



# Memorandum

**TO:** HONORABLE MAYOR  
AND CITY COUNCIL

**FROM:** Kim Welsh  
Kerrie Romanow  
Jennifer A. Maguire

**SUBJECT:** SEE BELOW

**DATE:** December 1, 2011

Approved

Date

12/7/11

**COUNCIL DISTRICT: 3**

**SUBJECT: UNITED STATES DEPARTMENT OF COMMERCE, ECONOMIC DEVELOPMENT ADMINISTRATION GRANT FOR PHOTOVOLTAIC PANELS AND RELATED EQUIPMENT AT THE ENVIRONMENTAL INNOVATION CENTER AND ADOPTION OF APPROPRIATION ORDINANCE AND FUNDING SOURCES RESOLUTION AMENDMENTS IN THE INTEGRATED WASTE MANAGEMENT FUND**

## REASON FOR ADDENDUM

On September 21, 2011, the City received a Financial Assistance Award Agreement for \$2,350,943 from the United States Department of Commerce Economic Administration Assistance. In order to ensure that the City accepts this award by the end of the calendar year, it is necessary to add this item to the December 13, 2011 City Council Agenda.

## RECOMMENDATION

1. Approve a grant agreement between the City of San José and the United States Department of Commerce Economic Development Administration to accept \$2,350,943, and to match this grant with \$1,007,547 in City funds, for the construction of a photovoltaic project at the San José Environmental Innovation Center, for a term from September 21, 2011 to September 21, 2015.
2. Adopt the following Appropriation Ordinance and Funding Sources Resolution amendments in the Integrated Waste Management Fund for 2011-2012:
  - (a) Increase the estimate for Earned Revenue by \$2,350,943;
  - (b) Increase the appropriation to the Environmental Services Department for Household Hazardous Waste Las Plumas Facility by \$2,758,490; and
  - (c) Decrease the Reserve for Operations and Maintenance by \$407,547.

## **OUTCOME**

Approval of this recommendation will enable the City to design, purchase, and install a photovoltaic (PV) system consisting of panels, micro-inverters and a solar tracking system for the San José Environmental Innovation Center (EIC). The system will generate up to 591,000 kilowatt hours (kWh) of energy, which is anticipated to result in a net-zero energy building. The project will also enable staff to pursue a Leadership in Energy and Environmental Design (LEED) Platinum certification from the U.S. Green Building Council.

## **BACKGROUND**

### **Environmental Innovation Center**

The EIC is located at 1608 Las Plumas Avenue on a 4.2 acre lot. The City completed an initial phase of improvements (Phase I) in June 2010, that included the installation of several sustainable technologies such as an advanced stormwater mitigation system, pervious sidewalk pavements, and light-emitting diode (LED) streetlights. The second phase of the project (Phase II) will house three principal tenants: 1) a Clean Tech Demonstration Center to test and deploy clean technologies in a shared-use, flexible space, which includes training, conference, and office facilities; 2) a Habitat for Humanity ReStore to sell used construction materials to contractors and the general public; and 3) a Household Hazardous Waste drop-off facility. Council awarded a construction contract for Phase II of this facility to Applegate-Johnston on May, 31, 2011, and construction commenced in early October 2011.

On May 5, 2011, the Department of Public Works received five bids in response to a low-bid design and installation of a PV system procurement. While the PV project was originally intended to be funded by the New Markets Tax Credits (NMTC) program, staff also pursued alternative funding for the development of the EIC through the U.S. Department of Commerce Economic Development Administration (EDA). On July 11, 2011, City staff received a non-binding commitment from the EDA stating that the EIC PV project was one of their finalist candidate projects to receive additional funding from the Global Climate Change Mitigation Incentive Fund (GCCMIF). For this reason, staff allowed the five bids on the original project to expire on September 2, 2011, (rebidding is required to use EDA funds for this project) and excluded the solar component from the items funded from the NMTC transaction. On September 21, 2011, the City received a Financial Assistance Award Agreement for \$2,350,943 from the EDA.

### **Economic Development Administration Grant**

The EDA grant funding enables the City to design and install a PV system capable of generating between 512,000 and 591,000 kWh per year. The PV system would be comprised of crystalline panels (with a minimum output of 230 watts) and thin film laminate modules, and would be placed on the rooftops and canopies throughout the western parking lot area of the EIC. Some of the PV panels would also have micro-inverters and be placed on a solar tracking system. Micro-inverters convert direct current (DC) from a single panel to alternating current (AC), the form in

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which electrical power is delivered to users. Micro-inverters also allow the shading of panels, or panel failure, to occur without disproportionately reducing the output of an entire array. Placing solar panels on a tracking system enables the production of energy over a longer period in the day, thus increasing the production capacity of the proposed system by adjusting panels' position according to the sun's position. De Anza College and Valley Medical Center have installed solar trackers. The proposed PV system could enable the EIC to achieve LEED Platinum New Building certification and would support the City's Green Vision goal of receiving 100% of City electrical power from renewable sources.

### **ANALYSIS**

In order to accept this grant, the City would need to agree to certain provisions which are discussed in more detail below.

#### **Project Timeline**

The City would enter into an agreement with the EDA to start project construction within 24 months and to complete the construction within 24 months after construction begins. The EIC is currently undergoing Phase II construction, which is anticipated to be complete by the end of December 2012. The PV construction project would occur near the end of the Phase II EIC renovation, and would be coordinated with the existing City Phase II construction contractor.

Staff anticipates beginning the bidding process for PV construction in spring 2012, with construction slated to commence in late summer. It is anticipated that project construction will be completed by early 2013, well within the EDA project timeline requirements of September 21, 2015.

#### **Project Cost Classifications and Budget**

The project budget in the amount of \$3,358,490 consists of the grant award of \$2,350,943 and the City match of \$1,007,547. According to the grant requirement, \$3,268,000 of combined City match and grant funding would be allocated exclusively to equipment, and \$90,490 would be allocated for miscellaneous and contingency costs. The EDA allows this cost category to be used to fund a PV design-build project. Design-build is a method to deliver a project in which the design and construction services are contracted by a single entity known as the design-builder or design-build contractor. The City would need to negotiate an amendment to the grant if there is a need to transfer funds from one cost category to another in excess of 10%.

#### **Procurement Requirements**

The grant requires that the City include certain requirements in its procurement process for the PV systems such as disclosures, restrictions on lobbying, insurance, and bonding. Applicants and bidders are subject to restrictions on lobbying and are required to complete various forms.

For bonding, EDA may accept the City's bonding policy and requirements if EDA determines coverage is adequate. If not, EDA will require, at a minimum, a bid guarantee from each bidder.

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equivalent to 5% of the bid price, a performance bond on the part of the contractor for 100% of the contract price, and a payment bond on the part of the contractor for 100% of the contract price. The City's standard construction bid specifications for bonding exceeds these requirements.

### **Operation and Maintenance Costs**

The City is responsible for ongoing maintenance for the useful life of the PV which is estimated to be 25 years. Based on the recommended PV system size, and by utilizing the model used to estimate PV maintenance costs on other City facilities, the maintenance costs are estimated to be approximately \$10,000 per year. The annual energy cost savings, estimated at \$44,000, will offset the annual PV maintenance cost of \$10,000, with a net positive increase in savings of \$34,000.

Council previously approved one full-time Senior Maintenance Worker to maintain the existing and renovated EIC facility as part of the 2007-2008 Adopted Operating Budget. It is anticipated that the existing staff would perform routine maintenance of the PV and tracking system and would coordinate any maintenance work covered by warranties. Maintenance of the solar panels, inverters, and tracking system includes inspections and panel cleaning on an as-needed basis. A decrease in energy production generally triggers the need for inspection and cleaning. The tracking system includes a motor and gears that need annual greasing and an oil change every two to three years.

Tracking systems generally come with a five-year warranty, which can be lengthened by purchasing an extended warranty. Staff plans to request a maintenance contract and extended warranty as an add alternative in the bid specifications.

### **Reporting and Audit Requirements**

As part of the reimbursement process, the City will be required to submit reports to substantiate expenses, similar to other Federal grants that the City administers, such as the American Recovery and Reinvestment Act grants and the Energy and Efficiency Community Block Grant. The EDA also requires the City to submit quarterly progress reports. Such reports will include information regarding a comparison of planned and actual accomplishments according to the timetable, an explanation of any delays and any other pertinent information such as cost overruns or high unit costs. The City must comply with and ensure that the contractor complies with specific audit requirements, and an audit of the award may be conducted at any time. Audits are conducted annually for recipients that expend federal awards of \$500,000 or more in a fiscal year. The City is also responsible for all award subrecipients to comply with the award audit provisions.

### **Security Interest**

The City must provide a security interest in order to receive EDA investment assistance. The City is unable to provide the EDA a security interest in the real property or improvements funded by the NMTC. However, EDA may exempt the real property security interest where the investment is only a small part of the larger project, and in this case, the EDA has indicated that

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they will accept a first priority equipment lien on the PV project assets only. Additionally, the City will not be able to sell the PV equipment nor use it for another purpose without EDA approval.

### **EVALUATION AND FOLLOW-UP**

Staff plans to return to Council to award the construction and installation contract in late spring 2012.

### **PUBLIC OUTREACH/INTEREST**

- Criterion 1:** Requires Council action on the use of public funds equal to \$1 million or greater. **(Required: Website Posting)**
- Criterion 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. **(Required: E-mail and Website Posting)**
- Criterion 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or a Community group that requires special outreach. **(Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)**

This recommendation meets Criterion 1. The memorandum will be posted on the City's website for the December 13, 2011 City Council Agenda.

### **COORDINATION**

This memorandum has been coordinated with the Finance Department, Department of Public Works, the City Attorney's Office, and the City Manager's Office.

### **COST SUMMARY/IMPLICATIONS**

#### **City Match for Grant**

The EDA grant requires a \$1,007,547 match from the City that will be dedicated to equipment purchase, any miscellaneous costs, and contingency. Staff is recommending using the grant match funding sources detailed on the following page. However, if other sources of match funding such as partnerships or sponsorships become available, those may be used in lieu of the funding identified below.

1. \$600,000 in cash from City Building Energy Projects Fund: In February 2010, the City Council approved amendments to the Pacific, Gas and Electric Company's (PG&E) franchise fee ordinances. As part of this action, a settlement agreement of \$6 million with PG&E was also approved by the City Council, which allocates \$1.5 million to a clean energy fund to support renewable energy and energy efficiency projects implemented on City property to further the goals of the City's Green Vision. The amount recommended for the EDA match is from the unallocated portion of these settlement funds.
  
2. \$407,547 from the Reserve for Operations and Maintenance in the Integrated Waste Management Fund: The source of funding for this is rate payer revenue. Energy savings realized from installation of this PV system will result in reduced operating costs for the Household Hazardous Waste operations to the benefit of rate payers.

The tables below show the project sources and uses of funds.

***Project Funding Source***

Description	Amount
EDA Grant	\$ 2,350,943
City Match/ City Building Energy Project Program	\$ 600,000
City Match/Integrated Waste Management Fund Reserve for O&M	\$ 407,547
<b>Total Project Cash Funding</b>	<b>\$ 3,358,490</b>

***Project Funding Use***

Classification	Description	Amount
Equipment	Performance specification development, design, equipment purchase, warranty, maintenance agreement, 3rd party consultant costs, installation, City oversight	\$3,268,000
Miscellaneous	Minor supplies	\$10,000
Contingencies	Unforeseen costs	\$80,490
<b>Total</b>		<b>\$3,358,490</b>

**Ongoing Cost Savings**

After the PV system begins production, PG&E will invoice the City for electricity on a “net metered” basis. This means that the City will receive a credit for excess electricity produced by the system, which may be used to offset PG&E charges during times when the system is not producing energy. However, the City may not receive more than a nominal credit beyond the amount it is charged for PG&E power.

Based on this net-metered arrangement, it is anticipated that average present value cost savings of the solar system per year will be approximately \$44,000 when compared to purchasing power exclusively from PG&E. Present value savings over the 25 year life of the PV panels is estimated

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to be over \$1,100,000. It should also be noted that these savings estimates are extremely sensitive to the assumptions built into the analysis. Some of the more important assumptions include the estimated electrical load of the EIC, how that load is distributed during peak and off-peak periods of solar production, and the assumed rate of increase in the cost of PG&E electricity (4.5% per year). Changes in any of these assumptions could significantly change the anticipated savings.

### **BUDGET REFERENCE**

The table below shows the funding for the City Cash Match.

Fund #	Appn #	Appn. Name	Total Appn	Amount for Project	2011-2012 Adopted Operating Budget Page	Last Budget Action (Date, Ord. No.)
423	8265	Reserve for Operations and Maintenance	\$7,743,929	\$407,547	XI - 51	10/18/2011 28979
001	3817	City Building Energy Project Program	\$1,499,757	\$600,000	IX-22	10/18/2011 28979
Total Funding Available				\$1,007,547		

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**CEQA**

A CEQA Negative Declaration for the renovation of the EIC, including the installation of PV panels, was adopted on December 1, 2009 (PP09-138).

/s/

KIM WALESH

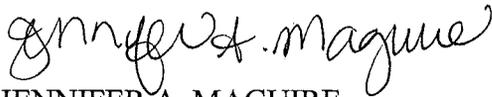
Director of Economic Development

Chief Strategist

/s/

KERRIE ROMANOW

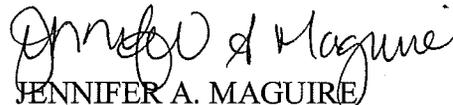
Acting Director, Environmental Services



JENNIFER A. MAGUIRE

Budget Director

I hereby certify that there will be available for appropriation in the Integrated Waste Management Fund in the Fiscal Year 2011-2012 monies in excess of those heretofore appropriated therefrom, said excess being at least \$2,350,943.



JENNIFER A. MAGUIRE

Budget Director

For questions, please contact Scott Green, Clean Tech Policy Advisor, Office of Economic Development, at (408) 535-8169, or Jo Zientek, Acting Assistant Director, Environmental Services Department (408) 535-8557.