOxLci5mwQIIQ. The Town reviewed the Petition (which is substantively similar to this Application) and provided its comments to the Applicant in the form of a letter from Elaine Sistare, the Town Manager of Putnam, dated January 17, 2023. Because the Applicant had largely addressed the Town's prior concerns through its prior meeting with Town officials, the Town's comments were minimal, and no further changes to the Project's designs were required. The January 17, 2023, letter, included in Exhibit C, indicated that the Project would meet the Town's applicable zoning and land use regulations as designed.

In parallel with the effort to reach out to the Town's officials, the Applicant took a proactive step and reached out to the Project's abutters, both telephonically and in person. Since beginning this outreach in May 2022, the Applicant has made contact with most of the abutters and received their thoughts. The Applicant has attempted to telephonically contact all of the listed project abutters, however two of the parcels with owners Carson Billingsley & Elizabeth Totten and Steven & Deborah Labonte, have been unreachable by phone numbers gathered through online resources. The Applicant sent a certified mailing letter to their listed addresses on June 27th, 2022; the letter was returned by the postal service as unclaimed.

The abutter, David Ploughman, was met in-person, on the Project Site, and gave his comments relating to safety, visibility, habitat, and property value. Specifically, Mr. Ploughman had concerns over the potential change in his property's value, the electromagnetic safety from the primary electrical equipment, changes to the habitat on and around the Site, and the visual impacts the Project may have on his property. As a result of this meeting, the Applicant made the following changes to the Site plan, which can be found in <u>Exhibit A</u>:

- Moved the inverter roughly 366 feet further into the site (away from their home and property);
- Confirmed pollinator habitat in and around the array, as planned;
- Reduced the number of utility poles to the minimum allowable (1 pole); and

• Added visual screening on the sides of the project facing their home by way of vegetative plantings.

The Applicant also spoke with the abutters Rachel Lewis, John & Sylvia Peckham, and Greg Harubin of Day Kimball Healthcare Inc. Rachel Lewis did not have any initial concerns with the proposed facility and the Applicant left contact information with Ms. Lewis in case Ms. Lewis had additional questions in the future. John Peckham had some initial questions about the array, which the Applicant responded to verbally. The Applicant plans to meet John Peckham in-person during the summer to review the Project's site plan and answer any additional questions. Greg Harubin also had some initial questions, which the Applicant responded to verbally. After gathering Mr. Harubin's email address, the Applicant sent an email with one follow-up that included the then-current site plan for his review.

In addition to various instances of informal outreach to the abutters, on January 23, 2023, the Applicant's counsel sent each abutter a letter informing the abutters of the Applicant's intention to file this Application with the Siting Council. Copies of the letter, as well as the status of the receipts that were returned to the Applicant's Counsel are attached to this Application as <u>Exhibit D</u>.

The Applicant consulted with DEEP's Forestry Division requesting that the Forestry Division concur with the Applicant's analysis that the Project, as proposed, will not have an adverse impact on Connecticut's core forest resources. DEEP concurred with the Applicant's assessment that the project would not have an impact on Connecticut's core forests. DEEP provided that response to the Applicant shortly after the Applicant's request, and both the request and DEEP's response are included in <u>Exhibit E</u>.

The Applicant also contacted the Connecticut Department of Agriculture ("DoA") concerning the Project and asked the DoA to concur with the Applicant's analysis that the Project as proposed would not have an adverse impact on Connecticut's prime farmland soils. The tenant farmer, who is growing feed corn on three acres of the Project Site, also wrote to the Department of Agriculture in support of the Project, noting that the three acres in question were not essential to the farm's operations. Copies of both pieces of correspondence are included in <u>Exhibit E</u>. The Applicant then undertook extensive discussions with the DoA to discuss what agricultural activities the Applicant could undertake at the site to alleviate the DoA's concern regarding the approximately three acres of prime farmland that would be utilized by the Project. Various proposals were offered by the Applicant, including, but not limited to: providing pollinator habitat between the rows of panels, developing an apiary at the borders of the Project, conducting a land swap whereby the Applicant would develop three acres of prime farmland from off-site land that was currently not usable as farmland, and conducting sheep grazing activities at the Project.

The DoA responded to the Applicant indicating that none of these proposed activities was sufficient for the DoA to conclude that the Project would not have an adverse impact on

Connecticut's prime farmland soils. As a result, the Applicant is filing this document as an Application for a Certificate rather than a Petition for Declaratory Ruling pursuant to Public Act 17-218. Applicant is committed to agricultural uses at solar facilities, however, and is working with local sheep farmers to allow for seasonal grazing at the Project site. While the details of such a grazing proposal are being finalized, the Applicant commits to make sure that adequate water and shelter will be placed on the Project site, and that the Applicant will work with its selected sheep farmer to ensure that the Project site is not overgrazed.

Finally, it should be noted that pursuant to Conn. Gen. Stat. §§ 16-50/(b), notice of the Application has been published twice in the Hartford Courant (Zone 4) on January 24, 2023 and January 31, 2023. Proof of this publication is provided as part of <u>Exhibit C</u>. Prior to the public hearing, in compliance with applicable statutes and regulations, Glenvale will erect and maintain, in legible condition, a sign with the applicable requirements, located at the site. This sign will be erected at least ten business days prior to the public hearing and conform to those requirements outlined by the Council.

VI. The Project Will Not Cause Any Substantial Adverse Environmental Effects

The Project was designed in a way which avoids and minimizes any impacts to public health and safety, the existing environment, and wildlife and habitat on and around the site. The Applicant worked closely with All-Points Technology Corporation, P.C. ("APT") to design a well-sited, limited impact facility. As a result, the Project, as proposed, is in accordance with CGS § 16-50k and it will not have an adverse effect on environmental, scenic, historical, or recreational resources. Accompanying this Application is an Environmental Assessment prepared by APT, and included as <u>Exhibit G</u>, which discusses these issues in greater detail. This section of the Application, however, contains a brief summary of the Environmental Assessment.

A. Natural Environment and Ecological Balance

The Applicant has designed the Project in a way which minimizes required earthwork by working with the natural contours of the Site to the greatest extent possible. As the Council is well aware, one of the more significant potential environmental concerns for a solar project relates to the potential stormwater runoff from a project during construction. As the Council is also aware, DEEP amended the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities ("General Permit"). One of the major changes to the General Permit was the adoption of Appendix I, which related to stormwater management at solar array construction projects. The Project as currently designed will

comply with the requirements of Appendix I. Although certain activities will require earthwork to take place at the Site, including creation of the access drive, grading associated with the required drainage and erosion and sedimentation control features (cuts/fills), and construction of the water quality features, such earthwork will be done in accordance with applicable stormwater requirements, including, but not limited to, the requirements of Appendix I.

Additionally, the Project is expected to use a driven pile or ground screw technology which will serve as the foundation for the racking to be attached. This will require a limited amount of soil disturbance. This mounting and racking technology will be installed in accordance with, and meet, all applicable building codes for wind and snow loading. The leading edge of the panels will be at least 2'6" above the existing ground surface, which will provide adequate room for any accumulating snow to "sheet" off the panels. The Applicant does not envision requiring any "snow removal" operations; rather, the snow will be allowed to melt or slide off. Additional information relating to snow removal and other operational aspects of the Project can be found in the Operations and Maintenance Plan for the Project, which is included as <u>Exhibit F</u> hereto.

B. Public Health and Safety

The Project will meet applicable local, state, national and industry health and safety standards and requirements related to electric power generation. The Facility will not consume any raw materials, will not produce any by-products and will be unstaffed during normal operating conditions.

Most of the Facility will be enclosed by a seven (7)-foot tall chain link fence; along River Road, the fence will be eight (8) feet tall. The entrance to the Facility will be gated, limiting access to authorized personnel only. As articulated in greater detail in <u>Exhibit F</u>, all Town emergency response personnel will be provided access via a Knox padlock. The Facility will be remotely monitored and will have the ability to remotely deenergize in the case of an emergency.

C. Air Quality

Due to the nature of a solar energy generating facility, no air emissions will be generated during operations and, therefore, the operation of the Facility will have no adverse effects on air quality and no permit is required.

Temporary, potential, construction-related mobile source emissions will include those associated with construction vehicles and equipment. Any potential air quality impacts related to construction activities can be considered *de minimis*. Such emissions will be mitigated using available measures, including limiting idling times of equipment; proper maintenance of all vehicles and equipment; and watering/spraying to minimize dust and

particulate releases. In addition, all onsite and off-road equipment will meet the latest standards for diesel emissions, as prescribed by the United States Environmental Protection Agency.

D. Scenic Values

No state or local designated scenic roads or scenic areas are located near the Site and therefore none will be physically or visually impacted by development of the Project. The nearest scenic road is a portion of State Route 169 in Pomfret, located approximately 2.4 miles west of the Project Area.

There are no Connecticut Blue Blaze Hiking Trails located proximate to the Site. A portion of the Air Line State Park Trail (Northern Section) parallels the eastern Site boundary at a distance of approximately 0.40 mile. Town of Putnam open space is located approximately 0.40 miles southeast of the Site along Town Farm Road. State and municipal park and forest areas line the eastern bank of the Quinebaug River. The Project will have no effect on any of these resources.

E. Historic and Archeological Resources

At the request of APT, and on behalf of the Applicant, Heritage Consultants LLC ("Heritage") reviewed relevant historic and archaeological information to determine whether the Site holds potential historic or cultural resource significance. Heritage's review of historic maps and aerial images of the Site, examination of files maintained by the Connecticut State Historic Preservation Office ("SHPO"), and a pedestrian survey of the Site revealed the following resources are located within one (1) mile of the Site: ten (10) precontact period archaeological sites; one (1) multicomponent archaeological site; one (1) National Register of Historic Places ("NRHP") Historic District (Wilkinson Mill), two (2) NRHP properties; and six (6) Connecticut State Register of Historic Places properties. Due to their distance from the Project, Heritage has determined that none of the archaeological sites nor the NHRP resources will be impacted by the Project.

Heritage's report has been provided by the Project to the SHPO for review. The Project has not received a response from SHPO as of the date of this Application, but will provide the response to the Council once it is received.

F. Habitat and Wildlife

Three (3) distinct habitat types (vegetative communities) separated by transitional ecotones are located on the Site and within the Project Area. These habitats were initially assessed using remote sensing and publicly available datasets and physically inspected during a January 19, 2022 field evaluation and subsequent Site visits.

The habitats occupying the Site are as follows:

- Mixed Field;
- Upland Forest; and
- Wetland Forest.

The Project will be developed entirely within the first two habitats and will not be developed in the wetland forest. The closest the Project is anticipated to come to the wetland boundary is 96 feet.

With respect to state-listed species, as articulated in greater detail in Exhibit G, the Project consulted with the DEEP's Natural Diversity Data Base ("NDDB"), as an NDDB polygon is within the Project Site. NDDB personnel determined in a January 25, 2022 letter that the Project would not be anticipated to impact state-listed species. The Project also consulted with the US Fish and Wildlife Service related to the northern long-eared bat, which has the entire state of Connecticut as part of its habitat. On May 26, 2022, the Fish and Wildlife Service informed the Project that the development of the Project would be unlikely to result in an adverse effect on that species or an "incidental take" as that term is defined under the federal Endangered Species Act. Further detail on habitat and wildlife can be found in Exhibit \underline{G} .

G. Water Quality

The Project will comply with DEEP's water quality standards. Once operative, the Facility will be unstaffed, and no potable water uses or sanitary discharges are planned. No liquid fuels are associated with the operation of the Facility. Stormwater generated by the proposed development will be properly handled and treated in accordance with the 2004 Connecticut Stormwater Quality Manual and Appendix I of the General Permit. Additional detail concerning water quality matters can be found in <u>Exhibit G</u>.

H. Stormwater Management

In addition to the 2004 Connecticut Stormwater Quality Manual and 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, the Project has been designed to meet Appendix I of the General Permit. Combined, these address three (3) main concerns: stormwater runoff peak attenuation, water quality volume treatment, and E&S control during construction. The Applicant will apply for a General Permit from DEEP. Technical details, mapping, and HydroCAD modeling results are provided in a Stormwater Management Report that will be provided to DEEP. A summary of these results is provided in <u>Exhibit G</u>.

I. Noise

Noise is currently generated at the Site as a result of agricultural and lumbering activities that currently take place there. The bulk of the noise associated with the Project will be the result of construction activity, which is exempt from regulation under Connecticut law. Once the Project is operational, there will be minimal noise associated with the Project, mostly emanating from the Project's inverter and transformer. It is anticipated that the equipment at the Project would generate sound levels of approximately 67 dBA at a distance of ten meters away during the daytime when the facility would be generating electricity. The nearest property to the equipment is the residence located at 16 River Road, with a property line approximately 137 feet from this equipment.

As stated before, the equipment would not generate noise at night, when the state standards for noise at the residence would be 51 dBA. During the daytime, the noise standard for a Class A Nose Receptor Zone is 61 dBA. As explained in <u>Exhibit G</u>, at a distance of 137 feet, the sound from the Project would be reduced to 54.6 dBA, which is within applicable noise standards.

J. FAA Determination

The Applicant submitted information about the Project to the Federal Aviation Administration ("FAA") for the FAA to evaluate the potential hazards to air navigation associated with the Project. On June 30, 2022, the FAA provided its Determination of No Hazard to Air Navigation to the Project.

K. Visibility

The Project's consultant, APT, assessed the potential visibility issues associated with the Project using a Project-specific computer analysis of the area surrounding the Project Site. The resulting viewshed maps, which are included as Appendix G to <u>Exhibit G</u>, show that there will be limited off-site visibility impacts associated with the Project. The interconnection utility pole will be visible, and seasonal visibility may occur on portions of River Road for distances of up to a tenth of a mile. The proposed vegetative screening will minimize visibility from River Road and the abutting property to the north of the Site. The Project will not be visible from the Air Line State Park Trail.

L. Electric and Magnetic Fields

Existing sources of electric and magnetic fields ("EMF") along the boundaries of the Project Site include the EMF associated with the Eversource 23-kV overhead distribution line to which the electricity from the solar arrays will connect. During Project operation, electric and magnetic fields on the Project Site are expected to derive from the following sources: (1) the DC solar panels; (2) the DC cables that connect the solar arrays to the power inverter; (3) the AC power inverters that convert the

DC power to AC power; and, (4) the underground 23-kV interconnection and existing Eversource 23-kV distribution line to which the Project will connect.

The proposed DC solar panels, AC power inverters, and AC transformers will be located more than 74 feet from the boundaries of the Site, with the nearest residences even further away. DC magnetic-field levels from cables connecting the solar arrays to the inverters will produce a DC magnetic field, however it is anticipated that this EMF would represent a small fraction of the earth's natural static (i.e., DC) geomagnetic field.

The higher-frequency AC fields from the inverters, like the DC fields from the solar panels, generally decrease to near background levels within a few of feet of distance from the panels. Thus, the operation of these sources is not anticipated to appreciably change the EMF levels outside the Project Site.

Based on the considerable distance of the Project Area from the boundaries of the Project Site, the EMF from the solar panels, power inverters, and related equipment, collectively, are not anticipated to affect the EMF levels outside the Project Site's boundary. Should the Council desire, however, the Applicant can undertake a more detailed EMF study.

VII. Federal, Local and State Land Use, Conservation and Development Plans

Based on the comments in the Town's January 17, 2023 letter to the Project, the Project is consistent with the goals, policies and implementation strategies contained in the Town's zoning regulations (the "Zoning Regulations") and Putnam's Plan of Conservation and Development ("POCD"). Because the Project adheres to the applicable zoning requirements and will support various goals provided in the POCD, it is consistent with the local land use policies. The Town Zoning Regulations and Plan of Conservation and Development are being provided to the Council in bulk format and link are available at:

https://resources.finalsite.net/images/v1666797861/putnamctus/pyph4fmng2logtqwd6 tl/Zoning RegulationsAmended10-20-22.pdf and https://resources.finalsite.net/images/v1627488984/putnamctus/mmugzrw19erngvvzs 8gv/pocd approved june 27 2016 0 1.pdf

VIII. Conclusion

As demonstrated by the foregoing, the proposed Project will result in no air emissions, has been carefully designed to minimize natural resource impact(s), and complies with the applicable air and water quality standards of DEEP. Because the Project satisfies the requisite standards, and in light of the benefits this Project will provide to the State of Connecticut and the Town of Putnam, Glenvale respectfully requests that the Council approve this Application for the Project, as it is currently designed.

Respectfully Submitted,

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