



## SOLAR ENERGY

### Project Review Guide for Municipalities

The Climate Leadership and Community Protection Act of 2019 (Climate Act) is driving an increase in the number of large-scale solar energy projects in New York State. Local governments are looking for best practices to minimize potential impacts to environmental resources and neighboring properties to ensure compatibility with land use planning goals and the local community.

The programs and regulations relative to solar energy are numerous, confusing, and seem to be ever changing. The Syracuse-Onondaga County Planning Agency (SOCPA) prepared this guide for local governments reviewing solar projects in Onondaga County. The following checklists provide municipalities a means of consistently reviewing projects and identifying potential impacts that require mitigation. These checklists are the result of a comprehensive review of available information and other evaluation tools.



SYRACUSE - ONONDAGA COUNTY PLANNING AGENCY

## PLANNING CONSIDERATIONS

*Ensuring consistency with local plans and zoning*

- Does the municipality have a comprehensive plan that identifies areas recommended for solar energy projects as well as areas recommended for land preservation where solar energy projects would not be a good fit due to environmental constraints or neighboring land uses?
- Does the municipality have a battery energy storage system law and does the project meet the requirements of the law?
- Will the project inhibit or encourage other land uses?

## AGRICULTURAL CONSIDERATIONS

*Protecting ag lands and promoting co-location with ag operations*

- Does the project avoid impacting 10 acres or more of actively-farmed Prime agricultural soils?
- For projects using 10 acres or more of Prime agricultural soils, is a soil reclamation plan, and related financial guarantee of plan implementation, provided to ensure future farms?
- Does the project minimize impacts to existing fencing and watering systems?
- Does the project minimize impacts to farming operations by locating structures for overhead electric in nonagricultural areas and along field edges?
- Does the project avoid dividing larger fields into smaller fields that are more difficult to farm?
- Does the project avoid compacting soils or causing compaction of neighboring soils?
- Does the project avoid the need for cut and fill and reduce the risk of creating drainage problems by locating access roads that cross agricultural fields along ridge tops and by following field contours?
- Does the project limit the permanent width of access roads in agricultural fields to no more than 16 feet to minimize the loss of agricultural land?
- Does the project avoid existing drainage and erosion control structures?
- Does the project include a vegetation management plan for vegetation under/between solar panels? Does the vegetation management plan include sheep grazing?
- Does the project avoid important community viewsheds?

## ENVIRONMENTAL CONSIDERATIONS

### *Protecting ecological resources*

- If the site contains state or federally regulated wetlands, has the NYS Department of Environmental Conservation (DEC) or US Army Corps of Engineers been consulted? Does the project minimize impacts to wetland and buffer areas? Have any necessary permits been obtained?
- If the site contains waterbodies and riparian resources, is a riparian buffer provided?
- Does the project minimize impacts to 100-year floodplains? Will impacts to flood levels be avoided?
- Does the project avoid floodways?
- Does the project avoid impacts to Critical Environmental Areas (CEAs), steep slopes (slopes in excess of 10%), and previously-identified distinctive viewsheds?
- Does the project minimize clearing of forested areas?
- Does the project provide a vegetative cover to be established and maintained underneath solar panels (unless they are located over an existing parking lot or other already-paved area)? Is management of vegetative cover part of the municipal review for stormwater management?
- Does the project maintain natural hydrology to the maximum extent practical? If redeveloping a site, does it restore impervious surfaces to improve runoff characteristics of the site?
- Is a stormwater management plan provided?
- Does the project avoid habitat loss, habitat fragmentation, and impacts on wildlife corridors?
- Does the project avoid impacts to rare, threatened, and endangered species and their habitat?
- Is the project designed to be pollinator-friendly, with native vegetation planted under and adjacent to solar arrays, with flowering species, cover diversity, nearby pollinator nesting habitat, and a maintenance plan that does not include the use of pesticides, fungicides, or herbicides (except as a last resort for control of large invasive species infestations where mechanical control is not effective)?
- Does the solar system's perimeter fencing include periodic small openings to allow small animal movement through the site?

## SITING CONSIDERATIONS

*Minimizing impacts to neighboring uses*

- If glare is a potential issue for neighboring uses, is a glare analysis provided?
- Does the project provide screening to address site-specific conditions?
- If the site is adjacent to a state or county highway, has the State or County Department of Transportation (DOT) or NYS Thruway Authority been consulted to mitigate potential impacts?
- If the site contains areas designated as sensitive for archeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory, has SHPO been consulted?

## RECREATIONAL CONSIDERATIONS

*Protecting recreational resources*

- Are there hunting leases on the property or nearby properties?
- Does the project avoid impacts to any local or regional recreational resources such as snowmobile trails, or hike/bike trails?

## POST-CONSTRUCTION PLANS

*Ensuring restoration of the site and post-construction monitoring and remediation*

- Will disturbed areas be decompacted?
- Will access roads be re-graded to allow for farm equipment crossing and to restore original surface drainage patterns?
- Will restored agricultural areas be seeded with the seed mix specified by the landowner?
- Will all surface or subsurface drainage structures damaged during construction be repaired?
- Following restoration, will all construction debris be removed from the site?
- Will topsoil deficiency and trench settling be mitigated with imported topsoil consistent with the quality of topsoil on the affected site?
- Is there a plan to require rehabilitation measures if crop productivity in the affected area is less than that of the adjacent unaffected agricultural land?

## **DECOMMISSION PLANS**

*Ensuring proper removal of solar projects*

- Will all above-ground structures be removed and areas previously used for agricultural production restored, according to recommendations by the landowner, the Soil and Water Conservation District, and the NYS Department of Agriculture and Markets?
- Will all concrete piers, footers, or other supports be removed to at least a depth of 48 inches below the soil surface?
- Will all access roads be removed, unless otherwise specified by the landowner?

## **CONDITIONS OF APPROVAL**

*Ensuring compliance with relevant agencies and municipal requirements*

- Are there any required federal, state, or county approvals, including those associated with wetlands, waterbodies, highways, etc., that should be a condition of municipal approval?
- Are there any required bonds or other instruments to guarantee performance and mitigation of the project that should be a condition of municipal approval?
- Are there other enforceable conditions to ensure the project complies with municipal requirements?

## RESOURCES

- NY-Sun (Solar Initiative)  
<https://www.nyserra.ny.gov/all-programs/programs/ny-sun>
- Solar Guidebook for Local Governments  
<https://www.nyserra.ny.gov/-/media/NYSun/files/solar-guidebook.pdf>
- Battery Energy Storage System Guidebook  
<https://www.nyserra.ny.gov/all-programs/programs/clean-energy-siting/battery-energy-storage-guidebook>
- NYS Tug Hill Commission  
Planning for Offsite Solar Energy Projects (Issue Paper)  
<https://tughill.org/wp-content/uploads/2021/02/PLANNI1.pdf>
- Tompkins County  
Tools to Promote and Regulate the Deployment of Renewable Energy Systems  
<https://www2.tompkinscountyny.gov/planning/energy-greenhouse-gas>
- Scenic Hudson  
Clean Energy, Green Communities · A Guide to Siting Renewable Energy in the Hudson Valley  
<https://scenichudson.org/wp-content/uploads/2019/10/renewables-siting-guide.pdf>