



Local Governments & Renewable Energy

GOING GREEN WITH MUNICIPAL FACILITIES AND OPERATIONS:

Clean Energy From the Grid: Ohio's deregulated energy market allows municipalities to purchase power from renewable sources. If a municipality has an aggregation agreement, the municipality itself can be a customer of that supplier. [There are options available to purchase 0%, 50% and 100% renewable power.](#) Currently, rates are competitive.

Clean Energy; Locally Generated: Cities have several options for acquiring locally-generated renewable energy. Cities can invest directly in solar and wind, own the installations outright, and use the energy generated at no added cost. Alternatively, governments can enter into Power Purchase (PPA) agreements with an investor who would own the solar or wind and sell the power back to the government. PPAs offer the advantage of not requiring municipalities to make any investment upfront. A good example is [Cuyahoga County's capped landfill solar project](#) (pictured below).



Buying Renewable Energy Credits (RECs): Municipalities can buy RECs to offset carbon production. This is a method to neutralize carbon emissions on the way to eliminating it. Municipalities can purchase RECs through their electrical utility or from outside suppliers. [Green-e](#) is an organization that certifies REC providers.

GOING GREEN COMMUNITY-WIDE:

Community Aggregation: Ohio's laws allow for communities – such as townships, cities, and counties – to form the aggregated buying groups on behalf of their citizens. The governmental aggregator chooses an outside supplier for all of the customer-members in its group. [Some suppliers offer 100% green options.](#) Governments can choose [opt-in or opt-out](#) programs for their residents and can also join local aggregation non-profit consortiums such as [SOPEC](#) or [NOPEC](#) which have other benefits.

Rooftop Solar: Municipalities can embrace rooftop solar for its residents and businesses at little cost. Streamlining permitting for solar installs is a great first step. [SolSmart](#) can help governments with this process and can certify cities' solar processes as Bronze, Silver, Gold. Municipalities can also actively promote solar and offer financing options like [Residential Property Assessed Clean Energy Program \(R-PACE\)](#).

Community Solar (municipal utilities & electric cooperatives only): There is a growing movement in Ohio for community solar. Although investor-owned utilities do not allow community solar, municipal utilities and rural electric cooperative can allow this if they choose. This involves a solar array in a centralized space, like a park, where community members would own the array through a non-profit or some other community entity and receive credit for the energy the array produces. This allows for renters and others who may not otherwise have the opportunity to take advantage of solar.

Comparing Options:

	Cost	Time to implement	ROI	Carbon Impact	Community Impact
Clean Energy; Grid	Slight increase to Neutral	1 - 2 years	NA	50% - 100% reduction	Cleaner air from reduced carbon emissions.
Clean Energy; Locally	\$0 - \$1M+	6 mo - 2 years	0 - 5 years	10% - 30% reduction	Cleaner air from reduced carbon emissions. Reduced city utility bill over time, tax savings.
Buying RECs	\$1 - \$20 per REC	6 mo - 1 year	none	Up to 100% carbon neutral	None
Aggregation	Slight increase to Neutral	1 - 2 years	NA	Up to 100% carbon reduction	Cleaner air from reduced carbon emissions. Giving residents a better 100% green choice.
Rooftop Solar	\$5K - \$10K per home	0 - 10 years	12 years	1% - 10% penetration	Cleaner air from reduced carbon emissions. Reduced utility costs for residents. Increased community ownership of generation.
Community Solar	\$50K - \$500K per install	2 - 10 years	7 - 12 years	1% - 5% penetration	Cleaner air from reduced carbon emissions. Reduced utility costs for residents. Increased community ownership of generation in the most equitable way.

CUYAHOGA COUNTY GOVERNMENT PPA

Overview:

- Cuyahoga County desired to replace a portion of its energy consumption with rooftop solar.
- Little to no capital was available for renewable energy projects.
- County wanted to open this up to other municipalities in the area.

Process:

- Cuyahoga County selected an installer under the competitive bid RFP in late 2018.
 - Utilizes a net metered approach with rooftop solar.
- County opted for a long-term Power Purchase Agreement.
 - This allowed the county to use a third-party owner to finance and manage the system at no cost to the County.
 - County then buys power produced by the system at a discounted, fixed rate.

Project consisted of many partners including:

- Project developers
- Commercial scale solar installers
- Material suppliers
- Project engineers
- Investors
- Legal and professional consultants etc.

System Sizing:

- Initial three County owned sites = 914 kW total size.

Schedule:

- Construction began in Fall 2019, with commercial operation commencing by end of 2019.

Benefits:

- No upfront cost to the County for installation of solar.
- Estimated to save taxpayers \$900,000 over course of contract.
- Takes advantage of 30% tax credits by use of a third-party owner.
- Adding more renewable energy offsets other forms of production – Leading to a cleaner, greener environment.
- Support and grow local solar jobs.
- General public is extremely supportive of the initiative.
- PPA structure enables other non-profit and Government entities to participate and take advantage of the PPA pricing without the necessity to go to bid.