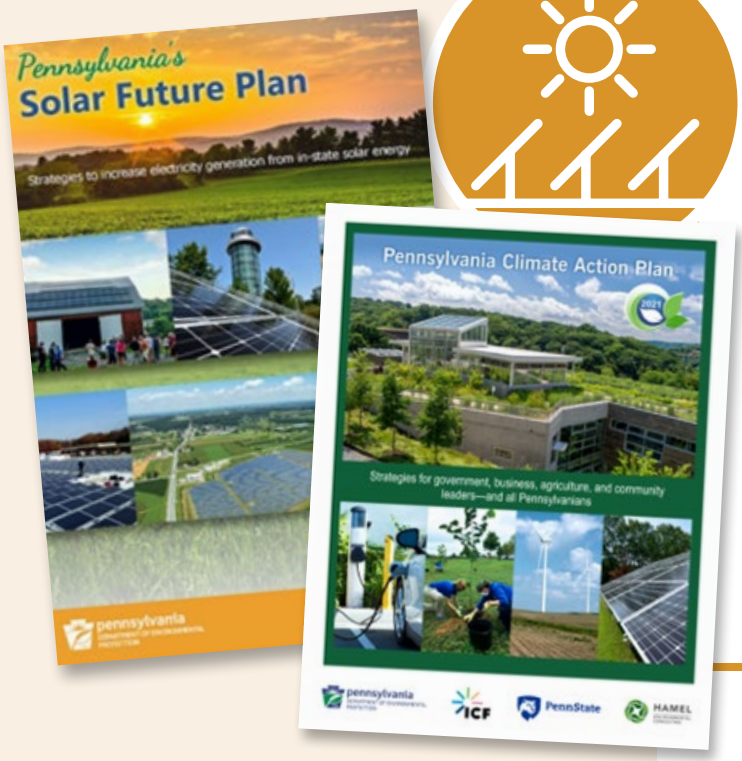
Planning Advice: Utility Scale Solar Facilities

BERKS COUNTY Planning Commission

According to the American Planning Association, "unlike many land uses, solar installations will occupy vast tracts of land for one or more generations; they will require tremendous local resources to monitor during construction (and presumably decommissioning); they can have significant impacts on the community depending on their location, buffers, installation techniques and other factors and they are not readily adaptable for another industrial or commercial use, hence the need for decommissioning."

Pennsylvania's Solar Future Plan recommends expansion of utility scale solar facilities across the state, including "installing larger, grid-scale systems on buffer zones, disturbed lands and in conjunction with grazing or pollinator friendly perennials." In addition, the Pennsylvania Climate Action Plan recommends an increased use of clean, distributed electricity generation resources. Further, the General Assembly of Pennsylvania is considering a bill that would prohibit large scale solar developments on prime Pennsylvania farmland (Senate Bill No. 798, Session of 2023).

The Berks County Planning Commission has received questions about utility scale solar facilities from the development and agricultural communities. The Planning Commission has also reviewed proposed zoning amendments regulating utility scale solar facilities. Because of the vulnerability of developable sites to the proliferation of utility scale solar facilities, and because of these facilities' potential impact on economic development in Berks County, BCPC staff recommends that municipalities in the County consider the following best practices when regulating utility scale solar facilities (including, but not limited to amending zoning, subdivision and land development ordinances). These new guidelines are intended to help communities promote renewable energy sources in a sustainable manner.



BCPC STAFF RECOMMENDATIONS

(These recommendations are applicable only to large utility scale solar facilities not to small rooftop systems on residential or commercial properties)

Each Municipality Should:

1. Require a conditional use permit from the governing body in all zoning districts, subject to appropriate conditions that address mitigation of adverse impacts of the proposal
2. Require Subdivision and Land Development Ordinance (SALDO) review
3. Require a decommissioning plan which includes review of costs every 5 years and language which discusses process for review
4. Require notification of ownership changes for taxation, maintenance and decommissioning purposes. Include language to track ownership changes
5. Require baseline environmental site assessment and process for monitoring
6. Require the description of panel composition on applications
7. Include discussion of the appropriate locations and conditions in local and joint municipal comprehensive plans
8. Encourage rooftop installation and locations within areas where land has been remediated from contamination of hazardous substances or pollutants due to previous development
9. Encourage the simultaneous use of land areas for solar photovoltaic power generation and agriculture
10. Provide language for onsite electricity storage that includes requirements for access and buffering
11. Include requirements for appropriate lighting and buffering of the entire site

Each Project Should:

1. Avoid Prime Agricultural Soils (I, II and III) and areas zoned for Effective Agriculture
2. Avoid areas sloped more than 7% and containing poor draining soils
3. Avoid floodplains, High Quality and Exceptional Value Streams
4. Avoid clearcutting and removal of mature trees
5. Locate within 2 miles of substations and/or transmission lines
6. Comply with municipal stormwater management requirements

Distributed Generation System

Generates electricity at or near where it will be used and varies in scale from serving a single home or business to school campuses, a commercial office or a medical park or campus. This includes small panels on a roof to a several acre field with hundreds of panels which provides power to several of the onsite buildings through a micro grid energy transmission system.

Community Solar

A Community Solar System can vary in size. The main distinction of this type is that the created power is transmitted through existing energy distribution systems to other neighboring properties or entities. At this time, Community Solar Systems are not permitted within Pennsylvania, but members of the PA Senate have introduced legislation to allow such use.

Utility Scale Solar

These facilities, often called "solar farms", are utility-scale developments that provide power to a wide community by selling the generated power directly into the electric grid. They typically consist of a large-scale array of solar panels that cover many acres. These facilities generate electricity on an industrial scale. Often they utilize land that was previously in agricultural use due to the relatively flat topography and lack of obstructions commonly found in these areas.

For more information visit: bit.ly/BCPC_Solar