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Green Voices: Maryland is paving the way for commercial solar power plants to become pollinator friendly

By Rebecca Rush Special to The News-Post 44 min ago



Fresh Energy

In May 2017, Governor Larry Hogan signed the Department of Natural Resources — Solar Generation Facilities — Pollinator-Friendly Designation (SB1158) bill into law. It was strongly supported by the Senate and General Assembly.

SB 1158 establishes a state preference and a process for supporting co-locating pollinator-friendly habitat with a commercial ground-mounted solar facility. This new Maryland law will not only help pollinators but will also benefit farmers and gardeners.

This legislation is significant because an increasing number of solar generating facilities are planned for installation on agricultural land. Without advocating for a “pollinator friendly” standard, solar developments may default to planting turf grass which requires regular mowing to maintain, has a high carbon footprint, and may have little water infiltration capacity and thus contribute to stormwater runoff.

“Pollinators are a vital component of the production and persistence of many agricultural products,” according to the USDA, Integrative Vegetation Management. “The majority of the products that we use and the food we eat daily are either dependent on, or derived from, plants that rely on pollinators. There would be devastating economic costs if pollinator populations were to dramatically decrease. In the United States, domestic honey bees, native bees, and other pollinators contribute more than \$24 billion to the agricultural economy by pollinating fruits, nuts and vegetable crops.”

Maryland is not the first state to establish pollinator-friendly site assessments and designations. The state of Minnesota, through leadership by Fresh Energy, a 501c3 not-for-profit organization, has enabled the fourth-largest agricultural exporting state in the U.S., to responsibly scale from less than 20 megawatts of solar capacity statewide (approximately 100 acres) in early 2016 to 700 to 1,000 megawatts by late 2017.

A recent report by the National Renewable Energy Laboratory suggests that large-scale solar facilities can minimize negative impacts and support environmental sustainability by co-locating vegetation such as strategically planned, pollinator-friendly plantings under ground mounted solar arrays.

Frederick County is lucky to be the site for the (in-development) commercial solar photovoltaic Baker Point Project, which will provide pollinator-friendly habitat and help set the standard for our region.

The Baker Point Project, developed by OneEnergy, will have an estimated 34,000 panels and be constructed in Creagerstown. It will produce 10.88 megawatts of clean renewable energy, enough to power the equivalent of 1,100 homes. The fence line will have a robust vegetative screen/border. Inside the fence there will be 4.28 acres of protected wetland and 4 acres of pollinator-friendly habitat comprised of 11 flowering species that bloom throughout spring, summer and fall for continuous pollen to feed the pollinators. Baker Point's plant-mix is purchased from a reputable Pennsylvania native plant seed supplier. The project will cover an estimated 50 acres of land previously used for corn and soybeans.

Once planted and stabilized with the deep root systems, the eco-system will be self-seeding, have a low maintenance carbon footprint (mowing not required as with turf grass), be drought tolerant and provide many uninterrupted months of habitat for transient and area pollinators.

According to Gia Clark, director of project development for OneEnergy Renewables, "Our Baker Point project in Frederick County is the first solar project in Maryland to incorporate pollinator habitat in its site plan. Baker Point is expected to be rated an 'exceptional' site by the Maryland Solar Site Pollinator Habitat Assessment."

While meadows on solar sites are a common design practice across Europe, it is only recently catching-on in the U.S. With national multi-year beehive losses well above 50 percent, the opportunity to add pollinator habitat at this scale — all while increasing the local production of renewable energy — is a win-win.

There are other beneficiaries of the Baker Point Project too.

Land owners – The farm owners leasing land for the solar arrays will be paid rent for decades. For some farms, the ability to have steady, recurring income may provide a new source of economic security.

Adjacent crop growers — Studies have shown that by increasing pollinator activities (bees, butterflies, etc.), commodity crops (corn, soybeans, etc.) as well as food crops may experience increased yields.

Beekeepers — offering a safe habitat to improve colony health and resiliency.

Chesapeake Bay — well-chosen native plants may reduce storm water runoff.

New steps are underway by Community Renewable Energy to support the pollinator-planning supply chain and to develop project replication tool kits and local advocacy. We envision a new stewardship industry emerging, comprised of agricultural land-owners, planners, pollinator-habitat experts, seed collectors, green houses, beekeepers, gardeners and maintenance contractors.

Agricultural tourism and environmental-education field days may result, as the backdrop for photography, environmental education and native-plant research, including rewarding champions of certain endangered pollinator or plant species.

Imagine an agriculturally-friendly solar power generation plant that, at the end of its useful life, has provided the land owner with dependable income, helped protect pollinators and preserved the land for future beneficial uses.

Rebecca Rush is project manager at Community Renewable Energy – Solar & Pollinator Co-Location Project, of the Land & Cultural Preservation Fund. If you are interested in participating in the Solar & Pollinator Co-Location Project with CRE, email her at Rebecca@communityrenewableenergy.org.