



## Springfield-Sangamon County Regional Planning Commission

The Springfield-Sangamon County Regional Planning Commission (SSCRPC) serves as the joint planning body for the City of Springfield and Sangamon County. Along with this on-going responsibility, the Planning Commission staff works with many other public and semi-public agencies throughout the area to promote orderly growth and redevelopment, conducting numerous research studies and planning projects each year.

### Serving Sangamon County

Norm Sims  
Executive Director

Jeff Fulgenzi  
Senior Planner

**1**

**Village of Illiopolis Variable Speed Drive Motors Project**

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**Village of Chatham Streetlight Retrofit**

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**3**

**Village of Williamsville HVAC/AC Retrofit**

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**4**

**Village of Sherman Streetlight Retrofit**

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**5**

**Village of Rochester Village Hall Lighting Project**

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**6**

**Village of Riverton Streetlight Retrofit**

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**7**

**Sangamon County Water Chiller Replacement**

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# State of Illinois Energy Efficiency & Conservation Block Grant Program

## Illinois Regional Partnership for EECBG: Illiopolis

The State of Illinois, with the help of the Illinois Association of Regional Councils (ILARC) and their member regional planning agencies, awarded over \$13 million in EECBG funding to smaller communities across the state. The Springfield-Sangamon County Regional Planning Commission received a total of \$374,667.00 in EECBG funding through this program, and selected projects from seven Sangamon County local governments to receive these funds.

The Village of Illiopolis, Illinois was awarded \$9,971.00 in EECBG funds along with \$3,967.00 in Energy Efficiency Program funds awarded through the Department of Commerce & Economic Opportunity (DCEO) for a total project award of \$13,938.00. Energy efficiency retrofits were successfully completed at four water wells which furnish water for the Village of Illiopolis and 60 users outside of the Village. The work completed consists of:

- Variable Speed Drive (VSD) Retrofits: four VSDs were installed on fresh water well motors to enhance the efficiency of water pumps at Illiopolis's water treatment facility and to increase monetary and energy savings for the Village.



Bob Winters, Illiopolis Village President, offered an insight into the savings the VSDs have already created: “In 2010, our water bill total was \$1,120 for February and \$929 for March. Our costs per day in 2010 were \$37.35 in February and \$33.19 in March. The Variable Speed Drives have dropped these numbers considerably. We found our bill amount in March 2011 dropped to \$626 and cost per day lowered to \$22.37. This will greatly benefit our community in the future.”

### Project Metrics:

- \$9,971.00 in EECBG funding
- Estimated 234.97 million Btu's saved per year
- Approximate reduction of 11.65 kWh per year
- Estimated reduction of 20.353 metric tons of CO<sub>2</sub> per year
- Annual savings of \$7,979.00 per year



Left: Village President Bob Winters and a village engineer celebrating success around the VSD mounted in the background and hooked up to the water pump on the floor.



Right: A project electrician installing a VSD retrofit to enhance energy and monetary savings.

# State of Illinois Energy Efficiency & Conservation Block Grant Program

## Illinois Regional Partnership for EECBG: Chatham

The State of Illinois, with the help of the Illinois Association of Regional Councils (ILARC) and their member regional planning agencies, awarded over \$13 million in EECBG funding to smaller communities across the state. The Springfield-Sangamon County Regional Planning Commission received a total of \$374,667.00 in EECBG funding and selected seven communities to receive funds.

The Village of Chatham, Illinois was awarded a total of \$19,120.00 in EECBG funds. Energy efficient streetlights were successfully installed on over a quarter of the Village's total street lamps. The work completed consists of;

- Lighting Retrofits: 100 existing 150 Watt NEMA HPS street lights were replaced with Lektron LED retrofit kits which is estimated to save 55,036 kWh of energy per year.
- To measure the shift in energy savings, the Village of Chatham placed meters on one old 150W HPS street light and one new Lektron LED light to compare the difference in energy usage and to track the difference in greenhouse gas emissions and metric tons of CO<sub>2</sub> given off by both lights.

Ryan Crawford, Grant Writer for Chatham's EECBG project, discussed the initial savings the Village has seen after metering one HPS light and one retrofitted LED light. He stated, "Forty-nine days after installation, the Village of Chatham saved approximately \$588.00 in energy costs by replacing (100) 150 Watt HPS fixtures with 44 Watt LED fixtures." Over the 20 year span of the LEDs, the Village of Chatham could save over \$77,050.00.

### Project Metrics:

- \$19,120 in EECBG funding
- Estimated 569 million Btu's saved annually
- Approximate reduction of 55,036 kWh annually
- Estimated reduction of 40 metric tons of CO<sub>2</sub> annually
- Annual savings of \$3,852.00

Plugging Into Savings Saving...

- Energy
- Money
- Environment
- Jobs



Left: The Village of Chatham, Illinois. Street lights retrofitted with 100 energy efficient LED lights.



Right: A light pole holding a 44 Watt LED on the right and a 150 Watt HPS on the left with meters below comparing energy usage and savings.

# State of Illinois Energy Efficiency & Conservation Block Grant Program

## Illinois Regional Partnership for EECBG: Williamsville

The State of Illinois, with the help of the Illinois Association of Regional Councils (ILARC) and their member regional planning agencies, is awarding over 13 million dollars in EECBG funding to smaller communities across the state. The Springfield-Sangamon County Regional Planning Commission received a total of \$374,667.00 in EECBG funding and selected 7 communities to receive funds.

The Village of Williamsville, Illinois was awarded a total of \$17,265.00 in EECBG funds along with \$1,200.00 in Energy Efficiency Program funds awarded through the Department of Commerce & Economic Opportunity (DCEO) for a total project award of \$18,465.00. Energy efficient lighting retrofits were successfully installed within the Williamsville Village Hall building. The work completed consists of;

- HVAC Retrofits: the building's existing HVAC systems were replaced with four new 95% 80,000 BTU Furnaces.
- AC units Retrofits: the building's existing Air Conditioning Units were replaced with four new 14.8 SEER Air Conditioning Units

Village of Williamsville President Tom Yokley stated, "The finished project will provide a safe, healthy and environmentally friendly atmosphere for the staff of the Village, township and elected officials as well as the many community organizations and private citizens who utilize the building for meeting and educational resource. The project also represents a model of energy conservation and efficiency to the entire community." Overall, the Village of Williamsville can expect to see an annual reduction of 35% of their utility costs.

### Project Metrics:

- \$17,265 in EECBG funding
- 2 jobs retained
- Estimated 111.5 million Btu's saved per year
- Approximate reduction of 4,020 kWh per year
- Estimated reduction of 6.46 metric tons of CO<sub>2</sub> per year



Left: Village President Tom Yokley and Project Manager Karen Humphres celebrating success in front of new HVAC thermostats.



Right: One of four new energy efficient HVAC systems installed in the Williamsville Village Hall.

# State of Illinois Energy Efficiency & Conservation Block Grant Program

## Illinois Regional Partnership for EECBG: Sherman

The State of Illinois, with the help of the Illinois Association of Regional Councils (ILARC) and their member regional planning agencies, is awarding over 13 million dollars in EECBG funding to smaller communities across the state. The Springfield-Sangamon County Regional Planning Commission received a total of \$374,667.00 in EECBG funding and selected 7 communities to receive funds.

The Village of Sherman, Illinois was awarded a total of \$7,050.00 in EECBG funds. Energy efficient streetlights were successfully installed at various locations in the Village. The work completed consists of;

- Streetlight Retrofits: 25 existing 150 Watt High Pressure Sodium (HPS) lamps were retrofitted with Induction streetlight fixtures which produce better lighting photometry making Sherman's streets safer due to higher visibility.
- The Village of Sherman will also use this project as a pilot program to alter their current Village Code to require Induction streetlight fixtures in the future.



**Project Metrics:**

- \$7,050 in EECBG funding
- 0.11 Job Created, 0.10 Job Retained
- Estimated 93.1 million Btu's saved per year
- Approximate reduction of 9,000 kWh per year
- Estimated reduction of 6.5 metric tons of CO<sub>2</sub> per year
- \$1,325 in annual savings

Overall, the Village of Sherman can expect to see annual energy savings of 9,000 kWh and annual monetary savings of \$1,325.00.



# Illinois Regional Partnership for EECBG: Rochester

The State of Illinois, with the help of the Illinois Association of Regional Councils (ILARC) and their member regional planning agencies, is awarding over 13 million dollars in EECBG funding to smaller communities across the state. The Springfield-Sangamon County Regional Planning Commission received a total of \$374,667.00 in EECBG funding and selected seven communities to receive funds.

The Village of Rochester, Illinois was awarded a total of \$14,625.00 in EECBG funds. Energy efficient lighting retrofits were successfully installed within the Rochester Village Hall building. The work completed consists of;

- Lighting Retrofits: The building’s fluorescent T-12 light fixtures, emergency lights and 15 single pole wall switches were removed and replaced with new T-8 light fixtures and occupancy sensors with only a single pole on-off light switch.
- The Village of Rochester has also taken the initiative to host an educational tour of the Village Hall to show the benefits of the updated energy efficient lighting system.



**Project Metrics:**

- \$14,625 in EECBG funding
- 1 job retained
- Estimated 11.65 million Btu’s saved per year
- Approximate reduction of 1,127 kWh per year
- Estimated reduction of 0.81 metric tons of CO<sub>2</sub> per year
- \$1,500 in annual savings

Steve Ransford, Rochester’s EECBG Project Manager, stated, “The installation of new energy efficient light fixtures and motion sensors has already saved the Village money in their first month of operating. We are experiencing brighter offices and the motion sensors are extremely active throughout the Village Hall building.” Overall, the Village of Rochester can expect to see monthly energy savings of 1,127 kWh and annual monetary savings of \$1,500.00.



*Left: Village President David Armstrong celebrating the success of the Rochester Village Hall Lighting Project.*



*Right: A Rochester Village Hall office where visibility has increased due to the installation of brighter and more energy efficient light fixtures.*

# State of Illinois Energy Efficiency & Conservation Block Grant Program

## Illinois Regional Partnership for EECBG: Riverton

The State of Illinois, with the help of the Illinois Association of Regional Councils (ILARC) and their member regional planning agencies, award over \$13 million in EECBG funding to smaller communities across the state. The Springfield-Sangamon County Regional Planning Commission received a total of \$374,667.00 in EECBG funding and selected projects from seven local governments to receive funds.

The Village of Riverton, Illinois was awarded a total of \$11,955.00 in EECBG funds. Energy efficient streetlights were successfully installed along the Village's busiest streets and adjoining avenue that services their Village Hall. The work completed consists of;

- Streetlight Retrofits: 45 existing High Pressure Sodium (HPS) lamps were retrofitted with Light Emitting Diode (LED) streetlights which produce a cleaner, brighter light making Riverton's streets safer due to higher visibility.
- The Village of Riverton has also utilized widespread education through their local newspaper, utility bills and roadway signage to inform the public about the use of new energy efficient lighting and their involvement in ARRA initiatives.

Richard Pottier, the Village of Riverton Grant Manager, stated, "Without the assistance of this grant, the project's savings benefits may not have been realized due to Riverton's current financial situation. The completed project greatly increases our residents' safety." Overall, the Village of Riverton can expect to see annual energy savings of 11,030 kWh and an annual reduction of 7.96 metric tons of CO<sub>2</sub> and green house gas emissions.

### Project Metrics:

- \$11,955 in EECBG funding
- 2 jobs retained
- Estimated 114 million Btu's saved per year
- Approximate reduction of 11,030 kWh per year
- Estimated reduction of 7.96 metric tons of CO<sub>2</sub> per year



Left: Riverton EECBG project electricians at work installing the new LED streetlights.



Right: One of 45 new energy efficient LED streetlights which will net considerable monetary and energy savings for the Village.

# Illinois Regional Partnership for EECBG: Sangamon County

The State of Illinois, with the help of the Illinois Association of Regional Councils (ILARC) and their member regional planning agencies, awarded over \$13 million in EECBG funding to smaller communities across the state. The Springfield-Sangamon County Regional Planning Commission received a total of \$374,667.00 in EECBG funding through this program, and selected projects from seven Sangamon County local governments to receive these funds.

Sangamon County was awarded a total of \$169,531.00 in EECBG funds. Energy efficiency retrofits were successfully completed at the Courts/Office and Detention Buildings of the Sangamon County Complex. The work completed consists of:

- Chiller Replacement: two 415 ton central plant water chillers were replaced with more efficient chillers rated at 375 tons each. Estimated to save 141,016 kWh of energy annually.
- Conversion of the chilled water system to a variable flow system which is estimated to save 57,602 kWh of energy annually.

Andy Goleman, Sangamon County Board Finance Chair, stated, “This project represents an opportunity for the Sangamon County Complex to achieve high levels of monetary and energy savings. Additionally, this project gave us the ability to create jobs in a time when job opportunities are needed.” Overall, the Sangamon County Complex can expect to see annual savings of \$21,402.00 and annual energy savings of 198,518 kWh as a result of this project.



Left: The Sangamon County Complex was built in 1990 and recently retrofitted with two 375 ton water chillers to replace 415 ton water chillers.

Right: A new retrofitted water chiller which will net considerable energy savings.



## Project Metrics:

- \$294,682 in EECBG funding
- Estimated 2,052 million Btu's saved annually
- 14 Jobs created or retained
- Approximate reduction of 198,518 kWh annually
- Estimated reduction of 143 metric tons of CO<sub>2</sub> annually
- Annual savings of \$21,402





Springfield-Sangamon County  
Regional Planning Commission

## Special Thanks To:

- Department of Energy
- Governor Pat Quinn & Department of Commerce & Economic Opportunity
- Illinois Association of Regional Councils
- Sangamon County Local Officials