APPENDIX A
Addendum to the Sussex County 2004-2005 Comprehensive Plan

ALTERNATIVE ENERGY FACILITIES

Applicability and Effect on Other Plan Provisions

This policy for alternative energy facilities establishes the policy framework governing the siting, development, and regulation of alternative energy facilities, principally utility-scale solar energy facilities, battery energy storage projects and battery energy systems (BESS), within Sussex County. This addendum replaces and repeals the modifications to the County's Comprehensive Plan titled, "*Consideration of Solar and Battery Storage Facilities* revised on April 2, 2019 and February 17, 2022," and previously codified at Chapter II, Section B, Item 23 of the 2004-2005 Comprehensive Plan.

Upon adoption, this addendum to the Sussex County 2004-2005 Comprehensive Plan is incorporated into and becomes part of the Comprehensive Plan, and the policies set forth herein should guide the review of applications, land use decisions, and staff and Planning Commission recommendations related to alternative energy facilities. Where any provision of this policy conflicts with, or is inconsistent with, a goal, policy, land use designation, or other statement contained elsewhere in the Comprehensive Plan or in any adopted small area plan, this policy shall control and supersede the conflicting provision to the extent of the conflict.

Background

The Virginia Clean Economy Act of 2020 established a mandatory Renewable Portfolio Standard (RPS), requiring Dominion Energy and Appalachian Power Company, the state's two largest investor-owned utility companies, to produce 100% renewable electricity by 2045 and 2050, respectively. This Act has resulted in greater interest across the Commonwealth in the development of solar facilities at the local level, resulting in the need for localities to proactively plan for alternative energy sources such as solar, wind, and nuclear energy facilities and consider the future for these uses within their communities.

Further legislative actions in 2026, including House Bill 711 (establishing statewide siting and design standards for certain solar facilities) and Senate Bill 443 (authorizing battery energy storage as a permitted accessory use on parcels with an approved solar special exception), established limitations on the local regulation of both solar and battery energy storage facilities. While the Code of Virginia imposes regulatory limits for solar and battery energy storage facilities, the careful consideration of the location and potential impacts of an alternative energy facility is an essential component of the development process. The design and siting of these facilities should take into account the preservation of forested areas, steep slopes, movement of wildlife, and the potential density or concentration of these facilities in one area of a locality, which may impact the character of an area or limit future growth and development options for available land. These alternative energy uses should be regulated consistently with the County's values and rural character, along with best management practices.

The County should continue to monitor new legislation for alternative energy facilities to ensure that the Zoning Ordinance remains compliant with the Code of Virginia, and establishes best practices for siting, design, regulation, and decommissioning of all renewable energy facilities.

Solar and Battery Energy Storage

Like other rural communities throughout Virginia, Sussex County is seeing an increase in interest in solar energy and battery energy storage facilities. The County's Zoning Ordinance currently provides regulations for the siting, development, construction, installation, operation, and decommissioning of renewable energy facilities including utility-scale solar systems.
This policy discourages the development of solar energy facilities near densely populated residential areas, near the Big Woods State Forest or Nottoway River. Location is a key factor in solar development. According to American Planning Association's PAS Memo titled *Planning for Utility-Scale Solar Energy Facilities* (2019), proposed facilities are best located away from municipal boundaries, public rights-of-way, and recreational or cultural resources, preferably in locations that maintain natural buffers and minimize the impacts on the character of the surrounding area from the view of residents and other stakeholders. Additionally, the impacts on the viewshed should be carefully considered to preserve the County's scenic and rural character.

Battery energy storage facilities are similar in land use impacts to solar facilities but require more safety requirements. Battery energy storage projects shall be constructed, maintained, and operated in accordance with applicable national standards, including NFPA 855 (*Standard for the Installation of Stationary Energy Storage Systems*) and UL 9540/9540A, and those standards and requirements of Article VII of the Zoning Ordinance. The County will consider battery energy storage projects as:

- A primary use, subject to a conditional use permit, with such project located on parcels contiguous to utility-scale solar facilities, other energy generation facilities, and substations; or
- An accessory use, permitted by right, within the boundaries of parcels included in a utility-scale solar project holding a valid and approved conditional use permit, provided the battery storage capacity does not exceed 100 percent of the nameplate generating capacity of the associated solar facility.

Utility-Scale Solar Review Considerations

1. Projects can have significant impacts on existing vegetation and groundcover, as well as require significant landscaping to aid in screening and buffering facilities. Landscaping materials should be native to the County and exclude the use of invasive species.

2. Scenic viewsheds and vistas are important recreational and economic resources for the County, and the location and design of facilities should not detract from the existing value, aesthetics, or rural character of viewsheds or vistas.

3. The County has adopted six (6) small area plans establishing Small Area Plan Districts covering all areas of the County. These Small Area Plan Districts are Jarratt, Stony Creek, Sussex Courthouse, Wakefield, Waverly, and Rural Area. Generally, utility-scale solar development is contemplated primarily within the Rural Planning Area, which contains

the County's adopted siting criteria for such facilities, and to a lesser extent the Stony Creek Planning Area, home to the County's existing solar facility. The Wakefield and Waverly small area plans identify utility-scale solar as a competing land use that may divert agricultural or industrial land from higher-value development, and the Jarratt plan expresses similar reservations regarding the durability of jobs and tax revenue associated with such facilities. The Sussex Courthouse Planning Area, as the County's civic core, does not contemplate industrial-scale development, including solar, in any form.

4. Given their potential area, and to ensure that no one area of the County is overly impacted by multiple utility-scale solar facilities, a minimum distance of 2 miles should be provided between existing or permitted utility-scale solar energy facilities.

5. To ensure that there is appropriate area for setbacks and buffers, as well as to limit potential erosion, sedimentation, and stormwater issues, the area of solar panel coverage for any single solar facility project should not exceed 65 percent of the total acreage of the project.

6. The preservation of the County’s rural character and natural resources is an important consideration in the siting and design of utility-scale solar facilities. Facilities should avoid development of areas of Forest Conservation Values or Ecological Cores rated high to outstanding as defined by the Virginia Department of Conservation and Recreation and/or another equivalent state department, specifically areas near the Big Woods State Forest and Nottoway River.

7. Agriculture is a major economic and land use component of the County. Accordingly, facilities should avoid or minimize development on land identified as prime agricultural soil or farmland of statewide importance, as defined by the Virginia Department of Conservation and Recreation Agricultural Model, as well as land actively farmed within the two years preceding an application, unless portions of the parcel will continue to be farmed in conjunction with the facility (such as through agrivoltaic grazing or similar dual-use arrangements)

8. Utility-scale solar facilities and the significant fencing involved in such facilities can impact the movement of wildlife. Wildlife corridors should be incorporated in the design of facilities, and the latest guidance of state environmental departments should be considered; for instance, the Virginia Department of Wildlife Resources has Solar Energy Facility Guidance which includes recommendations for wildlife passages and fencing.

9. To ensure reliable grid interconnection, limit the need for significant new infrastructure, and prevent utility-scale solar development from dispersing broadly across the County, such facilities should be located within one (1) mile of an existing electric transmission line; provided, however, that facilities designed to interconnect to the existing distribution network, rather than the transmission grid, may instead be located within one (1) mile of an existing electric distribution line of sufficient capacity to accommodate the proposed interconnection.

10. To preserve land near the towns located in the County for future residential, commercial, and industrial growth, and to maintain development density in proximity to established growth areas, such facilities should be located at least three (3) miles from any town boundary. However, because the County's transmission infrastructure is concentrated near its towns, the three-mile standard may not fully account for the potential siting of solar in proximity to electric transmission lines. Therefore, this policy does not preclude the siting of solar facilities closer than three (3) miles from a town boundary where future land use anticipates the rural/agricultural use of subject parcels.

11. To ensure that utility-scale solar development contributes meaningfully to the County's fiscal health and long-term tax base, rather than displacing higher-value land uses for marginal public return, the Board of Supervisors should consider the facility's overall economic and fiscal impact through the negotiation of a siting agreement, as applicable.

12. To encourage the reuse of previously disturbed or environmentally compromised land, reduce competition with active agricultural and forestal operations for the County's limited prime farmland, and provide an economically productive end use for sites that otherwise carry limited redevelopment potential, siting should be preferred on brownfields and County-owned capped landfills. Facilities proposed on such sites should be considered a priority over comparable proposals sited on undisturbed agricultural or forested land.

Battery Energy Storage System (Primary Use) Review Considerations

1. Battery energy storage technology and applicable safety codes continue to evolve rapidly. Facilities should be designed, constructed, and maintained in accordance with the most current adopted editions of national standards, and the County should periodically review its ordinance to ensure it does not lag behind advances in containment, monitoring, and fire suppression technology.

2. To preserve land near the towns located in the County for future residential, commercial, and industrial growth, to maintain development density in proximity to established growth areas, and to limit the population exposed to the low-probability but high-consequence risks associated with battery storage failure, such as thermal runaway or the release of toxic gases, primary-use battery energy storage facilities should be located at least three (3) mile from town boundaries. However, because the County's transmission infrastructure is concentrated near its towns, the three-mile standard may not fully account for the potential siting of energy storage systems in proximity to electric transmission lines. Therefore, this policy does not preclude the siting of energy storage facilities closer than three (3) miles from a town boundary where future land use anticipates the rural/agricultural use of subject parcels and the risk to the public and properties are minimized.

3. Given that fire and rescue services in Sussex County are largely provided by volunteer departments, primary-use battery storage facilities should be sited with consideration for proximity to responding fire and rescue companies, adequate apparatus access, and the

training and equipment burden the facility may place on local first responders. Applicants should coordinate directly with the relevant volunteer department during design and prior to CUP approval.

4. To minimize risk exposure in the event of thermal runaway or fire, facilities should maintain adequate separation from residences, schools, and other places of public assembly, with setback distances informed by the manufacturer's failure modes analysis and applicable fire code requirements rather than a single fixed distance across all technologies.

5. As with utility-scale solar, the siting and design of battery storage facilities should preserve the County's rural character and scenic viewsheds, including appropriate vegetative screening, fencing, and foundation design suited to the surrounding agricultural or forested context.

6. The scale and size of a primary-use battery storage facility should be proportionate to the size of the parcel, surrounding land uses, and the capacity of local emergency services to respond, rather than sited based solely on land availability or interconnection access. In evaluating a proposed facility, consideration should be given to whether the proposed scale is compatible with the surrounding area and whether local emergency services have the equipment, training, staffing, access, and other resources necessary to respond effectively to an emergency at the proposed facility.

7. To ensure the County can verify continued compliance and identify developing issues before they become hazards, facilities should be subject to regular inspection and reporting requirements, with results provided to the zoning administrator on a defined schedule.

8. The applicant or facility owner, not the County, should bear responsibility for any environmental remediation associated with the facility, and the County should consider requiring financial assurance (such as a bond or escrow) sufficient to cover remediation and decommissioning costs, particularly given the uncertain end-of-life value of battery storage equipment compared to land.

9. Because battery storage technology and site-specific risk factors vary, the Planning Commission and Board of Supervisors should retain the ability to impose additional conditions on a case-by-case basis as part of CUP approval, beyond the baseline standards established in the Zoning Ordinance.

Map Attachments

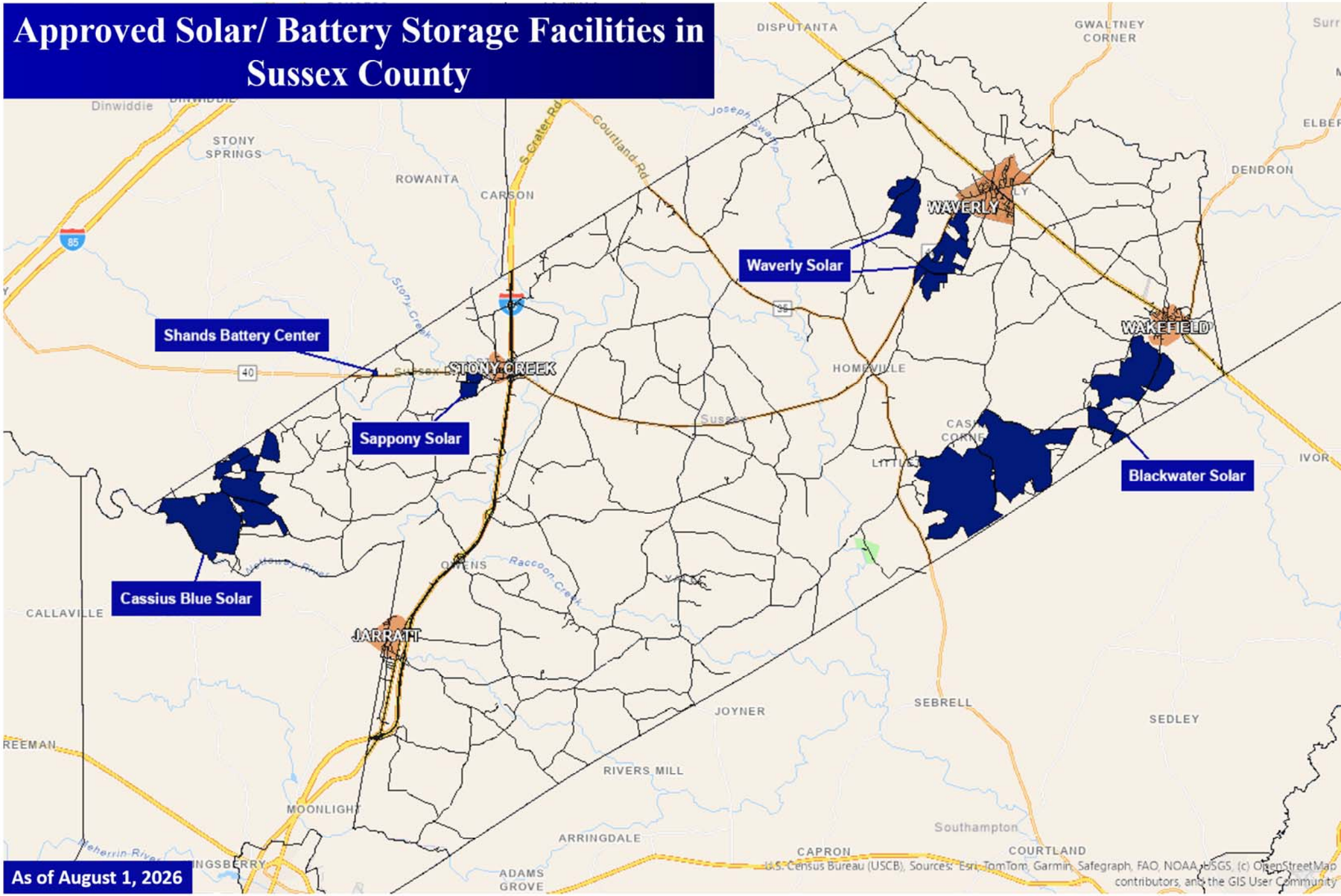
- Approved Solar/Battery Storage Facilities
- Major Transmission Lines and Substations
- Agricultural Land and Soils

Approved Solar and Battery Energy Storage

Project Name	Development Area	Project Area	Rated Capacity	Acres per MW[1]	Project Area Coverage Percentage
Sappony Solar (Approved August 2016)	250 acres	371 acres	20 MW	18.6 acres per MW	67%
Shands Energy Center (primary use) (Approved May 2021)	2 acres	32.28 acres	BESS	N/A	6%
Waverly Solar (Approved March 2019)	2,000+/- acres	2,700 acres	118 MW	22.9 acres per MW	74%
Cassius Blue Solar (Approved 2025)	2,214 acres	4,811 acres	394 MW	12.2 acres per MW	46%
Blackwater Solar (Approved 2026)	4,200 acres	8,355 acres	500 MW	16.7 acres per MW	50%

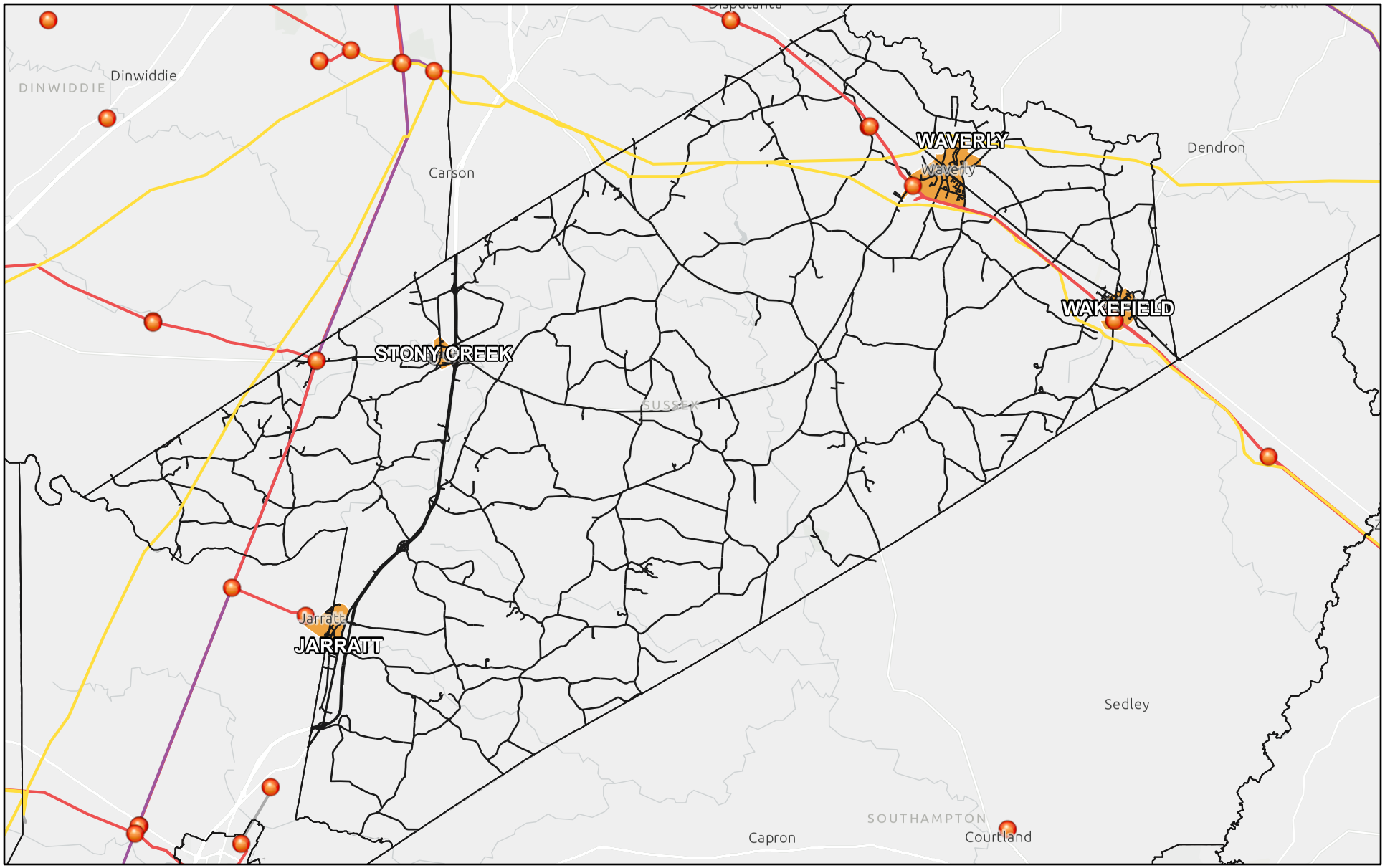
[1] Project Area/Rated Capacity

Approved Solar/ Battery Storage Facilities in Sussex County



As of August 1, 2026

Major Transmission Lines and Substations



10/7/2026

1:366,988

0 2.5 5 10 mi

0 4 8 16 km

Substations

U.S. Counties & Equivalents

U.S. Electric Power Transmission Lines

100-161 (Kilovolts)

220-287 (Kilovolts)

500 (kilovolts)

Other

Roads

TownBoundary

Sources: Esri, TomTom, Garmin, (c) OpenStreetMap contributors, and the GIS User Community, Oak Ridge National Laboratory (ORNL), Los Alamos

Virginia ConservationVision

Agricultural Model

DCR Virginia Department of Conservation & Recreation

Virginia Natural Heritage Program

Virginia Department of Agriculture and Consumer Services

USDA United States Department of Agriculture

VLCF Virginia Land Conservation Foundation

