DRAFT

City of Camden

Energy Efficiency & Conservation Strategy

U.S. Department of Energy
National Energy Technology Laboratory

Recovery Act – Energy Efficiency & Conservation Block Grants – Formula Grants
FOA Number: DE-FOA-0000013

City of Camden
Office of Planning & Development
City Hall, 520 Market Street
Camden, NJ 08101

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Executive Summary

Through the American Recovery and Reinvestment Act (Recovery Act) of 2009, the Department of Energy (DOE) awarded funds to local, State and tribal entities to implement strategies to reduce fossil fuel emissions, reduce total energy use, and improve energy efficiency. These funds are provided by the Energy Efficiency and Conservation Block Grant (EECBG) program. Based on criteria established by the DOE, the City of Camden was awarded $780,200.

As a requirement of the funding, the City is required to complete an Energy Efficiency & Conservation Strategy (EECS). The EECS outlines how the funds will be used and which activities the City will undertake to meet the goals established for this funding. The EECS has been prepared subsequent to the City implementing various physical upgrades and programmatic improvements but also outlines a strategy for a sustainable agenda to "meet the needs of the present without compromising the ability of future generations to meet their own needs."

The City identified a variety of projects, in addition to the EECS, that will be implemented to provide immediate transformational impact. In total, the City chose to pursue five (5) projects – including this Energy Efficiency & Conservation Strategy – with the funding allocated by DOE. These projects include:

Traffic Signals Replacement Project. The purpose of this project is to replace traffic signals with energy efficient lighting technologies. The city requested $140,000 in EECBG funds to replace its 142 watt sodium/mercury vapor and incandescent lighting fixture with 17 watt Light Emitting Diode (LED) fixtures in high traffic areas throughout the City.

Expansion of City-wide Recycling Project. The purpose of this project is to implement a material conservation program with an emphasis on source reduction and recycling, specifically by expanding the recycling program to public housing developments, businesses and non-profits, City departments, and schools, and launching a City-wide educational and promotional campaign. The city requested $151,000 in EECBG funds purchase approximately 6,800 recycling containers for dispersal to city residents, as well

as totters for local businesses, schools and non-profits. The monies were also used to develop a public education and outreach campaign to promote the expanded recycling program and develop sustainable waste reduction programs for the City's residential, business, school, civic, and event sectors.

Hire Energy Manager. The purpose of this project was to expand the City's capacity to effectively manage the energy efficiency and conservation initiatives occurring within the City. The city requested $52,000 in EECBG funds to hire an Energy Manager responsible for managing the implementation and monitor of all energy efficiency projects, and work with other departments to coordinate a streamlined approach to energy use reductions and conservation.

Community Center HVAC Upgrade. The purpose of this project is to replace the HVAC systems in the North Camden Community with energy efficient technologies. The city requested $362,000 in EECBG funds to replace existing, old, and inefficient hot water heaters, furnace systems, air-conditioning systems, insulation and ventilation systems, as well as retrofit and upgrade lighting fixtures with LED lighting.

Energy Efficiency & Conservation Strategy. The City of Camden has been making strides in the area of sustainability, and the creation of this EECS is an important step in guiding that process. This Strategy will serve two purposes: the first is to identify which projects will be funded by the EECBG program and how the City will gauge the results of that investment, while the second is to provide a framework for additional projects for future consideration, prospective funding sources, projects connections, and to serve as a reference point when analyzing progress.

The EECBG program requires that funding be obligated within 18 months and expended within 36 months; the City is ready to proceed immediately and anticipates full compliance with the timeframes outlined by the DOE considering most of the identified projects involve standard equipment which is readily available. A quick turnaround for these projects will ensure that the City realizes the expected energy and cost savings in the very near future.

An important aspect of the EECBG program includes establishing energy goals. The City decided to take its cues from the State of New Jersey's 2008 Energy Master Plan (EMP). In that Plan, the

State set broad goals for energy reduction and clean energy production. The City adopted those overarching goals for its EECS in an effort to be consistent with the State's efforts. However, in 2011 the State developed a revised EMP which included slightly different goals and although the intent of the revised EMP was the same as the 2008 plan, the 2011 plan lessened the stated goal commitments. Because the goals of the State's 2008 Energy Master Plan offered slightly more specific goals and because the City had begun the process of creating the EECS with the 2008 goals in mind, the City is continuing to utilize the 2008 EMP goals as its guide. The stated goals of the 2008 Energy Master Plan are:

1. Maximize Energy conservation and energy efficiency to achieve reductions in energy consumption of at least 20% by 2020;
2. Reduce peak demand for electricity;
3. Generate 30% of electric needs from renewable energy sources by 2020;
4. Develop a 21st Century energy infrastructure system; and
5. Invest in innovative clean energy technologies.

The projects identified in this EECS have measurable outcomes intended to help the City mirror and move towards these goals but alone they will not be sufficient to meet the stated goals in their entirety. Therefore, the EECS is written to address two particular scenarios: the first is to meet the requirements established by the DOE for receiving the EECBG grant funds and pursue immediate energy efficiency projects, while the second is to provide a framework to assist the City reach these broad energy goals into the future.

This EECS begins with an overview of the EECBG program and the NJ State Energy Master Plan. It provides information on the local and regional context of the City's geography and demographics. This serves to show what and who can be served by the strategies to reduce energy usage and create a more sustainable environment. Subsequently, the purpose and structure of the EECS is outlined for the user. An overview of the City's current and ongoing sustainability efforts are provided. The EECS outlines its goals for the City to embrace, and objectives to help achieve those goals. It further explains the strategy by identifying the specific strategies that the City will undertake with the funding, as well as future projects the City could consider to achieve the identified goals. The Strategy concludes with a Project Matrix to track

the City's progress towards achieving the identified goals, which includes the identification of potential funding sources and partners needed to implement these longer term projects.

Background

What is the EECBG Program?

Camden City Snapshot

Current Sustainability Efforts

Energy Efficiency and Conservation Block Grants Program Overview

In 2009, the Department of Energy (DOE) awarded more than 1,200 Energy Efficiency and Conservation Block Grants (EECBG), totaling over $1.4 billion. The first EECBG grant awards were made on July 24, 2009, which allocated $780,200 to the City of Camden. Grant awards were determined using a formula based process modeled after the Department of Housing and Urban Development's Community Development Block Grant program.

The intent of the EECBG program is to deploy technologies in a cost effective manner and in such a way as to provide maximum benefit to residents. These benefits should extend beyond the life of the funding and produce energy and emissions reductions into the future. The program's purpose is to implement strategies in the following three areas:

- Reduce fossil fuel emissions;
- Reduce the total energy use of the eligible entities;
- Improve energy efficiency in the transportation, building, and other appropriate sectors;

The City expects that the EECS will provide realistic and achievable energy efficiency goals that can be linked to projects in support of these goals. Many of the goals identified in this strategy will expand, compliment and contribute to the State of New Jersey meeting its goals as outlined by BPU's Clean Energy Program and the New Jersey State Energy Master Plan.

The Department of Energy also identified Program Principles to guide the planning process. The DOE funding notice lists these principles as:

- Prioritize energy efficiency and conservation first as the cheapest, cleanest, and fastest ways to meet energy demand.
- To maximize benefits over the longest possible terms, entities should look for ways to link their energy efficiency efforts to long-term priorities (especially community

economic development, community stabilization and poverty reduction efforts).

- Invest funds in programs and projects that create and/or retain jobs and stimulate the economy while meeting long term energy goals.
- Target programs and projects that will provide substantial, sustainable and measurable energy savings, job creation and economic stimulus effects.
- Give priority to programs and projects that leverage federal funds with other public and private resources, including coordinated efforts involving other Federal programs targeting community development funded through the Recovery Act such as the Community Development Block Grant program, HOME, and job training programs.
- To the extent possible, develop programs and strategies that will continue beyond the funding period.
- Ensure oversight, transparency, and accountability for all program activities.
- Enact policies that transform markets, increase investments, and support program goals.
- Develop comprehensive plans that benchmark current performance and set aggressive goals.

Program Outcomes were outlined by the DOE to serve as guidance to entities when identifying the types of projects which should be pursued with EECBG funding. The noted Program Outcomes are:

- Increased energy efficiency, reduced energy consumption and reduced energy costs through efficiency improvements in the building, transportation and other appropriate sectors;
- New jobs and increased productivity to spur economic growth and community development;
- Accelerated deployment of market-ready distributed renewable energy technologies, including wind, solar, geothermal, hydropower, biomass and hydrogen technologies;
- Improved air quality and related environmental and health indicators associated with the reduction of fossil fuel emissions;
- Improved coordination of energy-related policies and programs across jurisdictional levels of governance and with other local and community level programs in order to maximize the impact of this program on long-term local priorities;
- Increased security, resilience, and reliability of energy generation and transmission infrastructure;
- Leveraging of the resources of federal, state and local governments, utilities and utility regulators, private sector and non-profit organizations to maximize the resulting energy, economic and environmental benefits; and

- Widespread use of innovative financial mechanisms that transform markets

The EECBG Funding Notice also provided the funding recipients with a representative list of 14 eligible activities. It is this list which served to guide the projects identified in this strategy. The list of the Eligible Activities as identified by the DOE is included below. [The list has been abridged to include only the principle heading without the addition of the activity descriptions, for the complete list with descriptions please refer to the original DOE funding announcement found in the appendix of this document.] :

1. Development of an Energy Efficiency and Conservation Strategy
2. Technical Consultant Services
3. Residential and Commercial Building Energy Audits
4. Financial Incentive Programs
5. Energy Efficiency Retrofits
6. Energy Efficiency and Conservation Programs for Buildings and Facilities
7. Development and Implementation of Transportation Programs
8. Building Codes and Inspections
9. Energy Distribution
10. Material Conservation Programs
11. Reduction and Capture of Methane and Greenhouse Gases
12. Traffic Signals and Street Lighting
13. Renewable Energy Technologies on Government Buildings
14. Any Other Appropriate Activity

This Energy Efficiency and Conservation Strategy adheres to the guidance offered by the funding announcement and recommends only projects which meet the identified requirements. Likewise, the projects which have been undertaken as part of the initial EECBG funding meets the outlined intent of the program as well as the eligibility criteria.

Camden City Snapshot

Across from Philadelphia, along the east banks of the Delaware River, lies the City of Camden. It is the sixth largest city in the State of New Jersey and the largest in Camden County. As the Seat of Camden County, the City was once a hub of commerce, government, culture and transportation for Southern New Jersey. While still a government hub, the City continues to fight tirelessly to resurrect itself back into the thriving, urban center it once was. With a total land area of 9 square miles, and with the Delaware River to the west, the City is bordered by the Borough of Collingswood, Gloucester City, Haddon Township, Pennsauken Township, and Woodlynne Borough.

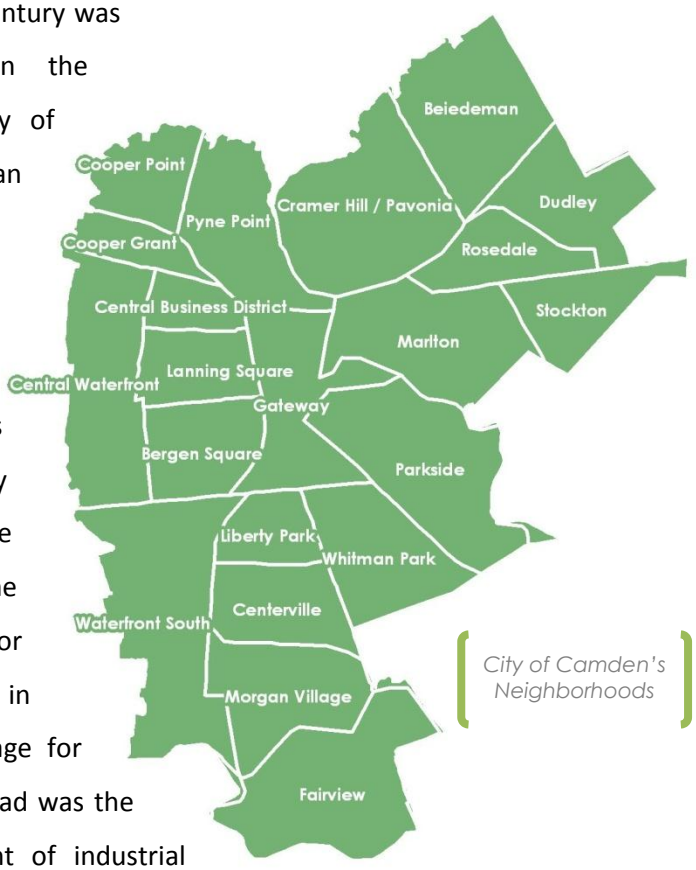
Quick Facts

- Land Area: 8.8 square miles (5,632 ac)
- Population: 79,263
- Population Density: 9,007 pop/sq.mi
- Housing Units: 31,007
- Housing Unit Density: 5.5 hu/ac
- Occupied Units: 25,904
- Owner-Occupied: 10,751
- Renter-Occupied: 15,153
- Vacant Units: 5,103
- % of Units Built Before 1970: 77.4%
- Single-unit Structures: 68%
- Multi-unit Structures: 31%
- % of Housing Units Using Solar: 0%
- Average Household Size: 2.9
- Burdened Households: 9%
- Severely Burdened Households: 48%

Camden is geographically located within two hours of the largest population centers in the Northeast. It is the gateway to New Jersey and ten minutes from Philadelphia, which has a population of approximately 1.5 million people. It is located within one of the top retail sales markets in the country and has a large workforce pool.

History. The location of Camden, situated between two water ways, the Delaware and Cooper Rivers, combined with its proximity to Philadelphia contributed to the early rise of industry within that area. The system of ferries and the stage service, which linked Camden to all the important towns of South Jersey, helped Camden attract some early business enterprises in the first half of the Nineteenth Century.

The latter half of the Nineteenth Century was the most significant period in the developmental history of the City of Camden. Industrial expansion, urban growth, and new immigration radically transformed the City.



City of Camden's Neighborhoods

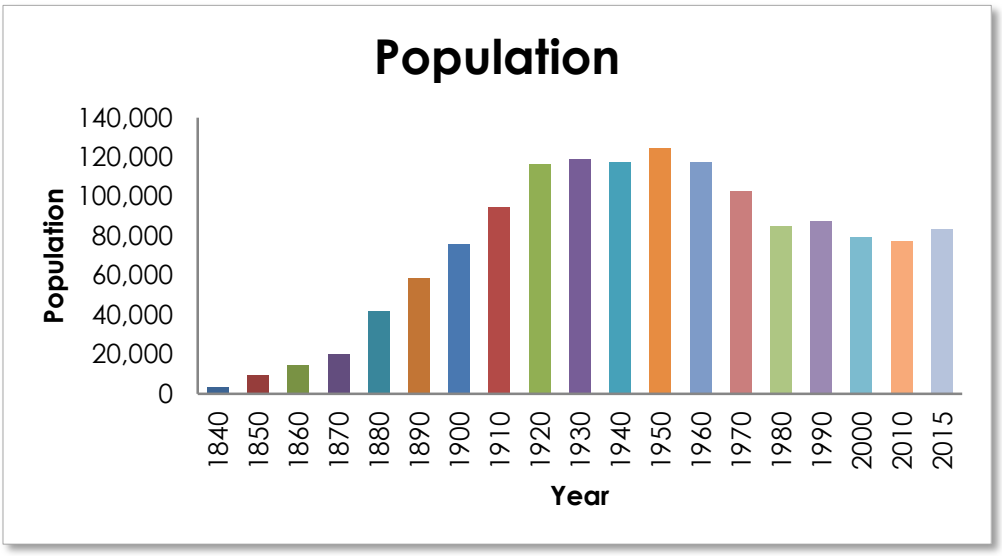
More remarkable were the new industries in the city. Where census takers in 1860 had counted eighty factories in Camden City, there were 125 in the same area in 1870. Some of them were already major enterprises. Great improvements in transportation systems set the stage for the Industrial Revolution. The railroad was the single most important determinant of industrial growth in late nineteenth century Camden.

After years of economic and industrial growth, the city of Camden faced years of rising crime and blight due to the decline of the manufacturing industry. This crime and blight has prevented the City, whose economy has been devastated by the flight of human and monetary capital, from returning to self-sufficiency. Looking at the cumulative effects of urban decline in a classic post-industrial community, the City of Camden continues to probe the interaction of politics, economic restructuring, and racial bias to evaluate contemporary efforts of economic revitalization. Addressing the corrosive effects of concentrated poverty, environmental injustice, and a political bias that favors suburban amenity over urban reconstruction continue to plague these revitalization efforts.

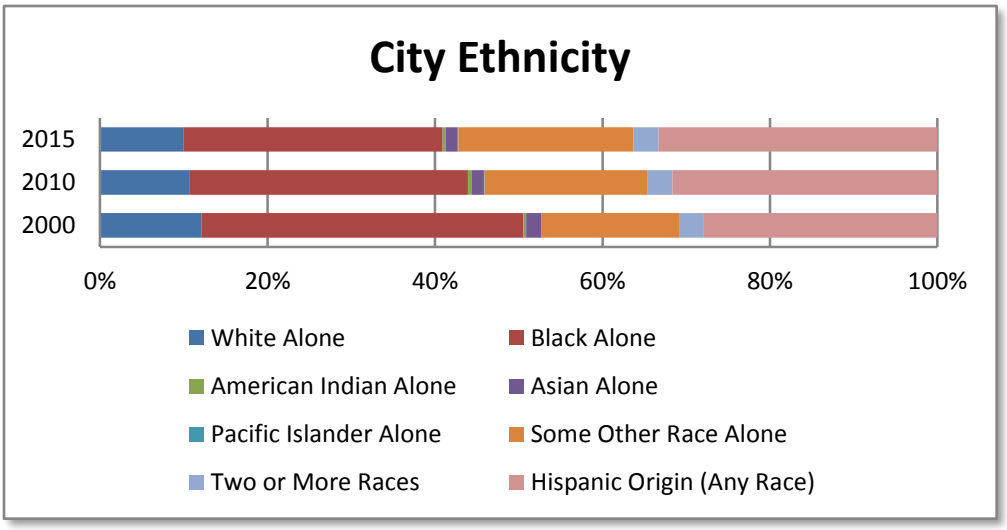
Neighborhoods. The City is comprised of 21 neighborhoods all are positioned to benefit from several significant events over the last ten years. Changes in regional demographics, renewed interest in urban living, the revitalization of the waterfront, restructuring of public housing as mixed income communities, rebuilding of schools district-wide, and a supply of vacant land to support new housing development presents new opportunities for neighborhood improvement.

Population and Housing.

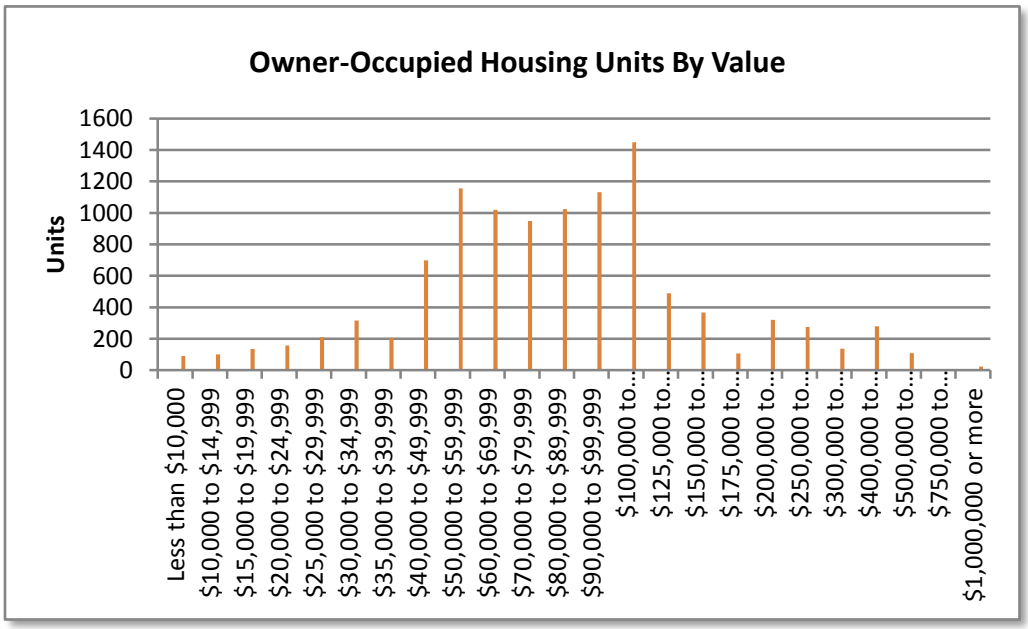
The City's population has gradually declined from its high in 1950 to a current population of just under 80,000.



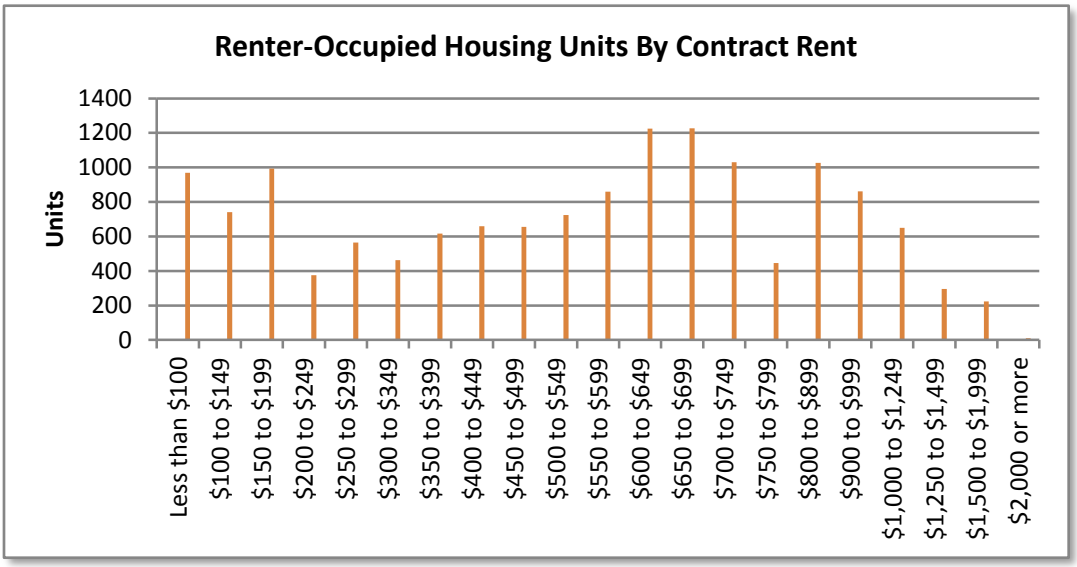
Camden's population is predominantly Black with recent increases in the Hispanic population.



- The City of Camden has 31,007 housing units of which 10,751 are owner occupied.
- The primary types of residence at 53% (16,402 units) are attached doubles.
- The median home value is $83,200



- 53% of homes were built prior to 1950
- 69% of homes use Natural Gas for heating
- 91% of renters pay additional for utilities (at least 1 service)



- Median rent in Camden is $582
- Public housing operated by the Camden Housing Authority accounts for 2,400 units
- Subsidized housing developed or rehabilitated under federal and State programs account for another 3,600 units.
- The combination of public and other subsidized housing comprises about 25% of the City's occupied housing stock.

Employment Segments. Camden's largest employment segments are: Public Administration (20.7%), Educational Services (19.3%), Health Care & Social Assistance (16.3%), and Manufacturing (8.9%). This group of industries is representative of Camden's move from a "manufacturing" hub to a "services" hub. Today large employers such as Rutgers University and Cooper Hospital stand out in the cityscape.

Quick Facts

- *Civilian Labor Force: 32,083*
- *% Unemployed: 9.9%*
- *Median Household Income: $30,801*
- *Poverty Rate: 38%*
- *Key Occupational Sectors:*
  - *Service Occupations*
  - *Transportation/Material Moving*
  - *Sales/Office Occupations*
- *Key Industry Sectors:*
  - *Education/Health Care/Social Asst.*
  - *Manufacturing*
  - *Retail Trade*
- *Mean Travel Time to Work: 23.7 minutes*
- *% Carpool/Pub. Transit/Walk/Other: 49.3%*

Types of Land Uses. The Land Use Plan is presented in the following six major planning divisions:

- Residential
- Commercial
- Industrial
- Mixed-Use
- Community Facilities
- Open Space

The disparity in land use changes between the City and its region points to a broader policy issue addressed in the State Plan. Application of Smart Growth principles suggests redirection of a portion of the region's future growth to underutilized and vacant parcels within the City as well as to selected areas within the inner ring suburban communities of the region.

Transportation. Home to New Jersey Transit's Walter Rand Transportation Center, the City is a major transportation hub for Southern New Jersey. The Walter Rand Transportation Center had reinforced the City's role in the Philadelphia Metropolitan Area. Acting as a gateway to North Jersey and to Southeastern Pennsylvania, the Center offers a variety of multi-modal opportunities via localized New Jersey Transit (NJT) buses and regional Greyhound Bus Lines, as well as light rail opportunities along the PATCO Speedline and NJ River Line.

The PATCO Speedline offers frequent train service to Philadelphia and the suburbs to the east in Camden County, with stations at City Hall, the Walter Rand Transportation Center, and Ferry Avenue.

Since its opening in 2004, NJT's River Line has offered frequent light rail service to towns along the Delaware north of Camden, and terminates in Trenton with connections to NJT's Northeastern Corridor, which terminates in New York City. Camden stations are 36th Street, Walter Rand Transportation Center, Cooper Street-Rutgers University, Aquarium and Entertainment Center.

NJT bus service is available to Philadelphia on the 313, 315, 317, and 318 and various 400 series lines, to Atlantic City is served by the 551 bus. Local service is offered on the 450, 451, 452, 453, and 457 lines, which services southern New Jersey.

Bisected by U.S. Interstate 95 North/South and 76 East/West, Camden is a transportation hub on the East Coast. Also, Interstate 676 and Route 30 runs through Camden to the Benjamin Franklin Bridge on the north side of the City. The City's port facility accommodates the exportations of domestic products and importation of goods from around the world. From Camden's railheads, freight can be shipped anywhere in the country.

CURRENT SUSTAINABILITY EFFORTS

The EECS builds upon Camden City's current plans. It is a complementary tool designed to guide the local government as it progresses through its energy saving, resource protection, and sustainability efforts. The EECS adds a layer of analysis to the City's current efforts while providing an opportunity to reduce City expenditures and help conserve the resources of the City.

Sustainable Jersey. Sustainable Jersey is a certification program for municipalities in New Jersey that want to go green, save money, and take steps to sustain their quality of life over the long term. Sustainable Jersey identifies concrete actions that municipalities can implement to become "certified" and be considered leaders on the path to sustainable communities. It

provides clear "how to" guidance and tools to enable communities to make progress on each action, and access to grants, and identifies existing and new funding opportunities for municipalities to make progress toward the actions. The City of Camden has embarked on this progressive initiative in the attempts to encompass the three (3) equal, interrelated components of sustainability:

- Prosperity-support your local economy and use community resources
- Planet-practice responsible environmental management and conservation
- People-embrace social equity and fairness

As part of their certification, the City of Camden is actively working to establish a Green Team; promote Diversity on Boards & Commissions; implement Environmental Zoning & Planning; conduct Energy Audits for at least One Building; prepare a Municipal Carbon Footprint; authorize a Sustainable Land Use Pledge; prepare a Sustainability Master Plan Revision; implement a Complete Streets Program; develop a Green Business Recognition Program; promote Green Jobs/Economic Development; establish an active Environmental Commission; implement a Water Conservation Ordinance; develop a Community Asset Map; conduct Community Visioning; and invest and develop Solar, Green Roofs, Rain Gardens & Other Innovative Demonstration Projects.

In an effort to work towards the City's Certification, the EECS outlines actions that should be pursued in an effort to advanced sustainable practices and policies that dovetail with Sustainable Jersey, and the goals and objectives of the EECS.

Camden POWER. Camden City's Program Offering Widespread Energy Recovery, also known as POWER, offers forgivable loans of up to $16,000 to eligible Camden City homeowners to fund essential home repairs to make homes safer and more energy efficient. Through POWER, the City of Camden hopes to achieve

total energy savings of at least 25% in certain residential homes. The program is an expansion of the popular Camden Home Improvement Program (CHIP) focusing on energy efficiency retrofits. POWER Residential is funded by the City of Camden, US Department of Energy (DOE) and the NJ Economic Development Authority (NJEDA). NJ Housing and Mortgage Finance Agency (NJHMFA) will be the funding administrator with Cooper's Ferry Development Association, and Scungio Borst and Associates assuming the roles of program and construction manager respectively.

Camden City administers both a residential and commercial retrofit and rehabilitation program under POWER. The Camden POWER Residential acts as a forgivable loan. As long as participating homeowners live in their home for ten years after receiving the loan, the loan is forgiven. A portion of the loan amount will be forgiven every year until the lien is satisfied.

The Camden POWER Commercial program offers low-interest loans to Camden business and commercial property owners for the installation of energy efficiency improvements and upgrades. Capitalized with funds from the City of Camden, the United States Department of Energy, the County of Camden, the Economic Recovery Board for Camden, and New Jersey Community Capital, the Camden POWER Commercial Program will help qualified business and commercial property owners conserve energy and reduce utility costs by connecting them with incentives and financing that lower the up-front costs of energy efficiency improvements.

EGGE Green Jobs Training Program. In 2011, the City received a $300,000 federal grant for a green jobs training program that targets unemployed or underemployed residents for jobs in assessing and cleaning up Brownfields and other contaminated sites within the City. Program partners will choose 72 individuals from Camden for job training that will offer them long-term employment opportunities. Participants will be specially trained in the identification of contaminated sites for sustainable redevelopment, hazard awareness and safety, renewable energy installation and repair, energy efficient buildings, low-impact development, natural stormwater treatment, and habitat rehabilitation.

Plan Design

Plan Purpose

Transparency & Accountability

Overarching Goals

Plan Structure

Plan Purpose

The City of Camden will use this initial funding to support the development of this EECS, provided herein. The EECS details how the City of Camden proposes to expend their total allocation on activities that prioritize energy savings, reduce greenhouse gas emissions, and create and retain jobs.

Energy efficiency, conservation, and renewable energy programs and projects are building blocks for increased economic vitality, energy security, and environmental quality. Camden City's EECBG Program funds will have maximum impact if invested in ways that create and/or retain jobs and stimulate the economy in the short term while laying the foundation for a long-term and sustainable clean energy economy. The City of Camden anticipates attracting programs and projects that:

- Leverage other public and private resources;
- Enhance workforce development;
- Persist beyond the funding period; and
- Promote energy market transformation such as revolving loans, low-cost loans, energy savings performance contracting, advanced building codes, building and home retrofit incentives and policies, and transportation programs and policies.

EECBG Goals

The Energy Efficiency and Conservation Block Grants (EECBG) Program, funded for the first time by the American Recovery and Reinvestment Act (Recovery Act) of 2009, represents a Presidential priority to deploy the cheapest, cleanest, and most reliable energy technologies we have - energy efficiency and conservation - across the country. The Program, authorized in Title V, Subtitle E of the Energy Independence and Security Act (EISA) and signed into law on December 19, 2007, is modeled after the Community Development Block Grant program administered by the Department of Housing and Urban Development (HUD). It is intended to assist U.S. cities, counties, states, territories, and Indian tribes to develop, promote, implement, and manage energy efficiency and conservation projects and programs designed to:

- *Reduce fossil fuel emissions;*
- *Reduce the total energy use of the eligible entities;*
- *Improve energy efficiency in the transportation, building, and other appropriate sectors; and*
- *Create and retain jobs.*

Transparency & Accountability

Transparency and accountability are important priorities for the EECBG program and all Recovery Act projects. The City's EECS will specify measures for implementation as a condition of receiving the full amount of allocated funding, such as ensuring oversight and transparency, submitting EECS to the DOE, and complying with applicable environmental regulations.

Grants can be used for energy efficiency and conservation programs and projects community wide, as well as renewable energy installations on government buildings. All activities eligible to be use EECBG funds were noted on page 7.

City agencies alone, however, cannot implement all the strategies outlined within this plan. The City of Camden is committed to leading by example and is open to partnering with anyone interested in working on elements of the Plan. Public reporting on outcomes of the Plan should be given to the community, the Mayor and City Council on a regular basis. The City, as a cohesive unit, must hold each other accountable for making the City sustainable and for providing future generations with environmental, economic and social resources that meet their needs for today and for future generations, and enhance their quality of life.

Ensuring Timeliness. A requirement of the EECBG funding is the timely use of funds. This funding is intended to stimulate the national economy by pumping federal dollars into local economies which is expected to generate private investment and jobs. By targeting energy efficiencies this funding is also intended to drive the growth of green industries, open new sectors of business, and ultimately a new segment of "green collar" jobs.

If this stimulus policy is to succeed as hoped, it requires that the federal dollars are spent quickly and effectively. The EECBG funding comes with specific timeliness requirements; all funds must be committed within 18 months and spent within 36 months. The City does not expect to have issues meeting these timeframes since the activities being pursued involve the installation of readily available equipment.

Reporting. The EECBG program has established reporting requirements to track funding dollars, completed activities, and progress towards goals. This reporting is an important part of the programs focus on transparency and is required for proper accounting of outcomes

Reporting requirements for this funding will be handled through the City's Business Administrator's office.

Identifying Providers. The unprecedented level of Federal funding, which created the EECBG program, requires an unprecedented level of transparency when implementing the program. The possible misuse and mismanagement of funds is a paramount concern of the federal government and taxpayers. As a result, any process which can be undertaken at the City's level to allay this concern should be utilized.

To provide this transparency, the City will utilize a fair and open bidding process whenever possible. This will ensure the City receives competitively priced goods and services while promoting participation from businesses large and small and irrespective of race or gender. In the event of proprietary equipment or previously bid/awarded contracts all efforts will be made to ensure the process is open and that the costs are in-line with expected norms.

Drawdowns and Payments. The City has drawndown only a small portion of the EECBG funds currently available to them. These funds went towards paying invoices associated with the preparation of the initial EECBG application and this strategy.

No project activities related to this strategy and funding will be started or funds paid until the EECS has been officially accepted as complete and authorization to proceed has been given.

National Environmental Policy Act (NEPA). The DOE requires that proper investigation is conducted to avert any detrimental environmental impacts as a result of the activities undertaken with this funding. To this end the DOE has required the completion of the NEPA Environmental Questionnaire.

None of Camden's selected projects will result in a negative finding.

State Historic Preservation Office. None of the project activities will be taking place in buildings which are 50 years or older. For this reason, none of the City's projects will require a review from SHPO.

Overarching Goals

The City decided to take its cues from the State of New Jersey's 2008 Energy Master Plan (EMP). In that Plan, the State set broad goals for energy reduction and clean energy production. The City adopted those overarching goals for its EECS in an effort to be consistent with the State's efforts. However, in 2011 the State developed a revised EMP which included slightly different goals and although the intent of the revised EMP was the same as the 2008 plan, the 2011 plan lessened the stated goal commitments. Because the goals of the State's 2008 Energy Master Plan offered slightly more specific goals and because the City had begun the process of creating the EECS with the 2008 goals in mind, the City is continuing to utilize the 2008 EMP goals as its guide. The stated goals of the 2008 Energy Master Plan are:

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provide a framework to assist the City reach these broad energy goals into the future. The identified goals are also consistent with the goals of the EECBG funding program.

By implementing the short term projects identified in this Strategy, the City will be moving towards meeting the established goals. However, these projects alone will not provide the energy reduction and clean energy production goals identified by the State or DOE. Additional measures and projects are identified and must be implemented by the City in order to reach these goals, especially to meet the long term needs of City residents and services. The strategy's progress should be reviewed annually, and the entire Strategy should be revisited every five years.

Plan Structure

The Plan is divided into two (2) Tiers. **Tier 1** denotes City-specific projects that will be implemented to achieve energy efficiency for City facilities and operations. **Tier2** will focus its approach on City-wide projects that will be implemented to achieve energy efficiency and conservation for City residents and businesses.

Each project listed has been assigned a timeframe of "immediate" (current or ongoing), "short-term" (1-3 years), and "long-term" (more than 3 years) in the strategy. Some actions and goals are very specific, while others are more broadly stated. Some actions are ambitious, others can be easily accomplished. The City agencies will work to create metrics where needed and to fine-tune goals and actions as needs, technologies, and stakeholders change. Action and follow up must occur if Camden City is to be a good steward of its resources for future generations.

Projects are also differentiated by Strategic Focus Areas, which include:

Energy Efficiency & Conservation

Using less energy isn't about making drastic lifestyle changes or sacrifices – it simply refers to efforts made to reduce energy consumption. Energy conservation can be achieved through increased efficient energy use, in conjunction with decreased energy consumption and/or reduced consumption from conventional energy sources.

Conservation and efficiency measures can be as simple as improving the standards for new buildings so that they use less energy for heating and cooling, replacing obsolete infrastructure with systems that don't waste as much power, or adjusting the thermostat before leaving your home or office.

Not only do conservation and efficiency ease electricity supply crunches by reducing demand, they also decrease smog and greenhouse gas emissions, lower bills for all consumers, and create jobs and provide other economic benefits. Energy conservation can result in increased financial capital, environmental quality, and human comfort.

At the local level, energy costs are an increasingly burdensome aspect of municipal budgets. According to the Pew Center on Global Climate Change, buildings in the United States account for over 40 percent of our nation's carbon dioxide emissions. Most of these emissions occur during building operation (i.e. – resulting from fossil fuels burned at the power plants that provide heating, cooling, lighting, and electricity for equipment and appliances within buildings). Experts agree that carbon dioxide emissions and climate changes associated with their accumulation in the atmosphere pose serious concerns and challenges to our environment.

Objective 1 - Reduce Camden City's Energy Use by 20% by 2020

By securing EECBG funds, the City of Camden has a stake in advancing energy efficiency and conservation practices. The EECBG funds will reduce municipal expenditures and provide lasting benefit to the City of Camden and its citizens. The EECS provides short term strategies and long-term guidance for the City in advancing sustainable practices and policies.

Objective 2 - Reduce Camden City's Water Use

Water conservation can be defined as a reduction in water use accomplished by implementation of water conservation or water efficiency measures; or improved water management practices that reduce or enhance the beneficial use of water.

Water is a critical natural resource that supports essential human activities, as well as ecological functions. Shortages can have dangerous and significant implications for public health, as well as for the local economy and for ecological integrity. In addition to reduced groundwater recharge from increasing impervious surfaces, demands on New Jersey's limited water supply due to population growth and development have greatly increased. As the State has been subject to periodic droughts and water shortages, these trends have created water deficits in numerous watersheds. The ongoing water deficits demonstrate that water conservation is a prudent step for New Jersey's citizens year round. This action puts in place controls on the excessive and wasteful use of potable water in a municipality; it also gives municipal officials authority to limit water use beyond what State drought controls may require if deemed necessary for that particular locality. On a more modest scale, controls on water use also reduce energy consumption and CO2 emissions by decreasing pumping activity.

A water conservation measure is an action, behavioral change, device, technology, or improved design or process implemented to reduce water loss, waste, or use. Water efficiency is a tool of water conservation. That results in more efficient water use and thus reduces water demand. The value and cost-effectiveness of a water efficiency measure must be evaluated in relation to its effects on the use and cost of other natural resources.

Objective 3 - Minimize the Production of Waste

On a daily basis the City is generating waste which could either be avoided outright or disposed of in a more sustainable manner. Many concepts exist which could reduce waste but the

It has been estimated that the average worker uses 10,000 sheets of paper annually and much of that finds its way into landfills. In a City the size of Camden even small changes can have a big impact.

Objective 4 - Reduce, Reuse & Recycle

One of the best ways to lessen our impact on the environment is to conserve. By reducing, reusing, and recycling the City would be reducing the demand on natural resources and energy.

Pollution Prevention

The principal actions discussed in this section are Improving Air Quality, Improving Water Quality & Natural Systems, and Eliminating Litter Throughout the City. By focusing the City's Energy Efficiency and Conservation actions on specific pollution prevention goals the City will reduce the number of vehicle miles traveled, improve the efficiency of large facilities, reduce the impact from the City's heat island effect, and improve the overall environmental quality of the City. By implementing initiatives and incentive programs at the City level the likelihood of deriving the benefits imagined by the various programs is increased.

Objective 1 -Improve Air Quality & Reduce Camden City's GHG Emissions by 12% by 2020

The reduction of air pollution by promoting sustainable behaviors and practices that reduce both mobile and stationary sources of pollution are key components to mitigate air effluence. These effects are significantly heightened in urban areas, where heat island effects contribute to the deleterious impacts of pollutants. Promoting the use of alternative modes of transportation, and supporting clean, renewable fuels and efficient transportation systems are a few ways to attain National Ambient Air Quality Standards (NAAQS).

Objective 2 - Improve Water Quality & Natural Systems

Like air quality, cities need to value the important natural functions provided by streams and wetland ecosystems. The protection and enhancement of water resources through coordinated planning efforts and sustainable practices reduces sources of pollution and other adverse effects – allowing the optimization of that natural resource.

Objective 3 - Eliminate Litter Throughout the City

Perceptions of neighborhood neglect and disorder have real economic costs through decreased property values and investment. Research has shown that clean public spaces are safer. As a mitigation action, the clean-up and maintenance of the City's environment in a well-ordered condition may stop further vandalism as well as an escalation into more serious crime.

Renewable Energy & Resources

The old notion of fossil fuels being the sole solution to our energy needs has been slowly retreating from popular consensus. Fossile fuels bring with them contaminants in the air, dependance on foreign producers, and an ever dwindling supply. Developing renewable energy such as solar, wind, and geothermal will allows the nation an opportunity to diversify its energy production capability, boost domestic production, and lessen its impact on the environment.

The City of Camden can prove to be a leader in the development of renewable energy by purchasing electric generated by renewable energy producers, installing renewable energy systems at its facilities, and encouraging renewable energy development in the City by property owners.

Objective 1 - Purchase and/or Produce 30% of Energy from Renewable Resources

The goal of 30% is taken straight from the 2008 NJ Energy Master Plan and represents a determined effort to utilize renewable energy. The City's carbon footprint will be reduced drastically when it achieves this goal.

This goal will be accomplished by either purchasing energy generated at a renewable energy facility (e.g. hydropower or wind power) or the City can embrace the development of renewable energy systems locally (e.g. solar).

Sustainable Land Use & Transportation

By investing in sustainable land use planning/practices the City will be able to guide development in a manner which derive both economic and environmental benefits. By focusing on smart land use decisions the City can promote a healthier, cleaner, and more vibrant community.

Objective 1 - Invest in Smart Growth

Smart Growth is developing communities in a manner which promotes housing and transportation options located with, or very near, shopping, employment, and educational opportunities.

This type of development creates communities which are able to meet the basic needs of its residents without forcing them to travel great distances. Smart Growth promotes vibrant and healthy communities while promoting good environmental stewardship.

Objective 2 - Transform Vacant Lots

The ability for a City to transform vacant lots from liabilities to assets fulfill a variety of public policy challenges, and provides a wealth of social, health, economic, and environmental benefits.

Objective 3 - Environmental Justice & Remediating Brownfields

For the better part of our history we had focused the construction of factories in and around cities. This proved to be an economic boon for these cities but in more recent years

disinvestment in these sites has led to serious environmental issues which affect large concentrations of people. The term “brownfield” has been coined to describe any industrial site which is currently abandoned or underutilized on which there is known or suspected environmental contaminants.

Less affluent communities are often disproportionately affected, and due to a general lack of political capital they languish alongside the rusting hulks of our industrial past. The City should to place a strong emphasis on the accounting and redevelopment of these brownfield sites.

Objective 4 - Make Camden a Bicycle/Pedestrian-Friendly City

Encouraging biking and walking is a great way to reduce energy use and the City’s carbon footprint. Bike and pedestrian centered communities often enjoy a more robust local economy and healthier residents.

Initiatives such as bike lanes, bike facilities, and “share the road” campaigns can help to promote biking in Camden. To get residents walking the City could consider walking trails, or wayfinding signage, or neighborhood walking competitions using pedometers.

Objective 5 - Integrate Green Fleets/Shared Vehicle Use

Making changes to the City’s vehicle fleet can have a large impact on the overall energy consumption of the City. Switching to alternative fuels types (e.g. electric or compressed natural gas) or hybrid vehicles should be implemented as city vehicles are replaced. The City should also promote and work with private firms to develop car sharing.

By removing vehicles from the road or putting cleaner more efficient vehicles in use the City will enjoy a boost to energy efficiency and a reduction in pollution.

Green Economic Development

Global warming, energy issues, and other environmental problems are changing the way we work and do business. State and Federal policies to address greenhouse gases will dramatically alter the business landscape, making some energy intensive businesses less competitive, providing opportunities for new technology firms and efficiency leaders, and potentially providing many new jobs in the growing green sector. These changes will present significant opportunities and challenges to local economies.

Objective 1 - Promote Green Jobs, Business & Technology

The "green" sector has been growing at a steady pace and is poised for continued growth into the future. The State of New Jersey has been embracing the "green" economy by promoting solar and wind energy development and creating other incentives to help develop this industry. The City too should focus on developing the availability of green jobs through incentives for manufacturing.

Objective 2 - Training for Green Jobs

Green workforce and economic development strategies represent long-term investments in community sustainability and cannot produce instant results. The City should consider providing job-specific training focusing on under-employed and unemployed person to capture unique opportunities by the new green economy. Growing new businesses and creating new jobs must be viewed as ongoing processes.

Tier 1

City Facilities

Tier 1

All Tier 1 projects are specifically geared toward city facilities. These suggested actions are intended to make systems improvements or upgrades to city owned buildings and infrastructure.

Below is a list of the facilities which the City has identified as "City Facilities", all Tier 1 projects should be applied to as many of these properties as possible.

Police Plaza - SE Federal & 8th St. 1	Fire E 3-10 - SE Morgan Blvd & Morgan
Police Stabl - NE Federal & Dudley St.	Garage - 121-145 Marlton Avenue
3rd District Sub-Station - 2851 River Ave	Garage - SS Wright Ave. 10 to 11th
Fire Eng 8 L2 3rd HQ - 1301-1325 Broadway	Community Center - 713-715 Broadway
Fire 3-D E6-11 - NW Federal & 27th St.	Library - 418 Federal Street
Fire Eng. #7 - 1115 Kaighn Avenue	Martin L. King Center - 1151 Haddon Ave.
Fire Motor Main - 1140 Wright Avenue	SS Carman 400 E. 17th Street
Fire Lad1 En1-6 - NE Federal & 3rd St.	Human Services - 449 Kaighn Ave.
Fire E-9 L3 2HQ - NW 27th & Hayes Ave.	Rear So. Merrimac & Krsrge Mal Hall
City Hall - ES Roosevelt-Arch/Market	4 North 3rd Street
NW 8th & Carl Miller Blvd	NE River & 29th Street/Cramer Hill
1000 North 6th Street	1035 Reeves - NS Chelton Master & Van Buren
E Camden Comm Center - 2312 Mickle St	Cramer Hill - 1170 North 29th Street
Library - 852 Ferry Avenue	

Immediate Projects

The "Immediate Projects" were identified by the City to utilize the EECBG program funding. The City of Camden was awarded $780,000 through the Energy Efficiency and Conservation Block Grant program to conduct projects which met the goals of the program.

Strategy EEC1D - Community Center HVAC Upgrade Project

The purpose of this project is to replace the HVAC systems in the North Camden Community with energy efficient technologies. The city requested $362,000 in EECBG funds to replace

existing, old, and inefficient hot water heaters, furnace systems, air-conditioning systems, insulation and ventilation systems, as well as retrofit and upgrade lighting fixtures with LED lighting.

Strategy EEC1F - Camden City Energy Efficiency & Conservation Strategy

The City of Camden has been making strides in the area of sustainability, and the creation of this EECS is an important step in guiding that process. This Strategy will serve two purposes: the first is to identify which projects will be funded by the EECBG program and how the City will gauge the results of that investment, while the second is to provide a framework for additional projects for future consideration, prospective funding sources, projects connections, and to serve as a reference point when analyzing progress.

Strategy EEC1G - Hire Energy Manager

The purpose of this project was to expand the City's capacity to effectively manage the energy efficiency and conservation initiatives occurring within the City. The city requested $52,000 in EECBG funds to hire an Energy Manager responsible for managing the implementation and monitor of all energy efficiency projects, and work with other departments to coordinate a streamlined approach to energy use reductions and conservation.

Short-Term Projects

Short-term projects are those which may take 1 to 3 years to complete but are fairly easy to start and implement. In many ways these projects begin to serve as the "next steps". The short-term projects can be used to demonstrate a dedication to energy efficiency and conservation and will provide the City with some "quick wins".

Strategy EEC1A - Municipal Energy Audits

Conducting inventories and audits of all municipal buildings is a first step toward reducing municipal greenhouse gas emissions. The audits identify opportunities to cost-effectively reduce energy use and associated greenhouse gas emissions. In addition, energy audits improve indoor

air quality, lighting quality, and building occupant satisfaction. The audits will provide information necessary to make informed decisions now and in the future about which energy saving strategies can both save money and improve energy efficiency and occupant comfort.

Using Sustainable Jersey's model, the City should conduct High-Efficiency Energy Audits for its municipal facilities and retrofit these public facilities with Energy Conservation Measures recommended in the Energy Audit Reports. Designed to leverage state and private funding for energy audits and building upgrades, the savings from the reduced energy use pays for the improvements, and does not require additional funding from City budgetary funds.

Strategy EEC1H - Adopt Energy Conservation Behavior Policies

In typical office buildings such as municipal complexes, energy expenditures account for approximately 19% of total costs. Sources of energy usage in such facilities, such as lighting, heating/cooling, and office equipment, account for 80% of energy consumption. Since the staff has control over energy usage in these categories, significant greenhouse gas reductions and energy savings can be realized through personal behavioral changes.

Local governments can educate their employees about conserving energy and natural resources in their everyday operations and establish polices to institutionalize environmentally-responsible and cost-saving behaviors. This is another Sustainable Jersey Action Model that can be easily adopted by City staff to reduce costs and consumption of energy usage at the municipal level.

The local government can enact a policy that requires lights, computers, copiers, and printers to be turned off when not in use; specifies double-sided printing and copying, and requires thermostat adjustments to reduce energy usage.

Strategy EEC3B - School Based Food Composting Demonstration Project

A school centered composting program could allow for the reduction of considerable food wastes heading to landfills. Food wastes account for almost 20% of the contents in municipal

landfills. A School Based Food Composting Demonstration Project would serve to both reduce waste and create an educational opportunity.

The City could explore both standard composting techniques and Vermiculture which utilizes special worms to break down food waste into usable compost. This project could feed into additional school/community projects such as community gardens or fresh produce initiatives.

Long-Term Projects

Long-term projects are those which may take more than 3 years to complete. Some of these projects may involve costs which the City will need to seek additional fund to pursue, or some projects may just need to be completed over time as equipment and facilities are replaced or upgraded. These projects should be considered whenever the City is creating long term plans.

Strategy SL5A - Purchase Green Fleets

The municipal vehicle fleet presents the City an easy way to reduce its carbon footprint. Advances in electric and hybrid vehicles can allow the city to replace (through current vehicle replacement schedules) most passenger cars and light duty trucks utilized for City business.

For heavy duty vehicles the city could consider vehicles which run on compressed natural gas (CNG) or bio-fuels. New vehicles can be purchased with engines designed to run on these newer types of fuel but conversion kits are also available to upgrade standard vehicles.

There is the potential to save on fuel costs though these vehicles often cost more to purchase upfront. In total costs, the real savings can be seen in the reduced emissions and cleaner air.

Strategy SL5C – Create Alternative Fuel Filling Stations

An extension of the "Purchase Green Fleets" action is the creation of Alternative fueling stations. If the City chose to utilize alternative fuel fleets it would, depending on the type of fuel,

need to have fueling infrastructure to support these vehicles. With the help of grant funding and partnerships the City could create fueling facilities.

For an added benefit the City should make these facilities available to the general public. Charging stations could be placed strategically throughout the City to accommodate electric plug-in vehicles. In areas around City Hall, Rutgers, or the waterfront would be prime areas to consider for charging stations. Filling stations which dispense CNG or biofuels could be centrally located or placed in areas where demand would be heaviest such as industrial areas of the City.

Strategy SL5D – School/Vo-tech Partnerships to Support Alternative Fuels

For the City to boost educational and occupational opportunities it should consider partnering with schools/vo-tech/workforce training organizations to develop an alternative fuel programs.

Programs which focus on educating students in the repair, maintenance, and conversion of alternative fuel vehicles would give them skills for the "green" economy. Beyond just repair, programs could also be considered which would teach students to make bio-fuels.

These partnerships and programs could reduce costs to the City as it implements the "greening" of its municipal vehicle fleet.

Strategy EEC2D - Low-flow Faucets/Toilets Upgrade

Plumbing fixtures have made tremendous advancements in design and function and offer many water saving solutions. Simply adding an aerator to a faucet will provide a savings in water. Even more advanced faucets are available and use motion sensors or mechanical solutions to limit unnecessary water usage.

Recognizing the unsustainable consumption of water from flush toilets, Congress mandated a reduced water usage per flush for toilets as part of the Energy Policy Act of 1992. This required that all toilets produced after 1994 reduce the water consumption per flush to no more than 1.6 gallons. By replacing outdated fixtures at City facilities water consumption related to toilets

could be reduced by 50%. Further improvements include dual flush systems which could reduce water use even further.

A more recent development is the waterless urinal. These fixtures promise zero water use and have been successfully utilized in many commercial venues.

Strategy EEC3A - Paperless Office Program

Advances in computer technology have made it possible to run a near paperless office. Laptops and tablets make computing portable and software makes transferring and storing documents a breeze. Online access to public documents and forms is expected by the public and has in some instances become a requirement for municipalities. In many ways the City is already implementing a Paperless Office Program but there are many areas which can be improved.

Concepts to explore are:

- Digital record archiving
- Desktop faxing
- Expanding the use of e-mail correspondence
- Increased use of laptops and tablets
- Use of LCD monitors for meeting agendas and presentations
- Use of online form submissions
- Programmatic information available to public

A digital office program would require a direct investment in equipment, training, and infrastructure but this cost could be offset by reducing expenses not just in the purchase of paper but also in printing costs and the storage of paper records. By moving to a Paperless Office the City could see dramatic cost savings and reductions in waste.

Due to the technical requirements and ever-changing technologies, the scope of this project should not be identified by this report but rather discussed with the City's IT professionals and implemented on a timetable which makes sense for the City.

Strategy EEC4B - EPA WasteWise Partner Program

WasteWise promotes the prevention and recycling of municipal solid waste and select industrial materials. Utilizing a portion of the City's Recycling Grant Program funds, the City can join the EPA WasteWise Program to change their own behavior and track their own internal waste reduction efforts, while endorsers are state and local government agencies, trade associations, nonprofit organizations, and businesses that help their members, clients, and constituents realize that reducing solid waste makes good business sense. EPA WasteWise Program provides free technical assistance; access to web-based data management tracking tool; reduced purchasing and waste disposal costs; and outreach and educational materials. This can be paired with the City's Camden CLEAN Campaign.

Strategy EEC4C - Reuse & Recycle Building Materials

The City should develop a standard approach to evaluate the potential to reuse and/or recycle salvageable buildings and materials in a sustainable manner. Much of Camden's existing building stock is made up of high quality materials that may have historical significant or are difficult or expensive to find today. Preservation of buildings can reduce construction and demolition waste sent to landfills. There are also markets to reuse and recycle deconstructed building materials.

Strategy PP1A - Vehicle Miles Traveled (VMT) Reduction

Reducing the number of miles traveled is an action which can lead to great savings on fuel costs and energy consumption. There are many ways to implement or incorporate a VMT Reduction plan.

From a City fleet standpoint, incorporating route management software can cut down on the amount of backtracking throughout the day, it can also identify best routes to maximize fuel efficiency.

Another way the City could achieve a Vehicle Miles Traveled reduction would be by reducing the VMT of City employees to and from work.

- Telecommuting could be one solution, in this scenario employees work from home and utilize technology to create a workspace at home. Phone and video conferencing along with e-mail and virtual private networks can make the prospect of working from home a reality.
- Compressed work weeks could be another option to pursue. In this scenario employees could reduce the number of days they are in the office by increasing the number of hours worked on the remaining days. For example, a 40 hour per week employee could work four 10 hour days as opposed five 8 hour days. This scenario removes the roundtrip mileage (the average commute being 29 miles) for each participating employee.
- Carpooling is a great way to reduce VMT. The City could implement a carpooling bulletin board or some other opportunity for employees to meet up and identify partners to participate in a carpool.
- Bike facilities offer yet another option for reducing vehicle miles. By providing a place for City employees to secure their bikes and get changed, the City would be promoting biking as a reasonable alternative to driving.

Strategy RR1A - Solar Demonstration Project

In the last few years solar systems, or photovoltaic (PV) systems, have been getting a lot of attention in New Jersey thanks in part to a robust Solar Renewable Energy Credit (SREC) which made their installation financially more attractive. New PV systems were installed by municipalities across the state, some on buildings others on municipal land.

To promote the installation of solar systems within Camden, the City should consider a solar demonstration project. The City could consider installing a system on a prominent City building or utilize a brownfield property as the location for a large ground mounted system.

The City could purchase and install the equipment or simply make an area available for a solar developer to access. The City will reap the rewards of renewable energy production and community pride.

Strategy RR1C - Small Wind Systems Ordinance

The City should consider passing an ordinance which establishes the requirements and specifications of Small Wind Systems. These systems are much smaller in size and production capacity than the wind turbines one would find at a wind farm.

The City could expect that Small Wind Systems would be proposed for residential or commercial use. The City already has at least one small wind system in operation, it can be found at Adventure Aquarium. As buildings are constructed or rehabilitated the City may find more and more requests to permit these wind systems. To alleviate concerns and establish design standards the City should adopt a Small Wind System Ordinance. A sample ordinance is available through the NJ Office of Clean Energy.

Next Steps

For Camden to move forward with this Energy Efficiency and Conservation Strategy the City should begin by making a permanent the Energy Management position originally funded by the EEBG funds. This position could be held by an existing City employee, new hire, or outside consultant.

Creating an Energy Management position to coordinate the City's energy efficiency efforts is an ideal way to track progress and manage activities, particularly for long-term project development. Securing specific personnel to regularly track progress towards the established goals will assist the City meet their objectives over a prolonged timeframe.

Some possible functions for the Energy Manager are:

- Coordinate efforts between departments within the City
- Coordinate efforts between the City and various outside entities
- Create and manage an energy efficiency retrofitting programs
- Provide energy efficiency education and outreach
- Develop incentive/rebate programs in concert with local utility authorities
- Identify new energy efficient technologies or activities to pursue
- Apply for project funding
- Manage reporting requirements
- Provide progress reports on goal attainment
- Help residents and businesses understand their energy usage
- Review and develop ordinances which champion energy efficiency or other energy goals such as renewable energy development
- Review energy company proposals and site plans

The City should consider maintain this position to provide these services. Undoubtedly either choice will present challenges, such as funding or selecting candidates, but the effort is worth maintaining.

Acting as the project leader and coordinator the City's Energy Manager should:

1. Contact the NJ Office of Clean Energy (NJ OCE) and work with them to have Energy Audits conducted on all municipal buildings.
    a. As part of the energy Audit process, be sure to explore Combined Heat & Power options for larger facilities (e.g. City Hall) with the auditing firm.
2. Working with NJ OCE, arrange for the designated Direct Install contractor to assess the city facilities and install any upgrades covered by the program. Utilize any additional or unused EECBG funds to pay for the municipal share.
3. Utilizing any additional or unused EECBG funding, install upgrades recommended by the energy audit which were not covered by Direct Install.
4. Conduct a municipal vehicle fleet inventory.
5. Calculate the Carbon Footprint of Camden. (Sustainable Jersey offers an easily followed process for establishing a municipal carbon footprint.)

Tracking Matrix - Tier 1

ID	Project	EECBG Funded	Timeframe	Funding Source	Costs	Tier	Completed
Energy Efficiency & Conservation							
1A	High-Efficiency Energy Audits of Municpal Buildings	¨	Short-Term	Clean Energy	$0.00	1	¨
1D	Community Center HVAC Upgrade	X	Immediate	EECBG Funding	$362,000.00	1	X
1F	Energy Efficiency & Conservation Strategy	X	Immediate	EECBG Funding	$60,000.00	1	X
1G	Hire Energy Manager	X	Immediate	EECBG Funding	$52,000.00	1	X
1H	Adopt Energy Conservation Behavior Policies	¨	Short-Term	Clean Energy	$0.00	1	¨
2D	Low-flow Faucets/Toilets Upgrade	¨	Long-Term	EPA	system dependent	1	¨
3A	Paperless Office Program	¨	Long-Term	Sustainable Jersey	$100,000.00	1	¨
3B	School Based Food Composting Demonstration Project	¨	Short-Term	Sustainable Jersey	$25,000.00	1	¨
4B	EPA WasteWise Partner Program	¨	Long-Term	EPA	$25,000.00	1	¨
4C	Reuse & Recycle Building Materials	¨	Long-Term	Sustainable Jersey	$50,000.00	1	¨
Pollution Prevention							
1A	Vehicle Miles Traveled (VMT) Reduction	¨	Long-Term	DOE, NJ DOT	program dependent	Both	¨
Renewable Energy & Resources							
1A	Solar Demonstration Project	¨	Long-Term	Clean Energy	system dependent	1	¨
1C	Small Wind Systems Ordinance	¨	Long-Term	Clean Energy	$0.00	1	¨
Sustainable Land Use & Transportation							
5A	Purchase Green Fleets	¨	Long-Term	DOE	program dependent	1	¨
5C	Create Alternative Fuel Filling Stations	¨	Long-Term	SJ Gas, PSEG, DOE	system dependent	1	¨
5D	School/Vo-tech Partnerships to Support Alternative Fuels	¨	Long-Term	Education funding	program dependent	1	¨
Green Economic Development							
		¨					

** All costs are estimated and are certain to change as project details are determined by the City.*

Tier 2

City-Wide Projects

Tier 2

Tier 2 projects are related to the City as a whole. The actions are primarily programmatic or regulatory. Many of the proposed actions are intended to promote interest and participation

The strategy is divided into "immediate" (current or ongoing), "short-term" (1-3 years), and "long-term" (more than 3 years) projects.

Immediate Projects

Immediate Projects are those which were funded with the original EECBG funding. All of these actions have either been completed or are currently underway.

In addition to the strategies funded through the EECBG grant funding, the City has received funding to conduct complimentary programs such as the POWER Program. Because these projects are currently up and running they are captured in the Immediate Projects category.

Strategy EEC1C - Traffic Signal LED Replacement Project

The purpose of this project is to replace traffic signals with energy efficient lighting technologies. The city requested $140,000 in EECBG funds to replace its 142 watt sodium/mercury vapor and incandescent lighting fixture with 17 watt Light Emitting Diode (LED) fixtures in high traffic areas throughout the City.

Strategy EEC4A – Expansion of City-wide Recycling Program

The purpose of this project is to implement a material conservation program with an emphasis on source reduction and recycling, specifically by expanding the recycling program to public housing developments, businesses and non-profits, City departments, and schools, and launching a City-wide educational and promotional campaign. The city requested $151,000 in EECBG funds purchase approximately 6,800 recycling containers for dispersal to city residents, as well as totters for local businesses, schools and non-profits. The monies were also used to develop a public education and outreach campaign to promote the expanded recycling program

and develop sustainable waste reduction programs for the City's residential, business, school, civic, and event sectors.

Strategy EEC1E - Camden POWER Program

Camden City's Program Offering Widespread Energy Recovery, also known as POWER, offers forgivable loans of up to $16,000 to eligible Camden City homeowners to fund essential home repairs to make homes safer and more energy efficient. Through POWER, the City of Camden hopes to achieve total energy savings of at least 25% in certain residential homes. The program is an expansion of the popular Camden Home Improvement Program (CHIP) focusing on energy efficiency retrofits. POWER Residential is funded by the City of Camden, US Department of Energy (DOE) and the NJ Economic Development Authority (NJEDA). NJ Housing and Mortgage Finance Agency (NJHMFA) will be the funding administrator with Cooper's Ferry Development Association and Scungio Borst and Associates assuming the roles of program and construction manager respectively.

Camden City administers both a residential and commercial retrofit and rehabilitation program under POWER. The Camden POWER Residential acts as a forgivable loan. As long as participating homeowners live in their home for ten years after receiving the loan, the loan is forgiven. A portion of the loan amount will be forgiven every year until the lien is satisfied.

The Camden POWER Commercial program offers low-interest loans to Camden business and commercial property owners for the installation of energy efficiency improvements and upgrades. Capitalized with funds from the City of Camden, the United States Department of Energy, the County of Camden, the Economic Recovery Board for Camden, and New Jersey Community Capital, the Camden POWER Commercial Program will help qualified business and commercial property owners conserve energy and reduce utility costs by connecting them with incentives and financing that lower the up-front costs of energy efficiency improvements.

Strategy GED2A - EGGE Green Jobs Program

The state government intends to use a $300,000 federal grant to finance a green jobs training program in Camden that will target unemployed or underemployed residents for jobs in

assessing and cleaning up brownfields and contaminated sites in the. Seventy-two Camden residents will be selected for the training that is designed to offer them long-term employment opportunities. The participants will be trained in the identification of contaminated sites to determine if they can be redeveloped as well as hazard awareness and safety, renewable energy installation and repair, energy efficient buildings, low-impact development, natural stormwater treatment, and habitat rehabilitation.

Strategy PP3A - Continue the Camden Clean Campaign

In collaboration with the City's public-private partners, Wachovia and PNC Banks, Cooper's Ferry Development, community volunteers, and most importantly, residents, the City should continue to hold Camden Clean Campaign events.

Continuous education to deter casual and intentional littering, as well as improper trash disposal, will promote behavioral changes as a way to create a cleaner, greener Camden.

Short-Term Projects

Short-term projects are those which may take 1 to 3 years to complete but are fairly easy to start and implement. In many ways these projects begin to serve as the "next steps". The short-term projects can be used to demonstrate a dedication to energy efficiency and conservation and will provide the City with some "quick wins".

Strategy EEC1B - Weatherization Assistance Program

Americans spend more than $160 billion a year to heat, cool, light and live in our homes, according to the U.S. Environmental Protection Agency. By the year 2015, our national home energy costs are expected to rise to $200 billion, depleting more of our natural resources than ever before. One of the places we consume the most energy is in the home. The most obvious reason for high energy bills is the rising price of electricity or heating fuel. But high energy bills

also result from inefficient household components such as windows, heating and cooling equipment, and insulation.

Weatherization makes sure that homes hold heat or air conditioning in, while keeping cold or hot air out. This can be as simple as repairing a broken window or as complex as replacing a furnace. By weatherizing housing units, occupants are keeping their house at a constant temperature. Without it, homes could lose heat or air conditioning, making units work harder to maintain a consistent temperature, increasing household utility costs.

The New Jersey Department of Community Affairs provides monies to help homeowners make their homes more energy-efficient and comfortable through its Weatherization and Home Energy Assistance Programs. The Weatherization Assistance Program helps low-income families, senior citizens and disabled residents permanently reduce their energy bills by making their homes more energy efficient and comfortable year-round. This program works with community-based agencies to help seniors, disabled residents and low-income households weatherize their homes to improve heating system efficiency, conserve energy and decrease utility bills. The program also provides funds to pay heating bills under emergency circumstances. This program would easily compliment the City's Residential POWER program, as outlined below.

By implementing energy efficient improvements like weatherization, many households could save as much as 20 to 30 percent on their energy bills. Energy efficient homes help protect the environment and are less costly to own, operate and maintain. And best of all, energy efficient homes improve the quality of our lives by allowing us to enjoy the true comforts of home.

Strategy EEC2A - Water Conservation Education Program

To be successful, water conservation efforts should include an education program that informs individuals of the need to use water resources in a sustainable manner. Municipal education programs that promote water conservation can serve as good starting points for more comprehensive water conservation programs. Over time, as municipal education programs strengthen and grow, they should be expanded to reach and serve large audiences. The City can take its first step toward creating comprehensive water conservation education program by initiating a smaller education program that will be built upon in the future, or develop an ad

campaign that educates homeowners and businesses about cost-savings by participating in these conservation programs.

Strategy EEC2B - Water Conservation Ordinance

Sustainable Jersey's Water Conservation Ordinance can help municipalities curtail unnecessary water waste. Seasonal outdoor water usage in particular can lead to an unnecessary reduction in reservoir storage, ground water levels, and stream flows. Utilizing Sustainable Jersey's Water Conservation Ordinance will seek to help extend available supplies through short-term drought periods, and to avoid recurrent drought warnings/water emergencies caused by late summer "drought" but can also contribute to cost-savings on individual residential and commercial water bills.

Strategy EEC2C - Camden City School District Rain Garden Educational Demonstration Project

A rain garden is a garden with a shallow depression that captures runoff from impervious surfaces, such as rooftops, patios, driveways, and parking lots, before it enters the storm water system. Rain gardens can be customized and are limited only by the resources and time you want to put into them. They use natural processes to improve water quality by filtering pollutants and reducing the amount of stormwater runoff. The water easily infiltrates into the soil because of the deep roots of the native plants and recharges the groundwater supply.

A rain garden in urban areas, like Camden, can be especially beneficial because of its ability to divert water that would otherwise enter the combined sewer system (CSS) – systems that are generally obsolete and aged – thus, causing overflows and polluted flooding in many of the State's urban areas. As such, rain gardens reduce the amount of stormwater entering local waterways and therefore decrease pollution of our waterways and erosion of soils while increasing groundwater recharge. These perennial gardens can easily be incorporated into educational curriculums in the City's school district to improve ecological health, and teach urban-life children about the importance of environmental protection. Rain gardens can also serve as an educational resource and a showcase for low maintenance, native plants.

Strategy GED1A - Green Business Recognition Program

Community efforts toward sustainability cannot be successful without the active engagement of the private sector. A Green Business Recognition Program offers marketing and promotional support, and sometimes financial and regulatory incentives, to encourage local businesses to implement sustainable practices. Companies can adopt environmentally friendly strategies to increase energy efficiency, conserve resources, reduce waste, and prevent pollution. Beyond ecological impacts, recognition programs can also encompass social responsibility and commitments to the local economy. A simple Green Business Recognition Program might acknowledge companies that pledge to implement green practices while a more comprehensive certification effort could outline a specific set of sustainable business practices and conduct inspections to verify implementation.

Strategy SL2A - Revise & Continue Adopt-A-Lot Program

City residents can "adopt" city-owned lot(s). Lots must be kept clean, free and clear of trash and debris. Lots can be used for vegetable or floral gardens and other uses. Please contact the department for adopt-a-lot guidelines and application. "Adopted" lots remain the property of the City.

The City of Camden Clean, Green, and Infrastructure Subcommittee Report recommends:

> *"The City's Adopt-a-Lot program should be revised to increase the program's impact. These revisions should build upon the work done by the Camden Redevelopment Agency's Human Capital Director, and should draw in some of the best practices that have been successful in the Adopt-a-Lot programs in other cities. These revisions should focus on the goal of increasing accountability for the maintenance and monitoring of adopted lots by participants. Additionally, the Adopt-a-Lot program should be made more accessible for parties interested in participating."*

Strategy SL4A - Adopt a Complete Streets Policy

"Complete Streets" is the concept that all roadways should be designed, built, and maintained for all modes of transportation – pedestrian, bike, bus/transit, and car. Streets do not exist only for the automobile. Other roadway users – pedestrians, bicyclists, and transit users of all ages and abilities – must be considered. A Complete Streets Policy that is formally adopted and implemented by a municipality ensures that each street is planned, designed and operated to provide safe access for multiple users. Because streets and sidewalks are built with public funds, they should accommodate all members of the public. The adoption of a Complete Streets Policy represents a shift in priorities to include the needs of all roadway users as part of transportation planning and implementation.

Strategy PP1B - City-wide Anti-idling Program

The City should Institute and enforce an anti-idling policy for all public and private vehicles in the City. New Jersey has had a no-idling regulation for diesel-fueled commercial vehicles since 1972. This law was updated in 2009 to include a provision that states that, with limited exceptions, no motor vehicle (diesel or gasoline fueled) may have its engine running if motionless for more than three consecutive minutes. Despite these provisions, idling continues to occur in communities throughout New Jersey. Each day, Americans waste approximately 3.8 millions of gallons of gasoline by voluntarily idling their cars. This strategy will mitigate the waste of fuel, the release of air pollutants into the environment, damage to automotive engines, waste of gasoline, and noise pollution.

Strategy PP2C - Low-Impact Development Stormwater Management Ordinances

Low Impact Development (LID) is an innovative stormwater management approach with a basic principle that is modeled after nature. The use of both nonstructural and structural BMPs in low impact development is governed by certain principles, objectives and requirements. A discussion of each of these factors is presented below, along with details of each type of LID-BMP. It should be noted that, while consideration of nonstructural stormwater management techniques at land development sites is required by the NJDEP Stormwater Management Rules

at N.J.A.C. 7:8, the NJDEP believes that effective, state-wide use of such practices can be best achieved through municipal master plans and land development ordinances that mandate specific LID goals and authorize the use of specific LID-BMPs. For this reason, the Stormwater Management Rules require municipalities to review their master plans and ordinances in order to incorporate LID practices into their land development regulations to the maximum extent practicable. LID is a versatile approach that can be applied equally well to new development, urban retrofits, and redevelopment / revitalization projects.

Long-Term Projects

Long-term projects are those which may take more than 3 years to complete. Some of these projects may involve costs which the City will need to seek additional fund to pursue, or some projects may just need to be completed over time as equipment and facilities are replaced or upgraded. These projects should be considered whenever the City is creating long term plans.

Strategy RR1B - Aggregate Community Power

An area of power generation that has been discussed in NJ for some time now but not yet put into action is the concept of Aggregate Community Power. In this scenario a renewable power system is installed as a community system whereby multiple households utilize the same system to offset their daily energy needs. Power can be generated locally down to the block level. Given the large expense associated with installing renewable energy systems, a community power scenario would allow for cost sharing. The City should work with the NJ Board of Public Utilities to become the testing ground of such systems.

Additional consideration could be given to the creation of “micro-grids” which utilize Combined Heat & Power processes to establish small (a few buildings or a few blocks) power grids where large scale commercial and industrial facilities supply each other with electricity via heat generated as a waste product of industrial processes.

Strategy PP1A - Vehicle Miles Traveled (VMT) Reduction

Reducing the number of miles traveled is an action which can lead to great savings on fuel costs and energy consumption. There are many ways to implement or incorporate a VMT Reduction plan.

- Carpooling is a great way to reduce VMT. The City could implement a carpooling bulletin board or some other opportunity for residents to meet up and identify partners to participate in a carpool.
- Bike facilities offer yet another option for reducing vehicle miles. By providing a place for residents and commuters to secure their bikes and get changed, the City would be promoting biking as a reasonable alternative to driving.
- Promote biking and walking within the City.
- Increasing bike lanes and facilities

Strategy SL1A - LEED ND Model

The U.S. Green Building Council has developed a building rating system called Leadership in Energy and Environmental Design (LEED) and within the LEED program a segment for Neighborhood Development (ND).

The LEED ND program focuses on Smart Growth principals, new urbanism, and green building. The City of Camden should implement this development model as an option within the zoning and planning codes of the City. By tying the LEED ND program to some form of incentive program the City could promote the development of smart and efficient housing and commercial spaces.

Strategy SL5B - Facilitate CarShare Program

Imagine a world with one million fewer cars on the road. We do. Every day we are working towards a place with less dependence on personally-owned vehicles. Why? Because it matters. Fewer cars on the road means less congestion, less pollution, less dependence on oil, and cleaner, fresher air to breathe. Some folks don't believe it's possible for car sharing to have such

a huge impact. Providing a network of conveniently located vehicles for members to rent for as little as a half an hour, can replace 20 personal vehicles, freeing up space for parking and reducing transportation costs for members.

Strategy PP1D - Combined Heat & Power Program

Also known as cogeneration, CHP is the production of a facility's heat and power from a single fuel source. Technologies such as gas or steam turbines can be used to produce reduce energy costs. CHP could be incorporated into the City's building or zoning codes as a recommended practice. The appropriate use of CHP systems would be discussed during any new commercial or large scale residential construction discussions.

By placing special emphasis on the CHP through the planning process or possibly requiring the inclusion of CHP on new development, where appropriate, could result in the City becoming a leader in New Jersey for Combined Heat and Power implementation.

Strategy PP2A - Urban Community Forestry Program

The City should mirror the efforts of its neighbor, Philadelphia, and seek to develop an Urban Forestry Program. Priorities to increase tree canopy coverage allow the City to establish a vision and strategy to achieve a world-class green infrastructure system. Steps can be taken to establish and maintain a baseline tree inventory; increase tree planting through public/private partnerships; develop and authorize a tree ordinance; and increase education and public outreach on the importance of the City's tree canopy and the role of a tree ordinance.

Communities throughout New Jersey have long recognized the importance of managing and protecting their street tree and woodlands resources. The goal of this Action is to help communities initiate or expand tree management programs by planning and assessing the existing community tree resources through the development of a Community Forestry Management Plan that meets the NJ Department of Environmental Protection's (DEP)'s Community Forestry Program standards according to the NJ Shade Tree and Community Forestry Assistance Act ("the CF Act").

Become a Tree City USA. The Tree City USA® program, sponsored by the Arbor Day Foundation in cooperation with the USDA Forest Service and the National Association of State Foresters, provides direction, technical assistance, public attention, and national recognition for urban and community forestry programs in thousands of towns and cities that more than 135 million Americans call home. The City should consider becoming a Tree City once it has completed its Community Forestry Plan.

Develop a Treevitalize Grant Program. Research links the presence of trees to a more positive social, health, and economic environment as well, making business districts more attractive, increasing property values, calming traffic, and reducing stress. The loss of canopy cover results in the loss of those benefits as well. In short, tree cover is recognized as vitally important to the quality of life in a community.

The City should seek to develop a broad-based public-private partnership to develop a TreeVitalize Program – modeled on the successful program held in Pennsylvania's Delaware Valley. This can increase public awareness of the importance of community trees, and to reverse the loss of tree cover within the City. Partnerships will be crucial to the development of these programs. Partners would include NJDEP, DVRPC, foundations, private corporations, local utilities, and perhaps the U.S. Forest Service.

Continue the Urban Airshed Reforestation Program (UARP). UARP is a community-based street tree planting program that began in Camden in 2002. Designed to improve air quality, manage stormwater and provide shade, the UARP has removed 70,000 square feet of impervious surface to plant over 4,200 beautiful street trees in Camden. Prioritizing grassroots work, the UARP empowers residents to create positive changes in their own communities. Residents apply for and adopt trees, help organize events, and assist with the planting of each tree. In the same vein, the UARP has engaged over 8,000 volunteers of all backgrounds and economic statuses in beautifying one of the nation's most dangerous cities.

Next Steps

The implementation of Tier 2 projects will require a greater level of buy-in and participation from the City residents. The City's Energy Manager (outlined in Tier 1) should work closely with community leaders and organizations to successfully implement the Tier 2 projects.

The Energy Manager should continue the Energy Efficiency and Conservation Strategy process by:

1. Continue outreach and implementation of the Camden POWER program.
    a. Ensure residents are aware of job training available as a subset of the POWER program
2. Reach out to the Camden City Sustainable Jersey Green Team for assistance in implementing some of the public projects (rain garden)
3. Draft ordinances (e.g. Small Wind) and have them properly reviewed and implemented.
4. Begin discussions with the NJ Board of Public Utilities regarding community power scenarios and renewable energy projects.

Tracking Matrix - Tier 2

ID	Project	EECBG Funded	Timeframe	Funding Source	Costs	Tier	Completed
Energy Efficiency & Conservation							
1B	Weatherization Assistance Program	¨	Short-Term	Clean Energy	program dependent	2	¨
1C	Traffic Signals Replacement Project	X	Immediate	EECBG Funding	$140,000.00	2	X
1E	Camden POWER Program	¨	Immediate	Multiple (DOE, UEZ)	$0.00	2	¨
2A	Water Conservation Education Program	¨	Short-Term	Sustainable Jersey	$10,000.00	2	¨
2B	Water Conservation Ordinance	¨	Short-Term	Sustainable Jersey	$0.00	2	¨
2C	Camden City School District Rain Garden Educational Demonstration Project	¨	Short-Term	Sustainable Jersey	$25,000.00	2	¨
4A	Expansion of City-wide Recycling Program	X	Immediate	EECBG Funding	$151,000.00	2	X
Pollution Prevention							
1A	Vehicle Miles Traveled (VMT) Reduction	¨	Long-Term	DOE, NJDOT	program dependent	Both	¨
1B	City-wide Anti-idling Program	¨	Short-Term	Sustainable Jersey	$0.00	2	¨
1D	Combined Heat & Power Program	¨	Long-Term	DOE	system dependent	2	¨
2A	Urban Community Forestry Program	¨	Long-Term	NJDEP	$25,000.00	2	¨
2C	Low-Impact Development Stormwater Management Ordinances	¨	Short-Term	NJDEP	$0.00	2	¨
3A	Continue the Camden Clean Campaign	¨	Immediate	private	$50,000.00	2	¨
Renewable Energy & Resources							
1B	Aggregate Community Power		Long-Term	DOE	system dependent	2	¨
Sustainable Land Use & Transportation							
1A	LEED ND Model	¨	Long-Term	USGBC	$0.00	2	¨
2A	Revise & Continue Adopt-A-Lot Program	¨	Short-Term	community	$10,000.00	2	¨
4A	Adopt a Complete Streets Policy	¨	Short-Term	NJDOT	$0.00	2	¨
5B	Facilitate CarShare Program	¨	Long-Term	NJDOT, EPA, private	program dependent	2	¨
Green Economic Development							
1A	Green Business Recognition Program	¨	Short-Term	Sustainable Jersey	$10,000.00	2	¨
2A	EGGE Green Jobs Program	¨	Immediate	federal, DOE	$300,000.00	2	¨

** All costs are estimated and are certain to change as project details are determined by the City.*

Conclusion

Process

CONCLUSION

The City should expect to see dramatic reductions in energy consumption and energy costs at its facilities once the projects in this strategy are completed.

This EECS is written as a road map towards meeting the goals throughout this document. By meeting the established goals, the City of Camden will be playing its part towards helping the State of New Jersey reach its energy goals.

As with any roadmap, one must periodically return to the map to determine progress and stay on the correct path towards the desired destination. The City should continue to review progress towards the outlined goals into the future and make a concerted effort to continue progress beyond the short-term goals and immediate funding.

As this plan was written for the beginning of 2012 and the overarching goals for the City and State extend to 2022, this strategy should be reassessed in five years with annual reviews in the interim. By updating this plan at the half way point the City will be able to make necessary adjustments to the plan to ensure the goals are met.

In the short term, the City will need to implement the energy efficiency projects earmarked for the Federal funding from the DOE – much of which has been completed. The City will need to issue RFPs for those activities where there is no pre-identified vendor.

The EECBG funding requires reporting on the funds used and progress made. As activities are completed and funds drawn down the reporting requirements should be addressed.

Once all of the Immediate projects have been completed the City should begin to focus on the Short- and Long-term goals. To fund future projects the City will need to seek additional funding from some of the agencies noted in the Action Agenda and Funding Sources section of the strategy.

Funding Sources

State Programs

Federal Programs

FUNDING SOURCES

Outside of the EECBG funding there are several other potential funding sources which could be utilized to assist the City with implementing some of the longer term goals. Below are just a few of the potential funding sources.

One important note, because the mid- and long-term goals are so varied the entity which could use the funds will not always need to be the City. For instance, if the City were to implement an education program which promotes energy efficiency upgrades in residential units, the target of the funding for that program could be the City residents.

State Funding Sources

New Jersey Economic Development Authority

Clean Energy Solutions Capital Investment Loan/Grant Program

The New Jersey Clean Energy Solutions Capital Investment program is intended to provide grants and loans for end-use energy efficiency, combined heat and power (CHP), and state-of-the-art electricity production projects, including renewable energy projects that use Class I and Class II resources as defined under the state renewable portfolio standard (RPS). In order to qualify for assistance, applicants must be New Jersey-based commercial, industrial, or institutional entities. Eligible projects must have minimum capital equipment costs of at least $1 million, should create or maintain jobs in New Jersey, and meet N.J.A.C. 7:27D-2.2 regulatory requirements relating to project award criteria. Funding for the program comes from the New Jersey Global Warming Solutions Fund which receives revenue from the sale of greenhouse gas emission allowances under the Northeast Regional Greenhouse Gas Initiative (RGGI). Proceeds may be used for the purchase of fixed assets and real estate.

Projects that meet the above qualifying criteria are eligible for zero-interest loans with terms of up to 10 years. Loans are limited to 50% of project costs up to a maximum of $5 million. A portion of the loan may be issued as a grant, with the grant/loan split based on project's

environmental and economic development impact. Grants are limited $2.5 million and may not exceed 80% of the amount requested. Grants for energy efficiency projects in commercial buildings are limited to 20% of the amount requested. It is important to note that grants are only issued in connection with loan applications. Applicants are not permitted to apply solely for a grant.

New Jersey Economic Development Authority - Combined Heat and Power

Implementing a combined heat and power or combined cooling heat and power (CHP) project with an electric generating capacity of more than one megawatt (MW) serving a commercial, institutional, or industrial electricity customer in New Jersey with electric demand of at least 750 kilowatts (kW).

This is a performance-based grant. The amount of the grant will be based on the actual electric and thermal energy production on an annual basis, which shall begin upon the commencement of operations of the CHP project. Grants shall be made only for performance based on a per kW per hour and per Btu delivered. The grant amount will be calculated based on a 75 percent capacity factor over four years. The grant will be equal to $450/kW of installed electric generation.

- New Jersey Department of Treasury
- New Jersey Department of Community Affairs
- New Jersey Department of Environmental Protection
- School Development Authority
- Housing & Mortgage Finance Agency
- NJ Economic Development Authority

Federal Funding Sources

U.S. Department of Housing and Urban Development – Community Development Block Grant Program (CDBG)

The Community Development Block Grant program provides funding to governmental entities to carry out activities which benefit low and moderate income families, senior citizens, and the handicapped. Funding can be used to provide infrastructure improvements and implement programs. In recent years HUD has developed the Sustainable Housing and Communities initiative which intends to promote Smart Growth in areas which are benefitted by HUD funding.

U.S. Department of Energy - Renewable Energy Production Incentive (REPI)

Established by the federal *Energy Policy Act of 1992*, the federal Renewable Energy Production Incentive (REPI) provides incentive payments for electricity generated and sold by new qualifying renewable energy facilities. Qualifying systems are eligible for annual incentive payments of 1.5¢ per kilowatt-hour in 1993 dollars (indexed for inflation) for the first 10-year period of their operation, *subject to the availability of annual appropriations in each federal fiscal year of operation.* REPI was designed to complement the federal renewable energy production tax credit (PTC), which is available only to businesses that pay federal corporate taxes.

Qualifying systems must generate electricity using solar, wind, geothermal (with certain restrictions), biomass (excluding municipal solid waste), landfill gas, livestock methane, or ocean resources (including tidal, wave, current and thermal). The production payment applies only to the electricity sold to another entity. Eligible electric production facilities include not-for-profit electrical cooperatives, public utilities, state governments and political subdivisions thereof, commonwealths, territories and possessions of the United States, the District of Columbia, Indian tribal governments or political subdivisions thereof, and Native Corporations.

Payments may be made only for electricity generated from an eligible facility first used before October 1, 2016. Appropriations have been *authorized* for fiscal years 2006 through fiscal year 2026. If there are insufficient appropriations to make full payments for electricity production from all qualified systems for a federal fiscal year, 60% of the appropriated funds for the fiscal year will be assigned to facilities that use solar, wind, ocean, geothermal or closed-loop biomass technologies; and 40% of the appropriated funds for the fiscal year will be assigned to other eligible projects. Funds will be awarded on a pro rata basis, if necessary.

Internal Revenue Service - Renewable Electricity Production Tax Credit (PTC)

The October 2008 legislation extended the in-service deadlines for all qualifying renewable technologies; expanded the list of qualifying resources to include marine and hydrokinetic resources, such as wave, tidal, current and ocean thermal; and made changes to the definitions of several qualifying resources and facilities. The effective dates of these changes vary. Marine and hydrokinetic energy production is eligible as of the date the legislation was enacted (October 3, 2008), as is the incremental energy production associated with expansions of biomass facilities. A change in the definition of "trash facility" no longer requires that such facilities burn trash, and is also effective immediately. One further provision redefining the term "non-hydroelectric dam," took effect December 31, 2008.

The February 2009 legislation revised the credit by: (1) extending the in-service deadline for most eligible technologies by three years (two years for marine and hydrokinetic resources); and (2) allowing facilities that qualify for the PTC to opt instead to take the federal business energy investment credit (ITC) or an equivalent cash grant from the U.S. Department of Treasury. The ITC or grant for PTC eligible technologies is generally equal to 30% of eligible costs.

The tax credit amount is 1.5¢/kWh in 1993 dollars (indexed for inflation) for some technologies, and half of that amount for others. The rules governing the PTC vary by resource and facility type.

Internal Revenue Service - Clean Renewable Energy Bonds (CREBs)

Clean renewable energy bonds (CREBs) may be used by certain entities -- primarily in the public sector -- to finance renewable energy projects. The list of qualifying technologies is generally the same as that used for the federal renewable energy production tax credit (PTC). CREBs may be issued by electric cooperatives, government entities (states, cities, counties, territories, Indian tribal governments or any political subdivision thereof), and by certain lenders. CREBs are issued -- theoretically -- with a 0% interest rate.* The borrower pays back only the principal of the bond, and the bondholder receives federal tax credits in lieu of the traditional bond interest.

The Energy Improvement and Extension Act of 2008 (Div. A, Sec. 107) allocated $800 million for new Clean Renewable Energy Bonds (CREBs). In February 2009, the American Recovery and Reinvestment Act of 2009 (Div. B, Sec. 1111) allocated an additional $1.6 billion for new CREBs, for a total new CREB allocation of $2.4 billion. The Energy Improvement and Extension Act of 2008 also extended the deadline for previously reserved allocations ("old CREBs") until December 31, 2009, and addressed several provisions in the existing law that previously limited the usefulness of the program for some projects. A separate section of the law extended CREBs eligibility to marine energy and hydrokinetic power projects.

Participation in the program is limited by the volume of bonds allocated by Congress for the program. Participants must first apply to the Internal Revenue Service (IRS) for a CREBs allocation, and then issue the bonds within a specified time period. The new CREBs allocation totaling $2.4 billion does not have a defined expiration date under the law; however, the recent IRS solicitation for new applications requires the bonds to be issued within 3 years after the applicant receives notification of an approved allocation (see History section below for information on previous allocations). Public power providers, governmental bodies, and electric cooperatives are each reserved an equal share (33.3%) of the new CREBs allocation. The tax credit rate is set daily by the U.S. Treasury Department. Under past allocations, the credit could be taken quarterly on a dollar-for-dollar basis to offset the tax liability of the bondholder. However, under the new CREBs allocation, the credit has been reduced to 70% of what it would have been otherwise. Other important changes are described in IRS Notice 2009-33.

CREBs differ from traditional tax-exempt bonds in that the tax credits issued through CREBs are treated as taxable income for the bondholder. The tax credit may be taken each year the bondholder has a tax liability as long as the credit amount does not exceed the limits established by the federal *Energy Policy Act of 2005*.

U.S. Department of Energy - Loan Guarantee Program

Innovative Technology Loan Guarantee Program:

Title XVII of the federal *Energy Policy Act of 2005* (EPAct 2005) authorized the U.S. Department of Energy (DOE) to issue loan guarantees for projects that "avoid, reduce or sequester air pollutants or anthropogenic emissions of greenhouse gases; and employ new or significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued." The loan guarantee program has been authorized to offer more than $10 billion in loan guarantees for energy efficiency, renewable energy and advanced transmission and distribution projects.

DOE actively promotes projects in three categories: (1) manufacturing projects, (2) stand-alone projects, and (3) large-scale integration projects that may combine multiple eligible renewable energy, energy efficiency and transmission technologies in accordance with a staged development scheme. Under the original authorization, loan guarantees were intended to encourage early commercial use of new or significantly improved technologies in energy projects. The loan guarantee program generally does not support research and development projects.

In July 2009, the U.S. DOE issued a new solicitation for projects that employ innovative energy efficiency, renewable energy, and advanced transmission and distribution technologies. Proposed projects must fit within the criteria for "New or Significantly Improved Technologies" as defined in 10 CFR 609. The solicitation provides for a total of $8.5 billion in funding and is to remain open until that amount is fully obligated. The initial due date for applicants was September 16, 2009.

Temporary Loan Guarantee Program:

The American Recovery and Reinvestment Act of 2009 (ARRA) (H.R. 1), enacted in February 2009, extended the authority of the DOE to issue loan guarantees and appropriated $6 billion for this program. Under this act, the DOE may enter into guarantees until September 30, 2011. The act amended EPAct 2005 by adding a new section defining eligible technologies for new loan guarantees. Eligible projects include renewable energy projects that generate electricity or thermal energy and facilities that manufacture related components, electric power transmission

systems, and innovative biofuels projects. Funding for biofuels projects is limited to $500 million. Davis-Bacon wage requirements apply to any project receiving a loan guarantee.

In July 2009, the U.S. DOE issued a solicitation for innovative energy efficiency, renewable energy, and transmission and distribution technologies. The solicitation is expected to support as much as $8.5 billion in lending to eligible projects.

U.S. Department of Treasury - Renewable Energy Grants

The *American Recovery and Reinvestment Act of 2009* (H.R. 1), enacted in February 2009, created a renewable energy grant program that will be administered by the U.S. Department of Treasury. This cash grant may be taken in lieu of the federal business energy investment tax credit (ITC). In July 2009 the Department of Treasury issued documents detailing guidelines for the grants, terms and conditions and a sample application. There is an online application process, and applications are currently being accepted. See the program web site for more information.

Grants are available to eligible property* placed in service in 2009 or 2010, or placed in service by the specified credit termination date,** if construction began in 2009 or 2010. The guidelines include a "safe harbor" provision that sets the beginning of construction at the point where the applicant has incurred or paid at least 5% of the total cost of the property, excluding land and certain preliminary planning activities. Below is a list of important program details as they apply to each different eligible technology.

U.S. Department of Energy - 1603 Cash Grants for Renewable Energy Project Funding

U.S. Department of the Treasury and the U.S. Department of Energy announced at the end of July that they would be accepting applications for a program that will make direct payments in lieu of tax credits to companies that create and place in service renewable energy facilities. The two Departments estimated distributing at least $3 billion in financial support to approximately 5,000 bio-mass, solar, wind, and other types of renewable energy production facilities. The funding for this effort is made available through the American Recovery and Reinvestment Act.

The DOE estimates the $3 billion in grants could enable between $10-14 billion of capital investment in projects that would not be able to be financed without this program -- projects that are ready to be built but are waiting to close financing and start construction.

Tax credits for renewable energy projects can be turned into upfront capital, enabling companies and firms to secure financing and begin construction.

Appendix

Attachment D
EECBG FOA
Initial Submission to DOE

DOE FOA
Appendix “D”

EECBG STRATEGY FORMAT

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 State of New Jersey established an 2008 Energy Master Plan (EMP) which was intended to reduce demand, increase capacity, develop renewable energy technologies, and create a 21st century grid. The specific goals established by the EMP are:

1) Maximize energy conservation and energy efficiency to achieve reductions in energy consumption of at least 20% by 2020
2) Reduce peak demand for electricity
3) Strive to a goal of achieving 30% of electricity needs from renewable sources by 2020
4) Develop a 21st century energy infrastructure
5) Invest in innovative clean energy technologies

In an effort to do its part, the City of Camden has adopted the State's goals as its own. These are the basis for the City's EECS and provide the guiding principles for selecting projects.

With the funding provided through the Department of Energy's Energy Efficiency and Conservation Block Grant program the City of Camden is targeting energy efficiency and conservation strategies for municipal facilities.

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 Camden is undertaking five (5) activities utilizing the EECBG funds. Those activities are:

Traffic Signals Replacement Project. The purpose of this project is to replace traffic signals with energy efficient lighting technologies. The city requested $140,000 in EECBG funds to replace its 142 watt sodium/mercury vapor and incandescent lighting fixture with 17 watt Light Emitting Diode (LED) fixtures in high traffic areas throughout the City.

This action will maximize energy conservation and energy efficiency for the City as well as reduce the City's peak demand. This action addresses goals 1 and 2 as outlined above.

Expansion of City-wide Recycling Project. The purpose of this project is to implement a material conservation program with an emphasis on source reduction and recycling, specifically by expanding the recycling program to public housing developments, businesses and non-profits, City departments, and schools, and launching a City-wide educational and promotional campaign. The city requested $151,000 in EECBG funds purchase approximately 6,800 recycling containers for dispersal to city residents, as well

as totters for local businesses, schools and non-profits. The monies were also used to develop a public education and outreach campaign to promote the expanded recycling program and develop sustainable waste reduction programs for the City's residential, business, school, civic, and event sectors.

This action will maximize energy conservation and energy efficiency for the City. This action addresses goal 1 outlined in question one.

Hire Energy Manager. The purpose of this project was to expand the City's capacity to effectively manage the energy efficiency and conservation initiatives occurring within the City. The city requested $52,000 in EECBG funds to hire an Energy Manager responsible for managing the implementation and monitor of all energy efficiency projects, and work with other departments to coordinate a streamlined approach to energy use reductions and conservation.

Hiring an Energy Manager for the City will allow Camden, over time, to address all of the established goals for this funding.

Community Center HVAC Upgrade. The purpose of this project is to replace the HVAC systems in the North Camden Community with energy efficient technologies. The city requested $362,000 in EECBG funds to replace existing, old, and inefficient hot water heaters, furnace systems, air-conditioning systems, insulation and ventilation systems, as well as retrofit and upgrade lighting fixtures with LED lighting.

This action will maximize energy conservation and energy efficiency for the City. This action addresses goal 1 outlined in question one.

Energy Efficiency & Conservation Strategy. The City of Camden has been making strides in the area of sustainability, and the creation of this EECS is an important step in guiding that process. This Strategy will serve two purposes: the first is to identify which projects will be funded by the EECBG program and how the City will gauge the results of that investment, while the second is to provide a framework for additional projects for future consideration, prospective funding sources, projects connections, and to serve as a reference point when analyzing progress.

The EECS will provide the framework for the City to address all of the stated goals from question 1.

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.

Historically, the City of Camden has partnered with adjacent municipalities, the County of Camden, and local organizations for various projects such as economic development efforts and housing programs.

This cooperation will likely be tapped in the future as Camden continues to pursue long term goals. However, the projects identified for this funding have been identified as priorities which created a more "local" approach to the projects and the use of funding.

If future funding becomes available the City will entertain projects and programs with greater regional impacts.

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.

The State of New Jersey has produced an Energy Master Plan which calls for reductions in consumption, increased efficiencies, and renewable energy production. The ambitious goals identified by the State will require the participation of every municipality; by meeting the goals outlined in this EECS, the City of Camden will be doing its part to help the State meet its goals. This progress made towards these goals will be relayed to the State and the Board of Public Utilities through meetings and conferences. By identifying the progress made and the projects yet to be undertaken, the City can solicit the State and BPU for additional funding resources and support for future plans.

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

The City utilized EECBG funds to create an EECS which would outline goals to be met in the near term and objectives to sustain these projects in the future. It is expected that the City will continue to utilize this strategy into the future to designate additional projects and potential funding sources.

Also, benefits derived through the implementation of the energy efficiency projects are such that they will reduce the City's energy consumption for future generations. This reduction in consumption will assist the City in meeting some of its near term goals but more importantly, will act as the catalyst for future energy efficiency projects to be undertaken by the City.

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.

All funds have been committed well before the specified deadline of the program. The bulk of the funding received will go towards purchasing physical items which can be easily verified by a visual inspection. The purchase price of equipment will be scrutinized to ensure the appropriate pricing and when required/possible, the City will seek bids through a fair and open process. The funds which are not marked for physical items, such as hiring an Energy Manager, will remain within the program limits. Additionally, the City complies with all reporting requirements established by the EECBG program.

EECBG DOE Funding Announcement

DE-FOA-0000013

FINANCIAL ASSISTANCE
FUNDING OPPORTUNITY ANNOUNCEMENT

U. S. Department of Energy

National Energy Technology Laboratory

Recovery Act – Energy Efficiency and Conservation Block Grants – Formula Grants

Funding Opportunity Number: DE-FOA-0000013

Announcement Type: INITIAL

CFDA Number: 81.128 Energy Efficiency and Conservation Block Grant Program (EECBG)

Issue Date:	**March 26, 2009**
Application Due Date:	***For State Applicants Only:*** **May 26, 2009 at 8:00:00 PM Eastern Time** ***Applicants are encouraged to submit their applications well before the due date.***
	For Units of Local Government and Tribal Applicants Only: **June 25, 2009 at 8:00:00 PM Eastern Time.** ***Applicants are encouraged to submit their applications well before this due date.***

NOTE: REGISTRATION/SUBMISSION REQUIREMENTS

Registration Requirements

There are several one-time actions you must complete in order to submit an application in response to this Announcement (e.g., obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number, register with the Central Contractor Registration (CCR), and register with FedConnect). Applicants who are not registered with CCR and FedConnect, should allow at least 10 days to complete these requirements. It is suggested that the process be started as soon as possible.

Applicants must obtain a DUNS number. DUNS website: http://www.dnb.com/US/duns_update/

Applicants must register with the CCR. CCR website: http://www.ccr.gov/

Applicants must register with FedConnect to submit their application. FedConnect website: www.fedconnect.net

Questions

Questions relating to the **system requirements or how an application form works** must be directed to Grants.gov at 1-800-518-4726 or **support@grants.gov**.

Questions regarding the content of the announcement must be submitted through the FedConnect portal. You must register with FedConnect to respond as an interested party to submit questions, and to view responses to questions. It is recommended that you register as soon as possible after release of the FOA to have the benefit of all responses. More information is available at http://www.compusearch.com/products/fedconnect/fedconnect.asp. DOE will try to respond to a question within 3 business days, unless a similar question and answer have already been posted on the website.

Questions pertaining to the **submission** of applications through FedConnect should be directed by e-mail to **support@FedConnect.net** or by phone to FedConnect Support at 800-899-6665.

Application Preparation and Submission

Applicants must download the application package, application forms and instructions from Grants.gov. Grants.gov website: http://www.grants.gov/
(Additional instructions are provided in Section IV A of this FOA.)

Applicants must submit their application through the FedConnect portal. FedConnect website: www.fedconnect.net (additional instructions are provided in Section IV H of this FOA).

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PART I – FUNDING OPPORTUNITY DESCRIPTION

SUMMARY

The American Recovery and Reinvestment Act of 2009, Public Law 111-5, appropriates funding for the Department of Energy (DOE) to issue/award formula-based grants to states, U.S. territories, units of local government, and Indian tribes under the Energy Efficiency and Conservation Block Grant (EECBG) Program. DOE's authorization for this program is set forth in Title V, Subtitle E of the Energy Independence and Security Act (EISA) of 2007.

Projects under this announcement will be funded, in whole or in part, with funds appropriated by the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, (Recovery Act or Act). The Recovery Act's purposes are to stimulate the economy and to create and retain jobs. The Act gives preference to activities that can be started and completed expeditiously, including a goal of using at least 50 percent of the funds made available by it for activities that can be initiated not later than June 17, 2009. Accordingly, special consideration will be given to projects that promote and enhance the objectives of the Act, especially job creation, preservation and economic recovery, in an expeditious manner.

Be advised that special terms and conditions may apply to projects funded by the Act relating to:

- Reporting, tracking and segregation of incurred costs;
- Reporting on job creation and preservation;
- Publication of information on the Internet;
- Access to records by Inspectors General and the Government Accountability Office;
- Prohibition on use of funds for gambling establishments, aquariums, zoos, golf courses or swimming pools;
- Ensuring that iron, steel and manufactured goods are produced in the United States;
- Ensuring wage rates are comparable to those prevailing on projects of a similar character;
- Protecting whistleblowers and requiring prompt referral of evidence of a false claim to an appropriate inspector general; and
- Certification and Registration.

These special terms and conditions will be based on provisions included in Titles XV and XVI of the Act. These Special Provisions are located at http://management.energy.gov/business_doe/business_forms.htm.

The Office of Management and Budget (OMB) has issued Initial Implementing Guidance for the Recovery Act. See M-09-10, Initial Implementing Guidance for the American Recovery and Reinvestment Act of 2009. OMB will be issuing additional guidance concerning the Act in the near future. Applicants should consult the DOE website, www.energy.gov, the OMB website http://www.whitehouse.gov/omb/, and the Recovery website, www.recovery.gov regularly to keep abreast of guidance and information as it evolves.

Recipients of funding appropriated by the Act shall comply with requirements of applicable Federal, State, Tribal and local laws, regulations, DOE policy and guidance, and instructions in this announcement, unless relief has been granted by DOE. Recipients shall flow down the requirements of applicable Federal, State, Tribal and local laws, regulations DOE policy and guidance, and instructions in this announcement to subrecipients at any tier to the extent necessary to ensure the recipient's compliance with the requirements.

Be advised that Recovery Act funds can be used in conjunction with other funding as necessary to

complete projects, but tracking and reporting must be separate to meet the reporting requirements of the Recovery Act and related OMB Guidance. Applicants for projects funded by sources other than the Recovery Act should plan to keep separate records for Recovery Act funds and to ensure those records comply with the requirements of the Act. Funding provided through the Recovery Act that is supplemental to an existing grant is one-time funding.

Applicants should begin planning activities for their first tier subawardees, including obtaining a DUNS number (or updating the existing DUNS record), and registering with the Central Contractor Registration (CCR). The extent to which subawardees will be required to register in CCR will be determined by OMB at a later date.

This announcement includes program guidance on the implementation and administration of the EECBG Program.

PURPOSE

The purpose of the EECBG Program is to assist eligible entities in creating and implementing strategies to:

- reduce fossil fuel emissions in a manner that is environmentally sustainable and, to the maximum extent practicable, maximizes benefits for local and regional communities;
- reduce the total energy use of the eligible entities; and
- improve energy efficiency in the building sector, the transportation sector, and other appropriate sectors.

These stated purposes describe the overall intent of the EECBG Program. Entities may develop various initiatives and projects that address one or more of the purposes and each activity an entity undertakes is not required to meet all of the stated purposes. DOE encourages entities to develop many different new and innovative approaches within the framework of the legislation and the guidance to serve these purposes. However, each entity is required to use the funds in a cost-effective manner that is of maximum benefit to the population of that entity and in a manner that will yield continuous benefits over time in terms of energy and emission reductions.

The period of performance for these grants will be 36 months. In keeping with the agenda of the Recovery Act, and supporting the goal of immediate investment in the economy, entities are required to obligate/commit all funds within eighteen (18) months from the effective date of the award. In the event funds are not obligated/committed within eighteen (18) months, DOE reserves the right to deobligate the funds and cancel the award.

PROGRAM PRINCIPLES

DOE has developed the following core principles to guide entities during the program and project planning process:

- Prioritize energy efficiency and conservation first as the cheapest, cleanest, and fastest ways to meet energy demand.
- To maximize benefits over the longest possible terms, entities should look for ways to link their energy efficiency efforts to long-term priorities (especially community economic development, community stabilization and poverty reduction efforts).
- Invest funds in programs and projects that create and/or retain jobs and stimulate the economy while meeting long term energy goals.
- Target programs and projects that will provide substantial, sustainable and measurable energy savings, job creation and economic stimulus effects.

- Give priority to programs and projects that leverage federal funds with other public and private resources, including coordinated efforts involving other Federal programs targeting community development funded through the Recovery Act such as the Community Development Block Grant program, HOME, and job training programs.
- To the extent possible, develop programs and strategies that will continue beyond the funding period.
- Ensure oversight, transparency, and accountability for all program activities.
- Enact policies that transform markets, increase investments, and support program goals.
- Develop comprehensive plans that benchmark current performance and set aggressive goals.

PROGRAM OUTCOMES

The EECBG Program is a crosscutting program. There are many possible outcomes that could result from successfully implementing programs, projects and activities at the state and local level. These desired outcomes help clarify the broad purposes stated in the legislation and can assist implementation, including overall development and administration of state and local programs. They can be used to help evaluate potential programs and projects, as well as understand the factors that affect the success of different activities, programs and projects.

Desired outcomes of the EECBG Program include:

- Increased energy efficiency, reduced energy consumption and reduced energy costs through efficiency improvements in the building, transportation and other appropriate sectors;
- New jobs and increased productivity to spur economic growth and community development;
- Accelerated deployment of market-ready distributed renewable energy technologies, including wind, solar, geothermal, hydropower, biomass and hydrogen technologies;
- Improved air quality and related environmental and health indicators associated with the reduction of fossil fuel emissions;
- Improved coordination of energy-related policies and programs across jurisdictional levels of governance and with other local and community level programs in order to maximize the impact of this program on long-term local priorities;
- Increased security, resilience, and reliability of energy generation and transmission infrastructure;
- Leveraging of the resources of federal, state and local governments, utilities and utility regulators, private sector and non-profit organizations to maximize the resulting energy, economic and environmental benefits; and
- Widespread use of innovative financial mechanisms that transform markets.

ELIGIBLE ACTIVITIES

A list of eligible activities for use of program funds is contained in Sec. 544 of EISA. Additional activities may be eligible pending approval by the DOE. The activities below are therefore not an exhaustive list and should be used as a guide to the intent of the program. DOE encourages each entity to develop a strategy, including its component activities, that is likely to result in maximum energy efficiency improvements, fossil-fuel emission reductions, economic benefits and total energy use reduction.

1. <u>Development of an Energy Efficiency and Conservation Strategy:</u> Entities may use a grant received under this part to develop and/or implement a strategy for energy efficiency and conservation and to carry out activities to achieve the purposes of the program. All entities receiving direct formula grants from the DOE are required to submit a proposed strategy for approval.

2. Technical Consultant Services: Entities may retain technical consultant services to assist the eligible entity in the development of such a strategy, including formulation of energy efficiency, energy conservation, and energy usage goals; identification of strategies to achieve those goals through efforts to increase energy efficiency, reduce fossil fuel emissions or reduce energy consumption through investments or by encouraging behavioral changes. Entities may develop methods to measure progress in achieving the goals. Entities may develop and publish annual reports to the population served by the eligible entity describing the strategies and goals and the progress made in achieving them during the preceding calendar year.

3. Residential and Commercial Building Energy Audits: Entities may support the conduct of residential and commercial building energy audits.

4. Financial Incentive Programs: Entities may establish financial incentive programs and mechanisms for energy efficiency improvements such as energy saving performance contracting, on-bill financing, and revolving loan funds.

5. Energy Efficiency Retrofits: Grants may be made to nonprofit organizations and governmental agencies for the purpose of retrofitting existing facilities to improve energy efficiency.

6. Energy Efficiency and Conservation Programs for Buildings and Facilities: Entities may develop and implement energy efficiency and conservation programs for buildings and facilities within the jurisdiction of the entity. The range of activities includes the design and operation of the programs; the identification of the most effective methods for achieving maximum participation and efficiency rates; public education; measurement and verification protocols; and identification of energy efficient technologies.

7. Development and Implementation of Transportation Programs: Entities may develop and implement programs to conserve energy used in transportation, including but not limited to:

- Employee flex time programs;
- Promoting use of satellite work centers;
- Development and promotion of zoning guidelines or requirements that promote energy efficient development;
- Development of infrastructure such as bike lanes and pathways and pedestrian walkways;
- Synchronization of traffic signals;
- State/locals/regional integrated planning activities (i.e. transportation, housing, environmental, energy, land use) with the goal of reducing greenhouse gas emissions and vehicle miles traveled;
- Incentive programs to reduce commutes by single occupancy vehicles;
- Improvements in operational and system efficiency of the transportation system such as implementation of intelligent transportation system (ITS) strategies;
- Idle-reduction technologies and/or facilities to conserve energy, reduce harmful air pollutants, and greenhouse gas emissions from freight movement; and
- Installation of solar panels on interstate rights-of-way to conserve energy in highway operations and maintenance activities.

8. Building Codes and Inspections: Entities may develop and implement building codes and inspection services to promote building energy efficiency.

9. Energy Distribution: Entities may implement distributed energy resource technologies that significantly increase energy efficiency, including:

- District heating and cooling systems

- Combined heat and power systems
- Cogeneration systems
- Energy Storage systems
- Absorption chillers
- Desiccant humidifiers
- Micro turbines
- Ground source heat pumps

10. Material Conservation Programs: Entities may implement activities to increase participation and efficiency rates for material conservation programs, including source reduction, recycling, and recycled content procurement programs that lead to increases in energy efficiency.

11. Reduction and Capture of Methane and Greenhouse Gases: Entities may use grant funds to purchase and implement technologies to reduce, capture, and, to the maximum extent practicable, use methane and other greenhouse gases generated by landfills or similar waste-related sources, such as wastewater treatment plants, operations producing food waste, dairy farms and other animal operations.

12. Traffic Signals and Street Lighting: Entities may use grant funds to replace traffic signals and street lighting with energy efficient lighting technologies, including light emitting diodes; and any other technology of equal or greater energy efficiency.

13. Renewable Energy Technologies on Government Buildings: Entities may use grant funds to develop, implement, and install on or in any government building of the eligible entity onsite renewable energy technology that generates electricity from renewable resources, including solar energy; wind energy; fuel cells; and biomass.

14. Any Other Appropriate Activity: Entities may submit any other appropriate activity for approval in the Energy Efficiency and Conservation Strategy.

METRICS

The results of the funding provided for the EECBG Program through the Recovery Act will be assessed according to the performance metrics contained in Attachment C Reporting Requirements.

STATES AND TERRITORIES: REVISION OF THE STATE ENERGY CONSERVATION PLAN

Each state shall modify the state energy conservation plan of the state under 42 U.S.C. 6322 to establish additional goals for increased energy efficiency and conservation in the state. This requirement will be accomplished when the State applicant submits their annual State Energy Program plan for 2009. More details will be set forth in the upcoming Program Year 2009 State Energy Program Funding Opportunity Announcement.

STATES AND TERRITORIES: ENERGY EFFICIENCY AND CONSERVATION STRATEGY

States and territories shall submit an Energy Efficiency and Conservation Strategy (EECS) with their application. The EECS shall address the following: 1) the process for providing subgrants to units of local government that are not eligible for population formula-based grants; and 2) include a strategy of the state for the use of funds received under the program to assist the state in achieving the goals established in EISA, in accordance with 42 U.S.C. sections 17152(b) and 17154. The format for the EECS is contained in Attachment E.

Approval By the Secretary: The Secretary has a maximum of 120 days after receiving a proposed strategy to approve or disapprove it. If the Secretary disapproves a proposed strategy the Secretary shall provide to the state the reasons for the disapproval; and the state may revise and resubmit the proposed strategy as many times as necessary until the Secretary approves a proposed strategy.

STATES AND TERRITORIES: DISTRIBUTION OF SUBGRANTS

Each state that receives a grant under the program shall use not less than 60 percent of the amount received to provide subgrants to units of local government in the state that are not eligible for direct formula grants. The state shall provide the subgrants not later than 180 days after the date on which the Secretary approves the proposed energy efficiency and conservation strategy.

States are required to develop a sub-granting process that expeditiously allocates funding, prevents fraudulent spending, generates robust reporting, and promotes the EECBG Program principles stated above.

Washington, D.C. is explicitly defined as a state according to Section 541(6)(B) of EISA (42 U.S.C. 17151(6)(B)). Because the District of Columbia is a consolidated city-state government, it is not subject to the requirement applicable to states that not less than 60% of state funding must be subgranted to local units of government.

Hawaii, the U.S. Virgin Islands, American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands have no ineligible entities; these entities are exempt from having to provide subgrants.

ELIGIBLE UNITS OF LOCAL GOVERNMENTS AND INDIAN TRIBES: PROPOSED STRATEGY

Units of local government and Indian tribes must submit to the DOE a proposed Energy Efficiency and Conservation Strategy (EECS). This can be done through one of two methods: a) submit the EECS with the application utilizing the suggested format contained in Attachment D to this announcement; or b) submit the EECS not later than 120 days after the effective date of the award as Activity Area 1 on the EECBG Activity Worksheet (Attachment B1). If the latter option is chosen, the EECS shall be a comprehensive strategy that covers, at a minimum, all items detailed in Attachment D.

Approval by the Secretary: The Secretary has a maximum of 120 days after receiving a proposed strategy to approve or disapprove it. If the Secretary disapproves a proposed strategy, the Secretary shall provide to the grantee the reasons for the disapproval; and the grantee may revise and resubmit the proposed strategy as many times as necessary until the Secretary approves a proposed strategy.

EECBG FUNDING

Funding allocations for the formula-based grants are included as Attachment A to this announcement.

The statute established a number of parameters with regard to the funds made available for the EECBG program. Funds are apportioned under a series of formulas specified by EISA and formulas as determined by DOE. All funds must be obligated/committed within 18 months of the effective date of the award and expended within 36 months of the effective date of the award.

- Set-Aside for Training and Technical Assistance Expenses: Prior to distributing funding to grantees, DOE may deduct funds for administrative expenses to administer the EECBG Program.

STAGED DISBURSEMENT FOR EECBG AWARDS

Obligation of funds under the EECBG awards will vary based on the following: (1) the award amount, and (2) acceptance of an approved Energy Efficiency and Conservation Strategy (EECS). The EECBG staged disbursements are as follows:

- Awards up to $250,000 – 100% of allocation will be obligated at time of award. No EECS is required prior to award, but the EECS must be submitted within 120 days.
- Awards above $250,000 but less than $2M – applicants may receive up to $250,000 for development of the EECS and approved activities. If not submitted with the application, the EECS is required within 120 days of the effective date of the award. The balance of the allocation will be obligated upon DOE approval of the recipient's EECS.
- Awards above $2M – applicants may receive up to $250,000 at award for development of an EECS and approved activities, or 50% of the total allocation if an acceptable EECS has been submitted with the application and has been approved by DOE. The balance of funding will be obligated after one or more progress reviews in which the recipient must demonstrate that it has obligated funds appropriately, complied with reporting requirements and created jobs.

Project performance will be monitored and corrective action taken, as necessary, to ensure acceptable performance for all awards.

QUESTIONS

Specific questions relating to the application and award process should be directed to EECBG@netl.doe.gov.

For general questions regarding the EECBG Program, please contact the EERE'S Information Center at http:///www1.eere.energy.gov/informationcenter/ or call toll-free at 1-877-EERE-INFO (1-877-337-3463) between 9 a.m. and 7 p.m. EST, Monday-Friday.

PART II – AWARD INFORMATION

A. TYPE OF AWARD INSTRUMENT

- DOE anticipates awarding grants under this announcement.

B. ESTIMATED FUNDING

- The American Recovery and Reinvestment Act of 2009 appropriated $3.2 Billion ($3,200,000,000) for EECBG for fiscal year 2009. DOE will retain $59 million to provide technical assistance and training for grantees under the program. The amounts available for grants are as follows:

    - $1,863,881,000 for formula grants to eligible cities and counties
    - $767,480,000 for formula grants to states
    - $54,819,900 for formula grants to eligible Indian tribes

  The EECBG funding allocations are included as Attachment A to this announcement.

  Each state is required to pass not less than 60 percent of its allocation through to cities and counties within the state that are ineligible for direct formula grants from the DOE.

C. PERIOD OF PERFORMANCE

- DOE anticipates making awards with a thirty-six (36) month period of performance. Applicants must ensure that all funds are obligated for authorized activities within eighteen (18) months.

D. TYPE OF APPLICATION

- DOE will only accept new applications under this announcement.

E. METHOD OF PAYMENT

- Payment under the resulting awards will be made as advance through the Department of Treasury's Automated Standard Application for Payment (ASAP) System http://www.fms.treas.gov/asap/index.html.

PART III - ELIGIBILITY INFORMATION

A. ELIGIBLE APPLICANTS

In accordance with Section 541 of EISA, only the following entities may apply for financial assistance under the EECBG Program: States, U.S. Territories, Indian tribes, and units of local governments (cities and counties and their equivalents). The DOE uses the most recent and accurate population data from the U.S. Census to determine eligibility. Specific definitions for eligibility are as follows:

STATES AND TERRITORIES

For the purposes of the EECBG Program, an "eligible state" includes the 50 United States, the District of Columbia and the following Territories of the United States: Puerto Rico, the U.S. Virgin Islands, American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands.

LOCAL GOVERNMENTS

A local government is eligible for funds if the following conditions are met:
1. The government is included in the latest available Census of Governments as a currently incorporated government;
2. The government has a governance structure with an elected official and governing body;
3. The government has the authority to implement the eligible activities under this program; and
4. The government meets the population thresholds in EISA as further defined in the Federal Register.

CITIES

For the purposes of the EECBG Program, "city" includes a city-equivalent unit of local government as defined by the US Census of Governments. For example, a city-equivalent unit of local government such as a town, village or other municipality shall be considered eligible if it meets the required population thresholds. Consolidated city-county governments will be considered as cities.

Cities that are eligible for direct formula grants from the DOE are those that have a population of at least 35,000, or that are one of the 10 highest populated cities of the state in which the city is located.

In states that have incorporated eligible municipalities (villages) within the boundaries of other incorporated eligible municipalities (towns), the village population will be subtracted from the town's population.

Cities that do not meet the eligibility requirements described above for direct formula grants from DOE may be eligible for program funds through subgrants through the state in which they are located.

COUNTIES

For the purposes of the EECBG Program, "county" includes county-equivalent units of local government as defined by the US Census of Governments.
Counties are eligible for direct formula grants from the DOE if the county population is at least 200,000 or if the county is one of the 10 highest populated counties of the state in which it is located. County populations calculated for eligibility for direct formula grants from the DOE do not include the

populations of any and all cities within them that are eligible for direct formula grants from the DOE. Counties that do not meet the eligibility requirements described above for direct formula grants from the DOE may be eligible for program funds through subgrants through the state in which they are located.

A group of eligible units of local governments may choose to submit a single application provided that the application is submitted by a single eligible unit of local government representing the group. The required assurances from the duly authorized official or highest elected official representing each of the units of local government must be provided.

INDIAN TRIBES

As defined by section 541(4) of Title V, Subtitle E of EISA, "'Indian tribe' has the meaning given the term in section 4 of the Indian Self-Determination and Education Assistance Act." The Indian Self-Determination and Education Assistance Act states that, "'Indian tribe' means any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act (85 Stat. 688), which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians" (25 U.S.C. 450b).

The Tribal Allocation for the EECBG Program will be distributed among the 562 federally recognized Indian tribes, listed in *Indian Entities Recognized and Eligible to Receive Services from the United States Bureau of Indian Affairs* published by Department of Interior's Bureau of Indian Affairs in the **Federal Register** on April 4, 2008, 73 FR 18553; and the 12 Alaska Native regional corporations established pursuant to the Alaska Native Claims Settlement Act (33 U.S.C. 1601 *et seq.*).

All Indian tribes as defined above are eligible for direct formula grants from DOE.

A group of eligible Indian tribes may choose to submit a single application provided that the application is submitted by a single Indian tribe representing the group. The Tribal Council Resolution from each participating Tribe must be included with the application (see Part IV.C.3. for more information).

PLEASE NOTE: Only one application may be submitted by an eligible unit of local government or Indian tribe. If the unit of local government or Indian tribe intends to use Recovery Act funding to support projects performed by different parts of the eligible unit of local government or Indian tribe, the projects must be consolidated into a single application.

OFFICIAL LIST OF ELIGIBLE ENTITIES

The DOE official list of entities eligible for direct formula grants under EECBG Program is contained as Attachment A to this announcement.

B. COST SHARING

- Cost sharing is not required. However, leveraging of funds by grantees is encouraged in order to maximize the total additional energy-related benefits resulting from the program.

PART IV – APPLICATION AND SUBMISSION INFORMATION

A. ADDRESS TO REQUEST APPLICATION PACKAGE

- Application forms and instructions are available at Grants.gov. To access these materials, go to http://www.grants.gov, select "Apply for Grants," and then select "Download Application Package." Enter the CFDA number of the funding opportunity number located on the cover of this announcement and then follow the prompts to save the application package. Once you have SAVED the application package and completed all the required documentation, you will submit your application via the Fedconnect portal. See Section C. below for specific instructions as to the naming of your application package. **DO NOT use the Save & Submit selection in Grants.gov.**

B. LETTER OF INTENT AND PRE-APPLICATION

1. Letter of Intent.

- Letters of Intent are not required. However, if you are an eligible entity in accordance with Section 541, Subtitle E of EISA of 2007 and DO NOT intend to apply for these funds, please submit the following message to EECBG@netl.doe.gov:

  Subject: DE-FOA-0000013 - No intention of applying for funding

  The following entity: [State / City, State / County, State / Indian Tribe / State] will not be applying for their formula-based funding available under the Energy Efficiency and Conservation Block Grant Program.

  Please include the signature, name and contact information of the authorized individual responsible for this decision.

2. Pre-application

- Pre-applications are not required.

C. CONTENT AND FORM OF APPLICATION – SF 424

You must complete the mandatory forms and any applicable optional forms (e.g., SF-LLL-Disclosure of Lobbying Activities) in accordance with the instructions on the forms and the additional instructions below. **Files that are attached to the forms must be in Adobe Portable Document Format (PDF**) **unless otherwise specified in this announcement**.

IMPORTANT: Your complete application package must be saved with a **unique identification code (UIC)**. The UIC varies for each type of applicant and will be used by the DOE to help distinguish and organize the applications received under this announcement. As noted below, the UIC will also be used in the naming of certain files. The format for the UIC is as follow:

For State applicants, the UIC consists of the following:
1 (State code)

For units of local government, the UIC consists of the following:
1 (State code) – 2 (Type of Local Government) – 3 (Name of Local Government)

For Indian Tribes, the UIC consists of the following:

1 (State code) – 2 (Tribal Name)

The "State code" is the two-letter state identifier. The "type of local government" should be identified as "City" for City governments, "County" for County governments, and "Other" for other types of local governments such as boroughs, townships, and villages.

Examples of the various filename formats are shown below:

State applicant: FL-SF424.pdf
Unit of local government: OH-CITY-COLUMBUS.pdf
Indian Tribe: AZ-NAVAJO NATION.pdf

1. SF 424 - Application for Federal Assistance

Complete this form first to populate data in other forms. Complete all required fields in accordance with the pop-up instructions on the form. To activate the instructions, turn on the "Help Mode" (Icon with the pointer and question mark at the top of the form). The list of certifications and assurances referenced in Field 21 can be found on the DOE Financial Assistance Forms Page at http://management.energy.gov/business_doe/business_forms.htm under Certifications and Assurances.

PLEASE NOTE: by signing the SF 424, Applicants are providing their written assurance that they will comply with ALL requirements set forth in the American Reinvestment and Recovery Act.

2. Project/Performance Site Location(s)

Indicate the primary site where the work will be performed. If a portion of the project will be performed at any other site(s), identify the site location(s) in the blocks provided.

Note that the Project/Performance Site Congressional District is entered in the format of the 2 digit state code followed by a dash and a 3 digit Congressional district code, for example VA-001. Hover over this field for additional instructions.

Use the Next Site button to expand the form to add additional Project/Performance Site Locations.

3. Other Attachments Form

Submit the following files with your application and attach them to the Other Attachments Form. Click on "Add Mandatory Other Attachment" to attach the Project Activity File. Click on "Add Optional Other Attachment," to attach the other files.

- **Project Activity File - Mandatory Other Attachment**

The format for the Project Activity File is contained in Attachment B1. The project activity file must contain a brief description of each activity the Applicant will undertake with the allocated funding. Applicants may propose more than one (1) activity. For each activity, Applicants should identify the market sectors being served, the anticipated number of jobs to be created, the anticipated number of jobs retained, the anticipated amount of energy saved and/or renewable energy generated, the anticipated reduction in emissions, and anticipated funds to be leveraged. Applicants should also identify the overall cost of the proposed project. The budgets for all activity

sheets should sum to the total allocation for the applicant. Save the information in a single file named "UIC-Project Activity.pdf," and click on "Add Mandatory Other Attachment" to attach.

ADMINISTRATIVE COSTS: State applicants may not use more than 10 percent of amounts provided under the program for administrative expenses (EISA Sec 545 (c)(4). Units of local government and Indian tribes may not use more than 10 percent or $75,000, whichever is greater (EISA Sec 545 (b)(3)(A). These costs should be captured and summarized for each activity under the Projected Costs Within Budget: Administration.

REVOLVING LOAN FUNDS: Units of local government and Indian tribes may not use more than 20 percent or $250,000, whichever is greater, for the establishment of revolving loan funds (EISA Sec 545 (b)(3)(B)). These costs should be captured and summarized for each activity under the Projected Costs Within Budget: Revolving Loans.

SUBGRANTS: State applicants may not use less than 60 percent of their allocation to provide subgrants to units of local government in the State that are not eligible for direct grants (EISA Sec 545 (c)(1)(A). Units of local government and Indian tribes may not use more than 20 percent or $250,000, whichever is greater, for the provision of subgrants to non-governmental organizations for the purpose of assisting in the implementation of the energy efficiency and conservation strategy of the applicant (EISA Sect 545 (b)(3)(C)). These costs should be captured and summarized for each activity under the Projected Costs Within Budget: Subgrants.

- **SF 424 A Excel, Budget Information – Non-Construction Programs File**

  You must provide a budget for the total project period/total allocation amount. Use the SF 424 A Excel, "Budget Information – Non Construction Programs" form on the DOE Financial Assistance Forms Page at http://management.energy.gov/business_doe/business_forms.htm.
  You may request funds under any of the Object Class Categories as long as the item and amount are necessary to perform the proposed work, meet all the criteria for allowability under the applicable Federal cost principles, and are not prohibited by the funding restrictions in this announcement (See PART IV, G). Save the information in a single file named "UIC-SF424A.xls," and click on "Add Optional Other Attachment" to attach.

- **Budget Justification File –**
  For Awards Less than $250,000
  For applications seeking $250,000 or less, DOE intends to issue fixed obligation grants when the Applicant provides sufficient budgetary documentation for DOE to ascertain that actual project costs would be at least the amount sought in the application.
  Such documentation may include:

  - Competitive bids or quotes for equipment, materials and/or services.
  - Catalogue pricing for equipment and/or materials.
  - Published labor rates for services on a labor hour or time and materials basis.
  - Audited labor rates for work performed on a cost-reimbursable basis.

  Please note: In the event a fixed obligation grant is awarded, Recipients must certify in writing to the contracting officer at the end of the project that the activity was completed or the level of effort was expended, however should the activity or effort not be carried out, the recipient would be expected to make appropriate reimbursements.

For Awards Greater than $250,000
You must justify the costs proposed in each Object Class Category/Cost Classification category (e.g., identify key persons and personnel categories and the estimated costs for each person or category; provide a list of equipment and cost of each item; identify proposed subaward/consultant work and cost of each subaward/consultant; describe purpose of proposed travel, number of travelers, and number of travel days; list general categories of supplies and amount for each category; and provide any other information you wish to support your budget). Provide the name of your cognizant/oversight agency, if you have one, and the name and phone number of the individual responsible for negotiating your indirect rates. Save the budget justification information in a single file named "UIC-Budget.pdf," and click on "Add Optional Other Attachment" to attach.

ARRA 2009 Additional Budget Justification Information

Proposals shall provide written assurance that all laborers and mechanics on projects funded directly by or assisted in whole or in part by and through funding appropriated by the Act are paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by subchapter IV of Chapter 31 of title 40, United States Code (Davis-Bacon Act). For guidance on how to comply with this provision, see http://www.dol.gov/esa/whd/contracts/dbra.htm.

- **Subaward Budget File(s) – Required for Awards Greater than $250,000**
  You must provide a separate budget as well as budget justification for each subaward that has an estimated cost greater than 25% of the total allocation or $1,000,000, whichever is less. Save each Subaward budget in a separate file. Use up to 10 letters of the subawardee's name (plus .xls) as the file name (e.g., ucla.xls or energyres.xls), and click on "Add Optional Other Attachment" to attach.

- **Financial Management Assessment**
  The format for the Financial Management Assessment is contained in Attachment B2. In order to evaluate the viability of the Applicant's financial management system, the Financial Management Assessment should be completed, signed and certified by the Applicant's Financial Officer. This form should be saved in a file named "UIC-Financial Assessment.pdf" and click on "Add Optional Other Attachment" to attach.

- **EECS Strategy Format - For units of local government and Indian tribes only**
  The format for the Energy Efficiency and Conservation Strategy to be used by units of local government and Indian tribes is contained in Attachment D. As detailed in Part I 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.

- **EECS Strategy - For States only**
  The format for the Energy Efficiency and Conservation Strategy for use by States is contained in Attachment E. State applicants must submit the EECS at the time of applications. The EECS should address the following: 1) the process for providing subgrants to units of local government that are not eligible for population formula-based

grants; and 2) include a strategy for the use of funds received under the program to assist the state in achieving the goals established in EISA, in accordance with 42 U.S.C. Sections 17152(b) and 17154. The EECS should be saved in a file named "UIC-Strategy.pdf" and click on "Add Optional Other Attachment" to attach.

- **Assurances**
  REQUIREMENT FOR UNITS OF LOCAL GOVERNMENT: All units of local government, such as cities, towns, municipalities, counties or other, must designate the proper authority to apply for and receive funding based on Title V, Subtitle E, Energy Efficiency and Conservation Block Grants, Sections 541(3)(A) or 541(3)(B) of EISA 2007, Public Law 110-140. The duly authorized official or highest elected official within the unit of local government, in consultation with the energy or sustainability department of that entity, if one exists, must certify the name and contact information for the part of the eligible government that is authorized to receive funds and implement the EECBG Program.

  REQUIREMENT FOR TRIBAL APPLICANTS: A Tribal Council Resolution, or other evidence of the applicant's authority to submit the application on behalf of the Tribe, must be submitted as part of the application. The Tribal Council Resolution or other evidence must verify that the entity submitting the application has or has been given the authority to submit on behalf of the Tribe. If an eligible Tribe is submitting the application on behalf of a team of eligible Tribes, a Tribal Council Resolution or other evidence from each of the entities must be submitted, as stated above.

  Save each certification in a separate file named "UIC-Assurances.pdf" and click on "Add Optional Other Attachment" to attach.

3. SF-LLL Disclosure of Lobbying Activities

If applicable, complete SF- LLL. Applicability: If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the grant/cooperative agreement, you must complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying."

4. NEPA

All projects receiving financial assistance from DOE must be reviewed under the National Environmental Policy Act (NEPA) of 1969 – 42 U.S.C. Section 4321 et seq.

Based on DOE's review of the list of activities that funds can be utilized for under the EECBG Program, DOE has determined that projects in support of activities 1-3, 6, 7A, 7B, 7C, 7E, 7F, 8-10, and 12 (shown in the table in regular text) will likely be classified as categorical exclusions. Therefore, Applicants proposing projects in support of activities 1-3, 6, 7A, 7B, 7C, 7E, 7F, 8-10, and 12 are not required to submit any NEPA documentation at this time. However, DOE reserves the right to request NEPA documentation if during the review process it is determined necessary.

Applicants proposing projects in support of activities 4, 5, 7D, 11, 13, and 14 (shown in the table below in **bold text**) may also qualify for categorical exclusion status. However, this determination cannot be made without NEPA review. **Therefore, all Applicants proposing projects in support of activities 4, 5, 7D, 11, 13, and 14 must supply the environmental information contained in NETL F 451.1-1/3-EECBG contained in Attachment B3.** This form should be saved in a file named "UIC-NEPA.pdf" and click on "Add Optional Other Attachment" to attach.

Applicants must know that by proposing projects in support of activities 4, 5, 7D, 11, 13, or 14, the NEPA process could delay the award process; applicants may be restricted to use of funds for planning purposes only until the NEPA process is complete.

All project activites permitted under the EECBG Program and the corresponding required NEPA actions are reflected in the table below:

Table of NEPA Requirements by EECBG Project Activities		
ACTIVITY NUMBER	ACTIVITY DESCRIPTION	NEPA ACTION REQUIRED AT THIS TIME
1.	development and implementation of an energy efficiency and conservation strategy under section 545(b);	No further action needed at this time
2.	retaining technical consultant services to assist the eligible entity in the development of such a strategy, including— A. formulation of energy efficiency, energy conservation, and energy usage goals; B. identification of strategies to achieve those goals— (i) through efforts to increase energy efficiency and reduce energy consumption; and (ii) by encouraging behavioral changes among the population served by the eligible entity; C. development of methods to measure progress in achieving the goals; D. development and publication of annual reports to the population served by the eligible entity describing— (i) the strategies and goals; and (ii) the progress made in achieving the strategies and goals during the preceding calendar year; and E. other services to assist in the implementation of the energy efficiency and conservation strategy;	No further action needed at this time
3.	residential and commercial building energy audits;	No further action needed at this time
4.	**establishment of financial incentive programs for energy efficiency improvements;**	**Complete NETL F 451.1-1/3-EECBG and submit with application**
5.	**the provision of grants to nonprofit organizations and governmental agencies for the purpose of performing energy efficiency retrofits;**	**Complete NETL F 451.1-1/3-EECBG and submit with application**
6.	development and implementation of energy efficiency and conservation programs for buildings and facilities within the jurisdiction of the eligible entity, including— A. design and operation of the programs;	

	B. identifying the most effective methods for achieving maximum participation and efficiency rates; C. public education; D. measurement and verification protocols; and E. identification of energy efficient technologies;	No further action needed at this time
7.	development and implementation of programs to conserve energy used in transportation, including— A. use of flex time by employers; B. satellite work centers; C. development and promotion of zoning guidelines or requirements that promote energy efficient development;	No further action needed at this time
	D. development of non-highway transportation infrastructure, such as bike lanes and pathways and pedestrian walkways;	**Complete NETL F 451.1-1/3-EECBG and submit with application**
	E. synchronization of traffic signals; and F. other measures that increase energy efficiency and decrease energy consumption;	No further action needed at this time
8.	development and implementation of building codes and inspection services to promote building energy efficiency;	No further action needed at this time
9.	application and implementation of energy distribution technologies that significantly increase energy efficiency, including— A. distributed resources; and B. district heating and cooling systems;	No further action needed at this time
10.	activities to increase participation and efficiency rates for material conservation programs, including source reduction, recycling, and recycled content procurement programs that lead increases in energy efficiency;	No further action needed at this time
11.	**the purchase and implementation of technologies to reduce, capture, and, to the maximum extent practicable, use methane and other greenhouse gases generated by landfills or similar sources;**	**Complete NETL F 451.1-1/3-EECBG and submit with application**
12.	replacement of traffic signals and street lighting with energy efficient lighting technologies, including— A. light emitting diodes; and B. any other technology of equal or greater energy efficiency;	No further action needed at this time
13.	**development, implementation, and installation on or in any government building of the eligible entity of onsite renewable energy technology that generates electricity from renewable resources, including—** **A. solar energy;**	**Complete NETL F 451.1-1/3-EECBG and submit with application**

	B. wind energy; **C. fuel cells; and** **D. biomass; and**	
14.	**any other appropriate activity, as determined by the Secretary, in consultation with—** **A. the Administrator of the Environmental Protection Agency;** **B. the Secretary of Transportation; and** **C. the Secretary of Housing and Urban Development.**	**Complete NETL F 451.1-1/3-EECBG and submit with application**

Summary of Required Forms/Files

As previously noted, the complete application package must be saved with the proper **unique identification code (UIC)**. The UIC varies for each type of applicant and will be used by DOE to help distinguish and organize the applications received under this announcement. Your application must include the following documents. Please note: some of the documents are contained in the application package that Applicants will download from grants.gov. Other documents are to be crated using formats attached to this announcement and others do not have an established format and are to be created in the format of the Applicants choice:

Name of Document	Location of Document	Format	File Name
Application for Federal Assistance – SF424	In grants.gov forms package	Form	N/A
Project/Performance Site Location(s)	In grants.gov forms package	Form	N/A
Other Attachments Form: Attach the following files to this form:		Form	N/A
Project Activity File	Attachment B1	PDF	UIC-Project Activity.pdf
SF 424A File - Budget Information for Non-Construction Programs	DOE Financial Assistance Forms Page at http://management.energy.gov/business_doe/business_forms.htm.	Excel	UIC-SF424A.xls
Budget Justification File	Created by Applicant	PDF	UIC-Budget.pdf
Subaward Budget File(s) (if applicable)	Created by Applicant	Excel	See Instructions above
Financial Management Assessment	Attachment B2	PDF	UIC-Financial Assessment.pdf
EECS Strategy	Attachment D	PDF	UIC-Strategy.pdf

Format (units of local government and Indian Tribes only)			
EECS Strategy (states only)	Attachment E	PDF	UIC-Strategy.pdf
Assurances	Created by Applicant	PDF	UIC-Assurances.pdf
SF-LLL Disclosure of Lobbying Activities (if applicable)	In grants.gov forms package	Form	N/A
NEPA Information NETL F 451.1-1/3-EECBG	Attachment B3	PDF	UIC-NEPA.pdf

D. SUBMISSIONS FROM SUCCESSFUL APPLICANTS

DOE reserves the right to request additional or clarifying information for any reason deemed necessary, including, but not limited to:

- Indirect cost information
- Other budget information
- Name and phone number of the Designated Responsible Employee for complying with national policies prohibiting discrimination (See 10 CFR 1040.5)
- Additional NEPA Information
- Applicants who will be using grant money for infrastructure investments will be required to provide the following Certification prior to award:

  "With respect to funds made available to State or local governments for infrastructure investments under the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, the Governor, mayor, or other chief executive, as appropriate, certifies by acceptance of this award that the infrastructure investment has received the full review and vetting required by law and that the chief executive accepts responsibility that the infrastructure investment is an appropriate use of taxpayer dollars. Recipient shall provide an additional certification that includes a description of the investment, the estimated total cost, and the amount of covered funds to be used for posting on the Internet. A State or local agency may not receive infrastructure investment funding from funds made available by the Act unless this certification is made and posted."

E. SUBMISSION DATES AND TIMES

Application Due Date

For State Applications Only: This announcement will remain open until May 26, 2009 8:00:00 pm Eastern Standard Time. Applications may be submitted at any time before the specified due date and time. Applicants are encouraged to submit their applications as soon practicable.

For Units of Local Government and Tribal Applicants Only: a second closing date of June 25, 2009 at 8:00:00 PM Eastern Time will apply. Tribal Applicants are encouraged to submit their applications well before this due date if possible.

F. INTERGOVERNMENTAL REVIEW

This program is not subject to Executive Order 12372 (Intergovernmental Review of Federal Programs) and the regulations at 10 CFR Part 1005.

G. FUNDING RESTRICTIONS

Cost Principles Costs must be allowable in accordance with the applicable Federal cost principles referenced in 10 CFR part 600.

LIMITATIONS ON THE USE OF FUNDS

STATES AND TERRITORIES

States must subgrant at least 60 percent of their allocation to units of local government in the State that are not eligible for direct grants.

State applicants may expend for payment of reasonable administrative and planning costs not more than 10 percent of amounts provided under the program including the cost of reporting.

LOCAL GOVERNMENTS AND INDIAN TRIBES

Up to 10 percent or $75,000, whichever is greater, of grant funds may be used for administrative expenses, excluding the cost of meeting the reporting requirements of the Program. Administrative costs are the allowable, reasonable, and allocable direct and indirect costs related to overall management of the awarded grant.

Up to 20 percent or $250,000, whichever is greater, of the grant funds may be used for the establishment of revolving loan funds.

Up to 20 percent or $250,000, whichever is greater, of grant funds may be used for the provision of subgrants to nongovernmental organizations for the purpose of assisting in the implementation of the energy efficiency and conservation strategy of the eligible unit of local government or Indian tribe.

H. OTHER SUBMISSION AND REGISTRATION REQUIREMENTS

1. Where to Submit

APPLICATIONS MUST BE SUBMITTED THROUGH FEDCONNECT TO BE CONSIDERED FOR AWARD. Information regarding how to submit applications via Fed Connect can be found at

https://www.fedconnect.net/FedConnect/PublicPages/FedConnect_Ready_Set_Go.pdf

Further, it is the responsibility of the applicant, prior to the offer due date and time, to verify successful transmission.

2. Registration Requirements

There are several one-time actions you must complete prior to submitting an application through FedConnect (e.g., obtain a Dun and Bradstreet Data Universal Numbering System (DUNS)

number, register with the Central Contract Registry (CCR), and register in FedConnect). Please allow 10 days for completing the registration process. Registration for these systems is not controlled by the Department of Energy. Therefore, questions relating to the registration process and system requirements must be directed to the individual help centers for DUNS, CCR, and FedConnect identified on the respective web sites.

DUNS Number

If your organization does not have a DUNS number, go to the Dun & Bradstreet (D&B) online registration located at http://fedgov.dnb.com/webform/displayHomePage.do to receive a number free of charge or call 1-866-705-5711.

CCR Registration

The Central Contractor Registration (CCR) collects, validates, stores, and disseminates business information about the Federal Government's trading partners in support of the contract award, grants, and the electronic payment processes.

To see if your organization is already registered with CCR, check the CCR website located at http://www.bpn.gov/ccring/scripts/search.asp. You will be able to search CCR by using either your organization's DUNS Number or legal business name. If your organization is already registered, take note of who is listed as the organization's E-Business Point of Contact (E-Business POC). This person will be responsible for registering in FedConnect.

If your organization is not registered in CCR, go to the CCR Website at www.ccr.gov and select the "Start New Registration" option to begin the registration process. Please allow up to 7 days for processing of your registration which includes the IRS validating your Employer Identification Number (Taxpayer Identification Number or Social Security Number). The organization's E-Business POC will be designated during the CCR registrations process. A special Marketing Partner ID Number (MPIN) is established as a password to verify the E-Business POC. This MPIN is needed for the initial FedConnect Registration.

FedConnect Registration

FedConnect is a web portal that bridges the gap between agencies and vendors to streamline the process of doing business with the federal government. Through this portal, you will be able to review opportunities, submit applications and receive awards. To register with FedConnect, go to https://www.fedconnect.net

If you are the first person from your company to register, FedConnect will need to create a company account. This is done by the E-Business POC indentified in CCR using the organization's CCR MPIN. After the initial FedConnect account is created, employees can register themselves without the MPIN.

Part V - APPLICATION REVIEW INFORMATION

A. PRELIMINARY REVIEW

Applications will initially be reviewed to determine that (1) the applicant is eligible for an award; and (2) the information required by the announcement has been submitted; (3) all mandatory requirements are satisfied; and (4) the proposed project is responsive to the objectives of the funding opportunity announcement.

B. REVIEW AND AWARD PROCESS

Applications will be reviewed to determine that the activities proposed are in accordance with Section 544 of EISA 2007. Awards will be made in accordance with the final EECBG Formula Allocations. These allocations are contained in Attachment A to this announcement.

Part VI - AWARD ADMINISTRATION INFORMATION

A. AWARD NOTICES

Notice of Award

- An Assistance Agreement issued by the contracting officer is the authorizing award document. It normally includes either as an attachment or by reference: (1) Special Terms and Conditions; (2) Applicable program regulations, if any; (3) Application as approved by DOE/NNSA; (4) DOE assistance regulations at 10 CFR part 600, or if the award is for research and to a university or non-profit, the Research Terms and Conditions; (5) National Policy Assurances To Be Incorporated As Award Terms; (6) Budget Summary; and (7) Federal Assistance Reporting Checklist, which identifies the reporting requirements.

B. ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS

1. Administrative Requirements

The administrative requirements for DOE grants and cooperative agreements are contained in 10 CFR part 600 (See: http://ecfr.gpoaccess.gov) and, if the award is for research and to a university or non-profit, the Research Terms & Conditions and the DOE Agency Specific Requirements located at http://www.nsf.gov/bfa/dias/policy/rtc/index.jsp

Recovery Act 2009 Award Administration Information

Special Provisions relating to work funded under American Recovery and Reinvestment Act of 2009, Pub. L. 111-5 shall apply. Also, the Office of Management and Budget may be promulgating additional provisions or modifying existing provisions. Those additions and modifications will be incorporated into the Special Provisions as they become available. These Special Provisions are located at http://management.energy.gov/business_doe/business_forms.htm

2. Special Terms and Conditions and National Policy Requirements

Special Terms and Conditions and National Policy Requirements
The DOE Special Terms and Conditions for Use in Most Grants and Cooperative Agreements are located at http://management.energy.gov/business_doe/business_forms.htm.
The National Policy Assurances To Be Incorporated As Award Terms are located at DOE http://management.energy.gov/business_doe/business_forms.htm.

Intellectual Property Provisions
The standard DOE financial assistance intellectual property provisions applicable to the various types of recipients are located at http://www.gc.doe.gov/financial_assistance_awards.htm.

C. REPORTING

Reporting requirements are identified on the Federal Assistance Reporting Checklist, DOE F 4600.2, located in Attachment C to this Announcement. The requirements include special reporting set forth under the Recovery Act.

PART VII - QUESTIONS/AGENCY CONTACTS

A. QUESTIONS

For general questions regarding the EECBG Program, please contact the EERE Information Center via phone or email at 1-877-EERE-INFO (1-877-337-3463) (Toll-free) or eereic@ee.doe.gov. Specific questions relating to the application and award process should be directed to EECBG@netl.doe.gov.

PART VIII - OTHER INFORMATION

A. MODIFICATIONS

Notices of any modifications to this announcement will be posted on FedConnect. You can receive updates through FedConnect's message center once you register interest for the opportunity.

B. GOVERNMENT RIGHT TO REJECT OR NEGOTIATE

DOE reserves the right, without qualification, to reject any or all applications received in response to this announcement and to select any application, in whole or in part, as a basis for negotiation and/or award.

C. COMMITMENT OF PUBLIC FUNDS

The Contracting Officer is the only individual who can make awards or commit the Government to the expenditure of public funds. A commitment by other than the Contracting Officer, either explicit or implied, is invalid.

APPENDICES/REFERENCE MATERIAL

- Attachment A – EECBG Program Allocations
- Attachment B1 – Project Activity File
- Attachment B2 – Financial Management Assessment
- Attachment B3 – NETL F 451.1-1/3-EECBG
- Attachment C – Reporting Requirements
- Attachment D – EECBG Strategy Format (units of local government and Indian tribes)
- Attachment E – EECBG Strategy Format (States)

Initial EECBG Submission to Department of Energy

EECBG Activity Worksheet

Grantee: City of Camden, New Jersey Date: 01/10/2011

DUNS #: 077096581 Program Contact Email: pakeatin@ci.camden.nj.us

Program Contact First Name: Patrick Last Name: Keating

Project Title: HVAC Upgrade in Community Center

Activity: 5. Energy Efficiency Retrofits If Other:

Sector: Public If Other:

Proposed Number of Jobs Created: Proposed Number of Jobs Retained:

Proposed Energy Saved and/or Renewable Energy Generated: 40% Energy Reduction

Proposed GHG Emissions Reduced (CO2 Equivalents):

Proposed Funds Leveraged: $0.00

Proposed EECBG Budget: 362,200.00

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

Project Contact First Name: Patrick J. Last Name: Keating Email: pakeatin@ci.camden.nj.us

Metric Activity: Building Retrofits If Other:

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

The City of Camden, New Jersey is the sixth largest city in the State of New Jersey, the largest in Camden County, and the seventh largest in the Philadelphia SMSA. It serves as the County seat for Camden County, New Jersey and is the governmental center for South Jersey. It has a total land area of approximately 9 square miles within 21 census tracks. Based on the 2000 Census, the City of Camden has a population of approximately 79,904.

The project name for Activity V is the Heating and Air Conditioning and Ventilation (HVAC) project for the North Camden Community Center. The purpose of this project activity is to use EECBG grant funds to replace the HVAC Systems with energy efficient technologies. The City is requesting $362,200 in EECBG funds for this activity. It is anticipated that this activity will increase energy efficiency and reduce energy consumption for the population served by the City.

Moreover, the use of these grant funds will assist in replacing old, energy inefficient HVAC systems to more modern system cost saving energy efficient systems.

Task: Retrofitting the existing North Camden Community Center to improve energy conservation and efficiency. The project will involve replacing existing old and inefficient hot water heaters (2), furnace, and air-conditioning, insulation and ventilation system.

The existing Community Center lighting will also be retrofitted and upgraded to utilize LED fixtures and lighting which will improve energy efficiency, thereby, significantly lowering energy consumption and reducing maintenance costs.

We are expecting to use our budget of $362,200 to cover the costs of a contract that will facilitate the necessary upgrades.

*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 Camden, New Jersey Date: 12/10/2010

DUNS #: 077069581 Program Contact Email: pakeatin@ci.camden.nj.us

Program Contact First Name: Patrick Last Name: Keating

Project Title: Energy Management Hired

Activity: 2. Technical Consultant Services If Other:

Sector: Other If Other:

Proposed Number of Jobs Created: Proposed Number of Jobs Retained: 1.00

Proposed Energy Saved and/or Renewable Energy Generated:

Proposed GHG Emissions Reduced (CO_2 Equivalents):

Proposed Funds Leveraged: $0.00

Proposed EECBG Budget: 52,000.00

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

Project Contact First Name: Patrick J. Last Name: Keating Email: pakeatin@ci.camden.nj.us

Metric Activity: Technical Assistance If Other:

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

The City of Camden, New Jersey is the sixth largest city in the State of New Jersey, the largest in Camden County, and the seventh largest in the Philadelphia SMSA. It serves as the County seat for Camden County, New Jersey and is the governmental center for South Jersey. It has a total land area of approximately 9 square miles within 21 census tracks. Based on the 2000 Census, the City of Camden has a population of approximately 79,904.

Due to recent retirements with impending layoffs, the manpower here in the Department of Public Works has greatly decreased. As a result, it has made it challenging to effectively move forward in the overall implementation and monitoring of the Energy Efficiency Community Block Grant. Up until recently, there was no movement at all because of this. However, this has changed since the time a new project officer has been elected to oversee this grant. With the assistance of the City of Camden's Department head and guidance from the Department of Energy's technical monitor, the City has been able to make new progress with this grant. Unfortunately, this may change as early as January 18th, 2011. Within the past week, it was discovered that the project officer for this grant along with 36 other staff members from the Department of Public Works are slated to be laid off.

In order to avoid the possibility of seeing the energy efficiency projects halted and potentially lost, we find it is necessary to request the use of EECBG award money to fund the position of an Energy Manager. We hope that through this, the City will be able to maintain the staff necessary to successfully complete this project and thereby help establish a cleaner and greener environment.

For this activity we are requesting $52,000 in EECBG money to fund the position of Energy Manager. The Energy Manager will be responsible for managing the implementation and monitoring of all energy efficiency projects. The position of Energy Manager will fall under the auspices of the Department of Public Works, while working closely with the City of Camden's Engineering Department, Department of Planning & Development, Urban Enterprise Zone, Camden City School District, and any other organization deemed to be instrumental in this process.

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 Camden, New Jersey Date: 01/18/2011

DUNS #: 077069581 Program Contact Email: pakeatin@ci.camden.nj.us

Program Contact First Name: Patrick Last Name: Keating

Project Title: Expansion of City-wide Recycling Program

Activity: 10. Material Conservation Program If Other:

Sector: All Sectors If Other:

Proposed Number of Jobs Created: Proposed Number of Jobs Retained: 0.02

Proposed Energy Saved and/or Renewable Energy Generated:

Proposed GHG Emissions Reduced (CO_2 Equivalents): 4,978,000

Proposed Funds Leveraged:

Proposed EECBG Budget: 151,000.00

Projected Costs Within Budget: Administration: $15,000.00 Revolving Loans: Subgrants:

Project Contact First Name: Patrick J. Last Name: Keating Email: pakeatin@ci.camden.nj.us

Metric Activity: Other If Other:

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

It is anticipated that in total this project will require $65,000 in EECBG funds. Out of this amount, $50,000 will be allocated for the consulting services. Another $15,000 will be used for administrative costs including staff time and the hiring of an intern to assist with monitoring the bins, tracking distribution, assisting with outreach, etc.

Altogether, the City of Camden proposes to use $151,000 of the EECBG grant funding to implement Activity III. Through making this investment we expect to reduce the need for incineration and landfill space, minimize the amounts of greenhouse gas emissions which can contribute to global warming, conserve natural resources, save on energy and prevent further pollution. We also hope that it would encourage the City populace to take pride in their communities and more ownership of its upkeep as they strive to protect the earth.

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 Camden, New Jersey Date: 01/18/2011

DUNS #: 077069581 Program Contact Email: pakeatin@ci.camden.nj.us

Program Contact First Name: Patrick Last Name: Keating

Project Title: Expansion of City-wide Recycling Program

Activity: 10. Material Conservation Program If Other:

Sector: All Sectors If Other:

Proposed Number of Jobs Created: Proposed Number of Jobs Retained: 0.02

Proposed Energy Saved and/or Renewable Energy Generated:

Proposed GHG Emissions Reduced (CO_2 Equivalents): 4,978,000

Proposed Funds Leveraged:

Proposed EECBG Budget: 151,000.00

Projected Costs Within Budget: Administration: $15,000.00 Revolving Loans: Subgrants:

Project Contact First Name: Patrick J. Last Name: Keating Email: pakeatin@ci.camden.nj.us

Metric Activity: Other If Other:

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

The City of Camden, New Jersey is the sixth largest city in the State of New Jersey, the largest in Camden County, and the seventh largest in the Philadelphia SMSA. It serves as the County seat for Camden County, New Jersey and is the governmental center for South Jersey. It has a total land area of approximately 9 square miles within 21 census tracks. Based on the 2000 Census, the City of Camden has a population of approximately 79,904.

For Activity III we propose the implementation of a material conservation program with an emphasis on source reduction and recycling. Presently, the City of Camden operates a recycling program but it is very limited with numbers reaching only to about 12%. In expanding this current model and coupling it with the launching of a thorough community outreach campaign, our City could potentially double if not triple this rate. This in turn, would result in less solid waste in landfills and less litter in the community meaning a win-win for the City, our Community, and Environment. Activity III will be comprised of two major components: 1. Expanding our recycling program to public housing developments, businesses & non-profits, City departments, and local schools. 2. Launching a City-wide educational and promotional campaign.

The first component, which will be known as Task 1, will require the purchasing of approximately 6,800 recycling containers ranging from 14-quart size to 95-gallon. Approximately 5,000 containers will be dispersed to City residents, including those living in public housing developments. This will require around $50,000 in EECBG funds. Another 800 of this lump sum will consist of larger roll out carts otherwise known as totters. These carts will be provided to local businesses and will range in sizes 32-gallon to 96-gallon. This is expected to cost approximately $26,000 in EECBG funds. The final 1,000 containers will range from size 14-quart to 28-quart and serve as desk side recycling bins for classrooms in our public educational facilities throughout the City. This will require approximately $10,000 in EECBG funds, bringing our total cost for this portion to $86,000.

The second component, which will be known as Task 2, will focus on an educational and promotional campaign targeted towards City residents, businesses/non-profits, municipal government employees, and students. To effectively carry out this piece, the City of Camden will solicit a communications/outreach firm to assist with the development and implementation of a promotional/educational recycling campaign. Generally, the City of Camden is looking for assistance in promoting several ambitious environmental programs, including, but not limited to:

- Developing a public education and outreach campaign to promote the roll-out of newly expanded recycling program to be rolled out by the Spring of 2011;
- Encouraging full participation of 25,000 residences and over 1,000 businesses & non-profits in the expanded program;
- Achieving sustainable waste reduction programs for the City of Camden's residential, business, civic, school, and events sectors;
- Educating and engaging the public on the City of Camden's vision and goals.

(Continued on next page)

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 Camden, New Jersey Date: 11/10/2010

DUNS #: 077069581 Program Contact Email: pakeatin@ci.camden.nj.us

Program Contact First Name: Patrick Last Name: Keating

Project Title: Traffic Signals Replacement Project

Activity: 12. Lighting If Other:

Sector: Transportation If Other:

Proposed Number of Jobs Created: Proposed Number of Jobs Retained:

Proposed Energy Saved and/or Renewable Energy Generated: 50% Energy Reduction

Proposed GHG Emissions Reduced (CO_2 Equivalents): 16,142 000

Proposed Funds Leveraged: $0.00

Proposed EECBG Budget: 140,000.00

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

Project Contact First Name: Patrick J. Last Name: Keating Email: pakeatin@ci.camden.nj.us

Metric Activity: Transportation If Other:

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

The City of Camden, New Jersey is the sixth largest city in the State of New Jersey, the largest in Camden County, and the seventh largest in the Philadelphia SMSA. It serves as the County seat for Camden County, New Jersey and is the governmental center for South Jersey. It has a total land area of approximately 9 square miles within 21 census tracks. Based on the 2000 Census, the City of Camden has a population of approximately 79,904.

The project name for Activity II is the Traffic Signal Replacement project (previously known as Traffic Signal and Lighting Fixtures Replacement project). The purpose of this project activity is to use EECBG grant funds to replace traffic signals with energy efficient lighting technologies. The City is requesting $140,000 in EECBG funds for this activity. Approximately $98,454 will be used towards the actual installation, while the remaining funds will be paid to a managing contractor to oversee the project. Due to the lack of manpower in our department, we feel that this approach will best ensure effective project management of this activity.

Moreover, the use of these grant funds will assist in replacing its 142 watt sodium/mercury vapor and incandescent lighting fixtures with 17 watt LED – Lighting Emitting Dioxide fixtures in high traffic areas throughout the city (Dialight – Uniform Appearance LED Traffic Signal Modules). Quotes were provided by a Dialight vendor, and estimates were developed by a Professional Traffic Engineer. The lead agency for this project is the Department of Public Works. This city department will be responsible for the total project management activities and serve as the grant administrator for this activity. The lead agency will coordinate its activities with the Department of Development and Planning, Camden Redevelopment Agency, and Camden County Department of Health and Human Service.

The project area for the traffic signal lighting replacement project is proposed in the following nine of the city's 21 census tracks; Census Tracks 6002 (Gateway), 6003 (Lanning Square), 6004 (Bergen Square), 6008 (Pyne Point), 6011 (Rosedale/Dudley), 6012 (Stockton), 6016 (Liberty Park), 6017 (Centerville), and 6018 (Waterfront South).

LED traffic lights are more energy efficient and cost efficient and thus provides an excellent alternative to incandescent bulbs, which have filaments that can burn out and may last only 8,000 hours before needing to be replaced. It is anticipated that this activity will increase energy efficiency and reduce energy consumption for the population served by the City.

Upon review, it was determined that the initial street lighting component in this proposal would be removed. Our local utility company, a subsidiary of First Energy, dissuaded us from seeking this option due to current and future technological concerns. They prefer to replace all street lights with inductive lighting as opposed to LED technology. Since the majority of our street lights are owned by this company, we feel that moving forward with the street lighting retrofit would no longer be beneficial to the City nor will it accomplish our ultimate goal to reduce the cost of energy consumption.

City of Camden, New Jersey

Energy Efficiency & Conservation Strategy

Prepared By:

TRIAD ASSOCIATES

www.triadincorporated.com

Vineland, NJ