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 chose 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: _____Date: _____(mm/dd/yyyy)
DUNS #: _____ Program Contact Email: _____

1. Describe your government's proposed Energy Efficiency and Conservation Strategy. Provide a concise summary of your measureable 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.

The City of Arvada's strategy focuses on two broad categories of projects: Greening Government and Community Programs. For several years, Arvada has been implementing individual projects and developing a community-wide sustainability action plan. The projects identified for the EECBG are in line with the City's actions of the last several years but have not been implemented due to funding and opportunity constraints.

The planned projects also align with the recently completed "Sustainable Energy Inventory and Action Matrix." This Greenhouse Gas Inventory was completed by the University of Colorado Denver and covers the entire community. This document will allow the City to comprehensively track community-wide GHG emissions over the long-term, will assist in the tracking and reporting requirements for the EECBG, and help ensure the continued focus on GHG emissions for the community.

The goals and objectives of the City's EECS are to maximize the impact of the funding for both municipal energy efficiency and conservation and community impact. At the municipal level, the goals for use of the EECBG funds can be described as: reduce overall energy consumption; replace fossil fuel based energy use with renewable energy use as much as possible; increase waste diversion rates at all city facilities in a strategic and cost-effective manner; and institutionalize policies and practices to ensure long-term benefit of any changes made through the use of EECBG funds. Goals at the community level include: reduction of overall energy consumption at residential and commercial properties; enhanced waste diversion and increased recycling rates; fossil fuel and emissions reduction through traffic management improvements and mulit-modal opportunities; and community-wide education in order to maximize the long-term benefit of all implemented programs. Each of the goals listed above are measurable and each project implemented will be designed to ensure reporting and measuring is done.

The Greening Government portion of Arvada's Strategy accounts for $581,900.00 (61%) of the funding and the Community Programs portion accounts for $370,000.00 (39%) of the total $951,900.00 entitlement. Specific projects and milestones are described in Question 2 of this Strategy document.

All of the goals described for the use of the EECBG align well with the GHG inventory and action matrix already completed as well as the preliminary work done on the overall city and community sustainability plan (please note that one of the proposed projects with the EECBG is the completion of the overall sustainability plan).

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 two broad categories of projects proposed for use of the EECBG funds are Greening Government and Community Programs. Within each category are specific projects to be implemented within the grant cycle. Although many other projects were considered, these projects can be completed within the grant cycle and will have a long-term impact on reduced energy use and GHG emissions. The projects are described below:

Greening Government:

1. City Facilities Energy Efficiency Upgrade and Retrofit ($250,000.00) - This program allows the City to continue an existing contract with an Energy Services Company to conduct additional energy audits of City facilities and implement numerous energy efficiency upgrades and retrofits. The City has already made significant upgrades to facilities under the current contract. This additional funding will allow the City to complete additional measures it could not otherwise afford. This includes the direct purchase and installation of energy efficiency and conservation equipment such as HVAC upgrades, lighting retrofits, and other items. This is a proven program to meet Arvada's goals. The initial phase of this contract, completed by the City three years ago, has resulted in nearly $500,000.00 worth of reduced energy consumption.
2. Renewable Energy Projects ($164,000.00) - This project will target 4-6 smaller city-owned facilities for solar PV installation. Specific facilities have not yet been chosen, however, the City has received a technical assistance grant from the National Renewable Energy Lab to help determine which facilities are best suited for future solar PV installation. All projects will be roof-mounted systems and it is anticipated that they will decrease reliance on grid-produced electricity by 80-90% per site.
3. EECBG Sustainability Coordinator ($127,900.00) - This temporary two year position will be used to manage the EECBG process and project implementation as well as coordinate the Arvada Sustainable Action Plan (an internal operational plan and community-wide plan for sustainability).
4. Comprehensive Facility Recycling - ($20,000.00) - This project will study, design, and implement a comprehensive city facility recycling and composting program. This program is anticipated to last beyond the grant cycle. With nearly 20 separate City facilities and no comprehensive or strategic waste diversion and recycling program, the need for this project is significant and once implemented it will have a measurable impact on recycling and waste diversion.
5. Desktop Computer Virtualization ($20,000.00) - This project would remove multiple desktop computers and create a "virtual desktop" located on a central server. This process eliminates the traditional desktop and replaces it with a much more energy efficient device with no negative impact to the end user. It also allows field, satellite facility, telecommuters, and other remote workers to more easily and energy efficiently access their computer based work. Energy Efficiency gains: Running virtual desktops allows for most efficient power, heating and cooling through the use of the central data center with better energy management and efficient HVAC; The client devices that replace desktop computers have significantly smaller footprints than desktop computers. A desktop device used in a virtual environment uses only about 18% of the energy of the average PC, including its share of the server's power, even in sleep mode traditional PCs use 7 times the energy as a virtual device; Currently, remote workers use a different method of accessing the computer network that requires the desktop computer back in the office be kept on all the time, resulting in significant energy consumption that can now be avoided.

Community Programs:

1. Residential Rebate Program ($120,000.00) - This program is a partnership with the Governor's Energy Office and will use existing rebate programs to further incentivize energy efficiency improvements in residential homes. All rebates would be matched by the GEO and would also incorporate utility rebates when applicable. Programs include: Home Energy Audits; Insulate Colorado; Air Sealing; Duct Sealing; High Efficiency Furnace Installation. Funding is based on 400 - 450 homes over the life of the grant.
2. Commercial Rebate Program "Re-energize Main Street" ($60,000.00) - This program is also a GEO partnership. It is a new program tailored specifically for small commercial buildings and will include energy audits, energy efficiency, and retrofit rebates. Funding is based on 12-15 businesses awarded rebates over the life of the Grant.
3. Community Waste Disposal and Recycling ($40,000.00) - This project funds the community study and implementation of a new waste disposal and recycling ordinance. Currently, regulation of trash hauling services in Arvada is non-existent. This creates significant negative impact on fuel consumption, greenhouse gas emissions and recycling rates. Currently there are twelve different trash haulers licensed to do business in Arvada. There are no regulations regarding when or how trash is picked up, or related to recycling. More stringent regulation in this area has numerous benefits: a decrease in the number of different trash haulers; increase the efficiency of trash disposal (lower emissions and fuel use); modernization of the trash trucks serving the community (lower emissions and fuel use); required recycling options for consumers; increased waste diversion from landfills; and decreased fuel use and emissions.
4. Intelligent Transportation System - Traffic Signal Management ($150,000.00) - This project would purchase the necessary hardware and software to centrally manage the 105 signalized intersections, 79 school flashers, and related ITS devices. This allows proactive, centralized, real-time signal management to optimize the movement of vehicles in the community. This system will create significant efficiency gains for drivers throughout the community. It will result in reduced fuel consumption due to less congestion as well as reduced greenhouse gas emissions. In addition, currently, the City's ability to actively manage and time traffic signal devices must be done in the field at various locations and is labor intensive and delayed. This project will also decrease the amount of field maintenance of traffic signals and the accompanying travel.

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 has already met several times with surrounding jurisdictions to discuss ways to work together throughout the process. At this time, the communities have discussed and reviewed the applications of the others in order to assist each other. Several joint facilities are currently in operation that may be candidates for renewable energy or energy efficiency and retrofits. Each jurisdiction has committed to continue to work together to implement programs that make sense and could leverage other funds in our communities. If nothing else, the communities will continue to dialogue and make sure we are providing programs to our residents in the best manner possible. The communities that have met together on these issues include Arvada, Westminster, Boulder, Thornton, Jefferson County, and the City and County of Broomfield.

In addition, the Governor's Energy Office will be posting the various plans of the entitled communities throughout the state in order for there to be a one-stop location to learn about opportunities to work together. It is our hope that this will lead to additional collaborative partnerships.

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).

The City has already met numerous times with the Colorado Governor's Energy Office. We have committed to continue to meet and work together on program details - especially the rebate programs in which we will be partnering. In order to increase transparency and the sharing of information, the City will also share all specific measureable goals with the state and others. It is also our understanding that they will be creating a web portal in which we can exchange information and ensure that all entities are able to maximize the grant funds (as described in question #3). In addition to individual meetings, the City has been and will continue to be actively engaged in the group of entitled communities that has been meeting regularly as a group with members of the GEO. It is the plan of the GEO to continue meeting throughout the grant cycle.

The coordination between the City and the state (through the GEO) will have to continue due to the partnership within the existing rebate programs. The GEO has designated a portion of their EECBG funding to ensure these programs have funding for rebates in entitled communities.

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

Although many other projects were considered, the projects that Arvada plans to implement can be completed within the grant cycle and will have a long-term impact on reduced energy use and GHG emissions. Review of the two categories of projects to be implemented, Greening Government and Community Programs, it can be seen that the benefits of implementation can be sustained for many years to come. In the area of Community Programs, the benefits of the rebate program will continue to help residential and commercial properties through reduced energy use and long-term conservation benefits. In addition, part of the program to be implemented includes an increased marketing and education component. This component is not only necessary to ensure the short-term use of the rebate program, but will also increase education and awareness for those that do not take immediate advantage of the program. The education campaign will increase the sustained benefit well beyond the EECBG funding period. Also within the Community Programs, the waste hauling and recycling project is intended to have a very long-term impact. The key to this long-term impact will be the actual regulatory changes that make it possible to increase recycling rates, increase trash hauler efficiency, and reduce emissions. The trash hauling and recycling project is anticipated to permanently change the way waste is handled and materials recycled throughout the community.

In the projects within the Greening Government category, specific sustained benefits have been identified. For example, the energy efficiency and retrofit program will allow long-life equipment, such as HVAC, to be replaced, thus saving significant energy for the life of the equipment that would not be saved otherwise. The implementation of renewable energy on city buildings will decrease the use of traditional fossil fuel grid electricity with a clean renewable source for the 25 year life span of the PV system. In addition, as the evidence of decreased operating costs is shown, the likelihood of additional installations will be increased, thereby additionally helping the renewable energy industry and decreasing operating costs for local government.

The City intends, with the guidance of the EECBG Sustainability Coordinator, to track the energy and emissions reductions, cost savings, and other metrics necessary to show the level of success for each project.

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 every step is taken to prevent instances of fraud, waste, error, and abuse.

First, it should be noted that the City has all of the necessary financial controls to track, audit, and monitor all transactions, including the funds awarded under the EECBG. The overall project management of the EECBG will be the responsibility of the EECBG Sustainability Coordinator under the direction of the City Manager's Office. In addition, there will be a designated Senior Accountant in the Finance Department who will be responsible for the financial system tracking and controls related to expenditures.

The City is familiar with typical federal grant requirements but also understands that the Recovery Act calls for even more transparency and accountability. The City is prepared to meet all of the reporting requirements required by the EECBG prgram and the Recovery Act. In addition, the City is committed to additional public communication regarding the use of the funds and has already committed to additional reporting of information to the Arvada City Council.

Finally, the GEO has informed entitlement communities that they will have a website for the reporting and tracking of EECBG projects. The City anticipates having information on our own website as well as links to the state site and the federal Recovery Act site.

The ultimate goal of the City's commitment to transparency and accountability is to ensure the funds are expended appropriately and in a manner beyond reproach.