



Planning Advice: Utility Scale Solar Facilities

Amended March 2025

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.

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 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. Update local and joint municipal comprehensive plans to state the appropriate locations and conditions for solar arrays in the community.
2. Designate solar arrays as a conditional use in all zoning districts, subject to appropriate conditions that address mitigation of the project’s adverse impacts.
3. Require Subdivision and Land Development Ordinance (SALDO) review for all solar array projects.
4. Require that a decommissioning plan be submitted to the municipality for each solar facility which includes review of costs every 5 years and language which includes a process for review and a decommissioning bond.
5. Require notification of ownership changes to the municipality for taxation, maintenance and decommissioning purposes. Include language to track ownership changes.
6. Require baseline environmental site assessment that includes but is not limited to, glare, sound, stormwater and EMF.
7. Require the description of panel composition on applications.
8. Encourage rooftop installation on warehouse locations and where land has been remediated from contamination of hazardous substances or pollutants due to previous development.
9. Encourage the simultaneous use of land for solar arrays and agriculture (agrovoltaics).
10. Require on-site electricity storage at each facility, including requirements for access and buffering.
11. Include requirements for appropriate lighting and buffering, including existing vegetation of the entire site.
12. Require solar farm applicants to schedule a pre-NPDES application meeting with the Conservation District.
13. Require contractors for solar facility construction projects to demonstrate contractor qualifications that demonstrate experience with solar array installation.

Each Project Should:

1. Avoid Prime Agricultural Soils (I, II and III) and areas zoned for Effective Agriculture.
2. Avoid areas sloped more than 10% and containing poor draining soils.
3. Avoid floodplains, High Quality and Exceptional Value Streams.
4. Minimize land disturbance and avoid clear-cutting and removal of mature trees.
5. Be located within 2 miles of substations and/or transmission lines.
6. Comply with municipal storm water management requirements.
7. Schedule a pre-NPDES application meeting with the Conservation District.
8. Post ownership information on site.

Distributed Generation System

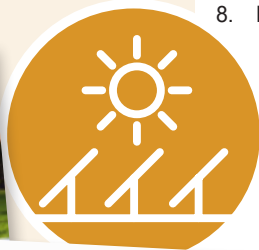
Generates electricity at or near where it will be used and varies in scale from serving a single home or business to school campuses, a commercial office or a medical park or campus. This includes small panels on a roof to a several acre field with hundreds of panels which provides power to several of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