



**BUCK ISLAND SOLAR, LLC**

**SPECIAL USE PERMIT APPLICATION  
NARRATIVE & ATTACHMENTS  
SP-2023-00023**

**GPIN: 10500-00-00-001A0  
2826 Campbell Farm Lane  
Charlottesville, VA 22902  
Albemarle County**

**SUP 3<sup>rd</sup> SUBMISSION – 10/21/2024**

**BOHLER //**

Prepared by:  
BOHLER  
9100 Arboretum Parkway, Suite 140  
Richmond, VA 23236

Prepared for:  
NEXAMP  
101 Summer Street, 2nd Floor  
Boston, MA 02110

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## **INTRODUCTION**

Buck Island Solar, LLC (the “Applicant”) is a wholly owned subsidiary of Nexamp Solar, LLC c/o Nexamp, Inc. (“Nexamp”). Bohler Engineering VA, LLC (“Bohler”) serves as the engineering consultant for the Applicant who seeks to develop the solar energy facility known as Buck Island Solar (the “Project”) in Albemarle County, Virginia.

Buck Island Solar is a 3.0 MWac ground-mounted photovoltaic (PV) solar energy system and its associated facilities such as gravel access roads, perimeter fence, electrical equipment, stormwater management features, and landscaping. There is no plan or intention for future expansion of the system size beyond its nameplate capacity of 3 megawatts, alternating current. The proposed scope does not include an energy storage system component (e.g., battery). Nexamp owns and operates its solar assets developed by the company, thus single-party ownership is maintained consistently throughout the project lifecycle from start to finish.

In accordance with sections 33.4 and 10.2.2(58) of the Albemarle County Zoning Ordinance (the “Zoning Ordinance”), the Applicant is pleased to seek Special Use Permit approval for the proposed solar energy facility from Albemarle County. Additionally, in accordance with §15.2-2232 of the Virginia State Code, the Applicant kindly requests a review of the Project for substantial compliance with Albemarle County’s Comprehensive Plan (the “Comprehensive Plan”).

## **APPLICANT INFORMATION**

Nexamp is a developer, builder, owner, and operator of community-scale distributed generation solar photovoltaic facilities across the United States. Founded in 2007 by two U.S. Army veterans, Nexamp has over 15 years of experience leading the transformation to our new energy future with proven solutions for the deployment and operation of clean energy assets. The company has been named to Solar Power World’s “Top Solar Contractors” list for more than 10 years in a row and, in 2023, was awarded the distinction of #1 Community Solar Provider.



With more than 250 projects totaling over 700 megawatts across the country, Nexamp is a responsible solar development partner with a proven track record of success. Over the years, Nexamp has built a reputation of integrity and reliability across its businesses and stands out compared to other developers thanks to four key differentiators:



1. ***Vertically Integrated, Long-Term Partner:*** We own and operate our solar projects and manage every phase of the project cycle: site origination, project development, design, financing, construction, operations and maintenance, and energy sales. Nexamp will remain the main point of contact throughout the solar project's lifetime and will serve as a long-term partner to host communities.
2. ***Financial Capability:*** Nexamp's diligent approach to site acquisition, engineering development, and project deployment is combined with stable, institutional capital financially backed by Diamond Generating Corporation, a Mitsubishi Corporation subsidiary.
3. ***Industry Leading Expertise in Community Solar Project Development & Asset Management:*** Community-scale solar has been Nexamp's core expertise since the beginning and the company has grown into the proven leader setting a gold standard for project development and deployment. Our asset management involves 24-7-365 active monitoring on top of scheduled maintenance, service, and inspections.
4. ***Commitment to Sustainability:*** At Nexamp, we've reached carbon neutrality, yet feel that our work is just beginning. We're committed to enabling our entire supply chain to reach carbon neutral by 2030 and recycling all solar panels as they're decommissioned. We strive for harmony with the natural environment through planting native pollinator vegetation and offering sheep grazing to improve the land where possible.

### **WHAT IS COMMUNITY-SCALE SOLAR?**

At one end of the spectrum, small residential-scale solar generates electricity for on-site household consumption and is typically roof-mounted. At the other end, much larger utility-scale solar is typically ground-mounted and usually spans hundreds or thousands of acres. Utility-scale solar ties directly into the transmission-level power grid transporting electricity away from the source, often across state lines and throughout a wide region of the country.

Community-scale solar, orders of magnitude smaller than utility-scale solar, connects to the local distribution-level power grid to provide clean, renewable energy directly to electricity customers in its immediate area. Typically ground-mounted, community-scale solar projects are usually sited on a single land parcel and encompass 10-50 acres of space. Due to their relatively small size, these projects are low impact to the land, environment, and surrounding community.

Within the Commonwealth of Virginia, Nexamp is primarily focused on development of "community solar" projects that provide power to the local grid for sale to individual customers (e.g., households and small businesses) on a subscription basis. Pursuant to



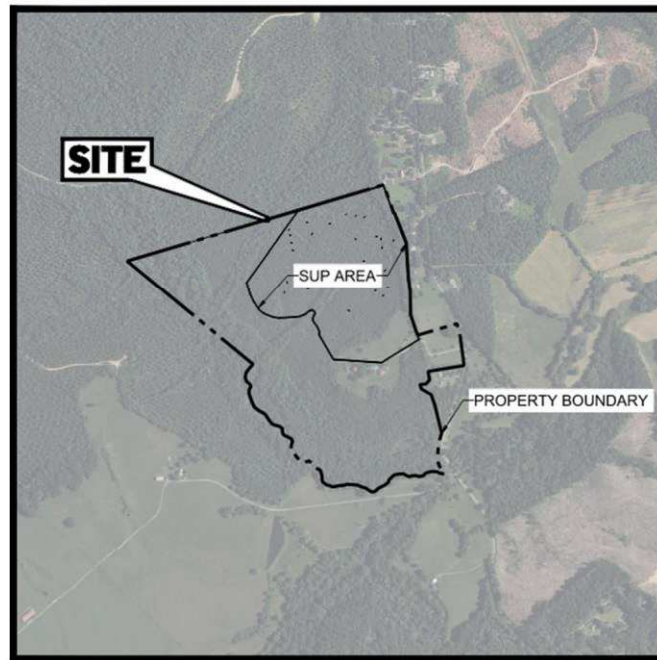
the Virginia Clean Economy Act, this is referred to as the “Shared Solar” program, which will allow individual ratepayers to subscribe to purchase clean energy (renewable electricity), often at significant savings. As potential subscribers, residents and businesses of Albemarle County will be eligible to benefit directly from the Project – assuming it is accepted into the Shared Solar Program. To be registered into the program, community solar systems in the state cannot exceed 5 MWac in size.

Nexamp’s in-house Community Solar team has a long-standing track record of providing excellent service to subscribers within the local communities where we operate. Nexamp proudly offers subscriptions that provide a guaranteed, stable discount versus a customer’s standard electricity rates and does so with zero up-front costs to join and no penalties for leaving. Buck Island Solar will deliver clean, emission-free electricity directly to consumers within Albemarle County, thus reducing the County’s carbon footprint by displacing its reliance on traditional fossil-fuel sources of electricity generation.



### **PROJECT PROPOSAL**

Buck Island Solar is a proposed solar energy facility located on a portion of a 105-acre parcel, Tax Map parcel 10500-00-00-001A0, west of Campbell Farm Lane and Buck Island Road (S.R. 729) (the “Property”). Although the Albemarle County GIS shows the subject property parcel as 137 acres, the Project’s title work and boundary surveying indicates the actual parcel acreage is 105 acres. The Property is zoned Rural Areas and is in the Scottsville Magisterial District. The property is owned by John Gilbert Campbell (the “Owner”).

**LOCATION MAP**

SCALE: 1" = 1,000'

The Project is a “solar energy system” that may be allowed by special use permit in the Rural Areas district. Per Zoning Ordinance § 10.2.2(58). A “solar energy system” is defined in Zoning Ordinance § 3.1 as “an energy conversion system consisting of photovoltaic panels, support structures, and associated control, conversion, and transmission hardware occupying one-half acre or more of total land area.” This proposed project meets that definition. The maximum height of solar equipment will not exceed 20’ tall.

The Project has a nameplate capacity of 3.0 megawatts AC (MWac) and is to be installed on approximately 31 acres of the 105-acre Property. The Project will annually deliver over 6 million kilowatt-hours of clean, emissions-free power to the local electrical grid operated by Dominion Energy Virginia, enough to power approximately 500 homes across the region. Buck Island Solar will embody Albemarle County’s commitment to climate action and exemplify its target of reducing greenhouse gas (GHG) emissions by 45% (from 2008 levels) by 2030 and achieving net-zero emissions by 2050. The Project follows in the footsteps of other solar facilities that have been granted Special Use Permit approval since the 2017 Zoning Ordinance amendment allowing solar energy systems to be permitted conditionally in Rural Areas:



Facility Name	Project Owner	Capacity (MW <sub>ac</sub> )	Acreage
Woodridge Solar	Hexagon Energy	138 MW	2,300
Midway Solar	Central VA Electric Co-op	8 MW	136
Ivy Landfill Solar	Community Power Group	1 MW	15
Rivanna Solar	Apex Clean Energy	12.5 MW	150

The following Bulk Requirements table summarizes the scale of the Project. These preliminary acreages reflect the initial Conceptual Plan for the Project, found in Appendix A. Within the 105-acre Property, the scope of the Special Use Permit is proposed to total approximately 43 acres. The area of disturbance is not expected to exceed approximately 31 acres and the extent of tree clearing is not expected to exceed approximately 29 acres. The Project will optimize the site design over the course of engineering development and anticipates reducing the aforementioned acreages. The area of the solar arrays will total approximately 12 acres within a fenced area of approximately 18 acres.

<b>BULK REQUIREMENTS</b>	
ZONING	RURAL AREAS (RA)
TOTAL PROPERTY AREA	±105.02 AC
TOTAL SUP AREA	±43 AC
TOTAL DISTURBED AREA	±28 AC
TOTAL CLEARED AREA	±29 AC
TOTAL FENCED AREA	±16 AC
TOTAL SOLAR ARRAY AREA (EXCLUDING ACCESS ROADS)	±11 AC
HEIGHT OF ELECTRICAL POLES & OVERHEAD LINES	NOT TO EXCEED 50'
HEIGHT OF ALL OTHER EQUIPMENT	NOT TO EXCEED 20'
SETBACKS:	
FRONT YARD SETBACK	75'
SIDE YARD SETBACK	25'
REAR SETBACK	35'

## CHARACTER AND USE OF PROPERTY

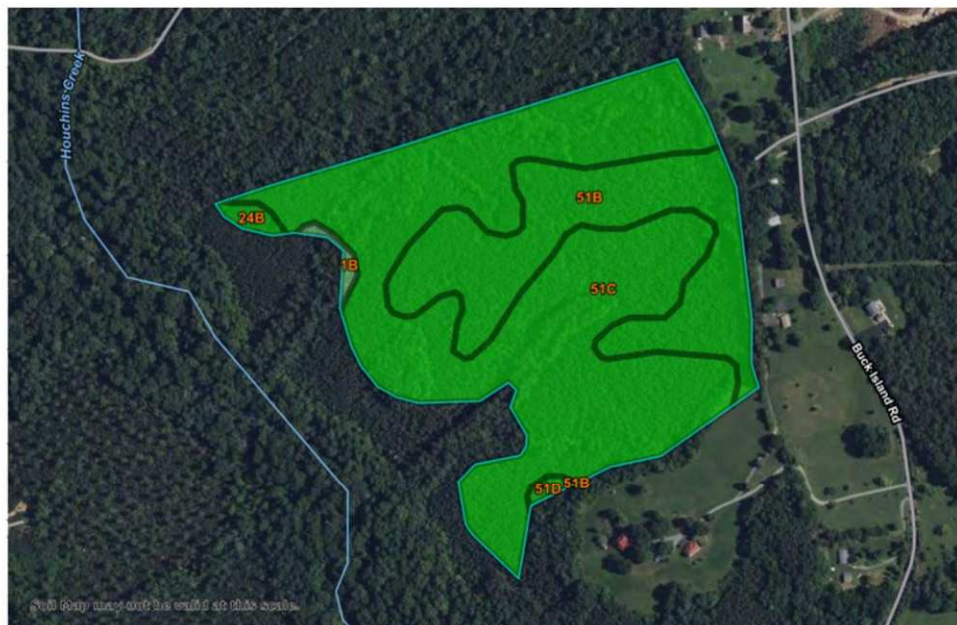
### ***Timbering History***

Based on available property owner records and generational knowledge, the subject property originally consisted of a combination of hardwood forest and Virginia pine which was harvested in the 1950s. Timber was planted and subsequently harvested in 1982. Approximately 48 acres of Loblolly pine was then planted and subsequently harvested in 2012. More Loblolly pine was planted afterwards and the Project's proposed tree clearing area is limited to this new growth area. Please see the Timbering Exhibit, updated May 6, 2024, enclosed as Appendix B.

### ***Soils Analysis***

The project site area consists mostly of silty loam with varying slopes between 2-15%. In November 2023, soil samples were extracted from twelve (12) locations within the Project's proposed limits of disturbance for lab analysis by Waypoint Analytical. A map of the approximate sample locations and accompanying report are provided in Appendix C.

The analysis of the collected soils concluded that, owing to their acidic nature and lack of ability to promote uptake of nutrients based on the CEC (Cation Exchange Capacity) value, the Property's soils are not suitable for agriculture use.





## **CHARACTER AND USE OF SURROUNDING PROPERTIES**

The surrounding land adjacent to the subject parcel is used for agricultural, forestry, conservation, and residential purposes. The Olneyview Farm owner lives to the south of the Project area within the Property boundary. To the north is an undeveloped pine forest. Between Buck Island Road and the Project are three residential homes and stands of trees creating a natural buffer against the roadway. A majority of the Property west of the Project has limited development potential as it lies within a water protection ordinance (WPO) buffer and land designated within a FEMA floodplain of Houchins Creek. The solar equipment will be screened from view by maintaining existing vegetative buffers along the perimeter of the facility.

### ***Abutting Neighbors***

<b><u>Landowner</u></b>	<b><u>Parcel ID</u></b>	<b><u>Parcel Address</u></b>	<b><u>Tax Type</u></b>
ROOKS FORD FARM LLC	09200-00-00-061J0	N/A	Conversation Use/Vacant Residential
SCOTT / ANGELA BAZZARRE	09300-00-00-047D0	2678 Buck Island Rd	Reg. Taxable/Single Family
SCOTT / ANGELA BAZZARRE	09300-00-00-049B0	2786 Buck Island Rd	Reg. Taxable/Misc. Improvements
GARY S / ELAINE S FEWELL	09300-00-00-050A0	2787 Campbell Farm Ln	Reg. Taxable/Single Family
ROOKS FORD FARM LLC	10400-00-00-008I0	N/A	Conversation Use/Vacant Residential
KIMCO LC	10400-00-00-010A0	2942 Buck Island Rd	Land Use/Single Family
JEFFREY W / JASON P KNIES	10500-00-00-002A0	2840 Buck Island Rd	Reg. Taxable/Doublewide
BILLY E EPPARD	10500-00-00-002B0	2805 Campbell Farm Ln	Reg. Taxable/Single Family
LORA D EPPARD	10500-00-00-002C0	2851 Buck Island Rd	Reg. Taxable/Doublewide

## **SITE SELECTION CRITERIA**

At the initial siting of the Project and during its conceptual design, much care has been taken to ensure the location of Buck Island Solar is optimally well-suited for a solar facility. The current proposal is the result of prioritizing numerous site selection criteria:

***Minimal Aesthetic Impact:*** The large, well-buffered nature of the 105-acre Property allows for generous setbacks and retains considerable existing tree cover in all directions to serve as perimeter screening, thus obstructing views of the Project from near and far. The rural nature of the area, with only a few residences in nearby proximity, and the shape and topography of the parcel – itself setback with a long driveway and limited road frontage – mean that visibility from vehicular traffic will be negligible.

***Suitable Topography:*** The Project will not disturb any critical slopes and the site's topography across much of the proposed development area is suitable to avoiding extensive earthwork operations, thus minimizing environmental and long-term land impacts.



**Environmental Sensitivity:** The Project will not disturb any wetlands or floodplain areas. The nature of community-scale solar development is that it preserves the opportunity to return the site to its prior use, thus acting as long-term land stewardship. Upon decommissioning and site rehabilitation, the developed area could be re-forested.

**Site Access:** The Applicant proposes to access the site by a 20' gravel access road, widening existing Campbell Farm Lane within easements to be acquired over the Bazzarre and Fewell parcels at the north end of Campbell Farm Lane.

A secondary access will be constructed at the southern end of the Project with access off Campbell Farm Lane, to be widened by easement over the Fewell parcel. Draft easement exhibits for these two proposed access easements are included in the Appendix. The existing driveway to the Property at the southern end of Campbell Farm Lane will not be used as it is in close proximity to an existing storm water facility, and the narrowness and location of this entrance would not allow room for mitigation screening or planting. The proposed primary entrance location will minimize disruption to residential properties and, following construction, the curved configuration of the road in conjunction with the wide tree buffer will eliminate potential views into the Project from Buck Island Road and residential properties on the east side of the road.

**Proximity to Existing Electrical Distribution Infrastructure:** Utility distribution infrastructure (electrical poles and overhead lines) exist along Buck Island Road and the Project's point-of-interconnection agreed upon with Dominion Energy Virginia is at an existing utility pole on the Property. Although Dominion Energy Virginia will likely require upgrades and replacements to its existing infrastructure to accommodate the Project, no new facilities will be introduced in areas where there are none at present.

No more than approximately 29 acres are proposed to be cleared, which is needed to ensure efficient operation of the solar energy system, yet the expected benefit of the Project's avoided greenhouse gas (GHG) emissions each year will equal the carbon sequestration value of over 2,200 acres of U.S. forests. Constructing this solar facility means that *each year* of its operation is equivalent to the carbon sequestration work of over 30,000 tree seedlings grown for 10 years.

Regarding siting, it must be noted that the Project is coincidentally located 1/3-mile south along Buck Island Road from the Rivanna Solar project. Nexamp has no affiliation with Rivanna Solar. Below is a high-level comparison between the two:

	Rivanna Solar	Buck Island Solar
Property Parcel Acreage	149 acres (parcel)	105 acres (parcel)
Solar Project Acreage	+/- 90 acres (fenced)	+/- 16 acres (fenced)
System Size	~12 megawatts (AC)	3 megawatts (AC)
Type of Solar Facility	Utility-scale	Community-scale

### **CLIMATE ACTION PLAN**

The Comprehensive Plan Update (AC44) is ongoing, and as part of that work, will implement and incorporate the County's Climate Action Plan, which was adopted in October 2020. The Climate Action Plan recommends a number of strategies and actions for renewable energy and other initiatives. The Project will specifically contribute to the following strategies and actions:

*Strategy: Enable and incentivize utility scale renewable energy projects in the County Code and during the community development regulatory process.*

*Actions:*

- *Establish a County policy clarifying this strategy to enable and incentivize utility-scale renewable energy projects, incorporating holistic analysis of local impacts on equity and environment.*
- *Review the building, zoning, subdivision, land use, and tax sections of the County Code for opportunities to better facilitate and incentivize renewable energy projects. Encourage and prioritize the use of roof tops, parking lots, brownfields, landfills, and post-industrial or other open lands over forested or ecologically valuable lands.*

*Strategy: Partner with utilities and renewable energy companies to increase local renewable energy and energy storage initiatives.*

*Actions:*

- *Conduct a study in cooperation with renewable energy companies to identify locations for utility scale projects in Albemarle County. Prioritize the use of roof tops, parking lots, brownfields, landfills, and post-industrial or other open lands over forested or ecologically valuable lands.*

Although the Project is too small to be characterized as utility-scale, every new megawatt of renewable energy generating capacity contributes to the County's Climate Action Plan's strategies and actions.

### **CONSISTENCY WITH COMPREHENSIVE PLAN**

#### ***Rural Areas Plan***

The Property is designated for Rural Areas in the Comprehensive Plan. The Rural Areas Plan supports agricultural and silvicultural uses, and the protection of natural and cultural resources. The Project is consistent with the Rural Areas Plan because it would preserve lands for future agricultural and silvicultural uses.



Unlike other utility uses such as traditional power plants, the Project would not permanently remove land from agricultural or silvicultural uses. After the Project has reached the end of its useful life, which is expected to be approximately 35-40 years, the solar energy equipment can be removed from the Property and the land can be returned to agricultural or silvicultural uses.

The Project plans to preserve large areas of vegetated buffers along the Property's boundaries to screen the solar energy equipment from adjacent parcels and roads, and to protect the wetlands and streams. In addition to helping screen the facility, a vegetated buffer helps maintain a perimeter that supports the character of the surrounding rural landscape.

### ***Natural Resources and Environmental Sustainability***

Objective 1, Strategy 1a in the Comprehensive Plan states: Continue to apply the Watershed Protection Ordinance (WPO) throughout the County to help protect and preserve water resources. The Project is meeting this objective and strategy by protecting and not impacting the existing WPO Stream Buffer on the site, as well as not impacting the existing floodplain.

In addition, the Natural Resources chapter (Page 4.45) of the Comprehensive Plan states:

In 2010, members of the community and representatives of the County, the City, and UVA began a local planning process to find ways to lower the community's energy consumption and, thus, greenhouse gas emissions. The Committee, known as the Local Climate Action Planning Process (LCAPP) Steering Committee, recommended that the City, County, and UVA:

- Continue to demonstrate leadership in energy and carbon reductions at the local level;
- Build on existing synergies by continued collaboration of City, County, UVA, and community partners;
- Integrate the role of energy and carbon emissions in projects and planning;
- Equip the community at all levels to make informed decisions about the impacts of carbon emissions and energy; and
- Identify and promote actions that enable the community to reap the health, economic and environmental benefits that accompany sound energy-based decisions.

The proposed project will meet these objectives above.

The Comprehensive Plan also includes the Sustainability Accords developed in 1998 and reaffirmed in 2007. These Accords "continue to be important aspirational principles of the County" (Page 1.6). One of the 15 Accords is to "(p)romote the conservation and efficient use of energy resources." Solar energy has been identified in the Virginia Clean Economy



Act as an essential component of the Commonwealth's plan to have "73% or more of our electricity come from clean energy by 2035, achieving the 100% goal by 2050." Dominion Energy Virginia is mandated to deliver 100% of its electricity from renewable sources by 2045.

Recently, the County, City and UVA launched a project entitled Resilient Together: One Climate. One Community. which is a collaborative planning and implementation process designed to ensure the community is strong, safe, and healthy in the face of a changing climate. While this collaboration and project has just began, this proposed solar facility will support this effort to combat climate change.

### ***Historic, Archeological and Cultural Resources***

The Property is located outside the geographic boundaries of the Southern Albemarle Rural Historic District ("SARHD"), a national historic district listed on the National Register of Historic Places, and therefore, the Property is not listed on the National Register.

The site lies approximately 5 miles southeast of Monticello (whose elevation is approximately 500 feet above the proposed site) and is within the Monticello Viewshed, and approximately 4.6 miles southeast of James Monroe's Highland (approximately 250 feet above the proposed site). Nexamp will be conducting a viewshed analysis and sharing information concerning the Project with Monticello to gain feedback on the proposal. However, it is not anticipated that the panels will cause any visual impacts to the Monticello Viewshed or James Monroe's Highland given the distance of the Project from these sites, the Property's existing forested tree cover to remain surrounding the facility, and the limited height of the solar panels.

No archeological or cultural resources for preservation have been identified on the Property.

### **ECONOMIC IMPACT**

***Local Materials & Labor:*** Local materials and labor will be used for the construction and maintenance of the Project, to the extent they are commercially available. Most often, local excavation and site work companies are used to prepare the site for construction and teams of solar-specific construction crews install the Project facilities. Given Virginia's fast-growing solar industry, the local and regional technical expertise in solar construction is expanding. The Virginia solar industry association, Chesapeake Solar and Storage Association (CHESSA), of which Nexamp is a member, has supported the creation of the Virginia Solar Workforce Initiative which has partnered with Southside Virginia Community College to develop a solar installation curriculum and program, train new workers, and pair them with solar installation job openings.

***Total Capital Investment:*** Although material and labor costs can change due to various market forces, unforeseen site conditions, and other factors, the current estimate for the total construction cost of the Project is over \$5 million. As a knock-on effect, construction



of the project will generate labor opportunity and labor income spurring economic development for regional businesses, such as those providing services in engineering, construction subcontracting, consulting, landscaping, and hospitality.

***Increase in Real Estate Tax Revenue:*** Once the Project is permitted, the value of the underlying real estate will increase significantly. In other similarly situated projects, the value has increased to \$10,000 to \$12,000 per acre, thus generating notably more revenue per acre than timber or agricultural uses. Further, the Property is in the land use taxation program, so rollback tax will be paid to the County following the change in use.

***Voluntary Payment:*** Pursuant to Virginia State Code §15.2-3660, because the Project is rated for 5 MWac or less, it is exempt from local Machinery and Tools taxation and “Solar Revenue Share.” Nonetheless, Nexamp proposes paying Albemarle County the equivalent of the revenue share whose methodology equates to \$1,400/MWac/year in personal property taxation. Utilizing this taxation basis yields \$4,200 in revenue for Albemarle County in the first year of operations, and more than \$165,000 over the Project lifetime.

### **IMPACTS ON PUBLIC FACILITIES & PUBLIC INFRASTRUCTURE**

After construction is completed, the long-term impact of the Project would be minimal. The Project would not cause any material increase in traffic or demand on County services or resources. As discussed above, screening could be implemented to address any potential visual impacts. Additional potential impacts are further summarized below.

#### ***Health & Safety***

The Project equipment to be installed – photovoltaic (PV) modules, inverters, mounting racks, and all other components – will be procured from Tier 1 manufacturers and the facility will be constructed in accordance with all applicable local, state, and national codes. The Project components have no materials which will contaminate the air, water, or soil surrounding the Project. Furthermore, the silicon PV modules (solar panels) are solid-state, thus there is nothing to leak or leach out that could impact the environment.

#### ***Noise***

The solar energy equipment within the Project will not result in any appreciable off-site noise. Sound would only be generated from equipment located within the interior of the project envelope and at a sufficiently low level to not rise above background ambient noise levels in rural areas. Additionally, sound is only generated during daylight hours, while the Project is producing energy. Noise will be generated during the construction activities of the development; however, it will be limited to daytime hours and Nexamp will work with its subcontractors and surrounding neighbors to provide a positive experience over the course of construction.



***Lighting***

The Project does not require any lighting, therefore there will be no light pollution.

***Glare***

The Project will not produce any offsite glare impacting surrounding properties and will not pose a risk to air travel. Enclosed as Appendix J are four letters of “Determination of No Hazard to Air Navigation” from the Federal Aviation Administration, stating that the proposed development (at four different elevations) would not be an obstruction to air navigation and that no lighting or marking is necessary for aviation safety.

***Visibility***

The Comprehensive Plan holds the preservation of viewsheds surrounding historical resources in high regard. Protecting views from neighboring properties and roadways was factored into the siting of the Buck Island Solar project. A combination of maintaining native vegetation surrounding the property to the extent possible, along with large setbacks from the roadway and adjacent homes will minimize visual impact from the adjoining parcels. The primary northern entrance into the Project will curve through the vegetative buffer to prevent direct line of sight into the Project from Buck Island Road. The maximum height of solar equipment will not exceed 20’ in height measured from the base of the structure to the tallest point.

As aforementioned, the Project is within Monticello’s viewshed. The Applicant conducted a viewshed analysis and shared information concerning the Project with Monticello. Gardiner Hallock, Senior Vice-President of Preservation and Operations, sent a letter to the County Planner on behalf of the Thomas Jefferson Foundation to state that, as presented, the project would have no negative impact on Monticello’s viewshed.

Based on discussions and field visits with neighbors on Buck Island Road, the Applicant has amended the Concept Plan to include a 150’ vegetative buffer along the eastern boundary and a 75’ vegetative buffer along the northern boundary to completely eliminate any potential visual impact of the Project from neighboring parcels. The Property owner and the Applicant have agreed to grant a tree preservation easement for the benefit of the Bazzarre parcels east of the Project to preserve the 150’ buffer during the life of the project (i.e., until decommissioning). The Applicant will record the deed of easement in the County land records.

Parcels abutting the Property to the north and west (TMP 09200-00-00-061J0 and 10400-00-00-008I0) comprise a small portion of approximately 4,500 acres held under conservation easement by the Albemarle Conservation Easement Authority (by deed dated June 12, 2019, recorded in Deed Book 5190, page 753). These parcels are heavily wooded. No protected resources will be impacted by the Project. Based on these existing conditions, the limitations of the conservation easement deed, the tree cover on the Property itself, and the proposed buffers, the Project is not expected to be visible from these parcels.



***Vegetation & Landscaping***

Where feasible, existing mature vegetation on site will be maintained to provide natural screening from adjacent uses and roadways. Existing vegetative cover around the facility's perimeter shall serve as the primary means of visual screening. The eastern Property boundary, which is the only area of the Project that is not presently surrounded by existing forest, will maintain a 150' buffer of existing vegetative cover, and the northern boundary line will maintain a 75' minimum buffer.

The development plan will adhere to Chapter 18, Sec. 32. 7.9.7, of the Zoning Ordinance for any additional vegetative screening required at no less than 20' in width consisting of a double staggered row of evergreen 15' on center. Evergreen trees shall be planted at 4' in height and in accordance with standardized methods outlined by the Virginia Nurserymen's Association. Please see the Conceptual Landscape Plan for details.

The area around the panels will be seeded with new groundcover (Ernst Solar Farm Seed Mix, or equivalent) where the soil is disturbed from timbering the existing loblolly pine forest. Please see the "Vegetation Management" section below for further details.

***Security***

The Project will be surrounded with a fence constructed in accordance with the National Electric Code (NEC), which will in no case be less than eight (8) feet in height and consisting of chain link or 4-inch wire mesh. The County will have access to the Project for inspection purposes with 24-hour notice to Nexamp.

***Emergency Services***

Emergency access to the Project by the County will be immediate and achieved via keycode or other approved means of entry for which Albemarle County emergency services (e.g., Department of Fire Rescue) will receive training and specific access credentials. Training will include documentation of onsite materials and equipment, proper firefighting and lifesaving procedures, and material handling protocols.

***Public Services***

The Project will have a negligible impact on public services. There are no occupied buildings, no public water, no need for sewer services, and vehicular traffic during the operational lifetime will be de minimis.

***VDOT***

Access into the subject property will be provided by easement off Campbell Farm Road, which is a service road parallel to Buck Island Road. The applicant will coordinate with the local VDOT residency and comply with the land use permit standards should any work be proposed with the right of way.



***Stormwater Management***

The Buck Island Solar project will meet the applicable stormwater codes set forth by the Albemarle County Water Protection Ordinance as well as the Virginia Department of Environmental Quality. The WPO buffer will not be disturbed except as allowed in the County Code. See Appendix A for a preliminary conceptual grading and stormwater plan which shows potential locations for on-site SWM facilities as well as the grading approach. Further detailing of the grading, stormwater design and erosion and sediment control measures will be refined during the Plan review process with Albemarle County which is a designated program authority for the Virginia Stormwater Management program (VSMP). The stream health will be protected by 100' buffers and will not be impacted from the Project.

**IMPACTS ON ENVIRONMENTAL FEATURES*****Critical Slopes***

The Comprehensive Plan outlines the County's goals to limit erosion and water pollution by protecting and conserving areas of critical slopes as defined in section 4.2 of the Zoning Ordinance. Disturbance of these areas could have widespread affects to public health and safety. The proposed solar project will not disturb the critical slope areas identified on the County GIS system. The Project will also prevent erosion by meeting all County WPO and DEQ erosion and sediment control codes during construction.

***Wildlife***

The Applicant engaged an environmental professional, TNT Environmental, Inc., to evaluate the potential for threatened and endangered species on and in the vicinity of the Project site. There were no documented occurrences of "collections" records of any potential threatened and endangered species within the limits of the proposed project. Based on a site visit by a licensed professional, it does not appear that a suitable habitat is present onsite to support populations by the species returned by the VaFWIS database (specifically, long-eared bats, tri-colored bats, and monarch butterflies). The minimum eight foot (8') fence height, along with a four inch (4") gap at the bottom of the fence, will prevent deer from being trapped within the panel area and will allow smaller animals to pass freely into and out of the site, as recommended by the Virginia Department of Wildlife Resources ([Solar-Energy-Facility-Guidance.pdf](#)). The applicant will also adhere to NLEB compliance for tree clearing activities outside of the April 1<sup>st</sup>-November 15<sup>th</sup> TOY restriction. Please see Appendix F for details about the Applicant's wildlife resource review. It is also important to note that, based on review by the Virginia Department of Conservation and Recreation (DCR), natural heritage resources have not been documented within the submitted project boundary including a 100-foot buffer. There are also no State Natural Area Preserves under DCR's jurisdiction in the project vicinity. Further details can be found in the complete report found in Appendix F.

***Cultural and Historical Resources***

A review of the Department of Historic Resources (DHR) database was conducted for the Property by the professional environmental consulting agency TNT Environmental, Inc.



The presence of recorded historic resources on and in the vicinity of the Project site was evaluated using available information through DHR's Virginia Cultural Resource Information System (VCRIS). Based on a review of this information, no mapped architectural or archaeological resources exist on site, however no archaeological study has been done for the project site according to DHR's records. One documented cemetery (Wells Cemetery – DHR ID: 002-0892) has been documented outside of the Project area as shown on the enclosed map. Per DHR's records and as of 2019, "the cemetery is located in a wooded area of a field on the west side of Thomas Jefferson Parkway. There is no boundary present around the cemetery, and it is overgrown." Per DHR staff, this resource has been determined to be not eligible for listing in the National Register of Historic Places (NRHP). Further details can be found in the complete report found in Appendix G.

### ***Streams and Wetlands***

A wetland and stream delineation of the subject property was performed by the certified wetland scientists at TNT Environmental, Inc. following a site walk on September 8, 2023. Based on the report, dated December 18, 2023, a perennial stream as well as intermittent waters were observed at the northwest portion of the Property. Based on the classification of these water features, a 100' WPO buffer measured off the edges of perennial waters is assumed per County Code 17-600. Additional ephemeral waters were observed extending from the southwest to the center of the property in two locations. No apparent wetlands were observed within the study area. The applicant will initiate a Jurisdictional Determination (JD) review with the United States Army Corps of Engineers (USACE), a process that is anticipated to conclude in 2Q2024. Based on a preliminary grading exercise, the project will not impact any existing waters or wetlands of the US and therefore will not require a permit from the USACE. Further details can be found in the complete report found in Appendix D. The conceptual site plan shows the current County GIS WPO limits outlined in purple immediately northwest of the Project area and the potential new WPO limits in green based on the wetland delineation report.

### **CONSTRUCTION**

The active construction period on-site is expected to be 9-12 months during which an approximate 3-month period will involve appreciable traffic. The project will not be phased and will have 1 construction entrance for truck traffic off Buck Island Road. Given the size of the Project and the preliminary grading expectations, limited heavy truck traffic is anticipated. During construction, temporary traffic control measures will be enacted to ensure the safety of Albemarle County residents. The Project will coordinate with VDOT on the traffic management plan as necessary.

Prior to construction, the proposed construction means and methods as well as the permanent site design will be engineered for stormwater management and plans will be developed and reviewed for erosion and sediment control. Considering the size and layout of the Project, a construction phasing plan is not foreseen at present.



## **INTERCONNECTION**

This project applied for interconnection to the electric distribution system of Dominion Energy Virginia on August 25, 2021. As of September 26, 2023, the interconnection request had been studied by the utility and the resulting Combined Study Report was issued to the applicant.

In early 2024, the applicant and the utility are expected to formalize and execute a Small Generator Interconnection Agreement (SGIA) for the new generating facility (Buck Island Solar, LLC) to interconnect and operate in parallel with the utility electrical distribution system.

## **OPERATIONS AND MAINTENANCE**

***Operator:*** Nexamp's own internal asset management team, Nexamp Asset Management Services (NAMS), is responsible for monitoring, operating, and maintaining every project developed by Nexamp. NAMS manages over 700 MWdc of community-scale solar assets currently in operation nationwide.

***Maintenance & Inspection:*** The Project will require very little active maintenance once operating. Performance monitoring, diagnostic analysis, and system optimization occurs remotely by NAMS, supplemented by occasional preventative maintenance visits to the facility on a periodic basis. Non-routine visits to site to address unplanned outages or performance dips are seldom required.

***Vegetation Management:*** Prior to building permit approval, the Project will develop a Vegetation Management Plan determining the seed mix for groundcover and the composition, if necessary, of perimeter vegetative plantings to serve as visual screening buffer. The Project seeks to retain existing tree cover around the perimeter of the facility to the greatest extent possible. The primary seed mix will be carefully selected to establish a robust groundcover layer that stabilizes the site, reduces erosion, and provides ecological benefits by utilizing native species. Pollinator-friendly varieties will be prioritized for their environmental attributes and co-benefits, as well as to foster a meadow-like setting across the Project. Native plantings are critical not only for enhancing the surrounding ecosystem and providing habitat for pollinators, other insects, small mammals, and bird species, but also for providing low-maintenance ground cover and soil stabilization.

The goal of the Vegetation Management plan is to ensure the long-term health of desirable vegetation and reduce long-term maintenance costs through a proactive and timely approach to management, including the effective control and removal of invasive and other undesirable plant species.



## **DECOMMISSIONING**

A properly maintained solar facility has an expected life of 25-40 years depending on the rate of equipment replacement and repowering. Eventually, it will be determined that the Project is deemed ready for decommissioning. The decommissioning and site rehabilitation phase shall not exceed 12 months, weather permitting. During decommissioning, the Project's facilities will be disconnected, dismantled, and removed, including the perimeter fences, concrete, steel, mounting racks, tracker systems, PV modules (solar panels), inverters, combiner boxes, aboveground wiring, underground cabling, transformers, switchgear, and other ancillary equipment and hardware. The dismantled components will be reused, recycled, or salvaged to the extent possible, otherwise they will be properly disposed.

At the time when the Project submits its building permit application, a Decommissioning Plan covering facility decommissioning and site rehabilitation will be provided to Albemarle County for review. The Decommissioning Plan will include the following:

- A description of any agreement(s) with the landowner regarding decommissioning, (e.g. lease);
- The identification of the party currently responsible for decommissioning;
- The types of panels and material specifications being utilized at the site;
- Standard procedures for removal of facilities and site rehabilitation, including recompact and reseeding;
- An estimate of all costs for the removal and disposal of solar panels, structures, cabling, electrical components, roads, fencing, and any other associated facilities above ground or up to 36 inches below grade or down to bedrock, whichever is less;
- An estimate of all costs associated with rehabilitation of the site; and
- Provisions to recycle materials to the maximum extent possible.

The Decommissioning Plan must be prepared by a qualified third-party engineer and approved by both the party responsible for decommissioning and the Owner. It will be in a form and style suitable for recordation with the Circuit Court Clerk of the County of Albemarle.

The Decommissioning Plan and estimated costs will be updated by qualified individual(s) upon a change of ownership of either the Property or the Project's owner(s), written request from the Albemarle County Zoning Administrator, or at least once every five years. All updated Decommissioning Plans will include as-built plans and be in a form and style suitable for recordation with the Circuit Court Clerk of the County of Albemarle.

The Applicant will furnish a certified or official check, a bond with surety satisfactory to the County, or a letter of credit satisfactory to the County in an amount sufficient for and

conditioned upon compliance with the Decommissioning Plan. This guarantee will be updated and kept current with subsequent Decommissioning Plan updates.



**APPENDIX**

- A. Conceptual Plan**
- B. Property Timber History Exhibit**
- C. Property Soil Analysis Report**
- D. Wetland Delineation Report**
- E. Phase 1 Environmental Site Assessment Report**
- F. Wildlife Resources Review**
- G. Cultural / Historical Resources Review**
- H. Preliminary Equipment Specifications**
- I. Compliance with the Comprehensive Plan Letter**
- J. FAA Determination Letters**
- K. Draft Offsite Easement Exhibits**