



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL
AND FINANCING AUTHORITY

FROM: John Stufflebean

SUBJECT: SEE BELOW

DATE: 06-09-09

Approved

Date

6/12/09

SUBJECT: CITY OF SAN JOSÉ ENERGY EFFICIENCY AND SOLAR OPPORTUNITIES

RECOMMENDATION

- (a) Adopt a resolution by the City Council to express the City's interest in participating in the California Statewide Communities Development Authority (California Communities) California FIRST Community Energy Financing Program and authorizing related actions.
- (b) Adopt a resolution by the City Council authorizing City Manager or the City Manager's authorized designees to submit the City's application to the Internal Revenue Service for the allocation of New Clean Renewable Energy Bonds as authorized by the American Recovery and Reinvestment Act of 2009 and the Energy Improvement and Extension Act of 2008.
- (c) Adopt a resolution by the City Council authorizing the City Manager to submit the City's applications for the following Federal funding opportunities:
 - (1) Department of Energy Solar America Cities Special Project Grant in a total project amount not to exceed \$2,000,000, as authorized by the American Recovery and Reinvestment Act of 2009; and
 - (2) Department of Energy Industrial Energy Efficiency Grant in an amount not to exceed \$15,500,000.
- (d) Adopt a resolution by the Financing Authority authorizing the Executive Director or the Executive Director's authorized designees to submit the Financing Authority's application to the Internal Revenue Service for the allocation of New Clean Renewable Energy Bonds as authorized by the American Recovery and Reinvestment Act of 2009 and the Energy Improvement and Extension Act of 2008.

OUTCOME

Allows the City to begin the process of evaluating the option to "opt in" to the CaliforniaFIRST community energy financing program and submit applications for funding through the Recovery Act by the specified deadlines.

BACKGROUND

The City Council adopted the City of San Jose's Green Vision in 2008, setting a goal of achieving 100% renewable energy for all sectors of the community and reducing per capita energy use by 50% in the next fifteen years. On June 2, 2009, Council approved the San José Energy Plan which outlines efforts to deploy renewable energy, reduce energy consumption and design a program for residential retrofits and green workforce development funded by the American Recovery and Reinvestment Act (Recovery Act).

ANALYSIS

Several opportunities exist for the City to participate in community energy financing programs and to apply for Recovery Act funds in June and July of 2009 and the application of New Clean Renewable Energy Bonds by August 4, 2009. These opportunities will advance the efforts and implementation of the San José Energy Plan as adopted on June 2, 2009.

CaliforniaFIRST

One of the major challenges to increasing the amount of solar installed at homes and businesses are the upfront investments in energy improvements and solar installations. To put in solar, property owners have to self-finance from savings; use their home-equity credit line; or seek a bank loan. Another barrier to widespread installation of solar technologies is that many property owners are concerned about recovering their cost of investment in the solar energy system.

The California Statewide Communities Development Authority (California Communities), is a Joint Power Authority (JPA) sponsored by the California State Association of Counties and the League of California Cities, provides local governments with access to low-cost financing for projects that provide a tangible public benefit, contribute to social and economic growth, and improve the overall quality of life in local communities. The JPA currently represents 500 local government members, including the City of San José, and has issued more than \$40 billion in municipal debt since 1988.

California Communities is working to develop the first multi-jurisdiction government program that will provide a financing method to help homeowners and small businesses convert their property to clean energy. The program may substantially eliminate upfront costs as a barrier to installing solar and energy efficiency projects and, through the use of special assessments, allow the financing costs to transfer to subsequent property owners when the property is sold.

San José has the opportunity to express its interest in participating in the CaliforniaFIRST program as one of the first pilot municipalities. To do so, California Communities has requested that the City adopt a non-binding resolution prior to July 2009 to express the City's interest in the CaliforniaFirst program and to authorize the City Manager and her authorized designees to

work with California Communities to finalize the CaliforniaFIRST documentation in preparation for returning to the City Council.

This will set in motion a number of administrative elements that will streamline further analysis and assist in development of the Resolution of Intent to opt into the CaliforniaFIRST program for Council consideration later in the year. California Communities is working with its counsel and the underwriters to develop the CaliforniaFIRST program and to prepare draft financing documents. The drafts of the financing documents are anticipated to be available for the City's review in July. The cost for the City to opt-in to the CaliforniaFIRST program is estimated at \$25,000 to \$35,000, which will be brought forward for Council approval along with the adoption of the Resolution to participate in the CaliforniaFIRST program.

The CaliforniaFIRST program will utilize legal authority granted to cities and counties by AB 811 which became effective in 2008. Under AB 811, a city may designate a geographic area within which property owners may enter into voluntary contractual assessments with the city in order to finance the installation of distributed generation renewable energy sources or energy efficiency improvements that are permanently fixed to real property.

There are numerous benefits to the City for participating in CaliforniaFIRST rather than launching a stand-alone assessment district or community facilities district program in San José. Under CaliforniaFIRST, California Communities will create the financing district, administer the district, and issue the bonds. The CaliforniaFIRST program also provides a dedicated program and finance team to assist in financing program design, qualifying projects, and processing property owner applications. If San José were to create its own program, it would be required to do the legal, administrative and financial tasks associated with forming the district and issuing the debt, which would be resource and time intensive.

This effort will afford all property owners in San José the opportunity to participate in San Jose's Green Vision and help the City achieve its energy and clean tech workforce development goals. By participating in this statewide program, San José will enable property owners to retrofit their homes and businesses so that they consume less energy and utilize solar technologies with little or no up front cost. Participation in this program will launch green workforce development opportunities in San José by creating business for solar integrators who will in turn hire students enrolled in San José based solar energy training programs. The City is also looking to support outreach efforts for this program through various Resource Recovery funding applications.

U.S. Department of Energy Solar America Cities Special Projects Funding Announcement

On May 28, 2009, the U.S. Department of Energy (DOE) announced a funding opportunity to develop special projects targeted at overcoming key barriers, such as the up front cost of installing solar technologies, and lack of information for the general public that are preventing cities from reaching their solar energy goals. These grants are available only to the 25 Solar America Cities, and the DOE is especially interested in funding projects that result in job creation and economic recovery in an expeditious manner. Each Solar America City may apply

for grants ranging from \$100,000 to \$2,000,000. Applications for this funding opportunity are due July 30, 2009 and require a cost share that is at least 50% of the total allowable costs for projects from non-Federal funding sources; this cost-share requirement may be met through funding provided by third parties pursuant to letter of commitment. Staff will be working to secure letters of commitment from third parties, which are required to be submitted with the grant application. If DOE notifies the City that it has been approved for a grant, staff anticipates bringing forward the grant agreement approval and necessary appropriation actions in October.

Staff recommends that the City's project proposal address the following key issues to resolve the inefficiencies inherent in the delivery of solar technologies to the market.

Financing - The first element of the City of San Jose's Solar Market Transformation project proposal will support the implementation of innovative financing solutions for solar purchases such as the California FIRST program described above including a coordinated outreach program to inform and promote participation in the California FIRST program.

Permitting, Installation and Interconnection – The City has worked to streamline its building permit process for solar technologies which has enabled solar contractors to quickly apply for photovoltaic system electrical permits over the counter. Additionally, the City schedules post-installation inspections by appointment and is able to conduct the inspections within a 2-hour window of time. San Jose's permitting process, while being a model for other municipalities, can further improve by implementing an online permitting tool for all new permits issued for solar installations. Additionally, the City will request DOE Special Project funding to support the needs of the Planning, Building and Code Enforcement Department in processing solar permits and conducting installation and interconnection inspections by allocating one full-time employee to perform these and other solar electrical training related activities.

Workforce - The City of San José is involved in a number of solar industry regional collaborative efforts working to strategically respond to the need for a skilled workforce in photovoltaic system design and installation. These training programs are producing the green workforce needed to meet the demand that will occur when the San José Solar program begins to promote California FIRST. The City will work with these area workforce development programs and colleges to provide work experience and potential future employment opportunities within the clean tech industry in San José under this DOE Special Project funding opportunity.

- San José State University (SJSU) – The City will propose to work with SJSU's Environmental Studies and Engineering Departments to train students and faculty to conduct free, independent, third party solar site evaluations in the community to support the implementation of the California FIRST program. The University will develop internship credit opportunities within each of these departments for students and the City will partner with DOE to provide training to participants.

- Clean Tech Education and Demonstration Center – The City will propose use of the Redevelopment Agency owned lot/asset on Santa Clara Street between 4th and 5th Streets (AMGEN lot) to serve as a short-term (2 year) demonstration site for clean tech products, green building designs, and clean transportation technologies.

Collaboration with Santa Clara University (SCU) may be proposed to provide a temporary home for the 2009 Solar Decathlon House on the AMGEN lot, and demonstration site for the next generation of solar technologies, including pole, ground, and carport mounted thin film solar arrays.

SCU and City (ESD Solar America City Coordinator) staff would lead tours of this Clean Tech Education and Demonstration Center. This would provide a tangible opportunity for the public to see the Green Vision in action and observe the powerful combination of solar energy, energy efficiency, and green building techniques and products available for adoption today.

The first of its kind Clean Tech Showcase Center would help educate and encourage private sector investment in clean tech products, accelerate the demand for these energy solutions in the marketplace, provide a focal point for major media coverage, and serve as a model of other cities interested in promoting the use of solar energy technologies and green building materials. DOE Special Project funds will be requested to provide SCU students with paid internship opportunities to lead tours of the Decathlon House. The City's grant application will also include a request for funds to operate and maintain the Clean Tech Education and Demonstration Center over the next two years.

- San José Solar Workforce Development Programs – With the implementation of the California FIRST program in San José, the City will assist the clean tech industry acquire talented, skilled professionals through the implementation of a San José Solar Apprenticeship program.

Staff proposes to request DOE Special Project funding to provide paid on-the-job or other training opportunities for students who have completed North American Board of Certified Energy Practitioners (NABCEP) training programs in San José. As mentioned above, the City is involved in a number of solar industry regional collaborative efforts working to strategically respond to the need for a skilled workforce in photovoltaic system design and installation. By coordinating with these and other training programs, identifying any gaps and needs that need to be addressed, and developing programs to address those issues, San José will be able to help place talented, skilled individuals with clean tech companies in order for these students to gain hands on experience designing and installing solar in the community.

U.S. Department of Energy – Industrial Energy Efficiency Grant

The DOE is seeking deployment of projects in the areas of Combined Heat and Power (CHP) Systems, District Energy Systems, Waste Energy Recovery Systems, and Efficient Industrial Equipment. Four projects at the Water Pollution Control Plant (WPCP) have been identified for this application:

- **Nitrification Air Valve Replacement and Automation Project.** This project will replace and automate existing air valves and install new air flow meters in the Nitrification treatment facilities to facilitate pulsing of air in the aeration tanks. The conversion from continuous aeration to pulsed aeration would result in energy reduction by 10 percent.
- **Waste Heat Recovery Boiler.** This project will replace an aging waste heat recovery boiler with a new, more efficient unit.
- **Nitrification Gate and Channel Aeration Improvements.** This project will provide new gate frames and gate at the Nitrification Tank influent channels and reconfigure and replace existing air distribution system including air diffusers to add operational flexibility, improve maintainability and increase energy efficiency of the Nitrification treatment facilities at the Plant.
- **Clean Biogas Fuel Cell Program.** This program will replace existing low efficiency reciprocating engine generators with 1.2 megawatts of fuel cells that utilize renewable biogas as fuel.

Project applications for the Industrial Energy Efficiency are due to the DOE by July 14, 2009. The proposed projects from the WPCP will result in lower energy requirements and operating costs.

Internal Revenue Service– New Clean Renewable Energy Bonds

Project Description: The Recovery Act authorized the allocation of \$2.4 billion in New Clean Renewable Energy Bonds (New CREBs), which are tax credit bonds for financing renewable energy projects designed to provide low-interest financing for qualified issuers and promote the use of renewable energy in State, Local, and Tribal Government facilities. Tax credit bonds may offer a lower cost financing structure for issuers as compared to traditional tax-exempt bonds because bondholders receive a tax credit in lieu of payment of all or a portion of the interest on the bonds. The tax credit is considered as taxable income and is applied against the bondholders' federal income tax liability. The applicable tax credit rate is determined on the date of the bond sale based on the credit rate published for that date by the Bureau of Public Debt on its Internet site for State and Local Government Series securities at: <https://www.treasurydirect.gov>. Issuers repay principal on a regular schedule and pay the portion of the interest cost that is not covered by the tax credit.

Staff, on behalf of both the City and the City of San José Financing Authority (Financing Authority), is reviewing the feasibility of applying for allocations for multiple smaller solar energy projects on libraries, fire stations, and Municipal Water pump stations and reservoirs, as the Internal Revenue Service (IRS) will allocate awards on a smaller to larger project basis. Allocations are valid for 3 years from the award date, and bond proceeds must be spent within three years from the date of issuance. There are other requirements and restrictions for the New CREBs bonds that staff is investigating and which may impact the feasibility of issuing these bonds for City projects.

Applications for allocations must be filed with the IRS by August 4, 2009. Note that these are bonds, not grants, and the bondholders must be repaid so projects that have a revenue stream to repay the bonds will be higher priority. The award of an allocation does not obligate the City or the Financing Authority to issue New CREBs. An issuance of New CREBs by the City or the Authority would require approval of the City Council or the Financing Authority Board. It should also be noted that New CREBs would only finance the eligible capital expenditures as permitted by the IRS, and the City would be responsible for any ongoing operations and maintenance costs associated with the installation of the solar energy systems.

EVALUATION AND FOLLOW-UP

Staff will report to Council and the Financing Authority Board in the fall as to the status of grant applications and receipt for funds and the status of the New CREBs allocation applications.

PUBLIC OUTREACH/INTEREST

- Criteria 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)**

Although this item does not meet any of the above criteria, this memorandum will be posted as part of the June 23, 2009 Council Agenda.

COORDINATION

This memorandum was coordinated with the City Attorney's Office, the Redevelopment Agency, the Department of Planning, Building and Code Enforcement, the City Manager's Budget Office, and the Finance Department

FISCAL/POLICY ALIGNMENT

The recommendations in this report support and align with the City's Green Vision.

CEQA

Not a project.


JOHN STUFFLEBEAN
Director, Environmental Service

For questions please contact Mary Tucker, Energy Program Manager, at (408) 975-2581.