

EECBG Activity Worksheet

Grantee: City of Shawnee Date: 06/11/2009  
DUNS #: 6944615 Program Contact Email: spowell@cityofshawnee.org  
Program Contact First Name: Stephen Last Name: Powell  
Project Title: Energy Efficiency and Conservation Strategy Development  
Activity: 1. Energy Efficiency and Conservation Strategy If Other: \_\_\_\_\_  
Sector: Public If Other: \_\_\_\_\_  
Proposed Number of Jobs Created: 0.14 Proposed Number of Jobs Retained: 0.00  
Proposed Energy Saved and/or Renewable Energy Generated: N/A  
Proposed GHG Emissions Reduced (CO2 Equivalents): 0.000  
Proposed Funds Leveraged: \$0.00  
Proposed EECBG Budget: 13,002.00  
Projected Costs Within Budget: Administration: \$13,002.00 Revolving Loans: \$0.00 Subgrants: \$0.00  
Project Contact First Name: Stephen Last Name: Powell Email: spowell@cityofshawnee.org  
Metric Activity: Building Energy Audits If Other: \_\_\_\_\_

Project Summary: *(limit summary to space provided)*

The City of Shawnee requests EECBG funding to develop a strategy for energy efficiency and conservation and to carry out the activities of the EECBG program. The City entered into a contract with Energy Solutions Professionals on May 21, 2009 to provide an energy audit for City facilities. Information from the energy audit will be used to determine energy efficient and conservation projects and develop the Energy Efficiency and Conservation Strategy.

The purpose of the audit was to define projects to submit for EECBG funding and to assist in the preparation of the EECS. The contractual cost of the audit is \$10,849. The City is seeking reimbursement for this pre-award cost. The direct cost of City employees assisting with the audit is \$2,153. The total budget is \$13,002.

The time frame for completion of the energy audit is July 2009. The EECS will be completed and submitted with comprehensive list of proposed activities for EECBG funding with 120 days of approval.

**EECBG Activity Worksheet**

Grantee: City of Shawnee Date: 12/01/2009  
 DUNS #: 6944615 Program Contact Email: spowell@cityofshawnee.org  
 Program Contact First Name: Stephen Last Name: Powell  
 Project Title: Material Conservation Program  
 Activity: 10. Material Conservation Program If Other: \_\_\_\_\_  
 Sector: Public If Other: \_\_\_\_\_  
 Proposed Number of Jobs Created: 0.25 Proposed Number of Jobs Retained: 0.00  
 Proposed Energy Saved and/or Renewable Energy Generated: 0  
 Proposed GHG Emissions Reduced (CO2 Equivalents): 1,653,350.000  
 Proposed Funds Leveraged: \$8,000.00  
 Proposed EECBG Budget: 22,222.00  
 Projected Costs Within Budget: Administration: \$22,222.00 Revolving Loans: \$0.00 Subgrants: \$0.00  
 Project Contact First Name: Stephen Last Name: Powell Email: spowell@cityofshawnee.org  
 Metric Activity: Other If Other: \_\_\_\_\_

**Project Summary: (limit summary to space provided)**

This program focuses on increasing the amount of glass recycled in the City and public education on the City's new Pay-As-You-Throw (PAYT) trash and recycling ordinance.

Ripple Glass is a new company in the Kansas City metro area that provides drop-off containers for glass recycling in various locations within the region. Currently, there is limited glass recycling opportunities for residents. One reason for this was waste glass historically had to be shipped 260 miles to the nearest processing plant making it economically unappealing to collect. Therefore, only 5% of regional waste glass is being recycled, while the national glass recycling rate is closer to 30%. In 2009 Ripple Glass opened a new facility in the region to process collected glass. A local Kansas City company will use up to 80% of the processed glass to create fiberglass, which will be used in the Kansas City area to make homes more energy efficient.

EECBG funds will be used to help purchase three Ripple Glass 30 cubic yard containers to be located strategically throughout the City. Shawnee will contribute \$2,500 per bin in EECBG funds toward Ripple Glass's cost of \$6,700 per bin. The City is proposing to use \$14,722 to produce educational and promotional materials for residents and businesses, and monitor the bins weekly.

Additionally, in an effort to increase City recycling rates, Shawnee plans on adopting a Pay-As-You-Throw Ordinance with an unlimited curb-side recycling requirement. PAYT has been shown to be one of the best ways to increase recycling participation. The City realizes that this program will be a significant shift for citizens from what is currently done with trash and recycling. Because of this, City-wide education must be provided. The City is requesting \$10,500 to put towards the education component of this endeavor. This educational component could include workshops throughout the city, city-wide mailings, and web-site publicity. City Staff time is included to produce materials and provide support at workshops.

A total of \$22,222 in EECBG funds is budgeted for this project.

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Grantee: City of Shawnee Date: 06/11/2009  
DUNS #: 6944615 Program Contact Email: spowell@cityofshawnee.org  
Program Contact First Name: Stephen Last Name: Powell  
Project Title: Strategic Regional Framework for Energy Efficiency and Conservation  
Activity: 14. Other If Other: All  
Sector: All Sectors If Other: \_\_\_\_\_  
Proposed Number of Jobs Created: 0.14 Proposed Number of Jobs Retained: \_\_\_\_\_  
Proposed Energy Saved and/or Renewable Energy Generated: 0  
Proposed GHG Emissions Reduced (CO2 Equivalents): 0.000  
Proposed Funds Leveraged: \$0.00  
Proposed EECBG Budget: 13,328.00  
Projected Costs Within Budget: Administration: \$0.00 Revolving Loans: \$0.00 Subgrants: \$13,328.00  
Project Contact First Name: Stephen Last Name: Powell Email: spowell@cityofshawnee.org  
Metric Activity: Other If Other: Regional Collaboration

**Project Summary: (limit summary to space provided)**

The City of Shawnee is requesting EECBG funding to issue a subgrant to the Mid-America Regional Council (MARC) for the development of a Strategic Regional Framework for Energy Efficiency and Conservation. A regional coordinating committee will be formed with representatives from area communities receiving EECBG formula grants and other key stakeholders to develop a regional strategy comprised of the seven key areas described below.

Seven regional strategies will be considered as part of this coordinated regional effort:

1. Lead by example – The region's local governments could aggressively pursue opportunities for energy efficiency, energy conservation and renewable energy and strive to develop "carbon neutral" operations.
2. Adopt local building and development codes, specifications and standards to promote use of green designs that incorporate renewable energy, energy efficiency and conservation, and related sustainability considerations.
3. Establish effective partnerships among state, regional and local energy programs to capitalize on new funding opportunities, to coordinate regional activities, to align policy goals and objectives, to share information on regional programming, and to leverage resources to maximize regional benefits.
4. Implement education, outreach and citizen engagement strategies to prepare local government staff, developers and the community-at-large to implement energy efficiency, energy conservation and renewable energy strategies.
5. Incentivize energy efficiency and conservation – Create incentive programs that would promote energy efficiency.
6. Link energy strategies with related sustainability efforts – Integrate energy efficiency and conservation initiatives with related efforts, such as those associated with solid waste management or green infrastructure conservation.
7. Assess, monitor and report the effectiveness of clean energy strategies and projects including benefits, achievements and savings to share with local businesses and taxpayers.

This Strategic Regional Framework for Energy Efficiency and Conservation is being developed to provide guidance to local government entities and their partners in the metropolitan Kansas City region. It strives to strengthen and leverage each community's commitments to a sustainable energy future. It provides a framework to coordinate policies, plans, programs, practices and projects among local governments to maximize long term community benefits associated with investments in energy efficiency and conservation.

Long term benefits associated from policy development, capacity building, community education, and integrated planning will undoubtedly yield significant energy savings. However, at this time, the quantification of those benefits would be impossible. Job creation and retention benefits will result from this effort. Adoption of new sustainability-focused planning, design, construction, inspection and enforcement strategies in the building and transportation sectors will create demand for new services not currently provided in this community. Alignment of energy efficiency and conservation efforts with parallel weatherization programs and sustainable workforce development efforts will support strategic local and regional goals in this area.

The City will use EECBG funds to pay \$13,328 (or 2.5% of the total allocation - \$533,100) to MARC.

Timetable for initiation and completion: Collaborative regional strategy implementation will begin as soon as funds become available, and be completed within 36 months. All funds for regional strategy implementation will be obligated within 18 months as required.

EECBG Activity Worksheet

Grantee: City of Shawnee Date: 12/15/2009

DUNS #: 6944615 Program Contact Email: spowell@cityofshawnee.org

Program Contact First Name: Stephen Last Name: Powell

Project Title: Shawnee Energy Efficiency Retrofits Program

Activity: 5. Energy Efficiency Retrofits If Other: \_\_\_\_\_

Sector: Public If Other: \_\_\_\_\_

Proposed Number of Jobs Created: 4.50 Proposed Number of Jobs Retained: 0.14

Proposed Energy Saved and/or Renewable Energy Generated: 883728

Proposed GHG Emissions Reduced (CO2 Equivalents): 893.000

Proposed Funds Leveraged: \_\_\_\_\_

Proposed EECBG Budget: 417,548.00

Projected Costs Within Budget: Administration: \$12,500.00 Revolving Loans: \$0.00 Subgrants: \$0.00

Project Contact First Name: Stephen Last Name: Powell Email: spowell@cityofshawnee.org

Metric Activity: Building Retrofits If Other: \_\_\_\_\_

Project Summary: *(limit summary to space provided)*

The primary activity that will be undertaken by the City of Shawnee with EECBG funds is in building retrofits to improve energy efficiency. The city underwent a comprehensive energy audit of its facilities in 2009. The result of that process was a list of several projects that addressed energy inefficiencies in City facilities. The City has identified six facilities in which to utilize grant funds for energy efficiency upgrades: City Hall, Civic Centre, Public Works Maintenance Facility, Parks Maintenance Facility, Fire Station No. 73 and Town Hall. The total estimated budget for this project is \$417,548.

LIGHTING UPGRADES.

The City proposes to use \$137,500 of the grant funding for lighting efficiency upgrades at City Hall, Public Works Maintenance Facility and Fire Station No. 73. This will include retrofitting existing T12 fluorescent lamps and magnetic ballasts with low mercury T8 fluorescent lamps and high efficiency electronic ballasts. In addition, motion detectors will be installed in various offices. Using the EECBG calculator, the proposed upgrades are estimated to save 274,549 kWh in energy use and 294 Tons of carbon emissions. \$12,506 will be used to cover the Administrative Costs associated with this project (contract management, staff time, contractor oversight).

HVAC UPGRADES.

The City proposes to use \$280,048 of the grant funding for HVAC upgrades at the Civic Centre, Parks Maintenance Facility and Town Hall. The HVAC systems at these facilities have reached the end of their useful life and are inefficient. These systems have been identified as candidates for replacement through the City's building maintenance plan. Using the EECBG calculator, these upgrades are estimated to save 559,178 kWh in energy use and 599 Tons of carbon emissions.

Upon approval of the application, the City will work with a design/build contractor to design, bid and replace the HVAC system at the Civic Centre with a more energy efficient system than the current system (which is 20 years old). The total estimated budget for the new HVAC system at the Civic Centre is \$231,821. Using the EECBG calculator, these upgrades are estimated to save 559,178 kWh in energy use and 599 Tons of carbon emissions.

The City received quotes to replace the HVAC systems at the Parks Maintenance Facility and Town Hall with more energy efficient systems. Upon approval of the application, the City will retrofit Town Hall with four (4) energy efficient heat pumps. The current heat pumps at this facility range from 9-12 years of age. Upon approval of the application, the City will retrofit the Parks Maintenance Facility with a energy efficient dual heating/cooling system. The current system is over 15 years in age. In addition, the City received quotes to retrofit the Parks Maintenance Facility Bays with four (4) energy efficient gas fire unit heaters. The total estimated budget for retrofitting the HVAC systems at the Parks and Recreation Maintenance Facility and Town Hall is \$48,221. Using the EECBG calculator, these upgrades are estimated to save 96,284 kWh in energy use and to reduce 103 Tons of carbon emissions.

EECBG Activity Worksheet

Grantee: City of Shawnee Date: 12/10/2009  
DUNS #: 6944615 Program Contact Email: spowell@cityofshawnee.org  
Program Contact First Name: Stephen Last Name: Powell  
Project Title: LED Street Light Program  
Activity: 12. Lighting If Other: \_\_\_\_\_  
Sector: Public If Other: \_\_\_\_\_  
Proposed Number of Jobs Created: 0.64 Proposed Number of Jobs Retained: 0.08  
Proposed Energy Saved and/or Renewable Energy Generated: 2315239  
Proposed GHG Emissions Reduced (CO2 Equivalents): 2,841.000  
Proposed Funds Leveraged: \_\_\_\_\_  
Proposed EECBG Budget: 67,000.00  
Projected Costs Within Budget: Administration: \$0.00 Revolving Loans: \$0.00 Subgrants: \$0.00  
Project Contact First Name: Stephen Last Name: Powell Email: spowell@cityofshawnee.org  
Metric Activity: Other If Other: Street Lights

Project Summary: *(limit summary to space provided)*

The City of Shawnee plans to use EECBG funding to upgrade City-owned street lights and parking lot lights with LED lights. The proposed project will allow the City staff to accurately measure the efficiencies of current LED technology and determine the best way to use LED lights in the future. This project will be concentrated in four (4) areas of the City using different styles of LED lights. Existing street lights in a residential neighborhood and in a commercial area will be retrofitted. Additionally, parking lot lights at City Hall and at the City's Public Works Maintenance Facility will be retrofitted.

The City will install twenty-nine (29) Post Top LED fixtures in a retail area, fourteen (14) Cobra Head LED lights in a residential area, two (2) parking lot LED lights at City Hall and two (2) parking lot LED lights at the Public Works Maintenance Facility. The total estimated cost for materials is \$57,500. City staff will install the materials. The estimated cost for this labor is \$8,560. The City will release educational materials about the use of LED lights through the City's newsletters and on the City's web site. The estimated cost to produce the educational materials is \$940.

The total project cost is estimated to be \$67,000. Using the EECBG calculator, these upgrades are estimated to save 2,315,239 kWh in energy use and to reduce 2,841 Tons of carbon emissions.