

SOLAR FARMS PROTECT WATER QUALITY



Greene
County
Solar Facility

Greene County Solar Facility plans to convert 400 acres of a 1,200-acre farm in Cossackie to harvest the sun's energy with arrays of photovoltaic solar panels.



In addition to reducing run-off by converting hundreds of acres of row crops to solar power, the project is planning to plant grasses, grains or clovers that can help keep nutrients out of the water by recycling excess nitrogen and reducing soil erosion.



- **Agricultural runoff** is one of the primary sources of pollutants to streams and lakes.
- **Nutrient pollution** from agricultural runoff is the process where too many nutrients -- mainly nitrogen and phosphorus -- are added to bodies of water.
- Too much nitrogen and phosphorus in the water causes algae to grow faster than ecosystems can handle. **Harmful algal blooms** can adversely impact clean water, recreation, businesses, and property values.
- **Sleepy Hollow Lake** in Greene County is among the more than 70 lakes in New York State with [DEC-reported harmful algal blooms](#).

Greene County Solar Facility is expected to significantly reduce the level of nutrients flowing into the Sleepy Hollow Lake watershed.



Pollinator-friendly solar farms provide major benefits

“Under-panel native plants benefit not just their immediate solar farm surroundings but nearby cropland. Lee Walston, an ecologist at Argonne National Laboratory, says pollinating insects roam beyond solar installations to other agricultural fields, where they help increase production.”

“Native plantings offer refuge for declining species such as monarch butterflies and rusty patched bumblebees while serving the additional purpose of controlling stormwater and erosion, he adds.”

-- **Scientific American, *Solar Farms Produce Power—and Food*, June 2018**



Hecate Energy, which is developing the Greene County Solar Facility, supports the development of pollinator-friendly solar approaches that provide agricultural, economic, and environmental benefits.

- NY’s agricultural economy is highly dependent on bees, which contribute \$500 million in pollination services annually to crops such as apples, cherries, pumpkins, strawberries, blueberries, squash, beans, and alfalfa (a primary food stock for dairy cows in NY).
- Pollinator meadows also mitigate erosion, store carbon and enhance habitat for wasps, birds and other pest-controlling species.
- Planting the land in and around solar arrays with native flowers helps their other crops, increasing bee visits to soybeans, blueberries, apples and pumpkins.
- Pollinator-friendly landscapes also improve stormwater management and reduce erosion because native vegetation has a deeper root system than hay or turf grass. That means decreased stormwater runoff and erosion.

For more information about the Greene County Solar Facility, please visit our website:
www.greenecountysolar.info