

# Dubuque, Iowa



Photo: City of Dubuque, IA

CASE STUDY

**SOLAR  
OUTREACH**



**PARTNERSHIP**

# Dubuque, Iowa

Situated along the banks of the Mississippi River, downtown Dubuque is experiencing a renaissance, and the city has been recognized for its work on sustainability issues.

Dubuque, the oldest city in Iowa, sits along the bluffs of the Mississippi River, centrally located at the intersection of Iowa, Illinois, and Wisconsin.<sup>1</sup> With a population of 57,000 and a geographic area of thirty square miles<sup>2</sup>, Dubuque is considered a small city, but it is the hub of a metropolitan area that includes seven surrounding counties. The city government has operated under the council-manager form since 1920. An elected mayor and seven-member city council oversee policy, and an appointed city manager oversees day-to-day administration; the city has a staff of approximately five hundred.<sup>3</sup>

Dubuque's location and natural resources have long made it a vibrant community. Its recent history includes an inspiring recovery from a difficult period in the 1980s: along with many Mississippi River towns, Dubuque faced high unemployment, a declining population, a struggling downtown, and disconnected neighborhoods. The public and private sectors rallied to address the challenges, and today the downtown is bustling once again, the riverfront has become a true gateway for the city, and Dubuque citizens can once again proudly refer to their community as the "Masterpiece on the Mississippi."

In the past decade, a citywide focus on sustainability—part of a holistic vision for Dubuque's future—has rallied the community once again. In 2011, with a well-earned and burgeoning reputation as a national leader in the realm of sustainability, Dubuque decided to "walk the talk" on renewable energy by installing solar panels atop its municipal services building. The city would save money, the environment would benefit, and Dubuque could register yet another accomplishment in its drive to become a more sustainable community.

As a pioneer in this arena, Dubuque would also encounter a potential hurdle: the solar panel vendor found itself at odds with a state board, and the ensuing legal dispute eventually reached the Iowa Supreme

Court. The project became a flash point for competing interests within the growing solar industry.

The ongoing drama exemplifies the technological, legal, and financial challenges that can accompany the implementation of cutting-edge sustainable technologies. But the story also confirms the importance of leadership, public-private partnerships, political will, and local government commitment to a sustainable future.

## Sustainable Dubuque

Mayor Roy D. Buol, a lifelong Dubuque resident, set a clear path for the community as soon as he was elected, in 2005. Throughout his campaign, Buol had focused on engaging citizens, and he discovered that the issues citizens repeatedly raised—from public transit to recycling to downtown revitalization—added up to a community-led sustainability agenda.

Recognizing that "cities that get out in front on sustainability will have competitive economic advantages in the future," Mayor Buol made sustainability a priority, and emphasized citizen engagement in pursuit of that goal. It was clear from the start that the effort would be significant and long term; two years of extensive meetings, presentations, and surveys ensued.

As a first step, the city council established a citizen task force; working with the support of city staff, the task force was charged with developing a definition of what sustainability meant to Dubuque. As part of the culmination of its effort, the task force delivered the following vision to the city council: "[Sustainable Dubuque](#) is a viable, livable and equitable community. We embrace economic prosperity, social/cultural vibrancy, and environmental integrity in order to create a sustainable legacy for generations to come." In a reflection of the "triple-bottom-line" approach to sustainability, the task force identified three goals—economic prosperity, environmental integrity, and social/cultural vibrancy—and enumerated twelve principles to guide Dubuque's work toward those goals (see text box).

## Sustainable Dubuque: Twelve Principles

ECONOMIC PROSPERITY	ENVIRONMENTAL INTEGRITY	SOCIAL/CULTURAL VIBRANCY
Community design	Clean water	Community knowledge
Smart energy use	Healthy air	Green buildings
Resource management	Native plants and animals	Healthy local foods
Regional economy	Reasonable mobility	Community health and safety

In partnership with the [Iowa Initiative for Sustainable Communities](#) at the University of Iowa, the city developed sixty sustainability indicators, along with a scorecard that rated the community according to each indicator, categorizing it as a strength, a weakness, neutral, or unknown. The goal of the indicators was to identify trends and determine whether Dubuque was headed in the right direction. The inaugural “Sustainability Progress Report” provided baseline data for Dubuque for nearly all of 60 selected indicators, and provided comparative data for four comparable cities that were considered to be peers. The scorecard rated each indicator as a “Strength,” “Neutral,” “Weakness,” or “Unknown,” and examined trends to determine whether or not Dubuque is headed in the right direction. Under the principle of smart energy use, for instance, the report identified four indicators:

- Energy assistance: Percentage of households applying for assistance through the federal Low Income Home Energy Assistance Program
- Household energy use: Residential energy use per household per year
- Renewable energy use: Percentage of municipal energy use derived from renewable sources
- Energy savings: Energy savings, measured in dollars, from demand reduction and energy efficiency projects in municipal buildings.

The inaugural [Sustainability Progress Report](#) provided baseline data on nearly all the indicators, as well as comparative data on four cities considered to be peers.

The city’s focus on sustainability eventually evolved into a broader effort that included government programs, community projects, and business initiatives. By 2012, the citizen task force had become the Sustainable Dubuque Collaboration, an independent, community-supported organization working to gain community

acceptance of the vision and principles that had been identified by the task force. The group adopted a strategic plan based on communicating the Sustainable Dubuque vision to the community, and assisted with the planning and implementation of priority projects.

Sustainable Dubuque became so ingrained in the community that the term is considered by many to have become the city’s brand. Raki Giannakouros, cofounder of [Green Dubuque](#), a volunteer-run sustainability group, has nothing but praise for the direction the city has taken: “The City of Dubuque has done an incredible job of empowering citizens to take ownership of local sustainability.”

The city’s achievements have garnered national and even international recognition: now widely regarded as a leader in the sustainability arena, Dubuque was named the most livable small city in the country by the U.S. Conference of Mayors (2008), and was named one of “Ten Great Places to Live” by Kiplinger (2013). *Forbes* magazine ranked Dubuque #1 on its list of the best small cities to raise a family (2010), and #14 for best small places for business and careers (2013).<sup>4</sup>

### Leading by Example

As the city pursued the goals set under Sustainable Dubuque, it did not start a major solar initiative; however, smart energy use is one of the twelve guiding principles, and renewable energy—an indicator marked as an “unknown” on the scorecard—was a logical next step for the broader sustainability agenda.

The city took a practical approach to encouraging renewable energy in general and solar energy in particular. First, the public needed to know that solar energy was a safe, reliable option and could be installed by trained local professionals. So the city passed the first solar thermal ordinance in Iowa, which established a new permitting process to ensure the quality of projects, and specified that a license is required to perform

installations. In the absence of any state licensing, certification, or permit requirements, the city's action provided certainty to consumers and the solar industry.

Second, the business community needed to know that renewable energy was a profitable opportunity. Once again, the city partnered with the Iowa Initiative for Sustainable Communities. Using geographic information systems and 3-D modeling, an online asset map was developed to display the potential for a variety of renewable energy sources for each building in the city. The map is still too new to have produced results, but the Greater Dubuque Development Corporation—the area's business and workforce development organization—will use the map as an economic development tool.

Until an opportunity arose to lead by example, solar energy was a missing piece of the sustainability puzzle. Barry Shear, president and chief executive officer of Eagle Point Solar, an up-and-coming company located in Dubuque, liked what he saw happening in the city. Shear believed that sustainability was reversing the downward spiral of river cities, and that Dubuque had found a way to break that cycle. He felt that the city was “doing what it needs to do to grow the economy and make it a great place to live.”

After having learned about a solar array on a brownfield site outside Chicago, Shear was inspired: “What could be better,” Shear asked, “than turning brownfields into brightfields—something that can produce carbon-free, emission-free energy? That was really the inspiration for going to the city with the concept.”

In the summer of 2011, when Shear approached the city with a proposal for a solar project, the city was receptive, but wanted to find the just the right location. It eventually settled on the Municipal Services Center, home to the city's street maintenance and curbside collection operations. The plan called for the roof of the center to host to more than eight hundred solar panels—which would meet about one-third of the building's electrical needs and allow the city to save about \$3,500 in annual energy costs. Eagle Point Solar would install the system at the company's cost, and receive 11 cents per kilowatt-hour.

The initiative appeared to be a win-win proposition, and the city council voted unanimously to go forward. “The city was anxious to do a renewable energy project,” Shear said. “The public and the city were overwhelmingly for it.”

In addition to being one of the state's largest solar installations and benefiting the city budget and the environment, the installation had the potential to be a model project in a region that was lagging in solar



**The City of Dubuque partnered with a local solar company to create one of the state's largest solar installations. More than eight hundred panels are situated atop the city's Municipal Services Center. Photo courtesy of City of Dubuque.**

adoption. “It was important for the city to demonstrate not only that solar is an environmentally sound choice, but . . . a financially smart investment,” said Cori Burbach, the city's sustainable community coordinator.

## Battling over Solar

The arrangement relied on a power purchase agreement (PPA) between the city and Eagle Point Solar. Dubuque, like other municipalities and nonprofits, could not benefit directly from tax incentives, which are often essential to ensuring that alternative energy sources are attractive investments when compared with conventional energy sources. Under the PPA, the city would pay Eagle Point Solar for the electricity, and an investor (in this case a bank) would own the panels and collect the tax credits.

PPAs have become common in many parts of the country, but the applicable state regulations were unclear. In Iowa, as in much of the country, state law protects utilities' investments in infrastructure by essentially treating utilities as monopolies with unique territories. Although Iowa state law allows customers to generate their own electricity, Alliant Energy, a local utility, claimed that because Eagle Point Solar would be selling electricity to the city, it should be considered a competing public utility. The Dubuque project had not included Alliant in the equation—but, as the installation was about to begin, Alliant contacted city officials.

In response to Alliant's claim that the project violated state law, the city proposed a modified arrange-

ment in which the city would lease the panels from Eagle Point, and would therefore be using its own panels to generate electricity. This arrangement was less financially desirable for the city, but the city hoped it would address the utility's concern.

The city's effort to negotiate with Alliant Energy turned out to be only the beginning of a long, complex process. First, Eagle Point Solar sought a declaratory judgment from the Iowa Utilities Board (IUB), hoping to avoid a lawsuit by having the regulatory agency issue a binding ruling that would resolve the dispute in favor of the solar firm. But the IUB agreed with Alliant: by selling electricity, Eagle Point was acting as a public utility, which violated Alliant's protected, exclusive service territory.

Incensed by the board decision, Eagle Point then appealed to the Polk County District Court, which reversed the IUB's decision, finding that the solar company was not acting as a public utility. The judge had been persuaded, in part, by two factors: the building would still be hooked up to the grid, and the city would still be purchasing some electricity from the utility. More significantly, the judge found no reason to prevent the city from partnering with a solar panel installer in what was essentially an energy efficiency measure.

Theoretically, the ruling paved the way for third-party PPAs, but it was appealed by IUB and Alliant Energy, along with other public utilities in the state. More than two years after the project began, the case remains unresolved. As of early 2014, the dispute was scheduled to be heard by the Iowa Supreme Court.

Eagle Point Solar did not ask the City of Dubuque to participate in all of its court dealings, but an Eagle Point representative indicated that the city government has been consistently supportive.

## A Bright Future

However and whenever this legal battle is ultimately resolved, its implications will likely reverberate across the country. Two significant issues are at stake: first, determining what constitutes a public utility; second, resolving how solar energy can be developed in an environment in which utilities' territories are protected. Resolution of these issues will particularly affect governments, schools, and other nonprofits, none of which can take direct advantage of the tax incentives designed to improve the financial viability of solar.

Third-party PPAs have been interpreted differently across the country, leading to uncertainty in the solar market. Intensifying the uncertainty, utilities



**While the Iowa Supreme Court considers a case that may impact solar adoption in the state, the city of Dubuque continues to research new, potential solar projects. Photo courtesy of City of Dubuque.**

have reacted in widely different ways to the growth of solar energy; in this instance, despite having publicly professed general support for solar, Alliant Energy balked at the city's creative initiative to install it. The settlement of what are now open questions—and the removal of the uncertainty that inhibits solar developers, banks, and other potential investors—will have a significant effect on the pace of solar energy adoption.

But the future appears bright when one considers the almost matter-of-fact way in which the City of Dubuque took on this project—and failed to be deterred when it unexpectedly found itself in the middle of a precedent-setting case. An apparently straightforward, beneficial initiative turned out to be much more difficult than expected; in fact, it became a lightning rod for conflict between interests. But Dubuque, with its unwavering track record on sustainability, is providing an appropriate background for this issue to play out.

“The City of Dubuque has invested in a significant renewable energy project,” said Green Dubuque's Giannakouros, who also happens to be a solar installer through his company, Blue Sky Solar. “But the most meaningful impact in my mind is the community-focused Sustainable Dubuque initiative that has paved the way for long-term growth in distributed renewable energy.”

Dubuque won't likely be fazed by any additional hurdles ahead, whether they are related to this particular case or to future projects. Holding fast to its vision of a sustainable future, the City of Dubuque is not only refusing to back down, but continues to explore the

potential for future solar projects, even as the court case remains unresolved.

“We are considering solar installations on both new construction and facility renovations,” said Burbach. “We hope that by considering solar on our facilities, we are not only walking the talk but paving the way for other governments, schools, and nonprofits in Iowa to be able to make similar investments.”

Eagle Point Solar, the firm at the center of the court fight, is also optimistic that the city’s vision will become reality, because the city is on the right side of history. “The City of Dubuque will be doing a lot of solar,” predicted Shear. “And now I’m speaking with other, smaller towns, and solar makes sense to them from every standpoint.”

## Contacts

Cori Burbach, sustainable community coordinator, City of Dubuque; 563-690-6038; [cburbach@cityofdubuque.org](mailto:cburbach@cityofdubuque.org).

Raki Giannakouros, vice president, Green Dubuque; 563-542-5725; [raki@greendubuque.org](mailto:raki@greendubuque.org).

Barry Shear, president, Eagle Point Solar; 563-582-4044; [bshear@eaglepointsolar.com](mailto:bshear@eaglepointsolar.com).

## Endnotes

- 1 Unless otherwise noted, all information in this case study was obtained through interviews with the individuals listed under “Contacts.”
- 2 <http://www.cityofdubuque.org/index.aspx?nid=844>
- 3 <http://www.cityofdubuque.org/index.aspx?nid=58>
- 4 <http://www.cityofdubuque.org/index.aspx?NID=73>

## Author

Ken Rosenfeld



SunShot Solar Outreach Partnership Case Studies are based upon work supported by the U.S. Department of Energy under Award Number DE-EE0003526. The U.S. Department of Energy (DOE) SunShot Initiative is a collaborative national effort to dramatically reduce the cost of solar energy before the end of the decade. The SunShot Solar Outreach Partnership (SolarOPs) is a U.S. DOE program providing outreach, training, and technical assistance to local governments to help them address key barriers to installing solar energy systems in their communities. The International City/County Management Association (ICMA), American Planning Association (APA), and National Association of Regional Councils (NARC), along with ICLEI-Local Governments for Sustainability and its partners, were competitively selected by the U.S. DOE to conduct outreach to local governments across the United States, enabling them to replicate successful solar practices and quickly expand local adoption of solar energy. For more information visit the SolarOPs website ([solaroutreach.org](http://solaroutreach.org)) or contact Emily Dodson ([edodson@icma.org](mailto:edodson@icma.org)).

Disclaimer: This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.



SOLAR  
OUTREACH



ICMA