

# Managing Solar Panels in Niagara County, New York

**Dawn Timm**

*Director: Division of Environmental/Solid Waste  
Niagara County, New York*

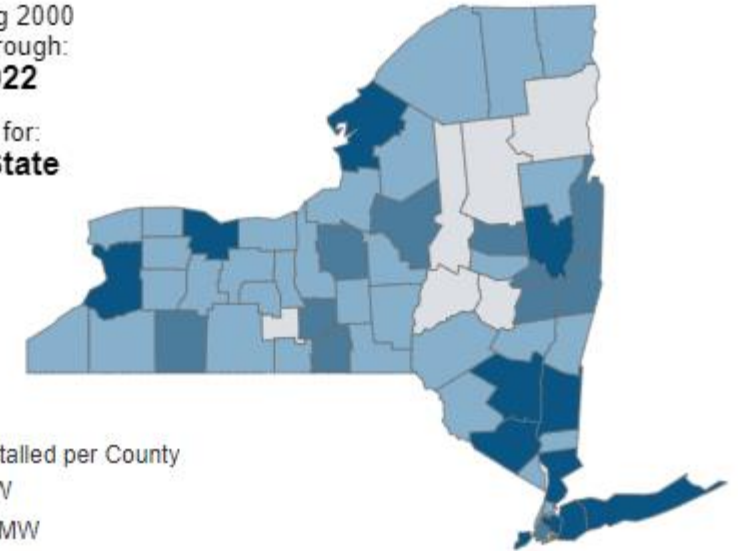


# Motivation

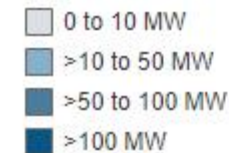
- New York's Climate Leadership and Community Protection Act (CLCPA) influencing interest in renewable energy projects
  - Push for 70% Renewable Energy by 2030 (100% Zero Emission by 2040)
  - 6,000 MW of Solar by 2025 (currently at 68%)
  - 3,000 MW Energy Storage by 2030
  - Dramatically sped up siting and construction of clean energy projects >20MW through Office of Renewable Energy Siting
- Niagara County recognized increased interest in solar development, but identified no certainty on end-of-life panel management.
- Environmental legacy of Niagara County is ugly: the Love Canal, Manhattan Project/L.O.O.W and hazardous/non-hazardous waste disposal units.
- Taking proactive steps to eliminate long term liability.
- Solar panels are not just a Niagara County concern, it is statewide and national concern. NY is ranked 10<sup>th</sup> in cumulative solar production (neighbors NJ and Mass are 7th and 8th).

Data beginning 2000  
and current through:  
**June 30, 2022**

Showing Data for:  
**New York State**



Megawatts installed per County



Total Capacity (MW DC)

**43.13 MW**

Number of Projects

**759**

Data Sources: NYS DPS, NYISO. [Click icon for more info](#) 

# Solar is Growing

## Installed

- 679 Residential Projects with 20,343 panels  
77 Commercial Projects with 88,909 panels
- 44 manufacturers (90% represented by 8 companies)

## Pipeline

- 20 Residential with 697 panels
- 34 Commercial with 139,813 panels

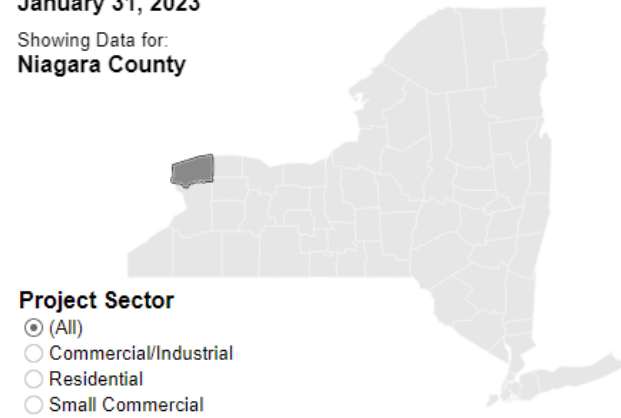
## NYISO: Four large projects applied for interconnection

- Bear Ridge: 100 MW, Somerset: 250 MW. Niagara Dolomite: 180 MW, Ridge View: 350 MW

Status	MW DC Capacity	Quantity of Panels
Installed	43	109,252
Pipeline	110	140,510
Proposed	880	4,400,000*

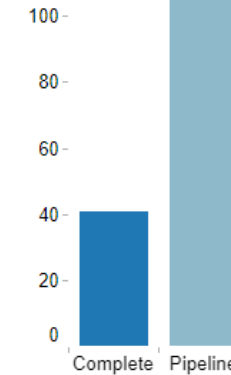
\* Assume 1-MW = 5,000 panels

Data beginning 2000 and current through: **January 31, 2023**  
Showing Data for: **Niagara County**

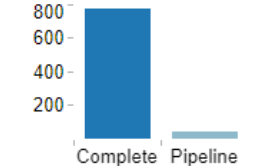


Dashboard Last Updated: 2/6/2023 10:49:49 AM

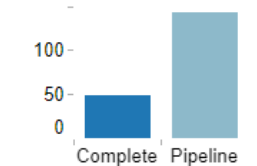
**Total Capacity (MW DC)**



**Number of Projects**

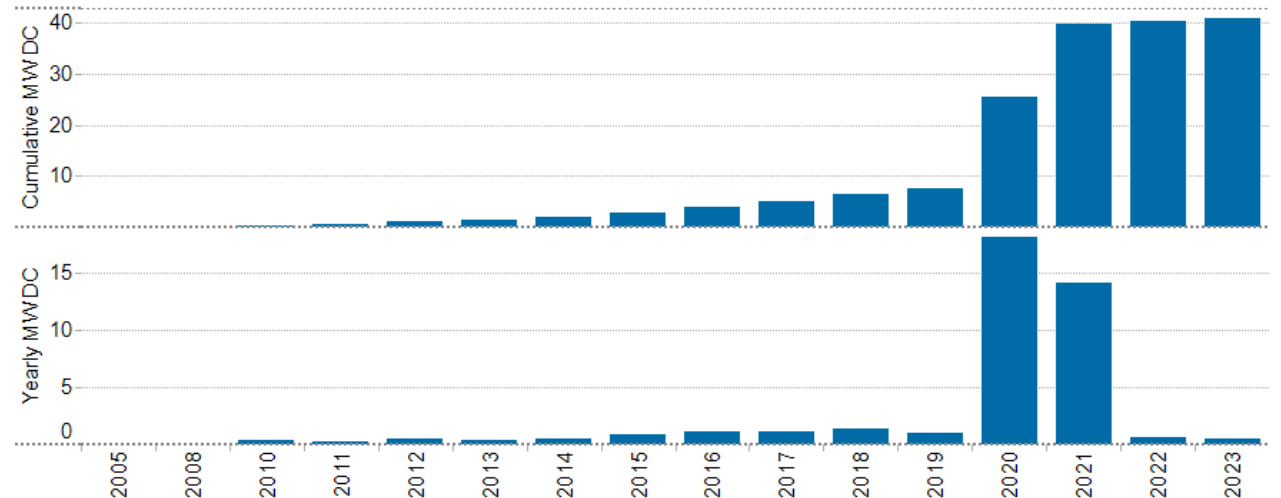


**Expected Annual Production (GWh)**



**Annual Trends (Completed Projects Only)**

Total Capacity



# Summary of the Law

Extended Producer Responsibility (EPR) developed through stakeholder input that drew on best practices from Europe

- Clearly defines role and responsibility of manufacturers (not installers). Creates a non-compliance penalty of \$100/panel/day.
- Requires a Stewardship Plan within 30 days of first sale of panels in Niagara County, which shall include:
  - Description of how manufacturers will finance and adequately fund the takeback and recycling system,
  - How program will minimize the release of hazardous substances and maximize the recovery of components,
  - Provide for takeback at convenient locations within the County,
  - Performance goals requiring 100% recovery by 2026 and 85% recycling by 2031,
  - Maintain a sufficient financial reserve to operate the program, and
  - Preparation and submittal of annual reports documenting implementation.



# Decommissioning vs. Extended Producer Responsibility (EPR)

NYSERDA **encourages** property owners to negotiate terms for:

- Decommissioning: Outlines steps to remove system, dispose or recycle and restore and to original state.
- Abandonment: Allow for local government to set timetable for abandonment to commence enforcement, i.e. civil penalties on owner to remove or placement of lien on property.
- **If a project does not have an abandonment clause, or the businesses goes bankrupt when panels reach end-of-life, or ownership of project changes, who assumes responsibility for the panels?**

Niagara County Solar Panel EPR Law: Manufacturers of solar panels **must** finance the takeback and recycling system of photovoltaic modules in a convenient, safe and environmentally sound manner.

- Take responsibility for abandoned projects, damaged panels, panels out of warranty, etc. to eliminate community liability,
- Assures financial mechanism above decommissioning bond,
- The ORES Article 94-c re-directs influence/input in approval process. Only public or private landowners create land-lease agreements.

# Implementation Challenges

Niagara County's law is the first local government to implement in US.

The Signalfire Group has been hired to assist with navigation and plan review

- To date, one plan submitted and approved by LG Electronics USA
- Outreach to international companies is challenging: how do we get manufacturers to pay attention to one small county in New York?
- Installers are less than pleased; they want to continue their work, but are “hassled” with compliance.
  - NY chapter of SEIA has not embraced
- Project knowledge at Building Permit phase
- Sustainability Organization “Loophole”
  - Installers and Project developers are inclined to assume responsibility due to lack of manufacturer involvement.
  - It was not our intent, but it can work.

