

Environmental Protection and Restoration Environmental Education

House Bill 440

Electricity – Community Solar Energy Generating Systems – Generating Capacity

Date: February 10, 2022	Position: SUPPORT with AMENDMENTS
To: Economic Matters	From: Doug Myers, Maryland Senior Scientist

Chesapeake Bay Foundation (CBF) **SUPPORTS** HB 440 WITH AMENDMENTS. This legislation raises the capacity of community solar definition from 2 to 5 Megawatts. This policy change should increase general support for community solar by raising the cap of total electricity generating capacity that can come from these installations, **but it has come to CBF's attention that this change is a fundamental one that could confuse local environmental zoning considerations and have unintended consequences relating to preservation of open spaces, forests, and other ecologically valuable lands statewide.**

Community solar increases accessibility to clean energy and creates efficiencies in energy transmission.

Community Solar Energy Generating Systems are designed to encourage neighborhood-scale adoption of solar energy in a distributed fashion rather than utility-scale facilities. Solar power, like other electricity generating systems, is most efficient and loses less energy when generated close to where it will be used. The U.S. Energy Information Administration (EIA) estimates that electricity transmission and distribution (T&D) losses equaled about 5% of the electricity transmitted and distributed in the United States in 2016 through 2020.¹

The benefits of community solar could be undermined by the potential detrimental effect of 2-5 megawatt solar facilities on forests, prime agricultural soils, and ecologically sensitive areas.

Community Solar Generating Systems may be commonly envisioned as solar panels affixed to rooftops for residential and small-scale commercial buildings nearby to where the bulk of the generated electricity will be used. This design lessens the energy bills of those homes and businesses and generally supports the grid when excess energy is generated. But rooftop solar is not the mainstay of the community solar program. According to information cited by Advocates for Herring Bay, over 70 percent of the roughly 100 MW of Community Solar Energy Generation Systems capacity installed or pending in the BGE-Pepco region is sited on farms or forests – not rooftops, parking lots, or brownfields. Protections during project review are lacking in the context of the state's interest in preservation of open spaces, including forests, and other ecologically valuable lands.

¹ <u>How much electricity is lost in electricity transmission and distribution in the United States?</u>, US Energy Information Administration, last updated: November 4, 2021.

The current practice of building community solar projects on green fields presents the concern that increasing the cap for community solar projects could result in projects dependent on larger swaths of land, threatening Maryland's "no net loss" of forest goal and other environmentally sensitive areas worthy of protection. Clearing forests to install panels and transmission infrastructure could have significant negative impacts on local streams, including tributaries to the Bay. Maryland's prime agricultural soils, which also have the potential to capture carbon when farmed in a regenerative manner, could be the most threatened by raising the cap from 2 MW to 5 MW for community solar projects. The Committee should consider specific protections for prime agricultural soils, forested areas, and other ecologically sensitive areas to avoid a tradeoff between reducing greenhouse gases and protecting the Bay.

This legislation creates uncertainty regarding the application of local zoning codes to community solar projects that are between 2 and 5 megawatts in size.

Local zoning and environmental statutes are carefully calibrated to balance interests in business promotion, quality of life, and environmental concerns. Conflicts between local zoning and state decision making on solar siting are also a complicated and nuanced area of law and policy. This bill's change to one element of community solar restrictions could upset and confuse the effect of local zoning, some of which is also tied to the 2-megawatt limit. This concern should be addressed by the Committee to avoid upending local environmental protections.

As the demand for solar energy increases, large utility-scale operations are being proposed that threaten farmland and forests. Community Solar projects should be a part of the solution for Maryland's environment, not creating negative environmental consequences. CBF hopes to be a part of conversations amending HB 440 to meet that goal.

CBF urges the Committee's FAVORABLE report on HB 440 with amendments that protect preservation of farms, forests, and environmental sensitive areas according to state goals and local regulations. For more information, please contact Robin Clark, Maryland Staff Attorney at rclark@cbf.org and 443.995.8753.