

LEGAL MEMORANDUM

To: Scott Badenoch, Attorney
Cc: Eric Goplerud
From: Ellis Walton
Re: Solar in Rights-of-Way
Date: October 21st, 2021

Question Presented

Under federal and Virginia state law, can renewable energy projects be permitted in highway rights-of-way to benefit environmental justice communities, and if so, how would that process be started?

Brief Answer

Under Federal Highway Administration regulations, state departments of transportation are permitted to guide the installation of utilities in highway rights-of-way, as long as the project serves the public interest. Virginia state regulations allow for utilities, including solar panels, to be installed in highway rights-of-way if it serves the public interest, does not impair highway safety, and does not conflict with local (county and or municipal) regulations. To begin the process, a group of community residents, local business owners, community support groups, and policy makers should be convened to discuss the installation of solar utilities in local highway rights-of-way. The group should determine if the electric utility should be owned through a cooperative or non-profit, by the local municipality, or an existing utility company.

Discussion

- A. The Federal Highway Administration allows for the development of energy utilities within the highway right-of-way that comply with state and local regulations, serve the public interest, and do not obstruct highway safety.**

Under the United States Code of Federal Regulations on Highways, “all real property, including air space, within the right-of-way boundaries shall be devoted exclusively to public highway purposes,” which effectively limits the uses of highway rights-of-way. 23 CFR § 1.23(b). However, the exception to this rule allows for “nonhighway purposes approved by the Secretary (Federal Highway Administration) as in the ‘public interest’, which do not ‘impair the highway’ or ‘interfere with the free flow of traffic thereon. 23 C.F.R. § 1.23(c); Citizens Organized to Defend Env’t, Inc., v. Volpe, 353 F. Supp. 520, 528 (S.D. Ohio 1972).

a. Federal Regulations on highway rights-of-way

According to Federal Highway Administration Regulations 23 CFR § 645, state departments of transportation are permitted to use their state utility accommodation policy (UAP), instead of asking the Federal Highway Administration (FHWA) for project approval, to develop utilities within a highway right-of-way. 23 C.F.R. § 645.21 (2000). However, the project must serve the public interest. § 1.23(c). The accommodation of a utility in a federal highway right-of-way is in the public interest if the occupancy of the right-of-way does not impair the highway or its aesthetic quality, and does not “conflict with Federal, State or local laws or regulations.” 23 C.F.R. § 645.205. If a proposed energy utility project does not serve the public interest or if state law does not include renewable energy in its utility definition, Federal Highway Administration Regulations 23 CFR § 710, require FHWA approval of proposed projects, where they will determine if it serves the public interest. 23 CFR § 710.

Solar utility installation in highway rights-of-way is permitted under federal law if the project serves the public interest, and does not impede on highway safety. Solar panels serve the public

interest by providing clean and low cost energy to low-income residents. Furthermore, solar panels can be installed in a manner that does not impede on highway safety and aesthetics.

b. Utility Development in Virginia highway rights-of-way.

Virginia law dictates that “[n]o work of any nature shall be performed on any real property under the ownership, control, or jurisdiction of Virginia Department of Transportation (“VDOT”) until written permission has been obtained from VDOT.” 24 Va. Admin. Code 30-151-20. Within the definition of ‘real property’ are “the rights-of-way of any highway in the state highways system.” *Id.* And written permission is granted through VDOT either by permit or a state-authorized contract. *Id.* “By issuing a permit, VDOT is giving permission only for whatever rights it has in the right-of-way; the permittee is responsible for obtaining permission from others who may also have an interest in the property.” *Id.* Additionally, a land-use permit covers the performance of work within highway rights-of-way and is valid only on highways and rights-of-way under VDOT's jurisdiction, so county and city permits must be secured for work on roads and streets under their jurisdictions. 24 Va. Admin. Code 30-151-40.

Virginia allows for overhead or underground utilities to be installed across any right-of-way by a utility under a permit. 24 Va. Admin. Code 30-151-300. “Utility installations within the highway right-of-way and attachments to highway structures shall be of durable materials, designed for long service life and relatively free from the need for routine servicing and maintenance.” *Id.* at 2. The permittee is responsible for the continuing maintenance of its facilities operating within the right-of-way. *Id.* at 4. And state regulations define a utility as meaning a “privately, publicly or cooperatively owned line, facility, or system for producing, transmitting, or distributing telecommunications, cable television, electricity, gas, oil, petroleum

products, water, steam, storm water not connected with highway drainage, or any other similar commodity...” 24 Va. Admin. Code 30-151-10. Additionally, the Virginia Electric Utility Act (“the Act”) defines ‘electric utilities’ as “any person that generates, transmits, or distributes electric energy for use by retail customers in the Commonwealth, including any investor-owned electric utility, cooperative electric utility, or electric utility owned or operated by a municipality.” Va. Code Ann. § 56-576. The Act also considers energy efficiency programs to be “in the public interest” if the program provides measurable and verifiable energy savings to low-income or elderly customers, or if it is a pilot program of limited scope, cost, and duration, intended to “determine whether a new or substantially revised program or technology would be cost-effective.” *Id.*

The State Corporation Commission may also determine a project is in the public interest if it determines that “the net present value of the benefits exceeds the net present value of the costs as determined by not less than any three of the following four tests: (i) the Total Resource Cost Test (“TRC”); (ii) the Utility Cost Test (“UCT”); (iii) the Participant Test (“PCT”); and (iv) the Ratepayer Impact Measure Test (RIM).”¹

¹ *Id.* ; The TRC compares the program benefits of avoided supply costs to costs for administering a program and the cost of upgrading equipment. a program passes the TRC, this indicates total resource costs will drop, and the total cost of energy services for an average customer will fall. The RIM, known as the “no losers test” is conducted from the viewpoint of a utility’s customers and measures what happens to average price levels due to changes in utility revenues and operating costs caused by a program. A benefit/cost ratio less than 1.0 indicates the program will influence prices upward for all customers.” The UCT “measures cost-effectiveness from the viewpoint of the sponsoring utility or program administrator. If avoided supply costs exceed costs incurred by the program administrator, average costs decrease.” The PCT “compares bill savings against incremental costs of the efficient equipment. It measures a program’s economic attractiveness to customers, and can be used to set rebate levels and forecast participation.” Elizabeth Daykin, Jessica Aiona & Brian Hedman, *Whose Perspective? The Impact of the Utility Cost Test*, International Energy Program Evaluation Conference (2012).

c. Virginia Commonwealth Energy Policy

The Commonwealth Clean Energy Policy states the policy of Virginia is to “develop energy resources necessary to produce 30 percent of Virginia's electricity from renewable energy sources by 2030 and 100 percent of Virginia's electricity from carbon-free sources by 2040.” Va. Code Ann. § 67-101.1. The Commonwealth also seeks to enable the widespread integration of distributed energy resources and rooftop solar into the grid to achieve decarbonization and to enhance resilience. *Id.* at (A) (1). The promotion of Environmental Justice is also a component of the Commonwealth energy policy, and is used to address and prevent energy inequality in “historically economically disadvantaged communities.” § 67-101.1 (B); *Friends of Buckingham v. State Air Pollution Control Bd.*, 947 F.3d 68, 87 (4th Cir. 2020). Hence, Commonwealth agencies must incorporate environmental justice into their energy and environmental policy and programs. *Friends of Buckingham*, 947 F.3d at 87. As a result, utility projects with an environmental justice impact are in alignment with Virginia public policy, and therefore, should be prioritized and approved by Virginia for implementation.

Solar panels used to generate electricity for customers are considered utilities by Virginia and federal law and may be privately, publicly, and cooperatively owned. (Va. Code Ann. § 56-576). Solar panels placed along highway rights-of-way within or near environmental justice communities—poor or majority-minority areas—that provide energy savings to low-income and disadvantaged groups and are thus serving the public interest. Project developers will have to work closely with VDOT and municipal officials responsible for land management to ensure that highway safety is not obstructed by the solar panels. Additionally, installing solar panels for the

public benefit in the highway rights-of-way would also support the Commonwealth Clean Energy Policy of creating more renewable energy sources and relying less on fossil fuels. *Id.*

d. Municipal and county regulations on utility development in highway rights-of-way.

Fairfax County regulations state that no person shall do work or any construction on any land dedicated to public use, owned by the County, unless and until a permit for such has been obtained from the Director of Land Development Services, but, this rule “shall not apply to the right-of-way of any street or highway in any system of the Virginia Department of Transportation.” Fairfax Code § 2-1-1. Additionally, the Director of Land Development Services is authorized to place conditions on any permits issued as necessary to insure safe and proper construction and use of the rights of way or land. *Id.*

The City of Arlington municipal regulations require persons to obtain a permit before performing any work within the public right-of-way. Arlington Municipal Code 20.60.030. Furthermore, when installing electrical power and other utility facilities intended to be owned, operated, or maintained by a public utility or an entity other than the developer, the developer shall transfer to the utility or entity the necessary easement or ownership rights to operate and maintain the facility. Arlington Municipal Code 20.60.010.

When installing utilities into highway rights-of-way, the entity controlling and developing the utility must receive a permit from the appropriate county or municipal authority. Furthermore, the developer must obtain the ownership and easement rights to control and maintain the planned solar utilities.

Conclusion & Recommendations

Solar panels that serve the public interest and do not impair highway safety, are permitted to be installed in highway rights-of-way under state guidance. Under federal and state regulations, solar panels may be installed in highway rights-of-way if it serves the public interest, does not impair highway safety, and does not conflict with local regulations. And due to environmental justice being a component of Virginia's energy policy, utility projects that address and prevent energy inequality in historically disadvantaged communities are aligned with the Commonwealth energy policy. Installing solar panels in the rights-of-way in majority-minority communities would serve the public need for clean and low-cost energy, would not impair highway safety, and would work to reduce energy inequality.

Community Solar Agreements serve the public interest and are aligned with the Virginia Commonwealth Energy Policy. Community Solar Agreements that are publicly or cooperatively owned and controlled by community residents offer the best model for developing utilities in the rights-of-way that reduce energy inequality for historically disadvantaged communities and produce renewable energy.

Community solar helps to distribute the costs of installing DG solar to multiple customers and does not require a low-income customer to own the roof on their house, making community solar a good solution for many low-income customers who typically are renters. Megan O'Connor, *All in the Community: Using Community Solar Gardens to Bring the Benefits of Renewable Energy to Low-Income Communities*, 31 Geo. Envtl. L. Rev. 391, 407 (2019). Hence, community solar gardens also offer the benefits of low-cost solar energy to homeowners and

renters alike and are more likely to pass the public interest test than privately-owned utilities due to its alignment with the Virginia Commonwealth energy policy.

When initiating the planning process, members of the engaged environmental justice community or communities must play a crucial role in developing the community solar agreement for their neighborhood. Municipal utility models and Electric Cooperatives provide helpful governance models to operate community solar agreements.

It is my recommendation that 10 to 20 locations be selected, located in Fairfax County and or the City of Arlington, Virginia, along highway rights-of-way where solar panels will not interfere with highway safety or aesthetics. Subsequently, a property assessment must be completed to determine who owns the land and controls easement rights. Then, the property owners should be approached with a letter of inquiry sent via certified mail as well as electronically to the relevant groups requesting a meeting about the property in question and whether alternative energy projects that benefit their lower-income neighbors could be developed there. Lastly, community stakeholders, property owners, and policy makers should all be engaged in the discussions to see what opportunities arise, but community residents (especially those the project is meant to benefit) should have the ultimate say in how this project is developed and implemented.