Fremont's EECBG Documents

7.5 ENERGY EFFICIENCY AND CONSERVATION BLOCK GRANT APPLICATION
Authorize Staff to Submit an Application to the Department of Energy for $1,891,200 in Energy Efficiency and Conservation Block Grant Funding; Designate the Community Development Department as the Authorized Representative to Implement the Program; and Authorize the City Manager to Enter Into an Agreement With Stopwaste.org for the "Green Packages" Project

Contact Person:

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Executive Summary: As part of the American Recovery and Reinvestment Act (ARRA) economic stimulus package, the federal government appropriated $3.2 billion to fund the Energy Efficiency and Conservation Block Grant program, or EECBG. Fremont's formula allocation is $1,891,200. The funding will provide the City with the opportunity to complete a variety of projects that will reduce greenhouse gas emissions and energy consumption and help the City meet its sustainability goals. Staff is proposing a variety of projects that together meet Department of Energy (DOE) requirements and will provide community benefits including reduced greenhouse gas emissions; reduced expenditures on energy by the City, other agencies, and the community; and job creation. Staff is requesting Council authorization to submit the City's application to DOE for the funds; designation of the Community Development Department as the Authorized Representative to manage the project, per DOE guidelines; and authorization to enter into an Agreement with Stopwaste.org for the "Green Packages" project.

BACKGROUND: The purpose of the EECBG Program is to assist eligible entities in increasing energy efficiency and reducing emissions. As noted in the Funding Opportunity Announcement, "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."

Of the $3.2 billion appropriated to fund the EECBG program, Fremont is slated to receive $1,891,200 in the form of a formula grant. Although the funding has already been allocated, it cannot be awarded until the City submits an application meeting DOE's requirements. The application deadline is June 26, 2009.

Cities may take one of two approaches when filing the application. The first is to submit the complete package, including an Energy Efficiency and Conservation Strategy (EECS) and a detailed list of projects, by June 26, 2009. Under this option, the DOE will review the application within 120 days and award Fremont the funds once the application is deemed complete and satisfactory. The second option is to submit an abbreviated application that indicates the City's interest in receiving the funds, but requests an additional 120 days to develop and submit the EECS and list of accompanying projects. Under this second option, the City could also request up to a $250,000 advance of grant monies to pay for

development of the EECS. Receipt of the full award would likely be at least four months later than under the first option.

Staff has developed a complete application package that, if authorized by Council, could be submitted by the June 26 deadline as is or with minor modifications. Should Council decide that more information and analysis are necessary prior to authorizing staff to submit the City's application, staff would file the abbreviated application with DOE and request an additional 120 days to submit the detailed application.

Eligible Activities: Eligible uses of the EECBG funds fall into 14 categories:

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

Once DOE makes the funding award, the funds must be obligated within 18 months and expended within 36 months.

Energy Efficiency and Conservation Strategy: The City has initiated a Climate Action Plan (CAP) that will lay out specific strategies for reaching the greenhouse gas emissions goal established by the City Council of a 25% reduction from a 2005 baseline by 2020. The CAP will be completed in FY 2009/10. Since the City does not yet have a detailed CAP, staff has drafted an EECS (enclosed as Appendix 1) that is based on previous Council direction on sustainability; recommendations of the Green Task Force; and is consistent with Council direction regarding the General Plan Update. Based on guidance provided by DOE, the EECS can be relatively brief and high level. Staff believes the attached EECS is sufficiently detailed for purposes of the application.

Criteria for Evaluating Projects: Based on DOE guidance, staff used the following criteria to evaluate possible projects:

- Amount of energy saved and greenhouse gas (ghg) emissions eliminated
- Utility/fuel cost savings
- Additional monetary savings (e.g., reduced long-term maintenance)
- Jobs produced
- Leveraging of outside resources
- Improved local and regional coordination on energy conservation across jurisdictions

- Benefits to local economy
- Public education benefits

It is important to note that not every recommended project rates high on every criterion. However, staff's goal was that when taken as a group, the City's proposed use of the funds would satisfy the wide range of objectives established by DOE.

Proposed Projects: The projects recommended by staff are summarized below. A more detailed analysis of each project is enclosed in Appendix 2.

Project Summary	Recommended Allocation	Major Benefits
Alameda County Library Zero Net Energy Project: A collaborative effort between the City and Alameda County, this project will result in the Library being a zero net energy building. The City's EECBG funds will go toward installation of a new cool roof, while the County will implement interior energy efficiency improvements and install rooftop solar panels through a Power Purchase Agreement. Staff will return to Council at a later date with a Memorandum of Understanding assigning precise roles and responsibilities between the City and County.	**$900,000**	Energy savings, ghg emissions reduced, utility cost savings to library, cost savings to City General Fund, jobs produced, leveraging of outside resources, cross-agency coordination, and public education.
Other City Efficiency Retrofits: Through the East Bay Energy Watch program, the City has completed lighting retrofits at the Police Building, City Hall, the Family Resource Center, and the Development Center. EECBG funding will allow the City to perform additional lighting retrofits at community centers, the Senior Center, etc. and also will allow for retrofits of inefficient HVAC equipment and boilers.	**$220,000**	Extremely cost-effective energy savings and ghg reductions, utility cost savings to City General Fund, leveraging of outside resources (utility rebates, Energy Watch consulting assistance).
LED Streetlight/Parking Lot Light Pilot: Light Emitting Diode (LED) lamps have been used for several years in traffic signals because of their lower energy and maintenance demands. LED technology continues to improve, and many cities are experimenting with it in new applications such as streetlights and parking lot lights. This funding will allow for the City to conduct a pilot project to evaluate LED lamps for these applications.	**$110,000**	Cost effective energy savings and ghg reductions; utility cost savings; real-world test data to inform future purchase decisions; reduced maintenance costs.

LED Pedestrian Signals: The City has converted all traffic signals to LED, but 243 pedestrian signals remain to be converted. EECBG funding will allow for this conversion to take place.	**$87,000**	Cost effective energy savings and ghg reductions; utility cost savings; reduced maintenance costs.
City Hybrid Vehicle Fund: As recommended by the Green Task Force, the City has begun to purchase hybrid vehicles to replace gasoline vehicles the fleet. Hybrid vehicles generally cost several thousand dollars more than the equivalent gasoline vehicle. EECBG funding will cover the hybrid premium for several vehicles, allowing the City to continue hybrid purchases despite the difficult budget situation.	**$75,000**	Reduced emissions of ghg and other pollutants from gasoline consumption; City General Fund savings on gasoline; public education.
Green Zoning Ordinance: The City's General Plan Update will set a policy framework for reducing the City's greenhouse gas emissions through promoting Transit Oriented Development, green building, etc. However, in order to implement the General Plan sustainability policies, the Zoning Ordinance must be updated. Currently there is no funding identified for revising the Zoning Ordinance. EECBG funding will ensure that the City's zoning will be updated in a timely manner to reflect the sustainability goals of the General Plan.	**$110,000**	Reduction in vehicle miles traveled due to transit-oriented development; reduced ghg due to other green measures in code; funding source for otherwise unfunded but required work effort.
California Youth Energy Services: In collaboration with the Alameda County Water District and PG&E's East Bay Energy Watch program, the City has contracted with a Bay Area non-profit to bring the California Youth Energy Services (CYES) program to Fremont in summer 2009. CYES hires and trains local youth ages 15-24 to provide free in-home water and energy conservation audits for local residents. EECBG funding will ensure that the program can continue in 2010.	**$15,000**	Community ghg reductions; utility savings for Fremont residents; job training and paid summer jobs for local youth; leveraging outside resources; and cross-agency collaboration.
Community Grants: DOE guidelines allow a portion of the EECBG funds to be sub-granted to non-profit agencies and other government agencies for eligible activities. Staff proposes to initiate a sub-grant process (similar to and coordinated with	**$220,000**	Community ghg reductions; monetary savings for agencies that can be reinvested in services; cross-agency

the City's current Community Development Block Grant process) that will make funds available for worthy projects. Examples of possible projects might include: • Solar power or energy efficiency in affordable housing • Lighting retrofits for facilities serving low income clients • Energy audits/retrofits in Fremont schools		collaboration.
"Green Packages": StopWaste.org, the County's Waste Management Authority, is spearheading a countywide effort to develop "green specification packages" that will establish retrofit standards and product specifications for single family residential units. Once standards are developed, StopWaste will provide training and marketing on the specifications for Fremont contractors and City building inspectors. StopWaste will also track the number of "green" retrofits completed in Fremont using the specifications, which will assist the City with tracking progress toward climate protection goals. For this project, staff is requesting a resolution authorizing the City Manager to negotiate and enter into an agreement defining deliverables and obligations.	**$69,300**	Community ghg reductions; green job training; cross-agency collaboration; lays groundwork for possible future initiative to establish financing district for efficiency improvements.
Implementation/Monitoring/Reporting: City staff time will be required over the three-year course of the project to implement the various strategies and also to comply with extensive Federal monitoring and reporting requirements.	**$84,900**	Community and City ghg reductions and utility savings; cross-agency collaboration; other benefits described above.
Total	**$1,891,200**	

Other Possible Projects: In developing recommendations, staff considered a variety of projects that we are not included in the final list based on staff's application of the evaluation criteria. Other projects considered included:

- Development of a Mandatory Green Building Ordinance

Staff believes the City's current framework, which establishes green building requirements as a standard condition for entitlement applications, will achieve most of the energy savings that would accrue from a mandatory ordinance.

- Establishment of an AB 811 Financing District

AB 811 allows municipalities to establish voluntary financing districts for the purpose of installing energy efficiency improvements or solar. The City of Berkeley and Sonoma County have each established AB 811 districts, which allow their residents to borrow funds for home energy projects and repay the loan through a voluntary property tax assessment. There are efforts underway at the State level (through the California Statewide Communities Development Authority) and at the regional level (through the Association of Bay Area Governments) to establish AB 811 districts that will cover larger geographic areas and allow for economies of scale. As these options become more developed in the next two to four months, staff will evaluate the pros and cons of Fremont becoming part of an AB 811 district. All of the programs being discussed are self-funding (administrative costs paid by borrowers), therefore, no funding from EECBG would be necessary.

- Establishment of a Revolving Loan Fund for Energy Improvements

A revolving loan fund would impose significant up-front administrative costs to set-up. Staff's evaluation is that the administrative costs combined with the one-time nature of the EECBG funds make it impractical to establish a loan fund.

ENCLOSURES:

- Draft Resolution
- Exhibit 1: Energy Efficiency and Conservation Strategy
- Exhibit 2: Detailed Analysis of Recommended Projects

RECOMMENDATIONS:

1. Authorize staff to submit an application to the Department of Energy for $1,891,200, including the activities and amounts outlined in this staff report.
2. Authorize the Mayor to sign a letter designating the Community Development Department as the City's Authorized Representative for implementation of the EECBG program.
3. Adopt resolution authorizing the City Manager or designee to enter into an agreement and implementing documents with StopWaste.org for the Green Packages project, subject to receipt of EECBG funds.
4. If grant is awarded to the City, then Council approves the appropriation of funds to projects for $1,891,200.

DRAFT

RESOLUTION NO . 2009-XX

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF FREMONT AUTHORIZING THE CITY MANAGER TO ENTER INTO AN AGREEMENT WITH STOPWASTE.ORG FOR THE PROPOSED GREEN PACKAGES PROJECT

WHEREAS, the Stopwaste.Org Green Packages project is a county-wide program to stimulate demand and strengthen the infrastructure for retrofits of existing residential and small commercial buildings; and

WHEREAS, the Green Packages program is intended to maximize the long-term benefits from the federal stimulus distributions to Alameda County jurisdictions; and

WHEREAS, participating jurisdictions will invest a portion of their Energy Efficiency and Conservation Block Grant funds to create Green Packages; and

WHEREAS, benefits to Fremont will include outreach and training to local residents and contractors on Green Packages as well as tracking of retrofits completed and the associated reductions in energy usage and greenhouse gas emissions;

WHEREAS, Stopwaste.org has proposed a $69,300 contribution from Fremont to the overall project budget of about $517,000; and

WHEREAS, Fremont's contribution would be entirely funded by the Energy Efficiency and Conservation Block Grant.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF FREMONT HEREBY RESOLVES AS FOLLOWS:

The City Council of the City of Fremont hereby authorizes the City Manager to enter into an agreement with Stopwaste.Org for the proposed Green Packages project in the amount of $69,300, subject to the City obtaining the Energy Efficiency and Conservation Block Grant, and to execute any necessary implementing documents.

ADOPTED _____ 2009, by the City Council of the City of Fremont by the following vote, to wit:

AYES:

NOES:

ABSENT:

AGENDA ITEM 7.5

ABSTAIN:

Mayor

ATTEST:

APPROVED AS TO FORM:

City Clerk

Assistant City Attorney

EXHIBIT 1

Attachment D

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

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

Grantee: City of Fremont Date: _____(mm/dd/yyyy)
DUNS #: _____ Program Contact Email: _____

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

In November 2008, the City Council acted on recommendations of a citizens "Green Task Force" and established a community greenhouse gas reduction goal of 25% below 2005 levels by 2020. This greenhouse gas reduction goal is the basis for the City's Energy Efficiency and Conservation Strategy (EECS), which aims to reduce energy consumption by 25% in several sectors. The EECS is intended as an intermediate step to a more detailed Climate Action Plan that is under development.

The City's EECS goals are to 1) Reduce greenhouse gas emissions from municipal operations by 25% from 2005 levels as soon as practicable but no later than 2020; 2) Put land use regulations in place leading to a reduction in vehicle miles traveled from 2005 levels by 2020; and 3) Reduce energy consumption in non-City buildings by 25% from 2005 levels by 2020.

Major Milestone Timetable (from funding date):

Year 1: Implement low-cost retrofits in City buildings, streetlights, etc.
Youth conduct 200+ residential energy audits (CYES program)
Initiate design on Library zero-net-energy project
Initiate non-profit/govt. agency grant process for efficiency projects
Develop green specification packages, conduct trainings and consumer outreach
Purchase 5-10 hybrid vehicles

Year 2: Continue implementation of low-cost retrofits in City operations
Complete design on Library zero-net-energy project
Youth conduct 200+ residential energy audits (CYES program)
Begin implementation of green package retrofits, track and report on retrofits and related energy savings
Green revisions to zoning code
Complete community grant process, related projects

Year 3: Complete construction of Library zero-net-energy project
Youth conduct 200+ residential energy audits (CYES program)
Continued implementation and tracking of green package retrofits
Complete EECBG Implementation with 36 months of award.

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

The City's implementation plan supports our EECS and leverages resources and expertise from a number of partner agencies. EECBG will greatly expand our ability to meet community energy conservation and emission reduction goals and does not supplant existing funding. Our planned activities include:

a. Retrofits of City-Owned Buildings
The City will use EECBG funding to perform lighting, HVAC, and other efficiency retrofits in City-owned buildings. The City previously performed audits through the Energy Watch program sponsored by Pacific Gas & Electric (PG&E), the local utility and completed several lighting retrofits. EECBG funds will allow for implementation of additional cost-effective retrofits. The City will also partner with Alameda County on a "zero-net-energy" project at the Alameda County Main Library in Fremont. The building is owned and maintained by the City and operated by the County: EECBG funding will be used to install a new cool roof, and will leverage County funds for other efficiency improvements and purchase of solar panels through a Power Purchase Agreement.

b. Outdoor Lighting Retrofits
The City will use EECBG funding to replace 243 existing pedestrian signal lamps with LED technology, a project with excellent payback that has been on hold pending identification of a funding source. The City will also perform pilot(s) looking at LED technology for parking lot and/or streetlights, a first step in a long-term project to convert all outdoor lighting to LED.

c. Hybrid Vehicles
A component of the City's strategy to reduce municipal operations energy consumption is to improve the efficiency of the vehicle fleet by purchasing hybrids. However, due to budget shortfalls, the added cost of purchasing hybrid vehicles compared to traditional gas-powered vehicles has hampered our ability to convert the fleet. EECBG funds will be used to assist with this cost differential and add additional hybrids to the fleet.

d. Green Zoning Ordinance
The City is currently updating its General Plan, which provides the policy framework for land use decisions. The updated General Plan will emphasize in-fill, transit-oriented development aimed at reducing vehicle miles traveled over time. In order to implement these new policies, the City must update the implementing regulations, the Zoning Code. EECBG funds will be used to incorporate these green policy goals into the implementing language of the Zoning Code.

e. Community Energy Efficiency Projects
The California Youth Energy Services project provides training to local youths in performing residential energy and water conservation audits. The youth then conduct 200+ audits and install low-cost conservation measures during the summer months. CYES is largely funded by PG&E, but also requires contributions from local governments. EECBG funding will be used to pay the local government share for the program in summer 2010. The City is committed to funding the program beyond 2010 with local revenues.
In recognition of the importance of improving efficiency in the non-profit and government sectors, the City will initiate a grant process to provide funds to these sectors for efficiency projects. The process will be modeled on the City's longstanding Community Development Block Grant program. Non-profits and government agencies such as the School District will be eligible to apply.

f. Green Specification Packages
This regional project will develop and market standard "Green Specification Packages" to stimulate demand and strengthen the infrastructure to retrofit existing residential and small commercial buildings by overcoming obstacles that hinder widespread deployment of proven resource-efficient retrofit strategies. EECBG funds will be pooled with surrounding jurisdictions to provide funds for development, training, and consumer outreach regarding the packages.

g. Implementation/Monitoring/Reporting
Staff in the City's Community Development Department will coordinate implementation and required monitoring and reporting on the projects listed above.

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

The City of Fremont is participating in Green Packages, an Alameda County-wide existing building retrofit program that support's Fremont's climate action goals of reducing greenhouse gas emissions by 25% by 2020 and complements its existing municipal green building policy. The core objective of Green Packages is to stimulate demand and strengthen local infrastructure to retrofit existing residential and small commercial buildings by overcoming obstacles that hinder widespread deployment of proven resource-efficient retrofit strategies. StopWaste.org, the County organization spearheading the Green Package effort, estimates that during a 2-year implementation period, this project will produce the following countywide benefits: $115.5 million in local private investment, 1,100 jobs created, $43.5 million of energy savings, and 46,120 tons of CO2 reductions.

Because of Fremont's location on the northern edge of Silicon Valley, the City also participates in regional efforts based in Santa Clara and San Mateo Counties. Staff participates in the Joint Venture Silicon Valley Climate Protection Task Force. Silicon Valley jurisdictions are organizing to jointly seek competitive grant funds for regional energy conservation efforts.

The City also works closely with PG&E through the East Bay Energy Watch program. This partnership provides the City with rebates, audits, and other consulting assistance to enhance community energy efficiency. The City and PG&E are currently exploring joint efforts to reduce energy in specific neighborhoods in Fremont using existing PG&E funding sources.

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

Participation in regional bodies like the Association of Bay Area Governments and state organizations like the California League of Cities provides a forum for sharing information with other jurisdictions and the State. Our Mayor is active in the U.S. Conference of Mayors, another venue for sharing information with State and local representatives. Fremont staff and public officials regularly speak and write about local programs and lessons learned, and we anticipate we will have opportunities to continue to add to the collective body of knowledge on the EECBG program.

For the countywide "green packages" project, representatives from the California Energy Commission and California Public Utilities Commission will be participating in the Green Packages Technical Advisory Group to ensure coordination with state programs and objectives. The program's verification and tracking components will allow Fremont to document its local contributions towards California's climate action and energy efficiency goals and to share this information at a statewide level.

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

Energy conservation measures continue throughout their lifetime to provide cost and energy savings and emissions reductions to homes and businesses. Fremont will track energy savings from each of the individual activities and then aggregate them. Data collected will consist of but not be limited to the energy savings in kWh, cost savings, number of buildings and square footage, dollars spent and leveraged, audits performed, contractors trained, and jobs created.

Several of our activities have a training/education component that will last beyond the EECBG funding period. The CYES program provides job training to young people, many of whom will likely find permanent employment in the green economy. The library retrofit project will include an interpretive component, informing many thousands of visitors regarding the efficiency and energy generation features of the building. The green packages project will educate contractors and consumers alike regarding opportunities for energy efficiency.

The City is committed to continuing to invest in energy efficiency. The City intends to continue support for the CYES program beyond the EECBG funding period. Also, based on the results of the pilot(s) conducted on LED streetlights/parking lot lights, the City intends to use energy savings from other projects to begin converting outdoor lighting to LED technology.

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

The project will be managed by the City's Community Development Department. Financial reporting will be managed by the City's Finance Department. The City has a solid track record of managing federal dollars under the Community Development Block Grant program and other federal programs. The City's auditors conduct a Single-audit on all federal grants annually in accordance with generally accepting governmental auditing standards. As part of the Single-audit, an evaluation of the system of internal controls is conducted to ensure that these controls are adequate to prevent fraud, waste, error and abuse.

PROJECT: NET-ZERO ENERGY PROJECT AT FREMONT MAIN LIBRARY

Amount of Allocation:

$900,000

Project Description

The City owns and maintains the Fremont Main Library, which was built about 20 years ago and is operated by Alameda County. The Library is the largest building, has the highest energy usage, and has the most visits by the public of any building maintained by the City (all utility bills are paid by Alameda County). Because of the bifurcation of responsibility for the library between the City and County, neither agency has previously focused on energy efficiency opportunities there, so the building is relatively inefficient.

The library roof is nearing the end of its useful life. The need to replace the roof, along with the availability of EECBG block grant funds, provides a unique opportunity to turn the Main Library into a showcase for energy efficiency and solar energy production. Block grant funding also allows replacement of the roof to occur sooner than would otherwise be possible due to lack of available general fund resources.

The overall project consists of three phases. Two of these phases will be led by the County, and one by the City, as described below.

Phase 1—Interior Efficiency Improvements

In the first project phase, the County will conduct an audit of lighting, computer power management, etc. Using County funding, utility rebates, and financing from the California Energy Commission, the County will install cost-effective retrofits to reduce the building's energy consumption. No EECBG funds will be used for this phase.

Phase 2—Installation of Cool Roof

The second phase is the design and installation of a new "cool roof" for the library. The roof will minimize heat gain in the building, thus reducing the demand for power to cool the building. The roof will also be designed to accommodate solar photovoltaic devices to be installed in the third phase.

Phase 3—Installation of Solar

In the third phase, the County will enter a Power Purchase Agreement (PPA) for the design and construction of a solar photovoltaic system on the library roof. This arrangement leverages County staff's extensive experience in installation of solar power and in utilizing PPA's, and also reflects the fact that the County pays the library utility bills. The system will be designed to generate at a minimum the amount of power

necessary to operate the library, possibly more, depending on cost and engineering considerations.

Energy Savings/GHG Reductions

According to the most recent available data, the library utilizes approximately 1.1 million KwH per year of electricity. Based on a solar array that is sized to make the library exactly net zero in energy usage, the project would eliminate 270 tons of ghg emissions. A larger system would result in offsets to the grid and would make the building "climate positive" i.e. generating more energy than it consumes.

Staff Analysis

The project satisfies several of the evaluation criteria developed by DOE and by City staff. It reflects collaboration across jurisdictional lines. It leverages EECBG funds by utilizing utility funding (through rebates for efficiency improvements), California Energy Commission funds (for efficiency), $200,000 already allocated by the City for roof design, and PPA funding for solar. It also meets an obligation of the City that would otherwise have to be paid out of the General Fund at some point in the future.

With the recommended EECBG, the City would have a total of $1.1 million budgeted for the project. A preliminary estimate for a new cool roof at the library totaled $1.3 million, but staff believes that value engineering can lower that cost so that it can be accomplished with the money budgeted.

It should be noted that the project does not currently include replacement of the library's HVAC units, which would cost an additional $500,000-$600,000. The project also does not include funding for interpretive displays inside the library to describe the energy conservation/generation features of the building. Staff intends to collaborate with Alameda County staff to apply for "discretionary" stimulus dollars for these added features.

Staff would return to Council at a later date with a Memorandum of Understanding that more specifically lays out the responsibilities of the City and the County on this project.

PROJECT: CITY BUILDING RETROFITS

Amount of Allocation:

$220,000

Project Description

The City owns, maintains, and operates numerous buildings. In 2007 and 2008, the City completed a number of energy efficiency projects in existing buildings, but there are many remaining opportunities for additional savings via lighting retrofits, HVAC upgrades, and other improvements. This project would continue the City's investment in reducing energy consumption in City buildings.

Energy Savings/GHG Reductions

Based on previous energy audits, staff estimates that an additional investment of $220,000 in building energy efficiency would result in annual savings of about $35,000 and annual greenhouse gas emission reductions of about 70 tons.

Staff Analysis

The project leverages EECBG funds by utilizing utility funding (through rebates for efficiency improvements). It will also result in ongoing utility cost savings for the City's General Fund. It meets the core EECBG objective of focusing on energy efficiency as the fastest, most cost-effective approach to reducing greenhouse gas emissions.

PROJECT: LED PARKING LOT/STREETLIGHT PILOT

Amount of Allocation:

$110,000

Project Description

Light Emitting Diode (LED) technology uses 50-85% less energy than traditional incandescent or sodium vapor lights. LED lights also last longer and thus cost less to maintain.

LED lights are in widespread use in applications where colored light is desired/acceptable, such as traffic signals. In recent years, considerable progress has been made in developing LED's for use in applications where white light is desired, including streetlights. In addition, PG&E recently issued a new tariff for LED streetlights, meaning that cities that install LED lamps in streetlights pay a lower monthly rate (previously there was no financial incentive to install LED streetlights).

This project would provide funding for one or more pilot projects to install LED lights in parking lot and/or streetlight applications.

Energy Savings/GHG Reductions

Staff estimates that the City could replace about 300 lamps with the amount allocated. Based on a recent pilot in Sunnyvale, that would result in a savings of about $21,000 per year, with annual greenhouse gas reductions of about 35 tons.

Staff Analysis

By investing in a pilot or pilots, the City can evaluate different products available in the marketplace while at the same time reducing utility and maintenance costs and reducing greenhouse gas emissions. This pilot will lay the groundwork for future conversion of all outdoor lamps to LED.

PROJECT: LED PEDESTRIAN SIGNALS

Amount of Allocation:

$87,000

Project Description

Light Emitting Diode (LED) technology uses 50-85% less energy than traditional incandescent or sodium vapor lights. LED lights also last longer and thus cost less to maintain.

While considerable research is ongoing to develop LED lights that provide pleasing white light, LED's producing colored light have been in widespread use for many years. The City of Fremont recently completed converting all traffic signals in the community to LED's, saving an estimated 85% on utility costs. However, the City has not yet converted all pedestrian signals to LED technology.

Energy Savings/GHG Reductions

Converting the City's 243 remaining non-LED pedestrian signals would result in an annual savings of $17,200 in utility costs for a simple payback of less than six years, not counting the reduced maintenance costs. Annual greenhouse gas reductions would equal about 28 tons.

Staff Analysis

LEDs are a proven technology for pedestrian signal applications and provide an excellent payback in utility costs and greenhouse gas emissions.

PROJECT: CITY HYBRID VEHICLE FUND

Amount of Allocation:

$75,000

Project Description

Pursuant to a recommendation of the Green Task Force, the City has begun to purchase gas-electric hybrids as replacement vehicles. Hybrids use less fuel and consequently generate fewer emissions. Hybrid vehicles are also a publicly visible way for the City to show its commitment to greenhouse gas reductions. However, hybrids generally cost several thousands of dollars more per vehicle than conventional gasoline vehicles.

The project would provide funding for procuring hybrids for the City's fleet. The funding would be used to pay the differential between the cost of hybrids and the cost of conventional gasoline vehicles.

Staff Analysis

The project leverages EECBG funds by combining City and EECBG funds for vehicle purchases. It provides ongoing emission reductions and savings to the General Fund in the form of reduced fuel expenses. It also has the benefit of publicizing the City's commitment to environmental protection

Recommendations:

Authorize staff to include the "City Hybrid Vehicle Fund" project in the City's EECBG application.

PROJECT: GREENING THE ZONING CODE

Amount of Allocation:

$110,000

Project Description

Pursuant to community input, the recommendation of the Green Task Force, and City Council direction, the City's General Plan Update will emphasize Transit Oriented Development (TOD) in its goals and policies. TOD has many environmental benefits; most germane to the EECBG program, residents of TOD areas travel fewer miles in passenger vehicles than residents of other types of housing, which in turn reduces energy consumption and emissions.

In order to implement these updated General Plan policies, the City's Zoning Code must also be updated. State law requires that the Zoning Code conform to the General Plan within one year of adoption of an updated General Plan. To-date, no money has been budgeted for this important follow-on effort to the General Plan Update. This project would set aside funding for updating the City's Zoning Code to incorporate TOD goals and policies of the General Plan, and also to incorporate other revisions that support energy efficiency and conservation.

Staff Analysis

The project is eligible under the "Development and Implementation of Transportation Programs" category. Although emission reductions are difficult to estimate, the Zoning Code revision is a necessary precursor to a shift in Fremont's auto-oriented development pattern. The project also provides funding for a necessary effort that to-date lacks an identified funding source.

PROJECT: CALIFORNIA YOUTH ENERGY SERVICES

Amount of Allocation:

$15,000

Project Description

California Youth Energy Services (CYES) is a program offered by Rising Sun Energy, a Bay Area non-profit. CYES hires and trains local youth to conduct residential energy and water conservation audits. The youth work throughout the summer, providing free in-home audits and installation of devices such as fluorescent light bulbs and low-flow shower heads.

CYES is funded in part by PG&E through the East Bay Energy Watch program. In each community where CYES operates, they also require funding from the city and the local water district.

CYES will operate in Fremont for the first time in the summer of 2009 using funding provided by the City (Environmental Services Division) and the Alameda County Water District. They will perform audits at 200-250 homes, providing cost savings to residents and also helping reduce community greenhouse gas emissions. The EECBG funding will allow the program to return to Fremont in 2010.

Energy Savings/GHG Reductions

In similar efforts in other communities, CYES has installed over 2000 compact fluorescent bulbs, 50 retractable clotheslines, and hundreds of efficient-flow showerheads and bathroom aerators.

Staff Analysis

The project satisfies several of the evaluation criteria developed by DOE and by City staff. It reflects collaboration between PG&E, Alameda County Water District, and the City. It leverages EECBG funds by utilizing utility funding (through East Bay Energy Watch) and funding from ACWD. It contributes to economic development by providing practical hands-on job training to local youth. And it provides ten summer jobs—two supervisors and eight auditors—helping to reduce youth unemployment and injecting funds into the local economy.

PROJECT: COMMUNITY ENERGY EFFICIENCY GRANTS

Amount of Allocation:

$220,000

Project Description

The City's Human Services Department administers a community grant process for non-profit agencies serving low and moderate income individuals. A Citizens Advisory Committee reviews applications and makes funding recommendations to staff. The process has provided resources and built capacity among local non-profits. Staff recommends that EECBG funds be set aside for a similar process for energy efficiency projects. Eligible entities would include not only non-profit agencies, but also other governmental agencies such as Fremont Unified School District. City staff would develop a grant announcement that would detail the evaluation criteria, but those criteria would include energy savings, greenhouse gas emissions reductions, compliance with the National Environmental Policy Act (NEPA), and capacity to manage a federal grant.

As part of this recommendation, an ad-hoc Citizens Energy Advisory Committee (CEAC) would be appointed by the City Manager to review applications and make recommendations to staff. Members of the Green Task Force that recently made sustainability recommendations to Council would be invited to serve on the CEAC.

The specific funded projects will not be known until the process is complete, but staff envisions that possible projects might include:

- Efficiency measures or energy generation in affordable housing developments
- Audits/efficiency retrofits in schools, child care centers, health clinics, etc.
- Reduction of single-occupant vehicle trips to schools

Staff Analysis

The project satisfies several of the evaluation criteria developed by DOE and by City staff. It reflects collaboration among different organizations serving the community. It will result in ongoing utility cost savings for non-profits, which will allow those agencies to redirect funds to poverty reduction efforts. It will likely leverage other funds provided to non-profits by the City through CDBG, HOME, and other funding sources. The project is also a mechanism to fund community greenhouse gas emissions reduction efforts, which will help the City meet its adopted emissions reduction goal of 25% by the year 2020.

PROJECT: GREEN PACKAGES

Amount of Allocation:

$69,930

Project Description

Much of the existing building stock in Fremont and the rest of Alameda County was built before the adoption of stringent building code requirements for energy efficiency, water conservation, etc. While there are many energy efficiency and energy generation retrofit options with attractive paybacks available to owners of older buildings, there are also a number of barriers, including sometimes high initial up-front costs, lack of widely accepted standards for retrofits, and lack of awareness of the benefits of upgrades. The "Green Packages" project, championed by Stopwaste.org, is a countywide effort to provide widely-accepted standards, to promote awareness of the benefits of retrofits, and to increase the market for retrofits, which will result in both environmental and economic benefits.

With funding provided by Stopwaste.org and with proportional contributions from cities throughout the County, Stopwaste.org will develop Green Packages, provide consumer outreach as well as training to local contractors and building inspectors, and track the number of green retrofits and the associated environmental benefits.

Energy Savings/GHG Reductions

StopWaste.org staff estimates that during a two-year implementation period, this project will produce the following countywide benefits: $115.5 million in local private investment, 1,100 jobs created, $43.5 million of energy savings, and 46,120 tons of CO2 reductions. Even if these estimates are optimistic, the project could result in sizable CO2 reductions in Fremont relative to the investment.

Staff Analysis

The project fulfills several of the DOE evaluation criteria. It reflects collaboration with surrounding communities; results in ongoing savings to residents; creates jobs; and leverages outside resources (Stopwaste.org funds as well as other grant funds, potentially).

Brooklyn Park, MN EECBG Documents

Attachment D

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

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

Grantee: City of Brooklyn Park, MN Date: 06/23/2009 (mm/dd/yyyy)
DUNS #: 10332393 Program Contact Email: amy.baldwin@brooklynpark.org

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

The City of Brooklyn Park is in the process of establishing a formal energy and conservation strategy. The strategy will focus on improving and revitalizing aging infrastructure with new energy efficient systems throughout the city facilities. Currently the city is working with a local consultant for the purpose of promoting high efficient lighting in the community. The city is also working on a program that will reach out to the local community to promote energy savings and conservation. Some of the strategies that the city is considering include:

- Internal workshops to promote the generation of ideas and best practices.
- Establishing a fund for the purpose of developing city codes that would promote energy conservation.
- Creation of a city revolving loan fund usable by local businesses and focused on the promotion of energy efficient business improvements.
- Creation of incentive programs to promote conservation in our community.
- Establishing measurable goals for reductions in energy use and carbon footprint.
- Creation of a reward system to promote conservation and interest in our program.
- Outreach to our local schools to promote conservation in our community.

We intend to have established our energy efficiency and conservation strategy by Fall of 2009.

The EECBG funds will be used to further move the city toward the final development of an energy efficiency and conservation strategy and also improve energy efficiency of our existing facilities. These projects will also be promoted inside the city to generate interested in our community for reducing energy usage and thus decreasing our dependence on fossil fuels. The next step in moving to complete our strategy is to take a baseline inventory and retrofit our facilities to reduce consumption, which is detailed in the next question.

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

The EECBG funds will help us to move the city toward the goal of creating our energy and conservation strategy and improving the efficiency of our facilities. The funds will be used to improve and revitalize our aging infrastructure with new energy efficient systems and equipment that will reduce energy consumption by the city. Under the eligible activities "Technical Consultant Services" and "Energy Efficiency Retrofits," we will use EECBG program funds as necessary capital infusion to implement energy conservation measures as follows:

Energy Conservation Measure	Correlating Strategy Goal/Objective
Geothermal Retrofit of Facilities	Energy Conservation, Job Creation/Retention
Lighting Retrofit at City Facilities	Energy Conservation, Job Creation/Retention
Digital Controls Retrofit to City Facilities	Energy Conservation, Job Creation/Retention
Waste reduction system at WTP	Energy Conservation, Job Creation/Retention
High Efficient Retrofit of HVAC at City Facilities	Energy Conservation, Job Creation/Retention
Water Reduction Measures at City Facilities	Energy Conservation, Job Creation/Retention
Parking Lot LED Lighting	Energy Conservation, Job Creation/Retention

The project will use the State of Minnesota energy savings legislation for delivery of the work. Under this legislation a guarantee of the savings will be provided by the contractor and measurement and verification of savings of the improvements will be required.

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

In the past, the City of Brooklyn Park has held informal discussions with surrounding communities regarding energy efficiency and conservation. Furthermore we have worked with the State of Minnesota to conserve our water resources and have a water emergency and conservation plan which is updated regularly. We are currently working toward assembling a group of local public agencies including;

- Anoka-Hennepin School District
- The City of Coon Rapids, MN
- The Osseo Area School District
- The City of Eden Prairie, MN
- Eden Prairie School District
- The City of Eagan, MN
- Rosemount-Apple Valley-Eagan Public Schools
- The City of Plymouth, MN
- Hennepin Technical College
- North Hennepin Community College

The intent is to establish a resource conservation management program within the City of Brooklyn Park. This program will be focused on not only resource conservation, but also on the collection, aggregation, and sharing of data. We intend to use this data to share with our peers our successes and obstacles, and to also offer data to the public school systems for their use in educating our younger community members. It is our belief that it is not enough to accomplish our goals and objectives. We must also use the lessons we learn to encourage behavioral modifications in our community. This includes not only training our staff, but also communication and feedback to our staff and community members. We intend to schedule workshops and meetings with the above listed public agencies beginning in the Fall of 2009.

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

The city will send, directly to the state, a semi-annual report upon completion of the project in accordance with Attachment C. The report will include:

- the monitored quantity of construction-related jobs that have been retained and/or created within the local community;
- measurement and verification of the annual energy conservation performance; and
- carbon emission reductions after implementation of the project.

The state will also be given an open invitation to attend both project meetings through the duration of the implementation phase of the project as well as the scheduled workshops and meetings with the group of public agencies listed above.

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

The plan will ensure sustainable benefits beyond the EECBG funding period primarily in two ways. The first will be the continued energy savings each year over the life of the equipment resulting from the high efficient equipment installed as part of the energy conservation retrofit project. The expected life of the equipment that is proposed is approximately 20 years. The second benefit will be the resulting additional education and investment in our community that will be made possible through the energy cost savings resulting from the project. These funds will improve the city's ability to invest in future green initiatives and energy projects and further educate our community on the importance of conservation. Like this project we have a continued interest in implementing energy projects not only for the benefit to our environment but also because of the benefit to the community in supporting local jobs.

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

The City of Brooklyn Park will oversee the project to ensure that all elements of the plan will be impactful, that long-term benefits will be quantifiable, and that full transparency of results are reported to city and community stakeholders. An individual from the city will be selected and will be responsible for ensuring that throughout the process all development, bidding, implementation, and post-implementation activities comply with all applicable local, state, and federal requirements. This oversight will include consolidation of information necessary to present budget results, metric results, and energy performance. This transparency and accountability will demonstrate energy reductions through the performance contract, corresponding carbon reductions, job creation/retention, and the impact that the EECBG funding has contributed to the goals of the plan.

The contractor and delivery method used will include an "open book" approach allowing the city to monitor closely all costs related to the project. Project costs will be provided to the city on a monthly basis. The project will also include measurement and verification of results that will be provided to the city on an annual basis. Results will compare the original facility performance benchmark data in comparison to the new high efficient performance data. Measurement and verification would start upon substantial completion of the project and be provided on an annual basis.

EECBG Activity Worksheet

Grantee: City of Brooklyn Park, MN Date: 06/23/2009

DUNS #: 10332393 Program Contact Email: amy.baldwin@brooklynpark.org

Program Contact First Name: Amy Last Name: Baldwin

Project Title: City of Brooklyn Park Energy Conservation Retrofit Project

Activity: 1. Energy Efficiency and Conservation Strategy If Other:

Sector: Public If Other:

Proposed Number of Jobs Created: 7.00 Proposed Number of Jobs Retained: 0.00

Proposed Energy Saved and/or Renewable Energy Generated: 770,000 kWh and 6000 therms of natural gas

Proposed GHG Emissions Reduced (CO2 Equivalents): 626.000

Proposed Funds Leveraged: $0.00

Proposed EECBG Budget: 649,200.00

Projected Costs Within Budget: Administration: $61,758.00 Revolving Loans: $0.00 Subgrants: $0.00

Project Contact First Name: Amy Last Name: Baldwin Email: amy.baldwin@brooklynpark.org

Metric Activity: Clean Energy Policy If Other:

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

To address the economic crisis while simultaneously addressing energy independence and climate change, we propose to invest in high efficient upgrades to existing city infrastructure. Depending on final costs, the project will include the following:

HVAC in the city facilities would be upgraded or modified to high efficient and more reliable heating and cooling equipment.

Older interior lighting systems at all city buildings would be replaced with high efficient lighting fixtures and control systems. Controls would include areas with occupancy monitors, photo-cells, and "smart switch" technologies.

Exterior lighting at the city parking lots would be replaced with new high efficient LED lighting technology. This technology would also be "dark sky" compliant resulting in reduced light pollution in the city.

Water conservation would be achieved through retrofitting of existing plumbing fixtures at city facilities where low flow fixtures are currently not in use.

Waste water reduction at the water treatment facility would be done with a settling system and retrofit into the existing filter backwash system.

The city will use the State of Minnesota energy performance contracting law to implement this project. Steps for this project will include: final development of the improvements list with the city then selecting facility improvement measures to be implemented; development of final project scope and selection of contractors; execution of work; and measurement and verification of results.

*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.*