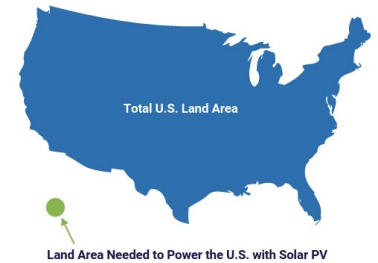


Pine Gate Renewables (PGR) is committed to sharing information about solar with the community by providing regular communications, hosting local office hours, and engaging with the broader community regarding the proposed Panther Creek Solar Project. We are pleased to provide the following data regarding the co-location of solar and agriculture in the United States and Ohio.

SOLAR & AGRICULTURAL LAND USE

Use of agricultural land for utility-scale solar is an important topic for both the US as a whole and, more specifically, Ohio. As the nation works towards adding more clean, safe, and reliable energy generation, land-use is an important consideration. The National Renewable Energy Laboratory estimates that for the U.S. to move completely to carbon-neutral power, it will require about 10,000 square miles of land.



Aside from producing power, solar energy can be a useful tool to assist in preserving our rural communities throughout America. Current statistics show that 59% of farmland is lost due to development from expanding urban areas and 41% from low-level residential development. However, farmers who lease a small portion of their land to a solar project will continue to own this land throughout the project's lifetime and will be able to continue farming once the project is decommissioned. Locating solar on previously farmed ground allows landowners to consider their acreage and what they prefer to use it for.

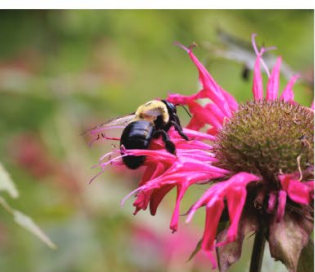
THE CONSERVATION RESERVE PROGRAM: IN CONNECTION WITH SOLAR & AGRICULTURE

Through the USDA, the Conservation Reserve Program (CRP) pays a yearly rental payment to take agricultural cropland out of production and convert to vegetative cover to prevent soil erosion, improve water quality, and reduce loss of wildlife habitat while curbing the production of surplus commodities. The federal government pays approximately \$179.44 annually per acre of land in the CRP.



Cropland that is used for utility scale solar can have similar benefits due to allowing land to rest and recover, while bringing in higher payments to the landowner.

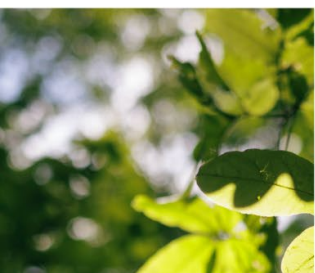
Ohio is home to about 13.5 million acres of farmland. Of these acres farmed across the state, nearly 227,000 acres are enrolled into CRP. As of 2024, the OPSB states there are 97,991 total acres of land in the state that are put toward solar projects that are pending, pre-permit, in construction, or currently operational. The combined acreage set aside for solar projects and CRP land is 0.02% of the total farmland available to Ohio. In setting this land aside, the land is allowed to rest and regenerate in order to provide more productive and useful soil for future farming once the lifetime of the solar project is over or the land is taken out of CRP.



SOCIAL & ENVIRONMENTAL IMPACTS

Solar projects can offer many benefits to the land they are located on as well as the environment around them. Over the typical 30-40 years that a project is operational, land included on the project footprint is allowed to rest. Oftentimes, the soil can lose vital nutrients from decades of farming practices, and similar to the idea behind the US Conservation Reserve Program, setting the land aside can help to regain nutrients and micro-organisms needed in the soil for future farming. Healthier soil will help to reduce soil erosion and recharge groundwater reserves.

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Many solar projects also incorporate native grasses, wildflowers, or shrubs under or around solar panels. Use of native vegetation can increase local biodiversity by creating habitats for nearby wildlife populations as well as pollinators. Pollinator-friendly habitats can assist in increasing populations of birds and bees that will benefit crop yields and productivity of neighboring farms naturally. A recent five-year study of two solar farms showed a tripled total insect abundance, and a twenty-fold increase in native bees.¹

Solar projects can offer benefits to both agriculture and ecosystems by improving soil health, retaining water, nurturing native species, and supporting native pollinators which improves local food production.

PINE GATE RENEWABLES & ENVIRONMENTAL STEWARDSHIP

Pine Gate Renewables is committed to developing responsible solar. Necessary studies and site plans will be conducted to ensure responsible environmental practices that benefit both neighboring properties as well as the project footprint. This includes working with local experts to assess the natural environment on all project sites and assuring the use of best practices regarding biodiversity, water protection, and vegetation management. PGR makes every effort to minimize tree removal; however, when tree removal cannot be avoided, PGR takes part in reforestation efforts around the country by partnering with the Arbor Day Foundation. Together, PGR and the Arbor Day Foundation direct reforestation efforts to areas of greatest impact for sustainable forestry and biodiversity.

For the Panther Creek Project, environmental experts have assessed the Project footprint by conducting site-specific studies in order to develop a Project that mitigates potential impacts on wildlife. The Project will comply with all state and federal wildlife regulations, including requirements of the United States Fish and Wildlife Service and the Ohio Department of Natural Resources (ODNR). Wildlife friendly fencing will allow small animals to amble through the fencing. The Project fencing will be set back from public roadways, and larger animals, such as deer, will be able to safely traverse around the Project area.

SOURCES:

- [SEIA – Solar & Agricultural Land Use Graphic](#)
- [Green energy, fact-checked: Are wind turbines bad, solar panels toxic?](#)
- [Ohio Power Siting Board – Solar Map](#)
- [USDA – Agriculture Across Ohio](#)
- [USDA – CRP Monthly October 2023](#)

FOR MORE INFORMATION:

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¹ <https://electrek.co/2024/01/23/utility-scale-solar-farms-bees/>

