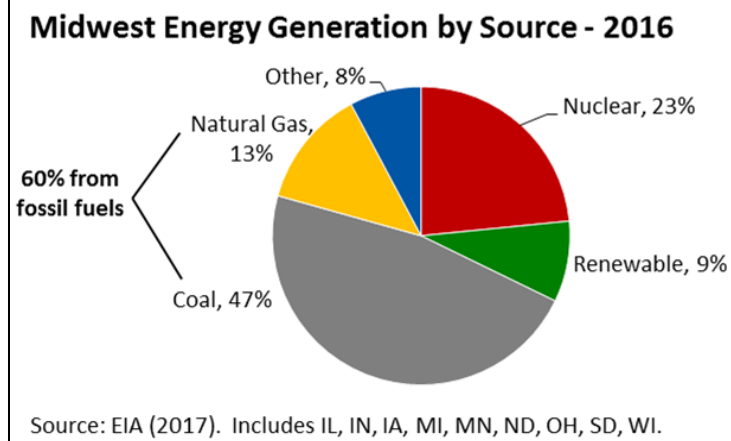


# Cities & Climate Leadership

## Renewable Energy for Municipal Facilities

### THE OPPORTUNITY

Electricity is the one of the largest contributors to greenhouse gas emissions (GHG) in the US, accounting for [29% of total emissions](#). As of 2016, 60% of the energy generated in the Midwest came from coal and natural gas. Less than 10% came from renewable sources like solar and wind power. Burning fossil fuels is also a major source of other harmful air pollutants, including particulate matter, sulfur dioxide, nitrogen oxides, and mercury. These pollutants threaten air and water quality and increase public health costs, school absences and missed work days. While cities without municipal utilities or municipal aggregation do not have direct authority over energy used by electricity generators or by residents and businesses, they do control their own energy usage. Therefore, switching municipal facilities' energy source to renewables that provide *additionality* is one of the most direct and impactful ways Midwestern cities and towns can address climate change and limit harmful air pollutants.



**Additionality** – Additionality in renewable energy purchasing means that the purchase contributed to the *addition* of renewable energy resources to the grid – new wind, solar, or other technology that increases the supply of renewable energy. The purchase of energy from renewable resources that are already online does not directly lower GHG emissions in the same way as purchases that bring new renewable resources to the grid.

Renewable energy is more accessible today than ever before. Declining costs and new methods for purchasing clean energy have put renewable solutions firmly within reach of Midwestern municipalities. Furthermore, on-site and locally sourced renewables bring a host of other benefits, including stabilizing energy costs, growing the local economy, and adding tax revenue. Finally, city leadership can set the stage for cross-sector climate efforts: by pursuing renewable energy for municipal operations, cities and towns may have opportunities to extend clean energy access to the broader community and set an example for local businesses and residents.

### MIDWEST MUNICIPAL RENEWABLE ENERGY LEADERSHIP

Many Midwestern cities are stepping up as environmental leaders and taking control of their energy by switching to renewable sources. Cities and towns have added solar panels to municipal buildings, bringing new renewables to the grid and lowering utility bills. Creative new methods for renewable energy deployment are expanding opportunities. For example, in Minnesota, [31 cities banded together to procure 33 MW of energy from the state's new community solar program](#), adding new renewables to the grid and saving taxpayer money.

Renewable energy purchases can benefit more than just the environment. Eaton Rapids, MI developed a [solar array on an old landfill](#), generating power for its municipal utility and putting contaminated land back to use. Urbana, IL hosted a [solar group buy](#) that helped residents and businesses go solar by reducing costs through bulk purchasing. Investing in renewables locally – by adding solar panels to municipal property, participating in community solar projects, or purchasing energy from new, nearby renewable projects – can also benefit the local economy. A variety of mechanisms are available to do this.



[Solar on a municipal building in Dubuque, IA.](#) (Source: Eagle Point Solar.)

## BENEFITS

Switching to renewable energy from new sources can reduce dependence on fossil fuels. However, there are a host of other benefits for governments that invest locally through onsite energy production or purchasing from nearby renewable projects. These include:

- **Local Clean Energy Jobs and Investment:** Demand for renewable resources spurs business creation and investment in undeveloped markets and, as with other capital projects, local renewable energy development creates local jobs that can't be outsourced.
- **Civic Leadership:** By making a commitment to clean energy, municipalities can catalyze renewable energy investment by local residents and businesses.
- **Productive Land Use:** Communities with vacant land and/or brownfields may want to site renewables on such properties – simultaneously generating clean energy and putting underutilized properties back to good use.
- **Educational Opportunities:** Projects on schools and other public buildings can present learning opportunities for students and the broader community about electricity and renewables.

Renewable energy can also help stabilize municipal operating expenses. Unlike traditional energy with volatile prices, renewable energy has no variable fuel costs, which enables stable, long-term pricing. This provides predictable operating costs for local governments, and some municipalities may realize cost savings.

### ELPC's Supply Chain Reports

Among the benefits of switching to new, renewable energy sources is the economic activity that spurs job creation throughout the renewable energy supply chain. ELPC's [Supply Chain Reports](#) identify companies that are engaged in the solar energy and wind power industry supply chains throughout the Midwest, helping to identify the local and regional companies that stand to benefit by a switch to renewables.

## TAKING ACTION

Municipal governments generally have direct control over public facilities, which positions them to take immediate action to transition to renewable energy sources. While there are many potential paths to this transition, local governments' actions will depend on their particular circumstances and the broader economic, social, and environmental goals that inform their renewable energy policy. Options include:

1. Install Renewable Generation On-site: On-site and other local renewable installation can include an array of technologies (solar and wind, among others) and provide other community benefits – such as local jobs and education opportunities. More broadly, procurement can be expanded to include multiple municipal agencies or even the public through a [group purchasing program](#).
2. Participate in Community Renewable Energy Projects: Community projects allow multiple energy users to share the output of a single renewable development in or near their community. Municipalities can help spur community renewable project development and participation opportunities for residents and businesses by hosting projects on public land, committing to take a significant portion of energy output, or helping enroll participants.
3. Purchase Renewable Power Directly from Renewable Energy Providers: Depending on local regulations, some municipalities may be able to purchase power directly from renewable power generators or work with utilities/local electricity providers to purchase renewable power on municipalities' behalf. Direct purchase can sometimes be achieved via a community renewable project, but includes a wider array of options.
4. Generate or Purchase Renewable Energy Certificates (RECs): RECs represent the environmental attributes of renewable energy and are the mechanism used to legally claim that purchased electricity represents a specific unit of renewable energy. Cities using RECs to meet clean energy goals need to ensure the RECs purchased are actually fulfilling policy goals (see below).

**Renewable Energy Certificates (RECs)** – RECs provide verified documentation of renewable energy generation, representing the additional value of electricity that comes from renewable sources. RECs are traded in REC marketplaces, and they can be bundled with or sold separately from the underlying electricity.

***Cities should pay careful attention to REC attributes to ensure RECs purchased are meeting policy goals.***

In particular, cities that are using RECs to lower GHG emissions should make sure that purchased RECs help finance the development of new, additional renewable energy resources. Other attributes that merit attention include the location, age, and renewable energy source of the REC generator. For more information see this [blog post](#) from the Mass Energy Consumers Alliance about how [not all RECs are created equal](#).

Cities and towns that operate municipal utilities can use these strategies to help shift not only their own electric load, but the community's load to cleaner, greener options. Municipalities in states that allow local governments to negotiate for energy on behalf of residents and businesses via municipal aggregation can do the same. Every strategy will not be available to every municipality, depending on how energy is regulated in that state and utilities' willingness to facilitate customer use of renewables. In some cases, local governments may want to work with utilities or the state to expand the range of renewable options available to customers.

### **Additional Resources:**

A number of groups are actively supporting cities' transition to renewable energy. These include the [Sierra Club's Ready for 100 Campaign](#), and, for municipalities in Michigan, the [Michigan Climate Action Network's Michigan 100% Cities](#).

The Boston Green Ribbon Commission's Guide to [Institutional Renewable Energy Procurement](#) offers additional recommendations on institutional clean energy purchasing. The International City/County Management Association also offers a number of [case studies from cities that have installed solar energy](#).

Finally, for local governments that want to enable others in their community to go renewable, the [SolSmart](#) program is a useful program that helps communities to reduce local barriers to solar energy.

For more information contact: [ClimateCities@elpc.org](mailto:ClimateCities@elpc.org)

### **About the Environmental Law & Policy Center:**

The Environmental Law & Policy Center (ELPC) is the Midwest's leading public interest environmental legal advocacy and eco-business innovation organization.

Since 1993, ELPC has developed and led successful strategic advocacy campaigns to improve environmental quality and protect our natural resources.

ELPC works with local governments, utilities and public utility commissions, and states across the Midwest to create the best possible policies and strategies to enable renewable development.

Visit [elpc.org](http://elpc.org) for additional information.

