

Dinwiddie County Planning and Zoning Department

14010 Boydton Plank Road

Dinwiddie, VA 23841

Phone: (804) 469-4500

Fax: (804) 469-5322



To: Dinwiddie County Planning Commission

From: Mark Bassett, Planning Director

Date: March 1, 2023

Subject: Substantial Accord Determination, Proposed Solar Generating Facility, Lily Pond Solar, LLC, an 80 MW Photovoltaic Solar Facility

Proposed Solar Energy Project Substantial Accord Determination:

As provided for in Va. Code Sec. 15.2-2232, as amended, the Planning Commission is to determine whether the general location, character, and extent of the proposed solar generating facility, Lily Pond Solar, LLC, an 80 MW photovoltaic solar facility, is substantially in accord with the Comprehensive Plan (the "Plan"). The applicant submitted the attached Memorandum, prepared by Jasdeep Singh Khaira, Esq., Gentry Locke Attorneys, dated February 24, 2023 and Exhibit A to provide an analysis for determining Lily Pond Solar's conformity with the Dinwiddie County Comprehensive Plan.

Existing Land Use and Zoning:

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.

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 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.

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).

Location, Appearance and Operational Impacts:

Setbacks and Buffers: The conceptual plan for development of the site indicates that the proposed dual portrait solar panels mounted to the single-axis tracking system are to be located on 500 +/- acres. Per the conceptual site plan, the proposed Project is to meet the following setbacks from the fenced areas: 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. The applicant has developed a landscaping plan to mitigate the visual impacts of the solar panels on the adjoining properties and roads. To help preserve the rural character of the County the applicant is maintaining existing mature vegetation to act as a buffer within the 150 foot setback areas. Additional evergreen plantings as part of the Project landscaping plan are proposed as supplemental vegetation within the buffer areas to help screen the Project.

Wildlife Corridors: Wildlife corridors shown on the conceptual plan. It does appear that there is room within the interior of the site (outside of the fenced solar panel array areas) to permit movement for wildlife. Planting warm season grasses and pollinator plants will also enhance the wildlife habitats in the general area of the facility.

Height of the Solar Panels: An 18-foot maximum height for the solar panels is maintained for the entire project site.

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”.

Public Facilities:

There are no impacts to the school system with the proposed rezoning allowing for construction of the solar energy facility. The potential impact on public safety with the rezoning of the subject property include the proposed solar arrays, inverter and transformers 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 point of interconnection with Dominion Energy’s existing transmission power line, which is to be located interior to the Project west of Halifax Road.

Transportation:

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.

Comprehensive Plan Elements:

The subject property is located within the Rural Conservation Area as defined by the Comprehensive Land Use Plan. 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, service and industrial development. The above existing areas uses are compatible with the uses permitted in the A-2 zoning classification. If new uses are introduced in the rural Conservation Area, a proposed use should take into consideration the special planning considerations, battlefield preservation, and planning guidelines set forth in the Comprehensive Plan. Special planning considerations include the fact that the proposed solar energy generating facility is located on land classified as prime agricultural land. The proposed project is sited to allow portions of the property to remain as in agricultural use while visually buffering the solar panels utilizing existing landscape vegetation and increased setbacks. Battlefield preservation is accounted for with siting the proposed solar panels outside of the area where troop movements associated with the battles are documented. The applicant is proposing to establish 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 siting of the proposed solar energy generating facility does address maintaining the rural character of the surrounding area by utilizing increased setbacks (150 feet from property lines and roads) between the solar panels and the perimeter of the site, adjoining properties and roads while maintaining the existing vegetation for vegetative buffers and pollinator garden areas are included. A Project-wide landscaping plan is proposed to ameliorate the visual impacts of the solar panels in areas where the existing vegetation does not effectively screen the solar panels.

In addition, included under the Comprehensive Plan's Chapter XI Policies, Goals and Objectives are 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) Emphasive 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.

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., utility scale solar energy generation, it does account for future utility growth and expansion in accordance with the Comprehensive Plan.

Planning Commission Determination

The Planning Commission has to determine the location, character, and physical extent of the proposed solar generating facility, Lily Pond Solar, LLC, an 80 MW photovoltaic solar facility, is in substantial accord with the Comprehensive Plan as specified in Va. Code Sec. 15.2-2232, as amended.

Planning Commission Action

WHEREAS, in accordance with Va. Code §§ 15.2-2232, as amended, the Dinwiddie County Planning Commission is of the opinion that the subject solar generating facility, Lily Pond Solar, an 80 MW photovoltaic solar facility satisfies the criteria of location, character, and physical extent:

NOW, THEREFORE, BE IT RESOLVED that the Dinwiddie County Planning Commission does hereby find that the subject solar generating facility, Lily Pond solar, LLC, an 80 MW photovoltaic solar facility (is or is not) substantially in accord with provisions of the Comprehensive Plan.