

Planning Commission Staff Report

File #: P-19-4
Applicant: HCE Reams Solar I, LLC, and their Agent, Stanford H. Allison
Rezoning Request: Agricultural, General, A-2 to Industrial, General, M-2 with Proffers
Property Location: 24413 Old Vaughan Rd. (Route 605), Dinwiddie
Tax Map Parcel: 47-74
Property Size: Approximately 64.10 +/- acres and the request is to rezone approximately 38.0 +/- acres to Industrial, General, M-2 with Proffers
Magisterial District: Rowanty District
Applicant's Community Meeting: May 22, 2019 at Eastside Enhancement Center
Planning Commission Mtg.: October 9, 2019

CASE OVERVIEW

The applicants, HCE Reams Solar I, LLC, and their Agent, Stanford H. Allison are requesting to rezone with proffers property containing approximately 38.00 +/- acres from A-2, Agricultural General, to M-2, Industrial General. The M-2, Industrial General, zoning classification allows for a public utility generating facility with a conditional use permit. The proposed proffered use of the subject property limits the use and structures to a solar energy generating facility, comprised of solar modules, racking, inverters, transformers, cabling and battery energy storage devices. The proposed solar generating facility, Reams Solar I, is a 5 MW AC, 6.5 MW DC photovoltaic solar facility with onsite battery storage. Since the proposed solar energy facility has a rated capacity no greater than 5 megawatts, the Department of Environmental Quality (DEQ) Permit by Rule (PBR) is not required for the proposed project. The applicant does have to notify DEQ of the solar project and submit a certification by the County's Board of Supervisors that the project complies with all applicable land use ordinances.

The subject property is located at 24413 Old Vaughan Rd. (Route 605) Dinwiddie, VA and is further defined as Tax Map Parcel No. 47-74. The applicant is proposing a long-term lease for the aforementioned property where the single-axis tracking system of dual portrait solar panels are to be constructed. The proposed point of interconnection with Southside Electric Cooperative's existing three-phase power line is located on the front of the property near the existing entrance to the property from Old Vaughan Road. The existing power lines connect the proposed solar energy facility to the Reams power substation that is located approximately 2,000 feet from the subject property.

ATTACHMENTS

Attachments - Rezoning Application, Statement of Proffers, Location Map, Reams Solar I Conceptual Site Plan, VDOT Land Use Amendment Comment Letter for P-19-4, Reams Comprehensive Plan Accordance Narrative, Reams Limited NEPA Review, Reams Fiscal Impact Report V4, Reams Decommissioning Plan V3

LAND USE AND ZONING ANALYSIS

The properties in the immediate area surrounding the subject land parcel include agricultural and forestal land, low-density single-family residential, and institutional (a Church located northwest across Old Vaughan Road) land uses. The property to the north, east, south and west is zoned A-2, Agricultural General. The subject property drains to Gravelly Run and Rowanty Creek to the

northeast and flows to Jones Hole Swamp. The soils in the general area are Emporia-Mattaponi-Slagle and specifically Mattaponi sandy loam for the subject property. This soil type is considered prime farmland. According to the USDA Soil Survey of Dinwiddie Area, VA about 208,000 acres, or nearly percent of the total acreage, meets the soil requirements for prime farmland. According to the FEMA Floodplain maps there are no Zone A 100-year floodplain areas designated on the subject property. The applicant has indicated that there is no mass grading planned for the subject property.

A primary purpose of the Industrial, General, M-2, zoning district is to establish an area where the principal use of the land is for heavy commercial and industrial operations, which may create some nuisance and which are not properly associated with, nor particularly compatible with, residential, institutional and neighborhood commercial service establishments. In the Industrial, General, M-2 zoning district a utility generating facility is permitted with a conditional use permit. The proposed proffered use of the subject property limits the use and structures to a solar energy generating facility, comprised of solar modules, racking, inverters, transformers, cabling and battery energy storage devices. In addition, the proffer conditions include a development concept plan for the solar energy facility that is enclosed with a security fence. The point of interconnection with Southside Electric Cooperative's existing three-phase power line is located on the front of the property near the existing entrance to the property from Old Vaughan Road. As shown on the concept site plan, the proposed dual portrait solar panels mounted to the single-axis tracking system are to be located on 26.0 +/- acres on the middle and rear portion of the subject property approximately 756.0 +/- feet inward from Old Vaughan Road. The single-axis tracking system entails the dual 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 front portion of the property is to remain zoned A-2 for continued agricultural uses.

Per the concept site plan, the proposed solar panels are located 250 +/- feet from the existing residence on an adjoining parcel to the west, and on the east 285 +/- feet from one existing residence and 670 +/- from a second residence. There are existing trees on the west side of the site to screen the solar panels from the residence, but the applicant is proposing to remove the trees which will no longer provide a vegetative buffer on the subject property between the residence and the proposed solar panels. On the east side of the subject property, there are no existing trees to provide a vegetative buffer on the subject property between the solar panels and the existing residences. To help screen the visual impact of the solar facility from Old Vaughan Road there is a vegetative buffer proposed on the northern portion of the facility between the proposed solar panels and Old Vaughan Road.

COMPREHENSIVE PLAN CITATIONS

The subject property is located within the Rural Conservation Area as defined by the Comprehensive Land Use 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. (e) Maintain and enhance the agricultural and farming resources as an integral sector in the County. (f) 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 ie. solar energy generation, it does account for future utility growth and expansion in accordance with the Comprehensive Plan.

OVERVIEW OF IMPACTS

In the application request for rezoning and a conditional use permit, in addition to the Statement of Proffers, the applicant submitted a Comprehensive Plan Accordance Narrative, a Fiscal Impact Report, a Decommissioning Plan and the Limited National Environmental Policy Act (NEPA) Review for the Rams Solar I facility/site. In the rezoning application the applicant states that "the operation of the facility will be nearly silent and will only require infrequent visits to ensure vegetation is maintained". Further, the applicant states that "the project will not have a detrimental effect on adjacent property". The construction will take place in accordance with the Virginia Department of Environmental Quality (DEQ) and the Virginia Department of Transportation (VDOT) guidelines and will not create a burden on public utilities, schools or impede future development of the neighboring area. Traffic will increase during construction, but will be reduced to quarterly maintenance once operational.

The rezoning Proffers include three proffered conditions (1) limiting the use of the subject property to a solar generating facility and ancillary uses; (2) stating that the property shall be developed in accordance with the attached Concept Plan dated September 10, 2019; and (3) providing a surety or cash reserve in accordance with Va. Code Sec. 15.2-2241.2 to fund decommissioning of the facility.

The applicant's Fiscal Impact Report identifies a fiscal contribution to the County of \$5,372.85 in rollback property taxes if the project is removed from the County's land use program and additional local real estate property tax revenue estimated at \$4,740.00 annually totaling \$142,200.00 over the 30-year projected lifetime of the project. The project is exempt from all personal property tax and machinery and tools tax under Va. Code Sec. 58.1-3660 and HB 1297. The economic contribution during the project construction phase is \$58,080.00.

Cultural and Environmental:

The applicant commissioned the Limited National Environmental Policy Act (NEPA) Review for the Rams Solar I facility/site looked at threatened and endangered species and the potential presence of cultural and historical resources. If any site work is proposed in wetlands or waters of the U.S., then Section 401 and Section 404 Clean Water Act permits are required. If a Section 404 Clean water Act Permit is required then a review of threatened and endangered species and cultural resources is required. According to the Limited NEPA Review five architectural resources and two archaeological resources are identified within the general area of the proposed solar facility. Two of the cultural resources are located on the site and are both classified as eligible for listing on the National Register of Historic Places (NRHP). The remaining resources have not yet been evaluated. The cross-hatched area along Old Vaughan Road (Route 606) on the concept plan indicates the potential for historic resources which include troop movements associated with the Reams Station Battlefields (I&II) to the east of the subject property. In addition, there is a nearby property located at 24205 Old Vaughan Road that does have a historic home that is of architectural significance.

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 facility. The potential impact on public safety with the rezoning of the subject property include the proposed solar arrays, battery storage areas, 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 Southside Electric Cooperative's existing three-phase power line which is to be located at the front of the subject property. The existing power lines connect the proposed solar energy facility to the Reams power substation that is located approximately 2,000 feet from the subject property.

Transportation Impacts

With utility scale solar energy facilities generating very few vehicle trips, the impacts on the existing transportation network are minimal. The proposed solar energy facility will, however, 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 also 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 arise. To ameliorate the impacts of the increased traffic on area roads VDOT is recommending that a Construction Traffic Management Plan (CTMP) is included in the rezoning Proffers 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 a low-volume commercial entrance is required to serve the proposed solar energy facility. The low volume commercial entrance has to demonstrate that stopping sight distance for a 55 MPH speed limit is available at the proposed entrance location.

Old Vaughan Road (Route 605) is a secondary local roadway and VDOT Access management spacing standards are not applicable on local roads or for low volume commercial entrances. All future transportation related improvements for the commercial entrance will have to meet VDOT design and construction requirements and standards. (Please see attached VDOT Land Use Amendment Comment Letter for P-19-4).

Location, Appearance and Operation Impacts

Setbacks and Buffers: The concept 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 26.0 +/- acres on the middle and rear portion of the subject property approximately 756.0 +/- feet inward from Old Vaughan Road. Additionally, per the concept site plan, the proposed solar panels are located 250 +/- feet from the existing residence on an adjoining parcel to the west, and on the east 285 +/- feet from one existing residence and 670 +/- from a second residence. There are existing trees on the west side of the site to screen the solar panels from the residence, but the applicant is proposing to remove the trees, which will no longer provide a vegetative buffer on the subject property between the residence and the proposed solar panels. On the east side of the subject property, there are no existing trees to provide a vegetative buffer on the subject property between the solar panels and the existing residences. To help screen the visual impact of the solar facility from Old Vaughan Road there is a vegetative buffer proposed on the northern portion of the facility between the proposed solar panels and Old Vaughan Road.

To mitigate the visual impacts of the solar panels on the adjoining properties and residences, Staff recommends that if the existing trees are removed from the west side of the site that opaque fencing or a low profile vegetative barrier is installed to screen the solar panels from the residence on Tax Map Parcel 47-85. In addition, on the east side of the property that opaque fencing or a low profile vegetative barrier is installed to screen the solar panels from the residences on Tax Map Parcels 47-72D, 47-72E, and 47-72C.

Additionally, concerning buffers and landscaping/tree planting the Dinwiddie County Zoning Ordinance requires 10% tree cover at ten year's maturity for the site. With the proposed M-2 zoning adjacent to the existing A-2 zoned property The Zoning Ordinance requires a 75-foot wide landscaped buffer for the perimeter of the site between the solar panels and the property lines of the adjoining A-2 zoned property. If the rezoning is approved and a conditional use permit is granted the site developer may request a variance from the aforementioned buffer requirements. Where landscape buffers are planned and/or required the use of native plants is encouraged, and where feasible the buffer areas and panel zones should utilize season grasses and pollinator plants.

Wildlife Corridors: There are no wildlife corridors shown on the concept plan. It does appear that there is adequate room around the perimeter of the site 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: There is no indication on the concept plan or in the application for the height of the dual portrait solar panels. It is recommended that a 20-foot maximum height for solar panels at full tilt as needed for topographical adjustment so long as the lowest edge of the panels is no more than 10 feet above grade.

Stormwater Management and Erosion and Sediment Controls: If the rezoning is approved at the time of site plan review a separate surety (cash, letter of credit, or bond), should be posted at the County for grading, erosion and sediment controls, and stormwater controls prior to issuance of a land disturbance permit.

Decommissioning Plan: The applicant did submit the aforementioned Decommissioning Plan with a proposed plan for a surety to cover the cost of decommissioning in accordance with Virginia Code Sec. 15.2-2241.2. The Plan needs to protect the interests of the property owner(s), adjacent property owners, and the County ensuring the removal of the solar facilities after the use is terminated with restoration of the land to its former condition, and there needs to be the fiscal assurances approved by the County to cover the implementation of the Decommissioning Plan.

PLANNING COMMISSION ACTION

The Planning staff has reviewed the request to rezone the property from A-2, Agricultural General to M-2, Industrial General with proffers to allow for a solar energy generating facility 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, conforms to the underlying uses outlined in the rural conservation Area in the Comprehensive Land Use Plan for this general area of the County

The Planning Commission has two options:

1. Recommend approval or disapproval of the rezoning application as presented.
2. Defer the rezoning application for further discussion and consideration.

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:

Option 1 – Approval or disapproval of the rezoning request:

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-19-4, as presented be recommended for (approval, approval with proffers, or disapproval) to the Board of Supervisors.

Option 2 – Deferral of the application:

I move that the Planning Commission defer a decision on HCE Reams Solar I, LLC proposed Reams Solar I, 5 MW AC, 6.5 MW DC photovoltaic solar energy facility C-19-5, until the Planning Commission meeting scheduled to begin at 7:00 p.m. on November 13, 2019 in the Board of Supervisors meeting room.