Attachment D

Energy Efficiency & Conservation Strategy for Units of Local Governments & Indian Tribes

As detailed in Part 1 of this announcement, all applicants must submit an Energy Efficiency and Conservation Strategy (EECS). Units of local government and Indian tribes have the option of submitting the EECS no later than 120 days after the effective date of the award or at the time of application. Units of local government and Indian tribes who choose to submit the EECS at the time of application shall use the format contained in Attachment D. This form should be saved in a file named "UIC-Strategy.pdf" and click on "Add Optional Other Attachment" to attach.

Grantee: City of Tampa Date:06/19/09
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1. Describe your government's proposed Energy Efficiency and Conservation Strategy. Provide a concise summary of your measurable goals and objectives, which should be aligned with the defined purposes and eligible activities of the EECBG Program. These goals and objectives should be comprehensive and maximize benefits community-wide. Provide a schedule or timetable for major milestones. If your government has an existing energy, climate, or other related strategy please describe how these strategies relate to each other.

Energy Efficiency Conservation Strategy (EECS)

The City of Tampa does have an existing energy and sustainability strategy. Tampa completed a revision of its comprehensive plan, which was formally adopted by Tampa City Council in February of 2009. The plan itself was then approved by the State of Florida Department of Community Affairs in May of 2009. The entire plan is written to incorporate sustainable practices and energy efficient policies throughout the entire document. In addition, energy efficient goals, objectives and policies are detailed in a separate plan element listed below:

Growing Long Term Sustainability: Energy Conservation and Green Building

Key components of the City of Tampa's overall commitment to make economical use of public dollars and protect the environment are improving energy conservation and efficiency and engaging in resource efficient "green building" development practices. With rising costs and increasing demands for energy and natural resources, the City will seek to reduce energy use and manage development in a more resource efficient manner. The City can motivate employees, residents and businesses to become more energy efficient and to apply sustainable building practices. Acting to conserve energy and become resource efficient saves public money and benefits the environment. The City is in a position to reduce energy loads and contribute to the effort to avoid electrical emergencies. The City can also safeguard energy supplies to critical City operations by pursuing alternative energy technology.

Goal 40: Tampa shall have sufficient, reliable and resource efficient energy available to meet the future needs of City of Tampa residents, businesses and government., and Development practices are resource efficient.

Objective 40.1: The City of Tampa will engage in and promote practices that result in energy conservation and efficiency.

Policy 40.1.1: The City will offer energy conservation and efficiency information to enable residents, businesses and City employees to reduce electrical loads and demands on the electrical utility system.
Policy 40.1.2: The City will continue to enhance employee awareness of energy efficiency through education and periodic notifications.
Policy 40.1.3: The City will educate consumers about the importance of and need for energy conservation and efficiency, for example, running public service announcements about energy conservation and efficiency.

Policy 40.1.4: Towards ensuring that sufficient energy supply remains available during seasonal peak periods and during emergencies, the City will explore partnering with the appropriate energy utility suppliers to hold an annual expo that provides information to residents, businesses and employees on how to better manage energy use in the workplace and in the home.
Policy 40.1.5: The City will conserve energy and become more energy efficient within its operations by developing and adopting a comprehensive energy management plan.

- The plan will incorporate energy audits of all departments and agencies;
- The plan will contain a portfolio of energy efficiency practices the City may use; and
- The plan will address using various metering mechanisms to track energy use to raise awareness of the amount of public dollars being spent for energy.

Policy 40.1.6: The City will study the potential for incorporating Distributed Generation of electrical power at City-owned facilities (on-site power generation tied to the electric distribution grid).
Policy 40.1.7: The City will continue to pursue energy-saving options for exterior lighting of City buildings and facilities such as parks and ball fields.

Objective 40.2: The City of Tampa will encourage energy and resource efficient green building and sustainable development practices.

Policy 40.2.1: The City will encourage builders and developers to exceed the minimum requirements for energy efficiency of the Florida Building Code by sharing information on available training, tools or literature on resource efficient development (e.g., the National Association of Home Builders "Guide to Developing Green Builder Programs", the Florida Green Building Coalition's "Green Trends" annual conference~~;~~ achieving LEED accreditation through the Florida Gulf Coast Chapter of the U.S. Green Building Council).
Policy 40.2.2: The City will cooperate with organizations such as the "Gulf Coast Chapter of the U.S. Green Building Council" or "Green Roofs for Healthy Cities" to participate in an annual program such as a green roofs symposium or green building expo to educate consumers about emerging practices in energy conservation and green building.
Policy 40.2.3: The City will encourage and explore creating incentives for new homes, developments and commercial buildings to become certified under the U.S. Green Building Council's "Leadership in Energy and Environmental Design" (LEED) program, or meet similar standards of development.
Policy 40.2.4: The City shall evaluate the use of increased residential densities, increased floor area ratios (FAR) and increased height dimensions as incentives to encourage development of green buildings and sustainably designed projects.
Policy 40.2.5: When planning to construct City-owned buildings or facilities, the City will build to satisfy, at a minimum, the most current United States Green Building Council (USGBC) "Leadership in Energy and Environmental Design" (LEED) Silver Standard program or meet similar standards.
Policy 40.2.6: For any renovation of existing municipal buildings, all building materials replaced shall be done so with consideration of their energy efficiency ratings as recognized by the USGBC for their sustainable qualities, and with recycled products whenever available and appropriate.
Policy 40.2.7: The City will explore by 2009 how it could provide accelerated review of development permits that meet LEED or LEED for Neighborhood Development (LEED-ND) criteria.
Policy 40.2.8: The City will work towards increasing the supply of recycled content materials by expanding curbside or dumpster recycling to business and commercial users.

Objective 40.3: The City of Tampa will support the development of and engage in the use of alternative energy and fuels in order to achieve energy supplies that are proven to do no harm to other sectors of the world economy, population or environment, and are secure, resource efficient and sustainable.

Policy 40.3.1: The City will pursue and support the adoption of federal, state and local polices that foster domestic production of environmentally safe, resource efficient and sustainable energy sources.

Policy 40.3.2: The City will diversify its fuel supply and reduce its use of fossil fuels by using alternative energy technologies that are proven to do no harm in other sectors of the world economy, population or environment, and are secure, resource efficient and sustainable.
Policy 40.3.3: The City will investigate thermal storage systems and other alternative energy sources for heating and cooling.
Policy 40.3.4: The City will investigate on-site electrical generation using micro-turbines, fuel cells, combined heat and power, renewable, or other technology for City facilities.
Policy 40.3.5: The City will seek to stimulate economic growth of new business, business expansion and development of technology in alternative energy and alternative fuel in Tampa that are proven to do no harm to other sectors of the world economy, population or environment, and are secure, resource efficient and sustainable.
Policy 40.3.6: The City will pursue the incorporation of alternative energy technology and energy saving specifications within its construction bidding documents, for example, on-site generation using micro-turbines, fuel cells, combined heat and power, photovoltaic power or other appropriate technology.

Chapter 163. Florida Statutes (F.S.) require that specific regulations to implement the goals, objectives and policies of an adopted local government comprehensive plan are drafted within a 12 month time frame, from the date of plan adoption. The process to review and identify any needed code revisions to implement these policies, has been underway since the adoption of the comprehensive plan in May of 2009.

2. Describe your government's proposed implementation plan for the use of EECBG Program funds to assist you in achieving the goals and objectives outlined in the strategy describe in question #1. Your description should include a summary of the activities submitted on your activity worksheets, and how each activity supports one or more of your strategy's goals/objectives.

The City of Tampa's current strategy to implement the afore describe energy efficiency goals and objectives, focuses on four EECBG eligible project activities: **1).** Traffic Signal Upgrade to LED's; *(Eligible Project Activity 12, Traffic Signals and Street Lighting:)* **2).** Energy Management Systems; *(Eligible Project Activity 6. Energy Efficiency and Conservation Programs for Buildings and Facilities:)* **3).** Parking Garage Lighting Upgrades *(Eligible Project Activity 12, Traffic Signals and Street Lighting:)* and **4).** Green House Gas Emissions Baseline Inventory. *(Eligible Project Activity 2. Technical Consultant Services:)* The EECBG project activities will support our existing energy efficiency strategy efforts to reduce electricity consumption and emissions. Tampa selected these projects because they each immediately establish energy efficiencies, maximize conservation benefits with a short return on investment turn around and are ready in the queue for implementation.

1).Traffic Signal Upgrade to LED's
This project creates the efficiencies of using a lower wattage LED signal display lamps that requires less maintenance and less electrical power. This lighting system provides significant conservation of electrical energy resources and impacts the traffic signal operations in the city before, during and after emergency events. LED lamps remain operational at a greater level than conventional signal display bulbs during storm events because they use less electrical energy to illuminate.

This project provides for the upgrade of traffic signal displays to LED (light-emitting diode) signal heads which will reduce power demand by 70 - 80% and also allow for the emergency operation of signals on backup power systems. Current signals require too much power to operate on backup systems. LEDs enable the use of batteries or generators as backup power sources. The estimated cost for converting an intersection is between $5,500 to $7,700. The cost of this project will eventually be recovered in reduced electrical and maintenance costs. The

project activity will change out 360 intersections. This activity furthers policies 40.1.4 and Policies 40.1.7 of the City's Energy and Efficiency Conservation Strategy.

2). Energy Management Systems
Energy Management Systems (EMS) will optimize electrical consumption in city facilities. Energy reduction is accomplished through controlling operational hours of lighting, equipment, fresh air usage and the interior space temperature. In addition, this system allows remote monitoring of life support systems, elevators, and occupants comfort level which improves emergency response time to service request. This project provides for the installation of energy management systems at various city facilities. Installation and implementation of systems must be sequenced and scheduled to minimize disruption to ongoing building operations.
This activity furthers Policy 40.1.5 of the City's Energy Efficiency Conservation Strategy.

3). Parking Garage Lighting Upgrades
This project will upgrade existing lighting to high efficiency lighting to reduce electrical usage by 55% with an annual electrical savings of $213k and annual maintenance saving of $103k. This project has a 2.4 year pay back by using in-house staff labor for installation or a 3.48 years pay back by using contractual services. City of Tampa citizens and City staff will continue to benefit from improved lighting and significantly reduced mercury in city facilities, while long-life fixtures and standardized lamps will simplify maintenance and reduce waste. The rebate amount offered by Tampa Electric is .15 cent per watt removed from electrical grid. Estimated one time rebate is $22k. The cost of this project after the TECO rebate will be $675k. This activity furthers Policy 40.1.7 and 40.2.6 of the City's Energy and Efficiency Conservation Strategy.

Proposed Locations: Palm Avenue Parking Garage - 2010 North 13th Street; South Regional Parking Garage - 301 Channelside Drive; Convention Center Parking Garage - 230 South Ashley Drive; Twiggs Street Parking Garage - 905 East Twiggs Street, and Ybor City Parking Garage -1500 East 5th Avenue

4). Green House Gas (GHG) Emissions Baseline Inventory
The Mayor signed the Mayors Climate Protection Agreement in February of 2007. The first step in reaching compliance with the goals of the agreement is to conduct a GHG emissions inventory. A greenhouse gas emissions inventory is an accounting of the amount of greenhouse gases emitted to or removed from the atmosphere over a specific period of time (e.g., one year). The inventory will ultimately be used to develop the City of Tampa's climate action plan and be an important part of the Energy Efficiency and Conservation Strategy. It will identify a baseline year, the boundaries of the study, emission sources and potential reduction as well as information on the activities that cause emissions and removals that is required by the Department of Energy to apply for Energy Efficiency and Conservation Block Grants.

The request for proposal will go out in July of 2009 and, it is estimated that, the award would ~~be~~ occur in September 2009 with the inventory complete during the first quarter of 2010. The project is estimated to be $70,000.00.

3. Describe how your government is taking into account the proposed implementation plans and activities for use of funds by adjacent units of local government that are grant recipients under the Program (response not mandatory for Indian Tribes).

The City of Tampa's comprehensive plan, which details our energy and conservation strategy, was formally adopted by Tampa City Council. The plan was primarily authored by a countywide agency, The Hillsborough County City-County Planning Commission. As such, they crafted the document with respect to the larger context of the county. The project activities planned are specifically for City facilities and buildings and are not a duplication of anything being planned in Hillsborough County Florida. Hillsborough County, Florida has its own EECBG committee focusing on its ~~own~~ projects.

The City of Tampa has an outstanding relationship with the Tampa Bay Builders Association (TBBA), a countywide association. The City's Green Officer has given presentations to their "green building" sub-committee in the recent past and will work with them for additional training opportunities. The EECBG working group committee will continue to coordinate with regional organizations to coordinate contractor outreach, training, improved code requirements, project protocols, and communication, in an effort to streamline services and provide a consistent approach and best practices to homeowners and businesses in the region.

Through the Mayor's TECO/Citizens Energy Conservation Task Force, established in March of 2009, we are currently working with the local utility on identifying energy conservation opportunities, including additional rebates for both commercial and residential projects to accelerate implementation and provide additional customer service and marketing materials. The Executive Director of the TBBA is a member of the Mayors TECO/Citizen Energy Conservation Task Force. The Task Force Mission is to "Provide the Mayor with fiscally responsible recommendations for energy conservation, renewable energy & climate change initiatives for implementation by the City, TECO & the general public. The Task force will focus on recommending conservation initiatives including a public education campaign."

4. Describe how your government will coordinate and share information with the state in which you are located regarding activities carried out with grant funds to maximize energy efficiency and conservation benefits (response not mandatory for Indian Tribes).

It was described earlier in this document that the City's Comprehensive Plan was reviewed and approved by the State of Florida's Department of Community Affairs. Part of their review process is to evaluate the local plan against the State Plan for compliance. This coordinated planning document clearly describes and communicates with the State of Florida, what action our City intends to undertake in order to implement and achieve the goals and objectives of the plan.

The value of peer-to-peer information sharing among local governments and state agencies cannot be underestimated. Once the EECS is complete, we will send the document to The State of Florida's Energy Office so that they can see our program activities and, hopefully, share with other jurisdictions. We will also share our EECS with our Hillsborough County Florida Government counterparts and the Board of County Commissioners. This may lead to additional partnership opportunities. Lastly, we will provide our EECS to our State Representatives and Senators for their use.

The City of Tampa has a Green Tampa web site which includes numerous links to state and local environmental agencies, power companies for energy conservation and citizen driven programs for green activities and programs. The site as an information sharing network is updated .

5. Describe how this plan has been designed to ensure that it sustains benefits beyond the EECBG funding period.

Each of the eligible program activities have a long term and ongoing effect to the future of Tampa's energy resource efficiency. The City's strategy, "Growing Long Term Sustainability: Energy Conservation and Green Building" is, in itself, a long term commitment to a sustainable future.

The GHG inventory is the first phase of what will become a long term commitment and strategic action plan to reduce green house gas emissions for the City of Tampa. Numerous projects, programs and policies will result from the green house gas reduction action plan.

The LED Traffic Signal upgrades and the Parking Garage Lighting upgrades are specific energy conservation measures whose conservation benefits will continue throughout their lifetime to provide cost and energy savings

and emissions reductions. As such, they will become significant contributors to the City's GHG emissions reduction strategic action plan.

As mentioned earlier the Parking Garage Lighting upgrades will have a 2.4 year return on investment by using in-house staff for installation or a 3.48 return of investment by using contractual services. The Parking Garage upgrades will reduce electrical usage by 55%. City of Tampa citizens and City staff will continue to benefit from improved lighting and significantly reduced mercury in city facilities.

The upgrade of traffic signal displays to LED (light-emitting diode) signal heads reduce power demand by 70 - 80%. The estimated cost for converting an intersection is between $5,500 to $7,700. Once project costs are recovered the energy conservation benefits will last the life of the LED's, which is far greater than standard lighting systems currently in usage.

Energy Management Systems optimize the ongoing electrical consumption in city facilities. The ongoing energy conservation and usage reduction is accomplished through controlling operational hours of lighting, equipment, fresh air usage and the interior space temperature. Once the initial costs are recovered, the system will continue to realize energy conservation benefits and reduced electrical use

The City established an internal Conservation Committee whose mission is "to establish a robust conservation program to conserve and reduce our use of fuel, power and water in our operations and facilities." The Committee will track the facilities and systems retrofitted and their associated energy savings. Energy savings will be tracked on a project-by-project basis. Individual project results will be verified through the Conservation Committee. The results will be continually evaluated to track performance and program implementation, and the conservation efforts may be modified, as necessary, to improve energy efficiencies.

6. The President has made it clear that every taxpayer dollar spent on our economic recovery must be subject to unprecedented levels of transparency and accountability. Describe the auditing or monitoring procedures currently in place or that will be in place (by what date), to ensure funds are used for authorized purposes and that every step is taken to prevent instances of fraud, waste, error, and abuse.

The processes and procedures to monitor these projects and their accurate financial accounting are currently in place. The contracts required to accomplish these projects will be managed by the city's Contract Administration Department and the Growth Management and Development Services Department. The LED, EMS and Parking Lighting Upgrades will be administered by Contract Administration , while the GHG emissions inventory program will be administered by the Growth Management and Development Services Department. Each of the Departments will be responsible for the plan development and implementation, and will be required to regularly present budget and metric results to the Mayor, Executive Administrative Staff and City Council. Both Departments are members of the American Recovery and Reinvestment Act working committee for the city. Initially, the grants solicited through Tampa's formula grants will be detailed and posted on the City's dedicated ARRA grants web site. All future competitive ARRA grants will also be posted on the same dedicated web site. All grants will be available for public stakeholders to review and provide input for additional opportunities. Project highlights and results will be posted regularly on the city's ARRA website.

City funds for the project will be managed by the city's Revenue and Finance Department, in the same manner that other Federal Grants are managed. The EECBG has been issued a budget index code and each project activity has been issued its own budget index sub-object code so that disbursement and draw down activities are specifically identified to the proper project activity. All EECBG project activity will be in coordinated with the city's Contract Administration Department, Growth Management and Development Services Department and the City's Construction Services Division (Building Inspection Section) to secure and obtain all required permits and inspections following existing, adopted code requirements. In addition, the Contract Administration Department will assign a dedicated staff person to monitor work on capital projects on a daily basis, in order to confirm that project specifications were followed according to project procedures.

We will seek to coordinate with our Internal Auditors for verification that all of the City's existing budgeting, permitting, contract administration and inspection process are accurately and appropriately followed throughout the City of Tampa's EECBG Program participation.