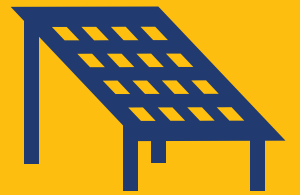


Case Study

September 2026

*How a Small Farm Household in Centralia, IL,
Found Big Cost Savings, Essential Power Backup,
and Peace of Mind Through Illinois Shines*



Illinois Shines
Building Our Solar Future



IPA
ILLINOIS POWER AGENCY



**Energy
Solutions**
Program Administrator

Summary

Centralia, Illinois, named after the Illinois Central Railroad, has long been defined by its physical and economic centrality in downstate Illinois. Sited an hour east of St. Louis, this city of 12,000 was built on the agriculture, railroad, coal, and oil industries.¹ Agriculture remains a significant economic driver for the city. Centralia houses both large farms driving the regional economy, as well as small family and hobby farms. For farm families, managing rising electricity costs and achieving energy reliability for operations is essential. This case study spotlights how a veteran-owned family farm turned a Distributed Generation (DG) project, supported by Illinois Shines state incentives, into savings, investment in their property, and support for their livelihood and livestock.

Facing the Challenge

Kelly Schroer and her husband operate Gragg Street Farm, a veteran-owned, small farm business in Centralia, and a mainstay at local farmers markets. The couple had grown concerned about rising power costs, as well as energy reliability for the farm's essential water and heat systems for its goats, poultry, and rabbits. Familiar with severe weather and the risks of hours-long power outages, maintaining electricity – and storing it for use during an outage – was critical to this family. The Schroer's home and small farm, situated on four acres, uses between 3,000-5,000 kWh of energy a month. Their bill could climb to \$1,000 on months with harsh weather, and they were also mindful of additional rate increases.

Seeking the budget relief and increased energy reliability, the family became interested in generating their own power. That's when they learned about solar through Illinois Shines from a friend and neighbor who had recently worked with an Approved Vendor (AV)² in the Program. Illinois Shines is a state-administered program that facilitates solar development through incentives for the purchase of renewable energy credits ("RECs").³

¹ City of Centralia, IL website: centraliail.civicpluswebopen.com/home-page/page/about-centralia

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 generated 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.

Project Details



Project Name:
Gragg Street Farm Residence



System Size (AC/DC):
15.2 kW / 23.2 kW



Expected yearly energy production:
Approximately 32,000 kWh



Financing Type:
Purchase (Customer-Owned)



Annual Energy Savings:
50% savings on energy bills



Illinois Shines Project Category:
Small Distributed Generation



Project type:
Distributed Generation

Systems in the Program are developed and installed by vetted AVs and Designees (third party entities who interact with customers and perform services on behalf of an AV) who must conform to program regulations. Illinois Shines has six project categories, including Small DG, which includes projects up to 25 kW AC in size that typically serve residential or small business customers. Distributed generation refers to energy that is generated at or near where it is used, and Small DG projects are by far the most numerous in the Program. Over the Program's lifetime, about 100,000 Small DG systems have been energized through Illinois Shines.⁴

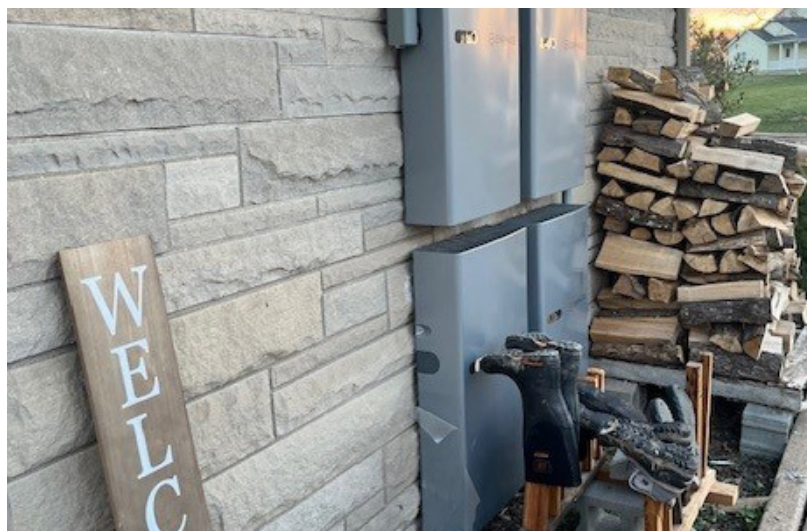
Developing a Solution

System Planning

Following the referral from their friend, the Schroers identified and contacted an Illinois Shines Approved Vendor, and confirmed that solar was an attractive option for their needs and goals. Illinois Shines offers incentives for the development of solar projects that may be passed on to customers. The Program gave the Schroers the confidence they needed to go solar by providing not only incentives for the development of on-site solar, but also compliance monitoring, educational resources, consumer protection support, and more. Before long, the Schroers and the AV planned a ground mounted array of 40 south-facing panels, resulting in a project 15.2 kW AC in size behind their home to meet their monthly energy needs.

Having experienced regular power outages during severe weather and longer service restoration times in their area, the Schroers included energy battery storage in their solar project. Battery storage can provide critical emergency power for agricultural customers who must maintain water, heating, and cooling systems for animal care and daily farm operations. A battery can store excess energy for later use, reduce reliance on the grid, and provide added peace of mind for homeowners and business owners alike. Battery systems play an increasingly key role in renewable energy solutions for operations needing reliability in regions with severe weather.

⁴ The Illinois Shines Data Report page (illinoisshines.com/illinois-shines-data-report) presents select -date Program Year and Lifetime Illinois Shines data, and the Project Map (illinoisshines.com/project-map) allows users to sort, filter, and view select Illinois Shines project data since Program inception.



Disclosure Forms and Financing

The Schroers, like many conscious homeowners, wanted transparency throughout the purchase and installation of their solar project. Illinois Shines has a robust commitment to consumer protection, and requires that standard Disclosure Forms be provided to customers prior to signing the solar contract, and any other applicable contracts, including, but not limited to, a loan agreement.⁵ A Disclosure Form is a summary document that details key project information, including system details, estimates of system production, total costs and fees, details of project installation, any utility rebates, project maintenance and repair guarantees and warranties, and the estimated value of any Illinois Shines incentive being passed through to the consumer. The Schroers considered the Disclosure Form to be extremely helpful in understanding the details and economics of their system, including the value of the pass-through incentive they would receive.⁶ They shared that the incentive largely impacted their decision to proceed with the purchase of the system, as the incentive helped alleviate some of the financial burden.

Illinois Shines DG customers have a choice of several financing structures depending on their goals, economics, and property considerations, including Purchase (customer-owned systems often financed through loans), Power Purchase Agreement (third-party owned system sited on customer property where generated electricity is purchased by the customer at an agreed upon rate), or a Lease (third-party owned system sited on customer property where customer makes scheduled payments to use the system). The different models affect the system's ownership, maintenance, costs, and more.⁷ With an overall summary of benefits and expenses, Disclosure Forms allow consumers to fully understand and compare offers across different financing types before contracting.

Project Construction

For the Schroers, system installation was rapid, taking just three weeks (including navigating inclement weather and utility approval) and consisted of a ground mounted array at the back of the home, a control system, and four batteries. DG customers should individually assess the pros and cons of rooftop solar or ground mounted systems for their properties, as each offers potential advantages along with other factors to consider. In April 2025, the system was energized, delivering cost-saving renewable energy and battery backup.

“The Illinois Shines Disclosure Form was super helpful to help understand details about our system and contract, and the financial pass-through was a big incentive for us. During more extreme weather our electric bill was \$1000 a month, and rates were projected to keep rising.

- Kelly Schroer, Illinois Shines Small DG Customer

⁵ Approved Vendors and Designees participating in Illinois Shines can be found at illinoisshines.com/find-an-av-designee-or-subcontractor.

⁶ Solar vendors often pass some or all of the value of Illinois Shines payments to customers in the form of reduced purchase prices, installation costs, lease payments, or other methods agreed upon in a contract. Disclosure Forms show the estimated amount of incentive payment for a project, and customers are encouraged to use the Disclosure Form to compare offers from different vendors and select the offer that best meets their needs.

⁷ illinoisshines.com/exploring-panels-with-dg/#financing

Results

The Schroers achieved a variety of benefits by going solar with Illinois Shines. Their system is sized to support the full electrical load of both their home and farm, and battery storage provides approximately three hours of backup power. Their system's online monitoring app helps them understand and track energy production, usage, and the storage of excess electricity in their batteries. Significantly, their monthly bills have been cut in half, and they've enjoyed power reliability for their home and critical farm operations, often unaware of local power outages until they receive a notification. In addition to savings and operational continuity, the Schroers report that their solar system provides peace of mind that their animals have dependable heat and water.

The Gragg Street Farm project became a source of curiosity in the community, and neighbors were eager to understand the system and its ability to help reduce electricity costs. Many nearby residents have since looked into solar, driven by the potential cost savings and the safety net that battery storage could provide for their homes and farms.

“Our battery has made a big difference – during a recent outage, our block was without power for three hours, but we were only without power for one minute. Having a solar system with a battery backup gives me peace of mind that I will have water and heat for the animals.”

- Kelly Schroer, Illinois Shines Small DG Customer

Key Lessons Learned

1. Solar and storage can address both affordability and reliability for a wide range of households.

Solar increasingly meets the needs of more consumers and businesses, with a variety of options through Illinois Shines. For this household, pairing solar with battery storage provides significant monthly bill savings, while delivering critical reliability during weather-related outages. Interested homeowners can learn more about project options and questions to consider at the Program's [Exploring Solar with Illinois Shines page](#), including resources that provide additional guidance, questions to ask your AV, and explains how to determine whether distributed generation or community solar is the right choice for you.

2. Program incentives and financing flexibility can play a major role in project feasibility and economics.

Illinois Shines provides valuable incentives for the development of solar projects, and customers may be surprised by the size of a passthrough incentive and reduction in costs the Program can help deliver. For the Schroers, Illinois Shines incentives played an important role in making this customer-owned project financially feasible. However, customers have a variety of financing options through Illinois Shines⁸ and should carefully evaluate those choices based on their goals, budget, and other considerations.

3. Customers can access valuable resources and support through Illinois Shines. The Schroers found the Illinois Shines Disclosure Form valuable for understanding full project details, economics, and financial benefits before moving forward with the project. The Program offers interactive tools at the Illinois Shines website that help customers understand their Disclosure Forms.⁹ The Program has also developed a variety of educational resources designed to increase customer knowledge and help customers consider their options, including a Homeowner Handouts series with specialty topics for residential homeowners. Illinois Shines prioritizes clear, transparent consumer information and resources and its consumer protection team is available to support customers who may need it.

⁸ To learn more about financing options for Illinois Shines solar projects, visit: illinoisshines.com/exploring-panels-with-dg

⁹ To learn more about Illinois Shines Disclosure Forms, visit: illinoisshines.com/disclosure-forms

Ready to bring your Small Distributed Generation project to life?

Consumers can visit the [Exploring Distributed Generation](#) page, and vendors can visit the [Small Distributed Generation](#) page for more details.