Case Study

August 2026

From Coal to Solar: How the Energy Economy Continues to Spark Economic and Workforce Growth in Harrisburg, IL

Illinois Shines
Building Our Solar Future

IPA
ILLINOIS POWER AGENCY

Energy Solutions
Program Administrator

Summary

For generations, coal shaped Harrisburg, Illinois' economy and workforce. As that industry declined in the region, the city has found new economic momentum through Illinois Shines. One local electrical firm stepped up to support the area's energy and workforce needs. The firm developed solar projects that brought savings to residents and put former coal miners to work, proposing solar projects for city buildings under the Illinois Shines program's Large Distributed Generation (DG) category.[1] This case study showcases how a small town partnered with a small business to leverage state incentives through Illinois Shines, finding budgetary relief and helping transition Harrisburg into a clean-energy economy with high-paying new jobs.

Facing the Challenge

Harrisburg became a leading Midwest coal-mining community in the early 20th century, and its economy and population grew alongside the mining industry. But in the last half of the century, mine closures left a large pool of unemployed laborers and a declining economy. As the coal economy receded, Harrisburg's tax base and workforce shrank. At the same time, the cost of heating and powering municipal buildings continued to climb, further straining an already tight city budget. Seeking solutions, the City Council ultimately found a lifeline in solar energy, after learning that state incentives for solar projects could support development on city properties. After assessing 12 municipal buildings, the city identified seven sites—including City Hall, the Fire Department, and the Water Department buildings—as viable candidates for solar projects.

Project Details

Project Name:
Harrisburg City Hall
Harrisburg Fire Department

System Size:
City Hall - 37 kW
Fire Department - 30 kW

Expected yearly energy production:
City Hall - 70,026 kWh
Fire Department - 56,567 kWh

Financing Type:
Purchase (Customer-Owned)

Energy Savings:
More than $1.2 million in savings over the next 25 years for the city's seven projects

Illinois Shines Project Category:
Large Distributed Generation

Project type:
Distributed Generation

1 Large DG is one of Illinois Shines' six project categories. Information about each of the categories can be found at https://illinoisshines.com/exploring-solar/

Developing a Solution

Competitive Bid and State Incentives

In August 2024, the city opened a formal Request for Proposal to partner with a local firm with a verifiable track record. Following a sealed bid process to ensure competitive and transparent evaluation, the city selected a local electrical company that had expanded its work into solar installations, and who was an Approved Vendor[2] (AV) in Illinois Shines, a state-administered program overseen by the Illinois Power Agency to that facilitates solar development through monetary incentives for the purchase of renewable energy credits (RECs).[3] In a region where economic prosperity was long driven by coal, residents were initially skeptical about solar energy. The vendor faced early doubts from friends and neighbors about solar's effectiveness, risks, or whether it could provide job opportunities for local laborers. However, the AV addressed these doubts with a demonstrated record of success installing solar on residential, commercial, and federal buildings in Harrisburg and nearby communities. The city accepted the vendor's bid, opted for a customer-owned system[4], and swiftly got to work with the AV.

2 Approved Vendors are entities approved by the Program Administrator (as an agent of the Illinois Power Agency), to submit project applications to the Illinois Shines program.

3 RECs represent the environmental value of energy generated by renewable sources. With RECs, the amount of renewable energy sent to the utility grid is tracked and a REC is issued when one megawatt-hour of electricity from a renewable energy source is produced. Illinois Shines has set incentive amounts that are paid for RECs produced by solar projects participating in the Program. The incentives are paid to participating AVs and savings may be passed on to customers.

4 Illinois Shines projects can utilize purchase, lease, or power purchase agreement models for financing. Information about financing options is available at https://illinoisshines.com/exploring-panels-with-dg/#financing.

Project Construction

With city approval, construction moved forward across seven municipal buildings. Two of the city's buildings—City Hall and the Fire Department—were fits for the Program's Large DG category, which includes on-site projects between 25 kW and 5 MW in size. The City Hall and Fire Department systems, sized at 37 kW and 30 kW, respectively, prominently showcased the city's commitment to cost savings for residents. The other five municipal sites were developed in the Small DG category, which brought further savings. The AV provided the City Council with details on construction timelines, expected long-term performance, and how the city would realize benefits from Illinois Shines incentives.

Building Up The Team

To execute all seven projects, the AV needed to expand its workforce. Luckily, Harrisburg had a large talent pool ready to get to work. The AV began recruiting former coal miners, offering competitive salaries supported by Illinois Shines prevailing wage requirements.[5] By hiring locally, the AV put local laborers back to work and helped stimulate the town's economy. But the AV wanted to do more than just give people temporary employment; they wanted to help develop careers and equip workers with new technical and soft skills. True to their goal, the AV created an apprenticeship program that teaches solar installation, electrical skills, financial literacy, resume building, interview preparation, as well as broader life skills through partnered coaches. The AV also hired formerly incarcerated individuals for their team and partnered with the Illinois Department of Juvenile Justice to teach solar to those currently incarcerated, offering a pathway into the trades for this at-risk population.

> ***"We've all been coal miners—almost everybody. We're coal country. 90% of people that had blue collar jobs then worked in the coal mines. With this shift, we wanted more to come out of this than just good paying jobs. We wanted our employees to have a craft."***
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> *- Owner, Harrisburg City Projects Approved Vendor*

5 Prevailing wage is a minimum compensation level set by the Illinois Department of Labor (IDOL) by county for construction activities related to public works. See https://illinoisshines.com/prevailing-wage-hub/ for details on applicability of prevailing wage to Illinois Shines projects.

Results

The solar installations on City Hall and the Fire Department were energized in summer 2025, and along with the smaller installations at other city buildings, immediately began to provide savings to the city's operating budget. The seven city solar systems are expected to generate more than $1.2 million in savings over the next 25 years and significantly offset electric costs for those seven sites.[6] Of those savings, $48,000 is earmarked annually for the City's water and general funds. The city calculated that most of its sites would pay for themselves in five years or less, resulting in "massive savings for the citizen[s] over the next 25 years." [7] The city's Mayor noted "[These] savings will help both current and future generations to come."

Seeing has led to believing for residents. Witnessing the impact of solar on their city, many locals have been inspired to install solar on their own homes to save on their energy bills – in turn helping create more jobs for local laborers. Even a former coal plant operator who expressed concern that solar development could threaten traditional coal jobs has embraced solar, transitioning into a leadership role with the AV.

The success of the Harrisburg municipal solar projects also sparked interest across the region. In nearby Shawneetown, the AV helped local leaders explore solar for municipal buildings, including the library, emergency services, and sewer department. But the AV didn't stop there. Today, the AV develops projects through both Illinois Shines and Illinois Solar for All, expanding clean energy and workforce development across Illinois. Recently, the AV became certified as an Illinois Shines Equity Eligible Contractor (EEC),[8] enabling it to request an Advance of Capital[9] for future projects, as well as access additional program support through the Illinois Shines Mentorship Program.[10] The owner attributes this rapid growth to prevailing wage and Illinois Shines opportunities.

Key Lessons Learned

1. Workforce Investments Are Helping Power Solar in Illinois. The AV began by recognizing that the benefits solar offered were a viable solution to the region's declining economy. They saw a chance to provide opportunity for local laborers and to tap into an experienced talent pool whose skills could quickly translate to solar projects customers were embracing. With workforce investment and training, project incentives, and competitive salaries supported by Illinois Shines prevailing wage requirements, the AV soon built a team covering projects statewide, and its apprenticeship program provides key technical and soft skills to its growing team.

6 https://seillinoisnews.com/city-of-harrisburg-city-council-met-sept-5/

7 https://seillinoisnews.com/city-of-harrisburg-city-council-met-sept-5/

8 For more information about Equity Eligible Contractors, visit https://illinoisshines.com/become-an-equity-eligible-contractor-eec-approved-vendor-or-designee/

9 Information about EEC ability to request an advance of a portion of REC Contract value prior to project energization can be found at https://illinoisshines.com/eep-and-eec/

10 The Illinois Shines Mentorship Program is designed to help mentees successfully participate in Illinois Shines, and AVs and Designees that are certified as Equity Eligible Contractors and/or are minority-owned, woman-owned, veteran-owned, disability-owned, or are considered small businesses are encouraged to apply. Information can be found at https://illinoisshines.com/mentorship-program/

2. Clean Energy Delivers Immense Economic Benefits. Solar incentives through Illinois Shines, paired with state clean energy targets, are driving economic activity, energy savings, and job creation and helping municipalities like Harrisburg reduce long-term energy costs. Harrisburg's municipal projects – chosen for their impact and with design and financing that met its needs – are delivering immediate savings, helping
to supporting the city's larger economic transition.

3. Illinois Shines Supports Customers Going Solar and the AVs Making it Happen. Illinois Shines supports customers going solar through incentives that may be passed on, robust consumer protections, compliance monitoring of participating entities, and educational resources. With the AV working to build community
trust, the community and City Council could access a growing library of user-friendly educational resources
at the Program's website designed to support and inform customers considering solar to better engage vendors. For solar vendors, the Program helps them enroll, navigate technical Program requirements and project application submissions, and provides resources, networking opportunities and support.

> ***"It's neat to see government progress, not only with the clean air but also what we're doing with the young men and women in our community. We have a lot of employees working around the region, who can come home and buy houses here with a big down payment that Illinois Shines support brought."***
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> *- Owner, Harrisburg City Projects Approved Vendor*

Ready to bring Large Distributed Generation to your community?

Learn more about how to get started on the Illinois Shines Large DG page.