

STATEMENT OF PROJECT OBJECTIVES

City of Las Vegas, NV

City of Las Vegas, NV Energy Efficiency and Conservation Block Grant

A. PROJECT OBJECTIVES

The purpose of this award is to implement the Recipient's Energy Efficiency & Conservation Strategy (EEC&S) in order to reduce fossil fuel emissions; reduce total energy use of the eligible entities; and improve energy efficiency in the building sector, the transportation sector, and other appropriate sectors, along with creating jobs.

B. PROJECT SCOPE

The scope for this award is the implementation of the EEC&S and all supporting documentation necessary for the proposed activities (Attached).

C. PROJECT MANAGEMENT AND REPORTING

Reports and deliverables will be provided in accordance with the Federal Assistance Reporting Checklist.

EECBG Activity Worksheet

Grantee: City of Las Vegas, NV Date: 06/25/2009
DUNS #: 30381610 Program Contact Email: tperrigo@lasvegasnevada.gov
Program Contact First Name: Thomas Last Name: Perrigo
Project Title: City Energy Efficiency Program: City Facilities Solar Covered Parking Project
Activity: 13. Onsite Renewable Technology If Other: _____
Sector: Public If Other: _____
Proposed Number of Jobs Created: 45.10 Proposed Number of Jobs Retained: _____
Proposed Energy Saved and/or Renewable Energy Generated: 5,120,000 kWh generated per year
Proposed GHG Emissions Reduced (CO2 Equivalents): 949.000
Proposed Funds Leveraged: _____
Proposed EECBG Budget: 4,150,000.00
Projected Costs Within Budget Administration: \$234,739.00 Revolving Loans: _____ Subgrants: \$165,300.00
Project Contact First Name: Tom Last Name: Perrigo Email: tperrigo@lasvegasnevada.gov
Metric Activity: Renewable Energy Market Development If Other: _____

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

City Energy Efficiency Program: City Facilities Solar Covered Parking Project

Project Description

This project will help construct a total of 950 kW of solar covered parking projects at various city facilities, with projects distributed throughout the six Council Wards of the city. This project will help achieve targets in the Energy Efficiency and Conservation Strategy that is modeled after the City's Sustainable Energy Strategy (R-50-2008), adopted by Council on 9/3/08. The EECS and adopted policy's goal is to achieve a 10% renewable energy standard by 2011 and 20% by 2020. This project, combined with separate renewable energy installations at the City's wastewater treatment plant, will bring the City to an approximately 10% renewable energy standard for all operations by 2011. The project will also provide highly-valued covered parking at city facilities for employees and citizens, and be visible to the community, helping promote the city's sustainability initiative.

Jobs Created/Retained

The ARRA Community Solar Master Plan has been placed on the City's Capital Improvements Program. Based on present market conditions in the renewable energy and construction industries, the City estimates 45.1 private sector jobs will be directly created and retained.

Energy Generation and GHG reduction

This project will generate 950 kW, or 5.12 million kWh of renewable energy per year, which is estimated to reduce the City's carbon footprint by 949 tons CO₂e.

Funding

\$4,150,000 of EECBG funds will be combined with additional funding from the City's Green Building Special Revenue Fund, utility rebates, CDBG-R, and from New Clean Renewable Energy Bonds. All land for the projects is owned by the City.

See Solar Covered Parking Budget justification file for details.

EECBG Activity Worksheet

Grantee: City of Las Vegas, NV Date: 06/25/2009
 DUNS #: 30381610 Program Contact Email: tperrigo@lasvegasnevada.gov
 Program Contact First Name: Thomas Last Name: Perrigo
 Project Title: City Energy Efficiency Program: City Facilities Retrofits
 Activity: 5. Energy Efficiency Retrofits If Other: _____
 Sector: Public If Other: _____
 Proposed Number of Jobs Created: 8.48 Proposed Number of Jobs Retained: _____
 Proposed Energy Saved and/or Renewable Energy Generated: 7,834,314 kWh saved per year
 Proposed GHG Emissions Reduced (CO2 Equivalents): 6,039,000
 Proposed Funds Leveraged: _____
 Proposed EECBG Budget: 780,000.00
 Projected Costs Within Budget: Administration: \$39,000.00 Revolving Loans: \$0.00 Subgrants: \$0.00
 Project Contact First Name: Tom Last Name: Perrigo Email: tperrigo@lasvegasnevada.gov
 Metric Activity: Building Retrofits If Other: _____

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

City Energy Efficiency Program: City Facilities Retrofits

Project Description

The City of Las Vegas is currently soliciting proposals from qualified professional consulting firms interested in providing a comprehensive energy audit report for selected city buildings (17 facilities projected at a total of 422,328 square feet), using \$100,000 from the City's Green Building Special Revenue Fund. Goals of the audit include working with city staff to provide detailed projections of improving environmental impacts, energy usage, cost savings related to: operations and maintenance procedures, optimization of major energy-consuming systems, and recommendations for installation and commissioning of the latest cost-effective energy conservation measures. The final audit report document shall include savings calculations and recommendations utilizing assumptions, projections, and baselines that best represent, at the time the audit is performed, the true value of future energy and operational savings as a result of installing, implementing, and commissioning agreed measures for the facilities. Upon completion of the audit, the City will contract to implement the recommended facility energy efficiency improvements, which will include, but are not limited to: improvements to indoor and outdoor lighting, heating and heat distribution systems, cooling systems and related equipment, automatic temperature control systems and equipment, air distribution systems and equipment, outdoor ventilation systems and equipment, exhaust systems and equipment, hot water systems, electric motors, transmission and drive systems, special systems (kitchen/dining equipment, elevators, laundry equipment, etc.) water consuming systems (restroom fixtures, water fountains, irrigation systems, etc.), and building envelope. This project will help achieve targets in the Energy Efficiency and Conservation Strategy that is modeled after the City's Sustainable Energy Strategy (R-50-2008), adopted by Council on 9/3/08.

Jobs Created/Retained

Based on present market conditions in the renewable energy and construction industries, the City estimates 8.48 private sector jobs will be created/retained.

Energy Generation and GHG reduction

Upon completion of the retrofits to city facilities, this project is estimated to save 7,834,314 kWh of energy annually, which is estimated to reduce the City's carbon footprint by 6,039 tons CO2e.

Funding

The City will spend \$12.53 million (\$780,000 from the EECBG, \$5 million using Conservation Bonds and \$6.75 million in municipal bonds) to implement the recommendations of the audit.

No direct support documents; project requires completion of energy audit; budget items can be found in the SF-424A

City of Las Vegas Facilities

Lieburn Senior Center (2003), 6230 Garwood Ave; Mirabelli Community Center (2006), 6200 Hargrove Ave; Fire Station 7 (1995), 10101 Banbury Cross Dr; All American Park (1989), 1551 Buffalo Dr; Detention Ctr #5 (1991), 3300 Stewart Ave; E. Las Vegas Comm. Ctr. (2002), 250 Eastern Ave; Freedom Park (2006), 889 Pecos Rd; Detention Ctr #3 (1997), 3300 Stewart Ave; West Svc. Ctr. Cons. Svcs. (1999), 3301 Ronemus Dr; Durango Hills Comm. Ctr. (2000), 3521 Durango Dr; West Svc. Ctr. Field Ops. (2004), 2875 Ronemus Dr; Doolittle Comm. Ctr. (2003), 1950 J St; Atrium Building (1981), 333 Rancho Dr; Natural History Museum (1964), 900 Las Vegas Blvd; Centennial Hills Comm. Ctr (2008), 6601 Buffalo Dr; Lied School (2003), 5340 Tropical Pkwy; Fire Station 41 (2000), 6989 Buffalo Dr

If you are proposing more than one activity, save this file as many times as needed with successive page numbers. For example: "OH-CITY-Columbus-Project Activity page 1.pdf," "OH-CITY-Columbus-Project Activity page 2.pdf," and continue as needed.

EECBG Activity Worksheet

Grantee: City of Las Vegas, NV Date: 06/25/2009
 DUNS #: 30381610 Program Contact Email: tperrigo@lasvegasnevada.gov
 Program Contact First Name: Thomas Last Name: Perrigo
 Project Title: Community Energy Programs: Green Chips Energy Retrofit Loan Fund
 Activity: 5. Energy Efficiency Retrofits If Other: _____
 Sector: Residential If Other: _____
 Proposed Number of Jobs Created: 1.90 Proposed Number of Jobs Retained: _____
 Proposed Energy Saved and/or Renewable Energy Generated: 1,000,000 kwh saved (residential)
 Proposed GHG Emissions Reduced (CO2 Equivalents): 760.000
 Proposed Funds Leveraged: _____
 Proposed EECBG Budget: 175,000.00
 Projected Costs Within Budget: Administration: _____ Revolving Loans: \$175,000.00 Subgrants: _____
 Project Contact First Name: Tom Last Name: Perrigo Email: tperrigo@lasvegasnevada.gov
 Metric Activity: Loans and Grants If Other: _____

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

Community Energy Programs: Green Chips Energy Retrofit Loan Fund

Project Description

Green Chips, an organization filing for non-profit status, will sell a "green" casino chip to tourists and residents who wish to offset their carbon footprint by funding sustainability projects in southern Nevada. These monies will be pooled with federal grant and bond funds to set up a revolving loan fund, administered by Green Chips, to fund energy audits and retrofits for low and middle income homes, businesses, and non-profits. The program is projected to serve 125 homes, 4 small commercial buildings, and 6 non-profit buildings within the city of Las Vegas in the first two year period. The EECBG and adopted policy's goal is to establish by 2009 a fully operational Home Performance energy audit and conservation program, and provide financial incentives to City residents enroll in the program. This initiative will help promote the city's sustainability initiative, help residents control rising energy costs and lower the community's overall carbon footprint. Pending results of audits for individual buildings, recommended residential, commercial, and non-profit building energy efficiency improvements will include, but are not limited to: improvements to indoor and outdoor lighting, heating and heat distribution systems, cooling systems and related equipment, automatic temperature control systems and equipment, air distribution systems and equipment, outdoor ventilation systems and equipment, exhaust systems and equipment, hot water systems, electric motors, transmission and drive systems, special systems (kitchen/dining equipment, elevators, laundry equipment, etc.) water consuming systems (restroom fixtures, water fountains, irrigation systems, etc.), and building envelope.

Jobs Created/Retained

The Green Chips energy audit and retrofit program will create an immediate demand for certified auditors and retrofit contractors in a market where thousands of construction jobs have been lost. Based on present market conditions in the renewable energy and construction industries, the City estimates 1.9 jobs will be directly retained and created. Green Chips will oversee the distribution loan funds to auditors and contractors and verify that parties are paid the prevailing wage as required by ARRA.

Energy Savings and GHG reduction

The total energy savings at the end of this two year period will equal 1,000,000 kwh, which is estimated to reduce the City's carbon footprint by 760 tons CO2e.

Funding

125 Homes x \$4,208/retrofit = \$526,000
 4 Commercial sites x \$50,000/retrofit = \$200,000
 6 Nonprofit sites x \$20,000/retrofit = \$120,000
 EECBG funding = \$175,000
 Leveraged funding required = \$846,000
 TOTAL PROJECT COST = \$1,021,000

The \$175,000 EECBG funding will be used to capitalize a revolving loan fund to provide loans for energy audits and retrofits. Additional funding will be leveraged from Qualified Energy Conservation Bonds (\$846,000), partner municipalities' EECBG grants and Conservation bonds, membership dues, and sales of Green Chips, carbon offsets and Renewable Energy Credits, and interest accrued.

See Community Energy Programs Budget and SF-424 for budget details.

EECBG Activity Worksheet

Grantee: City of Las Vegas, NV Date: 06/25/2009
DUNS #: 30381610 Program Contact Email: tperrigo@lasvegasnevada.gov
Program Contact First Name: Thomas Last Name: Perrigo
Project Title: Community Energy Programs: Home Free Nevada Energy Audit/Retrofit Rebates
Activity: 3. Residential and Commercial Buildings and Audits If Other: _____
Sector: Residential If Other: _____
Proposed Number of Jobs Created: 3.00 Proposed Number of Jobs Retained: 1.00
Proposed Energy Saved and/or Renewable Energy Generated: 1,980,000 kWh saved per year (residential)
Proposed GHG Emissions Reduced (CO2 Equivalents): 1,526.000
Proposed Funds Leveraged: _____
Proposed EECBG Budget: 269,200.00
Projected Costs Within Budget: Administration: \$19,200.00 Revolving Loans: _____ Subgrants: _____
Project Contact First Name: Tom Last Name: Perrigo Email: tperrigo@lasvegasnevada.gov
Metric Activity: Building Energy Audits If Other: _____

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

Community Energy Programs: Home Free Nevada Energy Audit/Retrofit Rebates

Project Description

This project will establish a community energy audit rebate program in conjunction with Home Performance with EnergyStar. The Home Performance of Southern Nevada Program, running prior to 2009, has helped train construction and service sector residents to perform home energy audits. It also developed a training program that includes the Home Energy Rating System (HERS) and Building Performance Institutes (BPI) certification. 26 individuals have already completed online RESNET and BPI training program, which includes 2 people that serve as mentors in Southern Nevada for future training classes. A total investment of \$569,200 (\$269,200 investment from the EECBG, \$250,000 from GBSRF) in home energy efficiency projects in Las Vegas will result in significant energy and carbon reductions and cost savings for the community. Rebates of up to \$1,000 per home will be granted to homeowners that complete the audit and minimum retrofits according to Home Free Nevada program standards. This will consist of a \$500 rebate for the energy audit from EECBG funds and \$500 for completing the retrofit from the City of Las Vegas' Green Building Special Revenue Fund, consisting of an air conditioning tuneup and duct sealing.

Jobs Created/Retained

The ARRA Community Energy Program will require interested parties to apply with the Home Free Nevada program, which has partnered with the City. Applicants will then hire an approved certified contractor to conduct energy audits under the program. Based on present market conditions in the renewable energy and construction industries, the City estimates a total of 3 private sector jobs will be directly created or retained.

Energy Generation and GHG reduction

The total annual energy savings for residents will be 1,980,000 kWh, which is estimated to reduce the City's carbon footprint by 1,526 tons CO2e. This estimate assumes homeowners will leverage rebate money, utility incentives and tax credits with personal investment to maximize energy savings.

Funding

\$250,000 of EECBG funds will be used to rebate the cost of energy audits to approximately 500 homes (audit rebates will be \$500). \$250,000 in leveraged funding will come from the City's Green Building Special Revenue Fund that will provide matching rebates for the accompanying retrofit to Home Free Nevada Program standards, valued at \$500 per retrofit. \$19,200 of EECBG funds will be used for administrative costs and expenses for the program.

See Community Energy Programs Budget and SF-424 for budget details.

EECBG Activity Worksheet

Grantee: City of Las Vegas, NV Date: 06/25/2009
 DUNS #: 30381610 Program Contact Email: tperrigo@lasvegasnevada.gov
 Program Contact First Name: Thomas Last Name: Perrigo
 Project Title: Community Energy Programs: Community Facilities Energy Education Program
 Activity: 6. Buildings and Facilities If Other: _____
 Sector: Public If Other: _____
 Proposed Number of Jobs Created: 1.00 Proposed Number of Jobs Retained: 0.00
 Proposed Energy Saved and/or Renewable Energy Generated: 0
 Proposed GHG Emissions Reduced (CO2 Equivalents): 0.000
 Proposed Funds Leveraged: _____
 Proposed EECBG Budget: 75,000.00
 Projected Costs Within Budget: Administration: \$75,000.00 Revolving Loans: _____ Subgrants: _____
 Project Contact First Name: Tom Last Name: Perrigo Email: tperrigo@lasvegasnevada.gov
 Metric Activity: Workshops, Training, and Education If Other: _____

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

Community Energy Programs: Community Facilities Energy Education Program

Project Description

This project will establish a community facilities education and outreach component for the EECBG program. The Department of Civil and Environmental Engineering at the University of Nevada, Las Vegas has agreed to partner with the City to develop an education and outreach component that highlights the importance of renewable energy, energy efficiency, and conservation. UNLV will develop a Sustainable Energy Portal that will provide information on current energy retrofit projects, in addition to energy efficient retrofit projects and solar installations performed at city facilities using ARRA funds. A website will be included that displays all EECBG funded projects and detail conservation measures taken, real time performance, energy produced or saved, and GHG emissions reduced. UNLV students will also learn how to conduct energy audits. Outreach will be provided so that UNLV students will work with the community on home energy audits and how solar systems provide energy savings.

Jobs Created/Retained

The Community Facilities Energy Education Program will be a partnership with the University of Nevada, Las Vegas. The City and UNLV estimate that 0 NSHE jobs will be directly retained and 1-1.5 new public sector jobs will be created: 1 UNLV graduate student in the Department of Civil and Environmental Engineering will conduct research under the program and 1 part time undergraduate student assistant will be hired.

Energy Generation and GHG reduction

This project is not expected to directly reduce energy usage, carbon footprint, or GHG emissions. However, education about the City's programs may indirectly help in reducing energy usage and GHG emissions and is crucial to helping the public understand ARRA, the EECBG program, and why the City is working with UNLV to report the City's progress on the overall EECS. Doing so will help demonstrate to the public the cost savings, the reduced impact to the environment, and benefit of renewable energy.

Funding

\$75,000 of EECBG funds will be used for implementation of the education and outreach program. \$37,500 in leveraged funding will come from the University of Nevada, Las Vegas to help administer the program.

See UNLV Estimated Costs and SF-424 for budget details.