



Staff Report

Planning Commission

March 8, 2023

File #: P-23-1
Applicant: Lily Pond Solar, LLC, and authorized representative of Lily Pond Solar, LLC, Itamar Sarussi
Rezoning Request: A-2, Agricultural, General to SED, Utility Scale Solar Energy District
Property Location: North of Carson Rd. (Route 703); south of Reams Dr. (Route 606); west of Halifax Rd. (Route 604); and along Perkins Rd. (Route 605)
Property Size: Approximately 1,891 +/- acres
Tax Map Parcels: All or a portion of Tax Map Parcel Nos. 61-3, 61-5, 61-6, 61-7, 61-24A, 62-24, 62-21, 62-22, 62-19, 62-20, 62-33A, 62-33, 62-3, 62-5, 62-6, 48-49, 48-52, 48-56, and 48 59, Portion of 61-5, 61-6, 62-24, 62-33, 61-24A, 62-21, 62-22, 62-4, 61-7, 62-3, 62-20, 62-33A, 62-5, 62-6
Magisterial District: Rowanty District
Planning Commission Mtg.: March 8, 2023

CASE AND PROJECT OVERVIEW

The applicant, Lily Pond Solar, LLC, and authorized representative of Lily Pond Solar, LLC, Itamar Sarussi, are requesting to rezone properties containing approximately 1,891 +/- acres from A-2, Agricultural General, to SED, Utility Scale Solar Energy District. The SED, Utility Scale Solar Energy District, zoning classification allows for solar energy projects. The properties are generally located north of Carson Rd. (Route 703); south of Reams Dr. (Route 606); west of Halifax Rd. (Route 604); and along Perkins Rd. (Route 605). The properties are further defined as all or a portion of Tax Map Parcel Nos. 61-3, 61-5, 61-6, 61-7, 61-24A, 62-24, 62-21, 62-22, 62-19, 62-20, 62-33A, 62-33, 62-3, 62-5, 62-6, 48-49, 48-52, 48-56, and 48-59. As indicated in the Dinwiddie County Comprehensive Land Use Plan, the subject property is located within the Rural Conservation Area, which allows limited industrial, service, and utility uses for this general area.

Lily Pond Solar, LLC, a wholly owned subsidiary of Energix US, LLC, is proposing to design, construct and operate an 80-megawatt alternating current solar photovoltaic (PV) ground mounted electric generation project located on approximately 1,891 +/- acres. The applicant is seeking a rezoning approval from A-2, Agricultural, General, to Utility Scale Solar Energy District (SED) that allows for a utility scale solar energy projects upon receiving a conditional use permit.

In the time since the 2021 rezoning and conditional use permit application, Lily Pond Solar, LLC has revised the project application. The 2021 project proposed to utilize approximately 160 acres of active agricultural land (crop production), and the revised site plan shows a reduction of agricultural land utilized to approximately 40 acres. Additional project revisions include increased project setbacks to enhance the visual screening of the overall project. The proposed

project setbacks have increased to 150 feet from all property boundaries and roads and due to the road elevation of Halifax Road a 250-foot setback is proposed for the portion of the project located along Halifax Road. An additional project revision includes establishing a conservation easement for approximately 69 acres of historic battlefield areas. The conservation easement area is to remain undisturbed and current vegetation are to be maintained with these areas located outside the fenced solar project area.

The project is proposed on approximately 1,891 +/- acres consisting of 19 tax parcels with the solar panels sited on approximately 500 acres. The remainder of the property will include approximately 500 acres of conservation areas for buffers, setbacks, wildlife corridors, natural habitat, pollinator garden, and battlefield preservation. Most of the properties will be under long-term leases with some parcels providing right of way easements for electric collection/transmission lines, which are not included in the rezoning request. The Applicant proposes that 1,891 +/- acres will be rezoned to SED and utilized for the Project (see Rezoning Application, Table 1, List of Property Owners).

The point of interconnection with Dominion Power's transmission system will be located at a new substation/switchyard in the northern portion of the project site along the existing north-south transmission corridor. As shown on the Conceptual Master Plan, the proposed single portrait solar panels mounted to the single-axis tracking system are to be located on approximately 500 +/- acres dispersed throughout the 1,891-acre subject property due to environmental and cultural resource constraints. The single-axis tracking system entails the single portrait solar panels mounted on a framework that tracks the movement of the sun during the day. Visually, the facility is arranged with long rows of solar panels mounted on the racks which are mounted on posts pile driven into the ground. The solar photovoltaic electricity generation system consists of the photovoltaic panels, racking systems supporting the panels, inverters, breakers, switches, cabling, power transformers, electric substation, switchyard and generator tie-line and associated materials and equipment will be installed on portions of 1,891 +/- acres of the site (see Attachment, the Conceptual Master Plan dated Oct. 7, 2022).

The Project will use First Solar, Inc. advanced, thin-film PV solar panels that efficiently produce low voltage direct current electrical power delivered to inverters and transformers throughout the Site. The Project will be remotely and continuously monitored 24 hours a day to ensure proper operation. The Project will interconnect with a new Dominion Virginia Power substation located adjacent to the existing high voltage transmission line that parallels the east side of Perkins Road. The design, installation, and operations of the substation facility will comply with all applicable local, state, and national electrical standards and codes to ensure the safety and protection of the public. Regular grounds maintenance will be conducted in accordance with Dinwiddie County Code and the Conditional Use Permit conditions. A perimeter fence constructed in accordance with the Dinwiddie County Zoning Ordinance and the National Electric Code (NEC) will secure the solar project.

The proposed Project will be required to obtain additional permits from the U.S. Army Corps of Engineers (USACE) and the Virginia Department of Environmental Quality (VDEQ). A Notice of Intent (NOI) for a VDEQ's Small Renewable Energy Projects (Solar) Permit by Rule (PBR) (Virginia Administrative Code Title 9 Agency 15 Chapter 60 (9 VAC 15-60)) has been filed. This regulation contains requirements for solar-powered electric generation projects consisting of PV systems and associated facilities with a single interconnection to the electrical grid that are designed for, or capable of, operation at a rated capacity equal to or less than 150 megawatts.

ATTACHMENTS

Lily Pond Solar, LLC CUP and Rezoning Application, includes Exhibit A-M - Conceptual Site Plan, dated Oct. 7, 2022

LAND USE AND ZONING ANALYSIS

The area is generally rural and used for silviculture and agricultural purposes interspersed with rural residential lots. The site includes forested and open agricultural land, cleared utility corridors, commercial pine timber and wetland systems associated with Brick Kiln Branch, Rowanty Creek, and Perkins Pond that are interspersed throughout the Project area. Overhead electric transmission lines traverse the northern site area in a north-south direction, and the southeastern part of the site in a northeast-southwest direction. The point of interconnection with Dominion Power's transmission system will be located at a new substation/switchyard along the existing north-south transmission corridor near Perkins Road. The area is also constrained by isolated cultural resources and aquatic resources. The preliminary site design has been designed to minimize cultural resources and to minimize impacts to aquatic resources as much as possible.

The properties in the immediate area surrounding the subject land parcels include agricultural and forested land, and low-density single-family and institutional (a church is located on Perkins Road) residential land uses. Residential land use makes up 1.2% of the project site, agricultural land makes up 8.6% of the project site, planted pines make up 13.6% of the project site, mixed pine/upland forest make up 42.1% of the project site and wetlands make up 18.7% of the project site. The properties to the north, east, south and west are zoned A-2, Agricultural General.

The vast majority of the site (>99%) drains south and west into Rowanty Creek. A very small area on the east side of the site drains east into Jones Hole Swamp. The entire Site ultimately drains into the Nottoway River. The soils in the general area are Emporia-Mattaponi-Slagle with the majority of the properties having Emporia sandy loam. The hydric soils comprise less than 2 percent of the site and are associated with drainages. According to the FEMA Floodplain maps, a small area (62 acres) of Zone A (100-year floodplain) occurs along two tributaries: upstream of Jenkins Pond in the central part of the site and along Brick Kiln Branch in the southeast part of the Site.

A primary purpose of the SED zoning district is to outline the process and requirements for the construction, installation, and operation of solar energy projects in Dinwiddie County in a manner that promotes economic development and ensures the protection of health, safety, and welfare while also avoiding adverse impacts to agricultural lands, endangered species habitats, conservation lands, and other sensitive lands.

COMPREHENSIVE PLAN CITATIONS

The subject property is located within the Rural Conservation Area as defined by the Comprehensive Land Use Plan. The subject property is located within the Rural Conservation Area as defined by the Comprehensive Land Use Plan. While the Comprehensive Plan does not specifically address renewable energy i.e. solar energy generation, it does account for future utility growth and expansion in accordance with the Comprehensive Plan.

Chapter X Future Land Use includes the following relevant special planning considerations, battlefield preservation, and planning guidelines:

B. Special Planning Considerations: includes the following relevant sections:

11. Prime Agricultural Land: (1) Identify the large parcel land areas containing the best agricultural soils, high historic yields, and high probability of continuing in agricultural use. (3) Encourage the location and continuation of agriculture related industrial and commercial uses which support the agricultural community (4) Make regulations sufficiently flexible to permit site locations, where development occurs in identified prime agricultural land areas, that minimize interference with agricultural operations, that use marginally productive land and that cause a minimal loss of productive agricultural acreage.

14. Battlefield Preservation: The nationally significant Civil War battlefields in the County should be recognized as a major cultural resource. When these predetermined sites are threatened by non-compatible development, policy should be prepared as a guide to any proposed action that may impact any cultural or natural resources in these areas.

C. Planning Guidelines:

2. Rural Conservation Land: The Rural Conservation Area includes existing large-lot, low density, single-family subdivisions with lot sizes averaging five (5) acres or greater with limited commercial and industrial development. The above existing areas uses are compatible with the uses permitted in the A-1 and A-2 zoning classifications.

Chapter XI Policies, Goals and Objectives includes the following relevant Policy statements: (1) Preserve the rural character of Dinwiddie County which includes agriculture, open space, clean environment, low taxes, quality education, safe environs, and a strong sense of community. (2) Conserve and protect the County's natural and historic resources and environmentally sensitive areas. (3) Maintain and enhance the County's ability to coordinate a balanced land use program among various types of residential, commercial, and industrial interest by encouraging development within areas defined as growth centers and/or growth corridors. (4) Preserve productive agricultural and timber lands from premature conversion to urban uses by discouraging urban development patterns throughout the County. (5) Provide and maintain needed community facilities and services in a cost-efficient manner. An impact analysis will be required for all major development so that public, health, safety, and welfare are protected.

In addition to the relevant Policy statements, there are additional relevant goals and objectives for each element of the Comprehensive Plan as set forth below:

Agricultural and Timber Lands: Goal: Preserve a significant portion of the County's productive agricultural and timber lands. Objectives: (b) Protect existing agricultural operations from conflicts with other land uses. (c) Establish a pattern of residential and commercial development that causes minimal conversion of agricultural land or disruption to agricultural areas. (f) Identify and designate prime agricultural land.

Public Facilities and Services: Goal: Provide County facilities and services necessary to promote a safe, healthful, and desirable community in which to live. Objectives: (a) ensure that the intensity, timing, and implementation of future development is subject to the provision of adequate and coordinated public facilities and services. (d) Recognize the need for continued planning in order to maintain adequate and efficient public facilities and services for existing and future residents.

Open Space, Recreation, and Historic Preservation: Goal 3: Preserve “open space” areas throughout the County such that these areas will become an integral part of the community as the growth corridors and centers expand. Objectives: (a) Protect and conserve natural features of the environment, i.e., wetlands, floodplains, etc., from improper development. Goal 4: Preserve and protect historic sites and buildings in Dinwiddie County. (h) Preserve and protect the County’s historic sites and cultural heritage.

Environment: Goal: Protect the county’s high level of environmental quality.

Objectives: (a) Protect the environment and conserve resources for future uses. (b) Assure that new development minimizes adverse impacts on the natural land and/or built environment. (c) Preserve the County’s scenic, cultural, and historic resources as being essential to both the County’s rural and historic character and the overall quality of life. (d) Protect and preserve the County’s agricultural and timber lands and activities. (f) Maintain and enhance the agricultural and farming resources as an integral sector in the County. (g) Protect and preserve the natural and physical environment.

Land Use and Development: Goal: Ensure that sound practices are employed and guide future development in an efficient and serviceable manner, which is protective of the County’s predominately-rural character and concentrates development in designated areas.

Objectives: (f) Encourage development which is compatible with anticipated rates of growth, available resources, and available or planned utilities, schools, and other community facilities and services. (g) Emphasize community planning and industrial development that is designed to economize the costs of roads, utilities, and land use. (h) Make planning and industrial development that is designed to economize the costs of roads, utilities, and land use.

OVERVIEW OF IMPACTS

In the application request for rezoning and a conditional use permit, the applicant submitted a Community Impact Analysis, Natural Resources Survey, Preliminary Jurisdictional Determination (ACOE), Cultural Resources Survey, Landscaping Plan and Visual Impacts/buffer 3D Models, Traffic Analysis, FAA Study, and proposed Conditions for the Conditional Use Permit request. Fiscal Impact Report, a Decommissioning Plan and the Limited National Environmental Policy Act (NEPA) Review for the project/site. The proposed Project will be required to obtain additional permits from the U.S. Army Corps of Engineers (USACE) and the Virginia Department of Environmental Quality (VDEQ). A Notice of Intent (NOI) for a VDEQ’s Renewable Energy Projects (Solar) Permit by Rule (PBR) (Virginia Administrative Code Title 9 Agency 15 Chapter 60 (9 VAC 15-60) has been filed. This regulation contains requirements for solar-powered electric generation projects consisting of PV systems and associated facilities with a single interconnection to the electrical grid that are designed for, or capable of, operation at a rated capacity equal to or less than 150 megawatts. In addition, the construction will take place in accordance with the Virginia Department of Environmental Quality (VDEQ) and the Virginia Department of Transportation (VDOT).

Fiscal Impact

The applicant’s fiscal impact report identifies that under the current land use the Property generates approximately \$6,760.00 in annual real estate tax and a projected real estate tax revenue over 45 year project lifespan of \$304,186.00. With the new use, the solar facility,

anticipated annual real estate tax generated from the reassessed value (based on a \$15,000.00 per acre reassessment value) of the Property is estimated to be \$224,083.50. Over the 45-year projected lifetime of the project, the estimated real estate tax generated totals \$10,083,758.00.

The project is subject to machinery and tools tax under Va. Code Sec. 58.1-3660 and HB 1297, and the M&T revenue is estimated to be approximately \$4,036,050.00 over 45 years. The revenue share option that assesses up to \$1,400.00 per megawatt of solar project capacity with an escalator of 10% every five years beginning in 2026 creates revenues of approximately \$8,212,868.00 over 45 years. Given the two taxing scenarios, over the 45-year useful life of the Project the direct fiscal impact to the County are \$14,000,00.00 to \$18,000,000.00. Additionally, the economic contribution will generate approximately \$6.5 million in direct (construction related activity), indirect, and induced incremental activity to the economy in Dinwiddie County.

Community Impacts

The operational life of the Project is anticipated to be approximately 45 years. During operation there will be no staff on site and the Project will be monitored remotely 24 hours per day. Additionally, a few times per year trips to the site will be from vegetation and technical maintenance personnel. The Project site areas (solar panel arrays) will be enclosed by fencing with access only allowed by authorized personnel. The visual impacts to the adjoin property owners are to be mitigated by vegetative buffers and setbacks (150 feet from all property boundaries and roads and 250 feet from Halifax Road) as detailed in the preliminary landscaping plan. The Project's construction phase is estimated to be between nine and twelve months. Construction activities are proposed to be governed by conditions in the condition use permit, which will limit days and times of certain construction activities. The operational daytime noise is proposed to be at normal conversation level at the fence line with no noise emissions at night. Lily Pond will coordinate with VDOT to ensure traffic and road safety measures will be implemented in compliance with applicable VDOT requirements (see Transportation Impacts Section). All permits have to be obtained prior to commencement of construction including the conditional use permit, site plan approval, Comprehensive Plan accord, permit by rule, land disturbance, erosion and sediment control (E&S), stormwater management, building and electrical permits. E&S measures are required to ensure protection of downstream landowners and watersheds. Stormwater management facilities are installed to meet requirements for water quantity and water quality. Finally, at the end of the useful life of the Project, Energix will be required to decommission the project as set forth in an approved decommissioning plan.

Cultural and Environmental Impacts

The applicant commissioned the attached Cultural Resources Survey and the Comprehensive Natural Resources Studies Report. More detailed investigations and applications will be prepared as part of the VDEQ Permit By Rule (PBR) and the USACE permit application and review process as required. In accordance with §10.1-1197.6 B 1 of the Code of Virginia, the Applicant has furnished to the VDEQ a notice of intent (NOI), (posted 5/16/2019; name change submitted 3/13/2020) that it intends to submit the necessary documentation for a PBR for a small renewable energy project. Once an application has been received by VDEQ, the Applicant will access the expertise from the sister agencies that will be involved in the review of the application, i.e., Department of Historic Resources (DHR), the Department of Game and Inland Fisheries (DGIF) and the Department of Conservation and Recreation (DCR).

The aquatic resources studies (between December 2018 and February 2020) have identified a number of potentially jurisdictional USACE and VDEQ wetlands/streams on the site. An approved jurisdictional determination by the USACE will be requested as part of the permit application process. Consultation with VDEQ's Virginia Water Protection (VWP) Permit Program will take place as part of the PBR process. The site does not contain federally designated critical habitat for any species. There are no documented occurrences of protected wildlife species on or within two miles of the Project boundaries.

The wetland and stream findings were submitted to US Army Corps Of Engineers Norfolk District and a Preliminary Jurisdictional Determination (PJD) has been received on February 8th, 2021. The PJD confirmed findings of the environmental consultant. The PJD letter is included in Exhibit H- Preliminary Jurisdictional Determination (ACOE). To ensure protection of the critical wetland habitat, wetland areas will be put into a conservation status by easement or otherwise approved by the County Attorney for the duration of the Project.

A Phase I archaeological and historic architectural survey of Project area has been completed. The archaeological fieldwork was conducted from August 19 to September 17, 2019, October 4 to November 17, 2019, and February 3–15, 2020, while the historic architectural fieldwork was conducted from August 22–29, 2019 and on February 18, 2020. Twelve newly recorded and two previously recorded historic architectural properties were documented during the Project survey. All of the newly recorded and one of the previously recorded historic architectural properties are located within the Project area of potential effects (APE) but are recommended not eligible for the National Register of Historic Places (NRHP) and no further consideration is recommended for these resources. The archaeological resources portion of the report did indicate that there are substantial prehistoric resources for a portion of the project area. Related to the Civil War Battlefield portions of the Reams Station I, Reams Station II, Boydton Plank Road, and Hatcher's Run battlefields (the battlefield boundaries as delineated by ABPP CWSAC) are within the Project area.

As stated in the Cultural Resources Survey, these portions “of the battlefields located inside the project area continue to retain their integrity of location, setting, feeling, and association”. (see the attached ABT, NPS, NPCA Comment Letter)

School System, Public Safety, & Public Utilities Impacts

There are no impacts to the school system with the proposed rezoning allowing for construction of the solar energy generating facility. The potential impact on public safety with the rezoning of the subject property include the proposed solar arrays, inverter and transformers, and electric substation and generators having to address fire protections as required by the applicable National and local Fire Code and Building Code. The impact on public utilities involves the electric substation, switchyard and the point of interconnection with the Dominion Energy transmission line.

Transportation Impacts

With utility scale solar energy facilities generating very few vehicle trips after the initial construction period, the post-construction impacts on the existing transportation network are minimal. The proposed solar energy facility will generate substantial traffic during construction and have an impact on the secondary roads in the area. A majority of the traffic generated is truck traffic delivering materials to the site and traffic generated from construction vehicles and

construction workers travelling to the site. The secondary roads in the general area of the site are not designed for large volumes of heavy traffic and as a result, increased road maintenance costs may arise.

To ameliorate the impacts of the increased traffic on area roads VDOT is recommending that a Construction Traffic Management Plan (CTMP) be required to account for the transportation impacts related to the development of the property. The CTMP includes (1) a plan to show proposed construction access routes to the development site from the State primary routes; (2) a pre-construction assessment of the condition of the secondary roadways to be used as a haul route to the facility with a commitment from the applicant to repair any damage caused during construction and to restore the roadways to pre-construction conditions; and (3) a plan to identify on-site areas suitable for parking for the construction workers and areas exist on-site to allow trucks to be unloaded and to turn around without having to back onto State maintained roadways.

Additionally, VDOT anticipates that multiple low-volume commercial entrances are required to serve the proposed solar energy facility. The low volume commercial entrance has to demonstrate that stopping sight distance based on the posted speed limit is available at the proposed entrance location. All future transportation related improvements for the construction entrances and commercial entrances will have to meet VDOT design and construction requirements and standards as part of VDOT's permitting process.

PLANNING COMMISSION ACTION

The Planning staff has reviewed the request to rezone the property from A-2, Agricultural General to SED, Utility Scale Solar Energy District to allow for a solar energy-generating project and with the subject request, there are impacts and the Planning Commission ultimately must weigh those impacts against the benefits of the rezoning request.

The Planning Commission should consider if the rezoning request is compatible and not a substantial detriment with the surrounding zoning pattern and surrounding property and that it conforms to the underlying uses outlined in the Rural Conservation Area in the Comprehensive Land Use Plan for this general area of the County.

PLANNING COMMISSION RECOMMENDATION

Since this is a zoning matter, the standard statement regarding the Planning Commission's recommendation on this zoning matter must be read. In order to assist, staff prepared the following statement:

BE IT RESOLVED, that in order to assure compliance with Virginia Code Section 15.2-2286(A) (7) it is stated that the public purpose for which this Resolution is initiated is to fulfill the requirements of public necessity, convenience, general welfare and good zoning practice, I move that rezoning request, P-23-1, as presented be recommended for (approval or disapproval) to the Board of Supervisors.