STATEMENT OF PROJECT OBJECTIVES

County of Hidalgo, TX
County of Hidalgo, TX Energy Efficiency and Conservation Block Grant

A. PROJECT OBJECTIVES

The purpose of this award is to implement the Recipient's Energy Efficiency & Conservation Strategy (EECS) 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 EECS 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: Hidalgo County Precinct #1 Date: 06/11/2009

DUNS #: 103110834 Program Contact Email: erika.reyna@hidalgocountyjudge.com

Program Contact First Name: Erika Last Name: Reyna

Project Title: Activity 1 - Sunset Park Efficient Light Project

Activity: 12. Lighting If Other:

Sector: Public If Other:

Proposed Number of Jobs Created: 8.00 Proposed Number of Jobs Retained: 4.00

Proposed Energy Saved and/or Renewable Energy Generated: 28,417,826 kWh

Proposed GHG Emissions Reduced (CO2 Equivalents):

Proposed Funds Leveraged:

Proposed EECBG Budget: 171,375.00

Projected Costs Within Budget: Administration: $0.00 Revolving Loans: $0.00 Subgrants: $0.00

Project Contact First Name: Marcos Last Name: Lopez Email: marcoslopez21@gmail.com

Metric Activity: Other If Other: LED Lighting

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

Hidalgo County is in the process of creating an energy policy that it can implement county-wide at each of the four precincts. Our goal is to not only create short/long term job creation, but also create an awareness of environmental control and pro-actively do our part to use renewable resources to enhance our government buildings and general communities.

Sunset Park is currently undergoing a $450,000 renovation. We are creating a walking trail, basketball court, 2 playground sets, 2 baseball fields, and concession stand. The funds for the project come directly from Urban County funds that are allocated each year. The 24 LED lights that we want to install will be placed strategically around the entire walking trail, and around the basketball court. Because we are limited on funds for the park, the cost saving strategy that the LED lights provided will only enhance the use of the park and create a better quality of life. Standard lighting was planned, but with the use of EECBG, the County is able to install energy efficient lighting.

Estimated Costs for Sunset Park - $171,375

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EECBG Activity Worksheet

Grantee: Hidalgo County Precinct #2 Date: 03/19/2010

DUNS #: 103110834 Program Contact Email: erika.reyna@hidalgocountyjudge.com

Program Contact First Name: Erika Last Name: Reyna

Project Title: Activity 2 - Hidalgo County, Pct 2 Multipurpose Building Renewable Energy Component

Activity: 13. Onsite Renewable Technology If Other:

Sector: Public If Other:

Proposed Number of Jobs Created: 9.00 Proposed Number of Jobs Retained: 0.00

Proposed Energy Saved and/or Renewable Energy Generated:

Proposed GHG Emissions Reduced (CO2 Equivalents): 850.000

Proposed Funds Leveraged: $0.00

Proposed EECBG Budget: 822,375.00

Projected Costs Within Budget: Administration: Revolving Loans: $0.00 Subgrants: $0.00

Project Contact First Name: Humberto Last Name: Garza Email: humberto.garza@co.hidalgol.tx.us

Metric Activity: Building Retrofits If Other:

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

Background
Hidalgo County is in the process of creating a county wide energy efficiency policy to address and administer environmental control initiatives in order to enhance the livelihood of our general population. The objective is to carry out a collaborative effort within our four precincts and ensure efficiency in the operation, administration and implementation of renewable energy.

Goal
The goal for our project is to improve the manner in which buildings are designed, built and operated and to enable an environmentally responsible, healthy and prosperous livelihood that will improve the quality of life in Hidalgo County.

Project
Hidalgo County Precinct 2 is presently in the design stage of the construction of a new government facility, the Hidalgo County Precinct 2 Multi-Purpose Complex. The Complex will house local government services and other partnering agents that will allow enhanced access to the surrounding community. The public will have general access to the following government partners:

- Hidalgo County WIC Program
- Hidalgo County Health & Human Services
- Hidalgo County Pct. 2 Justices of the Peace
- Hidalgo County Pct. 2 Constables
- Hidalgo County Tax Office
- Hidalgo County State Licensing Division
- Hidalgo County Pct. 2 Administration Services

We are targeting three areas of energy efficiency initiatives to support our Goal. Our target building for implementing such will be the Hidalgo County Pct. 2 Administration Services. Presently, the Administration Services is the hub of managing operations for county government within the precinct's jurisdiction.

Solar Energy System - Estimated Costs $682,331
Purchase and Install a Photo-voltaic System (120 solar panels of 195w and 4 SMA 7000 watt inverters)& a LED Solar Lighting System (61 LED Lights) that will generate renewable energy for the complex. This improvement will tremendously reduce the amount of electric energy needed as well as a provide direct impact as Green House Gases emitted. The PV system will be designed into the building structure and thus create not only an aesthetically pleasing element but an awareness to the general public. Please review attached cost break down.

Wind Energy System - Estimated Cost $69,344
The second component, wind energy, will work alongside the functions of the solar panels in what the industry calls a "Hybrid" system. The installation of two (2) wind turbines will assist in the effort to generate and harvest energy for the Complex. Wind turbines will also add to the cosmetic awareness of the use of these energy efficient means. Please review attached cost break down.

Interior Lighting Retrofit - Estimated costs $70,700
The third component is the purchase and installation of high performance energy efficiency lighting fixtures. There are 404 units of 2x4 lighting. It has been determined that the difference in cost between a regular light and a high efficiency one is $175. Please review attached cost break down and analysis.

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EECBG Activity Worksheet

Grantee: Hidalgo County Date: 06/09/2009

DUNS #: 103110834 Program Contact Email: Erika.Reyna@hidalgocountyjudge.com

Program Contact First Name: Erika Last Name: Reyna

Project Title: Activity 3 - Solar Power Retrofit of Multi-Purpose Facilities

Activity: 13. Onsite Renewable Technology If Other:

Sector: Public If Other:

Proposed Number of Jobs Created: 10.00 Proposed Number of Jobs Retained: 0.00

Proposed Energy Saved and/or Renewable Energy Generated: 99% energy saved

Proposed GHG Emissions Reduced (CO2 Equivalents):

Proposed Funds Leveraged: $0.00

Proposed EECBG Budget: 737,514.00

Projected Costs Within Budget: Administration: $0.00 Revolving Loans: $0.00 Subgrants:

Project Contact First Name: Dr. Mona Last Name: Parras Email: mona.parras@co.hidalgo.tx.us

Metric Activity: Other If Other:

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

Project proposal for Hidalgo County Pct. 3 is to retrofit existing multi-purpose facilities with solar cells(Building B)for Phase I. Solar Energy will be converted into electricity by the sun's rays using solar panels to supply power. How do the solar panels work? The sun's rays hit the solar panel's and are absorbed by semi-conducting materials such as silicone. Electrons are knocked loose from their atoms which allows the electrons to flow through the material to produce electricity. The solar panels will convert the solar energy into direct current electricity. The average sunlight from South Texas during the year is such that solar power is a viable means to conserve, therefore, reducing energy costs.

The benefits are endless when we utilize solar energy. The greatest benefit that you would enjoy from the use of solar power is that it is both a clean and renewable source of energy. With our country's concern over global climate change, the use of solar energy will contribute to the reduction of emission of greenhouse gases. Solar lighting does not contribute to global warming in any way. Solar panels have no moving parts and require little maintenance. They are built to last for decades. Last, but not least, of the benefits of solar panels and solar power is that, once a system has paid for its initial installation costs, the electricity it produces for the remainder of the systems's lifespan,which could be as much as 15-20 years is absolutely free.

The county has submitted a proposal for an Energy Efficiency and Conservation Strategy, but is presently focusing on utilizing solar power and promoting projects that utilize solar energy. This project (retrofitting existing facilities with solar panels)will collect clean renewable energy in the form of sunlight and convert hat light into electricity promoting the county vision of utilization of solar power and conservation of energy.

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EECBG Activity Worksheet

Grantee: Hidalgo County Date: 06/09/2009

DUNS #: 103110834 Program Contact Email: Erika.Reyna@hidalgocountyjudge.com

Program Contact First Name: Erika Last Name: Reyna

Project Title: Activity 4 - Energy Efficiency and Conservation Through the Installation of LED Lights

Activity: 5. Energy Efficiency Retrofits 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: 169,444

Proposed GHG Emissions Reduced (CO2 Equivalents): 88.000

Proposed Funds Leveraged: $0.00

Proposed EECBG Budget: 84,861.00

Projected Costs Within Budget: Administration: $0.00 Revolving Loans: $0.00 Subgrants:

Project Contact First Name: Dr. Mona Last Name: Parras Email: mona.parras@co.hidalgo.tx.us

Metric Activity: Other If Other:

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

Unlike the conventional lights which use filaments, the LED lights are solid state bulbs. The light is emitted when a semiconductor diode is charged. LED lights have become very popular because of the various advantages it offers. They emit light immediately upon switching on unlike the halogen or krypton gas bulbs. LED lights consume less power and the savings in power can be up to 20% compared to conventional lights. This feature is beneficial for lighting up commercial spaces where large numbers of lights are required. Usage of LED lights will result in huge power savings for Precinct #3. The heat emission from LED lights is almost nonexistent. This makes it the right choice for lightning up areas where heat emission is not desirable.

Compared to a conventional lights, the LED light lasts about four times longer. When the longer life is combined with the savings in power, the usage of LED lights proves to be very beneficial to the user (Precinct #3). Also, there is no hassle of frequent replacements since the life of LeD lights are not affected with heat emitted by the bulb itself.

LED lights are also environment friendly lights. Global warming is a serious concern today and with the low heat emission technology, LED lights contributes towards keeping the atmosphere cool. Since thy use lesser power, extensive usage of LED lights can go a long way in conserving the depleting natural energy resource.

Precinct # 3 will replace all lights in all buildings in Precinct 3. The buildings to be retrofitted with LED lights are the Office buildings located at 724 Breyfogle Street, Office Building located on 107 and Iowa Street and the building located on 1 and 1/4 North Moorefield Road.

The county has submitted a proposal for an Energy Efficiency and Conservation Strategy, but is presently focusing on promoting projects that utilize conserve energy and promote energy efficiency. The installation of LED lights will provide lighting in areas where conventional lights have been utilized.

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EECBG Activity Worksheet

Grantee: Hidalgo County Date: 06/15/2009

DUNS #: 103110834 Program Contact Email: erika.reyna@hidalgocountyjudge.com

Program Contact First Name: Erika Last Name: Reyna

Project Title: Activity 5 - Passenger Rail Study

Activity: 7. Transportation If Other: Feasibility Study

Sector: Transportation If Other:

Proposed Number of Jobs Created: 25.00 Proposed Number of Jobs Retained: 500,000.00

Proposed Energy Saved and/or Renewable Energy Generated: N/A (Will calculate as part of the study)

Proposed GHG Emissions Reduced (CO2 Equivalents):

Proposed Funds Leveraged: $0.00

Proposed EECBG Budget: 500,000.00

Projected Costs Within Budget: Administration: Revolving Loans: Subgrants:

Project Contact First Name: Erika Last Name: Reyna Email: erika.reyna@hidalgocountyjudge.com

Metric Activity: Clean Energy Policy If Other:

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

According to the U.S Census, Hidalgo County is one of the fastest growing metropolitan areas in the United States. With population close to 800,000, Hidalgo County has experienced an 89% growth since 1990 and is projected to surpass one million before 2025. This tremendous growth has led Hidalgo County officials and state legislators to constantly seek ways by which to provide for the safe and efficient travel of residents and visitors. As an effort to improve transportation in the region and reduce Greenhouse Gas emissions, State legislators and county officials recently created a Commuter Rail District that will strive to provide residents with an alternative mode of transportation that is both affordable and energy efficient.

In an area where the only mode of travel is by car, transportation is an area of major concern for Hidalgo County not only because of the limited roadways, but also because a rapidly growing population means additional vehicles on the road which will lead to greater Greenhouse Gas (GHG) emissions. Hidalgo County and the Hidalgo County Commuter Rail District recognize the need to reduce Greenhouse Gas emissions and propose to conduct a Commuter Rail Feasibility Study that would allow for the development of commuter rail which would significantly reduce GHG emissions by providing residents with an alternative mode of travel while also creating jobs in the region.

Hidalgo County proposes to partner with the Hidalgo County Commuter Rail District to develop a study that will identify the County's major employment centers, identify traffic patters, identify locations for stations for park-and-ride facilities, provide ridership forecasts, recommend routes for commuter rail lines, and provide gross estimates for the development of commuter rail lines. The study must provide gross estimates for capital costs and operating costs (including the number of jobs to be created), as well as identify possible funding sources.

At recent community meetings, residents from throughout the county have highlighted public transportation alternatives as top priority for them. Funding for this project will allow the County and the Commuter Rail District to create jobs and promote the use of clean transportation alternatives.

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EECBG Activity Worksheet

Grantee: Hidalgo County Date: 06/15/2009

DUNS #: 103110834 Program Contact Email: erika.reyna@hidalgocountyjudge.com

Program Contact First Name: Erika Last Name: Reyna

Project Title: Activity 6 - Hidalgo County Recycles

Activity: 10. Material Conservation Program If Other:

Sector: Public If Other:

Proposed Number of Jobs Created: 2.00 Proposed Number of Jobs Retained: 157,375.00

Proposed Energy Saved and/or Renewable Energy Generated:

Proposed GHG Emissions Reduced (CO2 Equivalents):

Proposed Funds Leveraged: $0.00

Proposed EECBG Budget: 157,375.00

Projected Costs Within Budget: Administration: Revolving Loans: Subgrants:

Project Contact First Name: Cari Last Name: Lambrecht Email: cari.lambrecht@hidalgocountyjduge.com

Metric Activity: Renewable Energy Market Development If Other:

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

In an effort to promote and increase energy efficiency, Hidalgo County will use EECBG funding for the implementation of an in-house recycling program. The program will consist of placing recycling bins in county facilities for the recycling of paper,plastics, and aluminum. Over sixty sites have been identified as possible locations for the placement of the recycle bins/clear containers. These containers have multiple compartments for the separation of recyclables. As part of the program, Hidalgo County will create a partnership with the City of McAllen's Recycling Center for the processing of recyclables collected at county sites. Furthermore, the County would hire one staff member for the collecting and transporting of recyclables. Two additional staff members from the County's Buildings and Grounds Department would also assist with the collecting and transporting of recyclables.

The in-house recycling program would serve as the first phase of an effort to increase recycling in the community. Research shows that for every ton of recycled material you save 4,100 KWHrs of electricity, 17 trees, 7,000 gallons of water, 3.3 cubic yards of landfill, and 60 pounds of air pollution. Hidalgo County's long-term vision is to implement a county-wide recycling program.

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EECBG Activity Worksheet

Grantee: Hidalgo County Date: 06/12/2009

DUNS #: 103110834 Program Contact Email: erika.reyna@hidalgocountyjudge.com

Program Contact First Name: Erika Last Name: Reyna

Project Title: Activity 7 - Solar Powered Generators

Activity: 9. Energy Distribution If Other:

Sector: Public If Other:

Proposed Number of Jobs Created: 1.50 Proposed Number of Jobs Retained: 165,000.00

Proposed Energy Saved and/or Renewable Energy Generated: 188,571

Proposed GHG Emissions Reduced (CO2 Equivalents): 98.000

Proposed Funds Leveraged: $0.00

Proposed EECBG Budget: 165,000.00

Projected Costs Within Budget: Administration: Revolving Loans: Subgrants:

Project Contact First Name: Tony Last Name: Pena Email: tony.pena@hidalgocountyjudge.com

Metric Activity: Renewable Energy Market Development If Other:

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

Nationwide, large industrial spark-ignition engines such as electric generators account for a significant source of air pollution. According to the U.S. Environmental Protection, in 2000 these engines and vehicles accounted for 9 percent of national hydrocarbon (HC) emissions, 4 percent of carbon monoxide (CO) emissions, 3 percent of oxides of nitrogen (NOx) emissions, and 2 percent of particulate matter emissions from mobile sources.

Solar-powered generators provide backup power at designated, and sometimes, remote, locations. They are reliable, providing electricity to anything from computers to medical response vehicles when the power grid fails, and they do not require gasoline. Gasoline generators usually provide power to appliances that consume only a fraction of the generator's rated power output, consuming unnecessary fuel and wasting valuable resources.

The great thing about these generators is that they take no gasoline and pump out zero emissions into the air. A typical 5,000 watt gas generator will consume an average of 35 gallons of fuel per week (7 gallons per 8 hour work day, 5 days per week). And with 24-hour emergency use, 105 gallons are consumed over a five-day period. These generators will reduce this energy consumption and reduce our reliance on fossil fuel, which also requires additional time and expense to locate and store.

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EECBG Activity Worksheet

Grantee: Hidalgo County Date: 06/09/2009

DUNS #: 103110834 Program Contact Email: Erika.Reyna@hidalgocountyjudge.com

Program Contact First Name: Erika Last Name: Reyna

Project Title: Activity 8 - Solar Power Retrofit of Administration Building

Activity: 13. Onsite Renewable Technology If Other:

Sector: Public If Other:

Proposed Number of Jobs Created: 10.00 Proposed Number of Jobs Retained: 0.00

Proposed Energy Saved and/or Renewable Energy Generated: 75.6 KW

Proposed GHG Emissions Reduced (CO2 Equivalents): 75,600.000

Proposed Funds Leveraged: $0.00

Proposed EECBG Budget: 651,000.00

Projected Costs Within Budget: Administration: $0.00 Revolving Loans: $0.00 Subgrants:

Project Contact First Name: Marcos Last Name: Lopez Email: marcos.lopez@co.hidalgo.tx.us

Metric Activity: Other If Other:

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

{Project proposal for Hidalgo County Pct. 1 is to retrofit existing administration building with solar cells. Our administration office is approximately 10,000 square feet and houses the majority of our internal operations.}

EECBG funds will allow Hidalgo County to support programs reflecting factors of success such as county-wide economic development, creation and retention of jobs through self-sustaining community-scale building retrofits.
The principle goal is engage maximum number of buildings in the county's efforts to promote and implement renewable energy, energy savings, emission reductions, and conservation.

Activity 1. Implementing the installation of renewable energy on government owned facilities located throughout Hidalgo County. On site solar renewable energy systems will ultimately reduce our total energy use.

Activity 2. - Design and implement broad technical program infrastructure needed to successfully implement building retrofit programs and achieve aggressive energy and GHG goals.
Task 2a - Establish program design, standards, quality assurance program, and tracking/reporting.
Task 2b - Launch effective public education and outreach programs.

The jobs created would provide responsibilities that include serving as a technical specialist for local government, performance contracts and energy conservation / efficiency techniques. Promote energy conservation and energy efficiency in the public sector of the commonwealth, develop, update, and keep current records of Hidalgo County energy projects, programs, and initiatives.

We have chosen to focus this funding on renewable energy projects at the local level for several reasons. Renewable energy systems have enduring economic, climate, energy security, and potentially educational and leading by example benefits. Renewable energy improvements made at local government and public facilities will continue to produce sustainable benefits beyond EECBG funding period.

Job creation: Approximately 10 permanent positions will be created as cited estimation using the DOE $92K/job guideline. Indirect temporary jobs will also be created upon the construction of on site renewable energy technologies.

Energy savings and carbon reductions listed above are projected by staff using standard engineering calculations. Approximately • Qty 360 - Sanyo 210N 210 Watt Solar Panels would utilized for the design of Hidalgo County's building two/integrated photovoltaic system. At two different facilities located within in county.

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EECBG Activity Worksheet

Grantee: Hidalgo County Date: 06/12/2009

DUNS #: 103110834 Program Contact Email: erika.reyna@hidalgocountyjudge.com

Program Contact First Name: Erika Last Name: Reyna

Project Title: Activity 9 - Hidalgo County Energy Efficiency and Conservation Strategy

Activity: 6. Buildings and Facilities If Other:

Sector: Public If Other:

Proposed Number of Jobs Created: 4.00 Proposed Number of Jobs Retained: 250,000.00

Proposed Energy Saved and/or Renewable Energy Generated: n/a

Proposed GHG Emissions Reduced (CO2 Equivalents):

Proposed Funds Leveraged: $0.00

Proposed EECBG Budget: 250,000.00

Projected Costs Within Budget: Administration: Revolving Loans: Subgrants:

Project Contact First Name: Erika Last Name: Reyna Email: erika.reyna@hidalgocountyjudge.com

Metric Activity: Clean Energy Policy If Other:

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

Hidalgo County will use part of the funding allotted by the Department of Energy for the Development of a more robust Energy Efficiency and Conservation Strategy (EECS). The County envisions this strategy serving as the tool that will guide the county in the implementation of new technologies and policies that will result in energy savings. The strategy developed should serve as a guide for at least the next five years and should include recommendations for energy savings in County Facilities, as well as programs that can be adopted in the future for community programs that will enhance energy efficiency and conservation countywide.

More specifically, the EECS will describe the jurisdictional area covered by the plan, highlight options to leverage funds from public or private sources, highlight how the proposed projects result in a reduction of emissions and increase energy efficiency.

The EECS will incorporate all the projects submitted in this application. The projects are eligible according to the Funding Opportunity Announcement.

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