STATEMENT OF JUSTIFICATION

IN SUPPORT OF APPLICATION FOR

COMPREHENSIVE PLAN COMPLIANCE DETERMINATION

FOR THE

ALAMEDA SOLAR PROJECT

ALAMEDA SOLAR-NORTH SECTION
ALAMEDA SOLAR-SOUTH SECTION
ALAMEDA SOLAR-INTERCONNECTION FACILITIES

FAUQUIER COUNTY, VIRGINIA

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I. Summary

Alameda Solar I, LLC ("Applicant") submits this Statement of Justification in support of its application for a comprehensive plan compliance determination for its proposed Alameda Solar Project ("Project"). The Project is a 70-megawatt ("MW") capacity solar energy generation facility that will be divided into three separate sections of land connected by buried electrical and data cables. Two of the sections, Alameda Solar–North Section and Alameda Solar–South Section, will host solar panels with the remaining section, Alameda Solar–Interconnection Facilities, hosting the electric grid interconnection equipment. These sections, shown in the attached map ("Site Aerial Map"), taken together, will comprise a single facility and for simplicity, Applicant will refer to all three sections, together, as the Project.

In accordance with the County's zoning practices, Applicant has submitted a separate Land Development Application for each section. Applicant respectfully requests that the Planning Commission ("Commission") make a determination that the Project as a whole is "substantially in accord" with the Fauquier County Comprehensive Plan ("Comprehensive Plan"). This Statement of Justification seeks to provide all the information needed and appropriate for the Commission to make this determination.

State law provides that each county's comprehensive plan controls the general or approximate location, character and extent of each feature shown on the plan. For any "public utility facility" that is proposed after the adoption of the comprehensive plan (and that is, therefore, not a "feature shown on the plan") the Commission is tasked with determining whether the **"**general location or approximate location, character, and extent thereof [of the public utility facility] . . . is substantially in accord with the adopted comprehensive plan or part thereof."[1] For this reason, the Zoning Ordinance provides that "the Planning Commission shall determine if [the] general or approximate location, character and extent [of the Project] are substantially in accord with the Comprehensive Plan."[2]

The Project is a solar energy generation facility that will deliver wholesale electricity to the transmission system that serves the County and the broader region. It will consist of several separately-fenced fields of solar panels connected with buried electrical lines that supply power to one of the County's existing transmission line. The Project will generate electricity with virtually no light, noise, odor, dust or traffic; it will produce no air pollution or wastewater or use any pipelines or fuel. The Project also will have no large buildings, parking lots, offices, and there will be no regular deliveries or shipping traffic.

The Project is located in an area of the County designated for Rural Land Use. Chapter 8 of the Comprehensive Plan, which is entitled "Rural Land Use Plan," addresses land use in the rural areas of the County. It contains policies and plans to protect and preserve farmland, historic sites and open space. The Rural Land Use Plan is focused on

[1] Va. Code § 15.2-2232.

[2] Zoning Ordinance, § 5-2201.3.A.

preserving the physical beauty, historical heritage and environmental quality of the County, while growing the rural and agricultural economy to better serve is people and protect its heritage.

With regard to utility-scale solar facilities in particular, the Rural Land Use Plan states the following:

> "While solar panels as a supplemental source of power have long been in use for residential and farm operations, recent developments in the industry have seen the expansion of utility scale photovoltaic energy generation facilities appearing in rural areas. Utility scale solar operations are subject to federal and state review, which reduces the regulatory considerations for local governments. As large scale solar farms become more common, however, the County may consider regulations to ensure that these operations don't detract from the rural character of the county and from the traditional and emerging farm economy. As the industry expands, the County should continue its policy principles of ensuring that these uses do not detract from the basic agricultural character and economy of its rural lands."[3]

Since the County adopted the above language, it has enacted rigorous zoning provisions for utility scale solar facilities, many requirements of which relate to the location, character and extent of such facilities and are designed to safeguard the agricultural economy and rural character of the County. As explained below, the Project meets all of these relatively new and rigorous zoning requirements relating to its location, character and extent.

In addition, the Rural Land Use Plan sets a number of goals, the most relevant of which to the Project is to "[e]nsure that businesses located in the rural lands do not adversely impact the intrinsic character of this area."[4] The Rural Land Use Plan then proceeds to recommend a series of specific actions that can be taken to meet this goal. In recognition of this important goal and the other of the County land use values stressed in the Comprehensive Plan that will be addressed below in more detail, Applicant has designed the Project to incorporate each of these recommended actions. Among these, Applicant is making the following commitments regarding the Project:

- **Native Pollinator-Friendly Vegetation**. The Project will be planted with beneficial vegetation designed to achieve the highest certification possible under the Commonwealth's solar-pollinator program.

[3] Comprehensive Plan, Chapter 8, p. 26 (emphasis added). The Rural Land Use Plan also includes a recommended action to "[e]xplore additional standards for locating alternative energy generating facilities to ensure preservation of environmental, cultural, and scenic resources and maintaining prime farm lands for agriculture." Comprehensive Plan, Chapter 8, p. 28.

[4] Comprehensive Plan, Chapter 8, p. 28.

- **Dual-Use Sheep Grazing Operation**. The Project will include an on-site sheep farm that will provide prescribed grazing as the primary means of vegetation control.

- **Agricultural Land Preservation**. Prior to the start of construction, Applicant will legally commit an approximately 300-acre portion of the Project (part of Alameda Solar–North Section), upon decommissioning of the solar panels, to permanent agricultural preservation.

For these reasons, Applicant respectfully requests that the Commission determine that the Project's general location, character and extent are substantially in accord with the Comprehensive Plan. A Concept Plan for the Project is provided as **Exhibit 1**.

II. General Location of Project is in Accord with Comprehensive Plan

A. Project Location

The Project is proposed to be located on a series of parcels about two miles southeast of Bealeton. All of the land that the Project would use is zoned Rural Agricultural ("RA"). The Project is not within any Service District or Agricultural and Forrestal District. The three sections and their respective locations are follows:

- Alameda Solar–North Section will be approximately 372 acres in size and will be bounded by Rouges Road, Ebenezer Church Road, and Blackwelltown Road.

- Alameda Solar–South Section will be approximately 88 acres in size and will be located west of Old Mill Road.

- Alameda Solar–Interconnection Facilities will be approximately 4 acres in size and will be located to the south of, and contiguous to, Blackwelltown Road.

A series of maps depicting the location of the Project in relation to various features in the County are provided in **Exhibit 2**. These maps are (1) Site Aerial; (2) Environmental Features; (3) Prime Farmland; (4) Cultural Resources; (5) Major Collectors; (6) Scenic Byways; and (7) Proximity to Remington Solar.

B. Transmission Lines

The Project is located on both sides of a large transmission line that traverses the County from roughly west to east, and to which the Project will deliver its power. The transmission line is known as the "Elk Run-Gainesville 230 kV Line" and is owned and

operated by Dominion.[5] Lines such as this one have a finite carrying capacity for new power, for which proposed new solar projects compete. Upgrading these lines for additional generation capacity is extremely expensive. Even assuming all landowners with suitable land in the County wanted to host solar panels, only a very small fraction of the County's land (likely less than 1%) could "electrically" accommodate those facilities based upon the physical constraints of the existing transmission infrastructure. The Project can produce power without the need to upgrade the Elk Run-Gainesville 230 kV Line or build any new transmission lines.

The location of the Project is consistent with the locational requirements for utility scape solar facilities and transmission lines in the Zoning Ordinance. The County requires that a utility scale solar energy facility be located within 2.5 miles of electric transmission lines.[6] All parts of the Project are located within 1.5 miles of the Elk Run-Gainesville 230 kV Line.

C. Major Collectors

The attached map ("Major Collectors Map") depicts road data from figure 10.12 of the Comprehensive Plan (entitled "Functional Classification of Roads in Fauquier County"). Alameda Solar–North Section is about ¼ mile from Midland Road, which is a Major Collector. Alameda Solar–South Section is farther, at approximately 1 and ½ miles, and Alameda Solar–Interconnection Facilities lies between the two.

Although the construction of the Project will generate significant delivery and worker traffic, it can be appropriately managed via appropriate mitigation measures implemented for the benefit of the travelling public. Once constructed, the operation of the Project will not result in a material increase in current traffic. Consistent with the Zoning Ordinance, Applicant plans to request that the Board of Supervisors find that "the amount of traffic generated by the facility is such that frontage on a public road with a lesser designation will not cause an undue impact on the neighbors or adversely affect safety or road usage."[7] Applicant's request will be supported by a construction traffic and road analysis.

D. Corridors of Statewide Significance

The County requires that solar facilities be located more than 1,000 feet from the nearest right-of-way line of a street identified as a Corridor of Statewide Significance.[8] The nearest Corridor of Statewide Significance to the Project is Highway 17, and the Project is located more than 1 mile away (to the east).

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[5] The Elk Run-Gainesville 230 kV Line is depicted along with other transmission lines in the County in Figure 19 of Natural Resources and Technical Supplement of the Comprehensive Plan.

[6] Zoning Ordinance, § 5-2201.3.A.

[7] Zoning Ordinance, § 5-20003-5.

[8] Zoning Ordinance, § 5-2003.8.

E. Key Viewsheds and Scenic Byways

The Rural Land Use Plan stresses the scenic quality of many of the rural areas of the County and provides information on Key Viewsheds and Scenic Byways.[9] None of the Key Viewsheds or Scenic Byways are within a mile of the Project as shown in the attached map ("Scenic Byways Map").

F. Airport Area District

The Project is located within the Airport Safety and Impact Overlay District. As required by the Zoning Ordinance, Applicant will obtain the consent of the Warrenton-Fauquier Airport Committee confirming that the Project meets the requirements for construction in Airport Safety Zones.[10] Applicant has conferred with the Federal Aviation Administration and with representatives of the Committee about the Project and does not believe that the Project presents any safety concerns whatsoever for the operation of the airport.

G. Setbacks

One of the recommended actions in the Rural Land Use Plan to ensure businesses do not adversely impact the character of the area is to "[e]nsure that permanent structures supporting a rural business . . . are significantly set back from property boundaries, [and] do not obstruct views of significant natural features from adjacent properties or public roads . . . ."[11] To implement this recommendation for solar facilities, the Zoning Ordinance, requires a 100-foot minimum setback between solar equipment and the boundary of the Project.[12] Also per the Zoning Ordinance, there will be a 150-foot minimum setback between solar equipment and any existing residential dwelling.[13] The Project meets and exceeds these requirements, and as discussed below, within these setbacks will be substantial perimeter landscaping.

The Project will feature setbacks that are significantly greater than required by the Zoning Ordinance. First, all of the solar equipment will be fenced and, as shown in the Concept Plan, the setbacks have been calculated from the fenceline, which exceeds the setbacks from the solar equipment itself. Second, the Project will double the setback to 200 feet along the following three road segments of significant length:

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[9] Comprehensive Plan, Chapter 8, p. 35-36.

[10] Zoning Ordinance, § 5-2003.18.

[11] Comprehensive Plan, Chapter 8, p. 28.

[12] Zoning Ordinance, § 5-2003.7.a. The Concept Plan shows solar equipment crossing some parcels lines between parcels having the same owner. Applicant plans for these parcels to be consolidated prior the submission of the site plan. Also, this 100-foot setback is greater than the 75-foot and 25-foot setbacks that apply to roads and side/rear lots, respectively.

[13] Zoning Ordinance, § 5-2003.7.b.

- All of Rogues Road (Alameda Solar–North Section)

- The northern portion of Ebenezer Church Road (Alameda Solar–North Section)

- All of Old Mill Road (Alameda Solar–South Section)

Third, in the vast majority of cases, the distance between the fence and any neighboring home (that is, owned by a person not participating in the Project) is considerably greater than 150 feet, and in any case where the distance approaches 150 feet, the setback area is occupied by substantial amounts of existing vegetation that essentially blocks the site from view.

III. Character of Project is in Accord with Comprehensive Plan

A. General Character of the Project

The character of the Project will largely be determined by (1) the rigorous requirements set forth in the Zoning Ordinance, (2) the inherent and intentional low impact design of the Project, and (3) the dual use sheep farm and associated pollinator habitat. By conforming to the Zoning Ordinance's rigorous requirements with respect to setbacks and landscaping, the Project will have virtually no impact on the land or surrounding landscape. The solar panels will have a low and consistent profile, and the Project's perimeter will include substantial setbacks from parcel lines and public roads, which will contain landscaping consisting of existing, natural or planted vegetation.

Although the primary purpose of the Project is passive electricity generation, Applicant has designed it to complement the rural landscape of the County. The vast majority of the land will not be occupied by any equipment and will remain as open ground. Applicant plans to plant throughout the Project interior beneficial vegetation, prominently featuring native, non-invasive pollinator species, that will benefit area agriculture and ecology. Applicant also plans to develop a sheep grazing operation on site to provide the primary means of vegetation management. Finally, when the solar project is decommissioned, a large part of the Project land will pass into permanent agricultural preservation.

Far from being out of character with its general location, the Project will help preserve Fauquier's rural character. Solar is unlike other forms of development that can change the natural landscape such as housing, stores, gas stations, and office buildings, which are likely the greatest threat to the rural character of the County. The Project will prevent such development from occurring in the project area.

B. Low Impact Nature of the Project

The following design features of the Project serve to bolster to the low impact nature of the Project:

- Low profile of solar panels (12-foot maximum, a lower impact than the 15-foot maximum height prescribed by the Zoning Ordinance)
- The fenced area will be substantially smaller than the total property area (464 acres of fenced area with the 831.57 acre property boundary)
- About two thirds of the land inside the fenced area will be open space
- Much of the open space will serve as wildlife corridors and will be maintained with native vegetation
- Solar panels will be mounted on piles driven through soil about 6-10 feet without the use of concrete
- Topsoil will be retained across the Project to grow vegetation, including under the panels

The low impact nature of the Project extends through operation and decommissioning. Once constructed, the Project will produce no discernable sound, light, traffic, dust, or odor. The public will not be able to discern the very slow movement of the solar panels to track the sun, and the facility will not produce any light pollution. Except for the prescribed grazing and sheep farming operation, the Project will be monitored remotely with workers visiting different areas of the Project only as needed to perform inspections, maintenance and repairs.

C. Avoidance of High-Density Development

The Comprehensive Plan seeks to avoid high-density development that can stress natural resources, such as with septic systems and drinking water wells, and alter the rural character of the County. The Project is a low-density (unoccupied; no land subdivision; mostly open space) land use that will not stress natural resources (no water use or discharges) and will not significantly affect the rural experience (remote location, no discernable sound, low profile and significantly buffered by perimeter landscaping).

Despite its aggregate size being relatively large, the separate solar fields comprising the Project are much smaller. Approximately one sixth (approx. 17%) of the property will be used for the solar arrays, and the remainder of the land will be open space. Each of these solar fields will be constructed only on the available uplands and avoid virtually all sensitive environmental features such as wetlands and floodplains. Each solar field also is designed to “nest” within its existing vegetative landscape, and so

will be well-screened from nearby homes and roads. In addition, as required by the Zoning Ordinance, the fenced areas will comprise no more than 80% of the project area.[14]

D. Sheep Farm and Prescribed Grazing

To further incorporate the suggested actions of the Rural Land Use Plan and maintain consistency with the County's strong emphasis on its traditional and emerging farm economy, the Project will develop an on-site sheep farm. This operation will serve to bolster the County's traditional farm economy and serve as a prime example of an emerging sector of the nation's farming economy. This operation will serve as the primary means of vegetation control within the perimeter fence of the Project. The Project will use existing agricultural infrastructure at the site to facilitate the development of the farming operation, including agricultural structures and water sources. Mowing, weed trimmers, and other mechanical means of vegetation management will be used only to supplement the grazing operation.

The co-location of an agricultural operation on a solar site benefits the local community and businesses through job creation and the purchase of agricultural commodities such as hay and grain from local farmers. Solar grazing also has the ability to amplify the local benefit of a solar facility through the need for commodities and services associated with the husbandry of livestock.

Applicant's plans for this dual solar-grazing use of the land is supported by an analysis conducted by James River Grazing Company, LLC ("James River Grazing"), a Virginia firm that specializes in prescribed grazing and vegetation management for utility-scale solar facilities in the Southern U.S., that assesses the Project as a candidate for such an operation. James River Grazing surveyed the project area and analyzed its fields and agricultural infrastructure to determine whether the site is suitable for a prescribed grazing operation. It concluded that not only was the site suitable, but given it's somewhat unique agricultural infrastructure, that it could support a year-round, on-site operation that would perform grazing and support sheep production through lambing. James River Grazing prepared a prescribed grazing analysis for the Project that details the basics of the recommended operation ("Prescribed Grazing Assessment"), which is provided as **Exhibit 3**.

The Prescribed Grazing Assessment recommends a year-round, on-site farm with an initial herd size of 400 sheep. The operation would be based on the Alameda Solar–North Section, which contains the needed infrastructure, including a barn, run-in shed with hayloft, concrete feed lot area, storage facilities and water wells. The operation would establish internal "subdivisions" using portable fences and active herding techniques with sheep dogs to move the herd through the site over time. This movement throughout the

[14] The Zoning Ordinance provides that "[s]olar panels shall not cover more than 80% of the project area." Although the solar panels themselves will cover a much smaller areas, Applicant has conservatively interpreted this provision to require that the ratio of the fenced areas of solar panels to the total acreage of the parcels comprising the Project not exceed 80%.

site will accomplish the dual purpose of managing the vegetation around and under the solar panels and providing ample forage for the livestock. The operation would require two full-time workers and follow best management practices for prescribed grazing, such as those published by the Natural Resources Conservation Service. Applicant plans to implement the recommendations of the Prescribed Grazing Assessment for the Project.

E. Compatibility with Agricultural Use

In the Rural Land Use Plan, the County provides the following guidance for appropriate rural land uses:

> "The County may permit non-agriculturally related commercial uses by special exception or special permit in the rural lands if the use is agriculturally and rurally compatible in scale and intensity; poses no threat to public health, safety and welfare; contributes to the preservation of historically significant structures, or landscapes; and if it helps to preserve farmland and open space and continue agricultural operations."

The Project meets these guidelines. The use will be "agriculturally and rurally compatible in scale and intensity" because its vegetation will benefit area agriculture and the Project itself will include a traditional agricultural (sheep farm) operation to manage that vegetation. It will pose no threat to public health, safety or welfare as photovoltaic technology is mature and safe, and all above-ground equipment will be fenced and exclude the public. The Project will contribute to the "preservation of historically significant structures, or landscapes" because the facility will use and maintain the existing agricultural infrastructure and the required landscaping will ensure that is fits within the rural landscape. The Project also will help "to preserve farmland and open space and continue agricultural operations" because it will preclude the land from being developed more intensely and approximately half of the land will be permanently preserved in agriculture.

F. Clean Energy Benefits

To provide context and specifics regarding the clean energy benefits of the Project, Applicant retained Synapse Energy Economics to conduct a Clean Energy Assessment for Alameda. The Clean Energy Assessment is provided as **Exhibit 4.** Synapse calculated the amount of energy that the Project is expected to produce, put that amount in context of the amount of energy used in the County, and ran standard models to calculate the reduction in air pollution and the associated health benefits that would be attributable to the Project.

The Clean Energy Assessment concludes that the amount of power Alameda would produce is roughly equivalent to the amount used by 10,000 homes in Fauquier County. The power produced by the Project would be about the same as equipping half the building roofs in the County with solar panels. It also reports that the monetary value

of the human health benefits that would be realized by the displacement of conventional electric generation by the Project's clean power would be at high as $380 million.

Importantly, while these clean energy benefits will be spread across the region served by the wholesale electric grid, some of the project's power will likely be consumed right in Fauquier County. As noted, Alameda would supply its power to a high-voltage transmission line that traverses the County, the Elk Run-Gainesville 230 kV Line. On each side of Alameda's connection point – but within the County – are two electric substations: the Dominion "Elk Run" substation about a mile to the west and the NOVEC "Sowego" substation several miles to the east. At these substations, power from the Elk Run-Gainesville 230 kV Line is transformed to distribution-level voltage and delivered through a network of smaller lines to area consumers, including many in Fauquier County. After the Project is operational, the power "downloaded" from the Elk Run-Gainesville 230 kV Line will include some of the clean electricity generated by the Project.

G. Native Pollinator-Focused Vegetation

One of the actions recommended by the Rural Land Use Plan to ensure that renewable energy facilities do not adversely impact the character of the area is as follows:

> "Encourage low maintenance ground cover and activities on alternative energy generating facilities, such as bee pollinating plantings, native plantings, beekeeping and sheep grazing, that provide other ecological benefits."[15]

As required by the Zoning Ordinance, the "entire project, including under the solar panels [will] be vegetated."[16] In order to best reflect goal of the Rural Land Use Plan, however, the ground cover for the Project will be developed not only to meet this requirement, but also to achieve certification under the Virginia Pollinator-Smart Solar program ("Pollinator-Smart Program"). This Pollinator-Smart Program was jointly launched in 2019 by the Virginia Department of Conservation and Recreation ("DCR") and the Virginia Department of Environmental Quality ("DEQ") to encourage ecologically-responsible pollinator-friendly solar development in the Commonwealth.[17]

Applicant commissioned Timmons Group and Monarch Vegetation Services, Inc., a firm that specializes in pollinator-friendly vegetation in the Eastern U.S., to assess the Project as a candidate for certification ("Pollinator Site Suitability Assessment"). The Pollinator Site Suitability Analysis is provided as **Exhibit 5**.[18] Timmons and Monarch

[15] Comprehensive Plan, Chapter 8, p. 28.

[16] Zoning Ordinance, § 5-2003.14.

[17] Information on the program can be found here: https://www.dcr.virginia.gov/natural-heritage/pollinator-smart

[18] The Zoning Ordinance provides that "the lowest surface of the panel shall be at least eighteen (18) inches above grade." Zoning Ordinance, § 5-2003.6. To accommodate beneficial vegetation beneath the panels,

surveyed the site, took soil samples and then assessed a variety of factors that bear upon suitability of the site for pollinator-friendly species to flourish, such as topography, hydrology and soil characteristics. It concludes that the site was a good candidate for this approach and that it likely can be certified as such under the DCR/DEQ program. Applicant plans to development a vegetation management plan for the Project that will serve as the basis for such certification. If accepted, Applicant believes that Alameda would be the largest such site in Virginia.

The planned vegetation approach for the Project aligns well with the rural character of the County. The use of deep-rooted and tall-growing native flowering plants in lieu of turf grass is in accord with the agricultural principles emphasized in the Rural Land Use Plan, both aesthetically and ecologically. In essence, this feature of the Project will mean that its vegetation program will be less like a "golf course"-type landscape and more like a series of large meadows.

H. Avoidance of Sensitive Features

The Project is well-sited with respect to the physical characteristics of the land. Ground-mounted solar arrays have fairly strict land requirements: slopes under 10%, relatively dry uplands (solar must avoid open water, most wetlands, etc.), and suitable subsurface for driven piles and buried electric lines. Although the vast majority of the land in the County does not meet one or more of these requirements, the land chosen for the Project has all of these characteristics.

With regard to wildlife and related environmental resources, Applicant tasked Timmons with conducting an analysis of potential threatened and endangered species in the project area. This analysis, provided as **Exhibit 6** ("Environmental Resource Impact Analysis") identifies the potential for three threatened or endangered species to occur within the vicinity of the project. These species include the Northern Long-Eared Bat, the Yellow Lance (fresh-water mussel), and the Monarch Butterfly.

As would be expected with farm fields that are regularly disturbed for row crops, the report concludes that the existing land does not provide meaningful habitat for protected species, and therefore the Project is not expected to adversely impact any of the species identified. In fact, the Project is expected to create new productive habitat for the Monarch Butterfly through the establishment of pollinator-friendly vegetation throughout the project area. As shown in the Concept Plan, and the attached map ("Environmental Features Map"), the Project will meet the requirement of the Zoning Ordinance that "[a]ll 100-year floodplains, wetlands and steep slopes shall be protected from clearing, grading, filling or construction except as required for essential infrastructure such as roads or utility crossings"[19]

Applicant expects that the average space between the panel, at its lowest point, and the ground surface will be in the range of 24 to 30 inches.

[19] Zoning Ordinance, § 5-2003.9.

Related to wildlife, the construction of the solar panels also will largely avoid the removal of trees, large shrubs and other significant vegetation, and instead will incorporate it as useful screening and wildlife habitat. Both the Alameda Solar–North Section and Alameda Solar–South Section feature several substantial blocks of trees, the vast majority of which will not be removed for solar panels. The vast majority of the vegetation to be removed for panels will be relatively narrow lines of trees or hedgerows, mostly consisting of overgrown vegetation along parcel lines that will be interior to the Project. These "windrows" to be removed generally do not follow other environmental features, such as surface water or wetlands, do not provide significant wildlife habitat, and would not contribute to screening for neighbors. Given the limited amount of vegetation slated for removal and the substantial amount of vegetation to be planted for the perimeter buffer, there likely will be a net increase in the amount of vegetation in the project area.

The Zoning Ordinance also provides that "[t]he layout of the facility shall be designed to avoid all identified historic, archeological or cultural sites."[20] As required, Applicant will include in its application for a Special Exception, a "cultural resources study, prepared by a qualified third party, that identifies historical, architectural, archaeological or other resources on the property and within a one mile radius of the proposed facility."[21] In preparation for this requirement, Applicant conducted a preliminary review of historic, cultural, architectural, and archaeological sites within the vicinity of the property boundary including cultural resources recorded in the Fauquier County Heritage Resource Inventory and the Virginia Department of Historic Resources' ("VDHR") Cultural Resources Information System ("V-CRIS") database, and limited fieldwork to verify existing conditions. This review revealed two architectural resources in the area that may contribute to the nearby Blackwelltown community, which has been studied as a possible rural historic district, and a third architectural resource that may contribute to the nearby Elk Run Rural Historic District.[22]

These three resources, which are shown in the attached map ("Cultural Resources Map"), will be evaluated by the VDHR as part of the State solar review process and as part of the County's Special Exemption process. Applicant commits to establishing a mitigation plan with VDHR and avoiding impacting any structure that is listed on the National Register of Historic Places. In addition, the low profile of the solar panels combined with the heavy existing vegetation in the area and the Project's perimeter screening, will either preclude or substantially mitigate most views of the modern infrastructure from any historic district that may be established.

[20] Zoning Ordinance, § 5-2003.10.

[21] Zoning Ordinance, § 5-2001-3.F.

[22] Comprehensive Plan, Chapter 8, p. 16, map entitled "Fauquier County Rural and Historic Districts."

I. Robust Perimeter Landscaping

Within the (minimum) 100-foot setbacks outside the fence of the Project, as required by the Zoning Ordinance, the Project will feature a belt of vegetation around the entire perimeter and, per the Zoning Ordinance, at a minimum, the belt of vegetation will be:

- 50-feet wide
- Comprised of trees and shrubs mature enough to screen views to 8 feet above the ground year-round
- Comprised of native, non-invasive, pollinator-friendly, and wildlife friendly species
- Fully established within 5 years
- Maintained for the life of the Project[23]

With only a few exceptions, the perimeter of the Project already contains substantial vegetation that will satisfy the Zoning Ordinance immediately. The Project will preserve the vegetation in these areas.

In order to visualize the planting of the additional perimeter screening, Applicant commissioned Timmons Group to prepare a Landscape Buffer Visualization of the landscape scheme including associated visualizations. The Landscape Buffer Visualization is provided as **Exhibit 7**. It shows the areas of existing vegetation and those where the planted buffer will meet the require screening requirements. The landscaping program will be finalized based on the final layout of the Project to ensure that it—at a minimum—meets the rigorous requirements of the Solar Ordinance.

J. Day Operation and Preservation of Night Sky

One of the Rural Land Use Plan's suggested actions to ensure rural businesses do not adversely impact the character of the area is to "[r]equire operating hours or . . . to be consistent with the operating hours of other similar businesses within the RA or RC Zoning Districts.[24] In the same vein, the Rural Land Use Plan stresses the importance of dark sky protection.[25] In particular, it notes the connection between dark nights and pollination:

[23] Zoning Ordinance, § 5-2203.13.

[24] Comprehensive Plan, Chapter 8, p. 28.

[25] Comprehensive Plan, Chapter 8, p. 14-15.

> "Of particular importance to the agricultural economy are the effects of excessive night lighting on plants and their pollinators. Plant species that bloom at night depend on night pollinators such as moths and bats and can be indirectly affected if their populations are reduced or deterred by nearby light pollution."[26]

The Project will only produce power during the day. At night, minimal lighting in compliance with County standards will be located only in a few locations (such as gates) for safety and security and will be downward-facing and motion-activated.

K. Economic and Fiscal Benefits

The Project represents an investment of approximately $84 million in the County that will generate significant economic and fiscal benefits. To forecast these effects, Applicant retained Glen Allen-based Mangum Economics; its Economic & Fiscal Impact Report is provided as **Exhibit 8**. Using conservative inputs for the Project, County-specific data and tested economic models, Mangum estimated the economic and fiscal effects of the Project for the County.

According to the analysis, the operation of the Project is expected to provide meaningful economic benefits for the County during operations and especially during construction. Mangum forecasts that the Project will annually support several new jobs and over $1 million in associated economic output. Although short-lived compared to operations, construction of the Project is expected to produce far more jobs (131), labor income ($8.6 million) and economic output (21.7 million). As Mangum notes, the construction sector is the third largest employer in the County.

Mangum's analysis also forecasts that the Project will bring substantial fiscal benefits to the County. The Project is expected to generate $9-10 million in County revenue over its life. This favorably compares to the approximately $400,000 expected from the current farming activities. Moreover, Mangum's analysis does not include additional fiscal benefits that the Project will be in a position to provide the County through a Siting Agreement enabled by recent state legislation nor does it address the benefits of the sheep grazing/lambing operation.

L. Agricultural Land Preservation

One of the recommended actions under the Rural Land Use Plan to ensure that solar facilities in particular do not adversely impact the character of the surrounding area is to "[r]equire a decommissioning plan . . . that provides information on the project's life space [sic] cost to decommission the facility, the manner in which it the facility will be decommissioned and the site restored, and the methods by which funds will be available for decommissioning and restoration."[27] This action has been implemented by the Solar

[26] Comprehensive Plan, Chapter 8, p. 15.

[27] Comprehensive Plan, Chapter 8, p. 28.

Ordinance, which requires that the facility must be decommissioned after it stops producing electricity.[28] Applicant must submit with the site plan a decommissioning plan that calls for the removal of the equipment and stabilization of the site.[29] The plan must describe the manner in which decommissioning will occur, estimate the cost of decommissioning (which must be re-calculated every 5 years), and post financial surety to guarantee that the expense of removal is covered.[30]

Most of the parcels that will be used for the Project traditionally have been used for farming. A total of about 580 acres currently are being used mostly for the production of row crops, primarily corn, soybeans and winter wheat. As shown in the attached map ("Prime Farmland Map"), the soils in on these parcels consist largely of soils that qualify as Prime Agricultural Soils.

Applicant acknowledges the very high value that the County places on agriculture. The Comprehensive Plan's Vision Statement notes that the County "honors its . . . agricultural heritage . . ." and one of its policies is to "protect productive agricultural . . . lands.[31] Related to this is the high quality of the County's soils. As the Comprehensive Plan notes "soils form the basis for agricultural production" which is "a significant component of the County's economy, a focus of the County's preservation goals, and a core sense of identity for many residents."[32]

The Project will use these soils during the life of the solar facility to support the growth of beneficial vegetation that will serve as forage for sheep. As noted in the Pollinator Site Suitability Analysis, the soils in the project area are suitable for the growth of beneficial vegetation. Similarly, as noted in the Prescribed Grazing Assessment called for under the Pollinator-Smart Program can be designed to be suitable as forage for sheep. Of course, these uses can continue into the future following the removal of the solar infrastructure.

Unlike permanent development, "[l]easing farmland for solar PV use . . . is a viable way to preserve land for potential future agricultural use."[33] The risk to farmland from other forms of development, which can permanently threaten and displace farming and natural resources, and which are important to the County's heritage, will be avoided. The Project will occupy several farm parcels, but has no impact that would hinder the viability of returning the land to cultivation, thereby protecting the subject properties from

[28] Zoning Ordinance, § 5-2203.21.

[29] Zoning Ordinance, § 5-2203.22.

[30] Zoning Ordinance, § 5-2203.22.

[31] Comprehensive Plan, p. 3.

[32] Comprehensive Plan, Chapter 2A, Natural Resources Technical Supplement, Section C ("Soil Resources") p. 11-12.

[33] N.C. Clean Energy Technology Center, N.C. State University, "Balancing Agricultural Productivity with Ground-Based Solar Photovoltaic (PV) Development" (May 2019), p. 6., available at https://solar.coopercenter.org/sites/solar/files/reports/Balancing%20Agricultural%20Productivity%20and%20Solar%20Development.pdf

permanent conversion to non-agricultural uses. Solar use is particularly valuable for preserving land when compared to commercial or residential development, which require changes to the land that are very difficult to reverse.

In addition, after the Project is decommissioned, the Applicant will place approximately 300 acres of the project area into permanent agricultural use. Applicant holds options-to-purchase the approximately 300 acres of land (which comprise the majority of the Alameda Solar–North Section).[34] Applicant will exercise its option to purchase this land prior to the start of construction of the Project. As owner of the land, Applicant also will execute and record, prior to the start of construction, restrictions on this land that permanently limit its post-decommissioning uses to agriculture and related activities.

IV. Extent of Project is in Accord with Comprehensive Plan

A. Project Acreage Limit

The Project will be less than half the size of the maximum size set by the Board of Supervisors. All of the solar panels and other above-ground structures that will comprise the Project will be fenced, and the total fenced area of the Project will be approximately 464 acres. The Zoning Ordinance provides that the "maximum project size for individual Utility Scale Solar Projects shall not exceed one thousand (1,000) acres."[35] Although the Zoning Ordinance treats non-contiguous parcels as separate projects, all of the three areas comprising Alameda Solar, together, are less than half this amount.

B. Size Relative to Transmission System

The electric generating capacity of the Project, at 70 MW, has been sized so that the Project can supply cost-effective power to the bulk electric system. The Project is adjacent to a large transmission line that carries bulk power to the County and the wider region. This transmission line carries power to and from generating stations over long distances. From substations connected to this line, power is supplied through an extensive web of smaller lines to many electricity consumers (homes, businesses, industry, churches and government buildings), including those in the County. The Project is sufficiently large produce power at a competitive cost for these consumers, including covering the significant cost of the interconnection facilities.[36]

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[34] The 300 acres are parcels currently owned by Kettle Wind Family Limited Partnership and Stuart May.

[35] Zoning Ordinance, § 5-2003.1.

[36] The Project's connection to the electric grid is under study by PJM Interconnection ("PJM"), which is a regional transmission organization that coordinates the movement of wholesale electricity in all or parts of 13 states and the District of Columbia, including most of Virginia. PJM has completed its Impact Study Report for the Project, which can be found at this address: https://www.pjm.com/pub/planning/project-queues/impact_studies/ae2190_imp.pdf. The report concludes that the Project can supply power to the grid without causing the need for any network upgrades to the transmission system.

The generating capacity of the Project, in turn, determines the amount of land needed for the solar panels. With roughly 7 acres of land needed to produce one MW, the Project requires approximately 464 acres of solar panels (70 x 7 acres = 490 acres). Thus, the total planned fenced area for solar panels for the Project, at approximately 464 acres, is appropriately-sized.

C. Solar "Density" Within County

To prevent utility-scale solar facilities from being too clustered together within the County, the Board of Supervisors limited the density of new solar facilities within the areas around existing ones. The Zoning Ordinance provides that the "no more than eight percent of the land in a two and a half mile radius of the project area of any existing utility scale solar project shall be approved for use as the project area for a new utility scale solar project."[37] The only existing utility scale solar facility in the County is Remington Solar, which is over 3 miles from the Project. As such, the Project (and each of the three Sections that comprise the Project) is wholly outside of the 2.5-mile radius around Remington Solar as shown in the attached map "(Proximity to Remington Solar Map").

D. Project Profile

The Project will have a low profile on the landscape, which is relatively level, therefore can be effectively screened by the required perimeter landscaping. The Project's solar panels will not exceed a 12-foot maximum height during normal operations, which is lower than the 15-foot maximum height required by the Zoning Ordinance.[38] With the exception of the interconnection facilities, no other components of the Project will exceed this height. Electric and data cables will be buried.

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[37] Zoning Ordinance, § 5-2003.2.

[38] Zoning Ordinance, § 5-2203.6.