



# **CITY COUNCIL AGENDA REPORT**

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MEETING DATE: June 16, 2009

ITEM NUMBER:

**SUBJECT:** Energy Efficiency and Conservation Block Grant (EECBG) Program Funding Allocation

**DATE:** June 8, 2009

**FROM:** City Manager's Department/Administration

**PRESENTATION BY:** Thomas R. Hatch, Assistant City Manager  
Daniel Baker, Management Analyst

**FOR FURTHER INFORMATION CONTACT:** Dan Baker, 714-754-5156

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## **RECOMMENDATION:**

1. It is recommended that the City Council authorize the City Manager to sign Energy Efficiency and Conservation Block Grant application and all auxiliary paperwork between the City of Costa Mesa and the federal government that would allow the City of Costa Mesa to utilize \$1,123,500 for eligible energy efficiency upgrades.
2. Approve Budget Amendment 09- \_\_\_\_ to appropriate the grant funding of \$1,123,500.

## **BACKGROUND:**

In March of 2009, the federal government announced plans to invest \$3.2 billion in energy efficiency and conservation projects in U.S. cities, counties, states, territories, and Native American tribes. The Energy Efficiency and Conservation Block Grant program, funded by the American Recovery and Reinvestment Act provides formula grants for projects that reduce total energy use and fossil fuel emissions, and improve energy efficiency nationwide.

The funding will support energy audits and energy efficiency retrofits, the development and implementation of advanced building codes and inspections, and the creation of financial incentive programs for energy efficiency improvements. Other activities eligible for use of grant funds include transportation programs that conserve energy, projects to reduce and capture methane and other greenhouse gas emissions from landfills, renewable energy installations on government buildings, energy efficient traffic signals and street lights, and the deployment and retrofitting of heating and cooling systems.

## **ANALYSIS:**

Of the \$3.2 billion available, the City of Costa Mesa's grant allocation is \$1,123,500. The City is required to apply for the funding and all funding must be expended within three years. A detailed application process is underway with our initial application due on June 25, 2009. The purpose of the application is to express the City's interest in receiving the funding and to identify specific projects that the City is planning to implement. The application deadline is followed by a 120 day period for the City to finalize plans for the expenditure of the funds.

The projects below were identified after review of prior energy audits and through discussions with our energy partners including Southern California Edison, Siemens and other local cities. In addition an internal Energy Committee was developed with representatives from various departments to discuss ideas and determine the best possible use of these funds. Several of these projects have been on our needs lists for many years and this grant funding will now enable these projects to move forward and save energy and utility costs for the City.

Each of the potential projects will need further review and refinement before they are ready for the development of specifications and the appropriate bidding process. In addition, as this review continues, new technology and products may cause us to want to consider other projects or to reprioritize this list of ideas. The City Council will have the opportunity to formally review and approve each individual project as it moves forward.

The following projects are recommended for inclusion on our application:

### **1. Energy Rated Cool Roof installation at City Hall: Approximate Cost \$300,000-\$325,000**

The existing roof on city hall is over 20 years old, is two layers thick and is currently slated to be replaced within the next few years. According to the manufacture the main financial advantage is that a cool roof will save a facility, on average, \$.12 per square foot versus a conventional roof application. Based on the current roof size, the City can recognize an energy cost saving of at least \$3,758 per year. Annually this equates to the removal of 44,418 pounds of Carbon Dioxide from the environment. Additionally, the funds that will be required for roof replacement would be a savings to the general fund budget of approximately \$300,000 to \$325,000. It would also prepare the roof to accept a photovoltaic system in the future.

### **2. Energy Rated Cool Roof installation at Corp Yard: Approximate replacement Cost \$180,000-\$200,000**

The existing roof on the City's corporation yard building is over 20 years old, is two layers thick and is currently slated to be replaced within the next year or two pending budget allocations. According to the manufacture the main financial advantage is that a cool roof will save a facility, on average, \$.12 per square foot versus a conventional roof application. Based on the current roof size, the City can recognize an energy cost saving of at least \$2,853 per year. Annually this equates to the removal of 26,495 pounds of Carbon Dioxide from the environment. Additionally, the funds that will be required for roof replacement would be a savings to the general

fund budget of approximately \$180,000 to \$200,000. It would also prepare the roof to accept a photovoltaic system in the future.

**3. Install Energy rated Chiller at Police Department: Approximate Cost \$200,000**

The existing reciprocating chiller in the police department basement is approximately 25 years old and consumes a tremendous amount of electricity. Installing a new Energy Star rated chiller will utilize approximately one half the electricity of the existing chiller. The chiller itself is the main component of the police department's central system air conditioning unit and is used extensively for the space cooling in the facility. If it were to fail, it would cost the general fund approximately \$200,000 for replacement.

**4. Install three wind turbines on top of City Hall: Approximate Cost \$100,000**

This concept needs further review and discussion by staff but there are several products that have the potential to fit our needs. The three turbines combined will generate approximately 45kw per hour and approximately 200kw daily. Annually, this will remove approximately 94,000 a pounds of Carbon Dioxide from the environment.

**5. Retrofit lighting systems in City facilities, upgrade heating and cooling system controls, replacement of chillers in basement of City Hall, and as necessary providing for allowable administrative costs for writing of specifications: Approximate Cost \$298,500**

The California Energy Commission has begun a comprehensive energy audit of city facilities. This audit is expected to be completed in the next two months and will identify areas and projects for energy efficiency savings. The audit is also expected to recommend specific equipment and materials to maximize efficiency. For purposes of this application for federal grant funds, staff is recommending that we include retrofitting of our lighting systems, upgrade of heating and cooling system controls, replacement of chillers in basement of City Hall and as necessary, allowable administrative costs for writing of specifications.

The strong likelihood is that all of the ideas listed in item #5 will not be able to be funded by the remaining grant amount of \$298,500. Staff has listed all of them here to allow some flexibility to move forward with whatever the new energy audit identifies as providing the City with the best bang for our buck. Other items listed that end up not receiving grant funds will be identified and submitted for other future grants. In addition, staff has already started discussions with Southern California Edison and our OC Energy Partnership Cities to partially fund some of the above projects. Any funding received from our Energy Partnership could be used to fund some of the remaining unfunded items listed in item #5 above.

Other ideas explored as part of this analysis include the City purchasing a photovoltaic system for City Hall or City Corporation Building, conducting public outreach regarding energy efficiency, as well as utilizing funds to support state Assembly Bill 811, which encourages municipalities to support and provide funds for energy loans to its residents.

**ALTERNATIVES CONSIDERED:**

The City Council could decline the Energy Grant Funds.

**FISCAL REVIEW:**

If the budget amendment is approved, the City of Costa Mesa will received \$1,123,500 in the form of a grant from the federal government. By approving receipt of the grant, the City will be bound by the terms and conditions of the Federal Grant regulations and guidelines for expenditure of the funds.

**LEGAL REVIEW:**

As necessary, the City Attorney will review the grant application prior to submittal to the federal government.

**CONCLUSION:**

The report seeks authorization for the City Manager to approve and sign any necessary paperwork to process the City's grant from the federal government of \$1,123,500 for energy efficiency upgrades and related projects. The projects identified in this report are the highest priority projects to provide the maximum savings to the City. The individual projects identified in this report will be brought back to the City Council for individual approval at the appropriate time.

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Director of Finance

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ATTACHMENTS: 1 [Budget Amendment 09-](#)