

FINDING OF NO SIGNIFICANT IMPACT TENNESSEE VALLEY AUTHORITY

PURCHASE OF POWER GENERATED AT THE CARTER COVE AND LANCE COVE SOLAR FARMS, CLAY COUNTY, NORTH CAROLINA

The Tennessee Valley Authority (TVA) proposes to enter into 20-year power purchase agreements (PPAs) for the electricity generated by two proposed solar generating facilities in Clay County, North Carolina. The proposed facilities, the Carter Cove Solar Farm and the Lance Cove Solar Farm, would each generate 1 megawatt of electricity that would be delivered to the TVA system through interconnections with the Blue Ridge Mountain Electric Membership Corporation system. The two proposed PPAs would be through the TVA's Renewable Standard Offer program.

The two solar farm sites are located near US Highway 64 3.5–4 miles west of Hayesville. The Carter Cove Solar Farm would occupy a five-acre mostly wooded site. The Lance Cove Solar Farm would occupy a four-acre site, part of which is wooded and part of which is pasture.

Vegetation would be removed from each site and the sites would be lightly graded as necessary to smooth rough terrain. At each site, approximately 3,333 photovoltaic panels would be installed in parallel east-west rows of arrays on fixed-tilt metal racks supported by posts driven into the ground. The arrays would be connected to power inverters by buried electrical cables. Short overhead power lines would run from the inverters to existing nearby distribution lines owned by the Blue Ridge Electric Membership Corporation. Each site would be revegetated with non-invasive grasses and enclosed by security fencing. Evergreen trees would be planted around the perimeter of the sites. The construction of each facility would take 10 to 12 weeks to complete. Once completed, the sites would be periodically mowed to prevent vegetation from growing tall enough to interfere with operation and maintenance of the facility.

The anticipated environmental impacts of TVA's proposed action of entering into the PPAs, as well as those of the resulting construction and operation of the proposed solar farms, are the subject on an environmental assessment (EA) which is incorporated by reference. The EA evaluates two alternatives, i.e., the No Action Alternative and the Action Alternative. Under the No Action Alternative, TVA would not enter into the PPAs and the solar farms would not be constructed. Under the Action Alternative, TVA would enter into the PPAs and the solar farms would be constructed and operated as described above. The Action Alternative is TVA's preferred alternative.

The construction of the proposed solar farms would have negligible effects on air quality and their operation would have a small beneficial effect on air quality, including reduced emissions of greenhouse gases, due to the generation of emissions-free electricity that would otherwise likely be generated in part by fossil fuels. No noise would be generated by operation of the solar farms; noise from construction and periodic maintenance would be short-term and not adversely affect nearby residents. Streams and/or wetlands occur in the vicinity of each solar

farm sites although no water bodies occur on the sites. With the use of standard erosion control measures, no adverse impacts to water resources, including groundwater, are anticipated. None of the sites is within a 100-year floodplain. The proposed action complies with Executive Order 11988 on floodplain management and Executive Order 11990 on wetlands.

The removal of vegetation from the solar farm sites would displace most of the wildlife on the sites and the non-pasture portions of the sites would be converted to managed grasslands. Although the impacts on plant and animal species on the site would be adverse, these species are common in the region and overall impacts would be minor and insignificant. No federally or state-listed endangered or threatened species, or species of conservation concern, are known to occur on the solar farm sites. Potential summer roost habitat for the endangered Indiana bat occurs on the sites; to avoid impacts, tree clearing would occur between October 15 and April 15. The U.S. Fish and Wildlife Service has concurred with TVA's determination that the proposed action would not adversely affect species listed under the Endangered Species Act.

No archaeological sites eligible for listing on the National Register of Historic Places occur on the solar farm sites and no historic structures eligible for listing occur on or in the immediate vicinity of the sites. TVA has concluded that there would be no effect on historic properties and the North Carolina State Historic Preservation Officer has concurred with this determination.

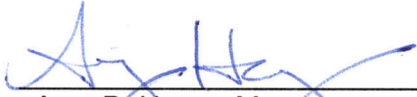
The construction of the solar farms would change the land use of the sites from woodland and agricultural to restricted industrial use. This would have little effect on adjacent properties and land use impacts would be insignificant. A small area of prime farmland, 0.4 acre, occurs on the Lance Cove site. No prime farmland occurs on the Carter Cove site. Construction of the solar farms would result in little long-term reduction in soil productivity and the effects on prime farmland would be insignificant. The construction of the solar farms would also change the appearance of the sites and much of the Lance Cove and Carter Cove facilities would initially be visible from nearby US Highway 64. Evergreen trees would be planted around the perimeter of each facility to provide additional visual screening in accord with the Clay County ordinance on solar farms. Overall visual impacts would be insignificant. The proposed action would result in minor beneficial socioeconomic impacts through employment during construction and increased property tax payments. There would be no disproportionate impacts to minority or low-income populations and the proposed action is consistent with Executive Order 12898 on environmental justice.

Mitigation

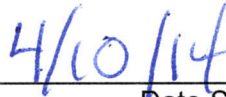
The solar farm developers would use routine best management practices such as dust suppression and erosion controls to minimize impacts to air and water quality. To avoid impacts to roosting bats, tree removal would occur between October 15 and April 15. TVA has not identified the need for additional mitigation measures to further reduce the anticipated environmental impacts.

Conclusion and Findings

Based upon the analyses documented in the EA, TVA concludes that its proposed action of entering into the two PPAs with the development entities for the Lance Cove Solar Farm and Carter Cove Solar Farm, and the subsequent construction and operation of the two solar farms, would not be a major federal action significantly affecting the environment. Accordingly, an environmental impact statement is not required.



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Date Signed