

File No. 100208

Committee Item No. 4

Board Item No. 04

COMMITTEE/BOARD OF SUPERVISORS

AGENDA PACKET CONTENTS LIST

Committee BUDGET AND FINANCE

Date 3/17/10

Board of Supervisors Meeting

Date 03/30/10

Cmte Board

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| <input type="checkbox"/> | <input type="checkbox"/> | Motion |
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| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Ordinance |
| <input type="checkbox"/> | <input type="checkbox"/> | Legislative Digest |
| <input type="checkbox"/> | <input type="checkbox"/> | Budget Analyst Report |
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| <input type="checkbox"/> | <input type="checkbox"/> | Introduction Form (for hearings) |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Department/Agency Cover Letter and/or Report |
| <input type="checkbox"/> | <input type="checkbox"/> | MOU |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Grant Information Form |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Grant Budget |
| <input type="checkbox"/> | <input type="checkbox"/> | Subcontract Budget |
| <input type="checkbox"/> | <input type="checkbox"/> | Contract/Agreement |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Award Letter |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Application |
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OTHER

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Completed by: Gail Johnson

Date 3/12/10

Completed by: YJ

Date 3/18/10

An asterisked item represents the cover sheet to a document that exceeds 25 pages. The complete document is in the file.

of 21/2

1 [Accept and Expend Grant - American Recovery and Reinvestment Act and Amendment to
2 the Annual Salary Ordinance, FY2009-2010 - \$750,635.]

3
4 **Ordinance authorizing the Department of the Environment to accept and expend a**
5 **grant in the amount of \$750,635 from the federal Department of Energy's Solar America**
6 **Initiative to remove barriers to the deployment of solar technologies in San Francisco**
7 **by addressing the lack of financing options for solar power installations and amending**
8 **Ordinance No. 183-09 to reflect the addition of one (1) grant funded position at the**
9 **Department of the Environment.**

10 Note: Additions are *single-underline italics Times New Roman*;
11 deletions are ~~*strikethrough-italics Times New Roman*~~.
12 Board amendment additions are double underlined.
13 Board amendment deletions are ~~strikethrough-normal~~.

14 Be it ordained by the People of the City and County of San Francisco:

15 **Section 1. Findings**

16 In 2004, SF Environment and the San Francisco Public Utilities Commission released a
17 "Climate Action Plan for San Francisco" identifying transportation, energy efficiency,
18 renewable energy, and solid waste measures that could achieve significant greenhouse gas
19 reductions.

20 In 2007, a Solar Task Force was convened to address the major barriers to the
21 deployment of solar in San Francisco and identified the lack of financing options for solar
22 installations, which have a high up-front cost as a major obstacle facing solar technologies'
23 widespread adoption.

24 This grant will address the lack of financing options by developing a San Francisco
25 Sustainable Financing Program (SF²) that will make tax-lien financing available to local
residents and businesses, a new commercial solar Power Purchase Agreement (PPA) model

Mayor Newsom, Supervisor Duffy
BOARD OF SUPERVISORS

1 to overcome the financing challenges for owners of mid-market building owners, a PPA model
2 to make installing solar in San Francisco's public schools economically viable, and a financing
3 model for including solar in affordable housing rehab projects.

4 This grant will reduce greenhouse gas emissions by adding efficiency and solar water
5 heating which reduce natural gas usage, with a much higher CO² reduction value per dollar
6 than electricity usage, and positively impact the economic needs of the City by providing
7 affordable financing options where no viable models previously existed; in addition to
8 widening access of San Francisco residents to energy efficiency and renewable energy
9 measures which bring monthly utility costs down.

10 San Francisco's Solar Financing Program will offer a model that can be both expanded
11 for larger implementation within the City and replicated by other jurisdictions interested in
12 reducing barriers to deployment of solar installations on residential, medium-sized
13 commercial, public school and affordable housing buildings.

14 **Section 2. Authorization to Accept and Expend Funds.**

15 The Board of Supervisors hereby authorizes the Department of the Environment to
16 retroactively accept and expend \$750,635 from the federal Department of Energy's Solar
17 America Initiative to support San Francisco's solar financing program.

18 The Department of the Environment is further authorized to furnish whatever additional
19 information or assurances the funding agency may request in connection with this grant, and
20 to execute any and all agreements necessary to carry out the purpose of the grant.

21 The grant budget includes provision for indirect cost of \$97,909.

22 The term of the Department of Energy's Solar America Initiative grant is from January
23 1, 2010 through December 31, 2011.

1 **Section 3. Grant-funded Position; Amendment to FY 2009-20010 Annual Salary**
 2 **Ordinance.**

3 The hereinafter designated sections and items of Ordinance No. 183-09 (Annual Salary
 4 Ordinance, FY 2009-2010) are hereby amended to ADD ONE (1) (.5 FTE) position in the
 5 Department of the Environment, and reads as follows:

6 Department: ENV-22

7 Program: CIP - ENERGY


8 Subfund: 2S-ENV-ARA


9 Index Code: 220161

Amendment:	Number of Positions:	Class and Item No.:	Compensation Schedule:
Add	.5 FTE	5638 Environmental Assistant	\$ 2115 B \$2571

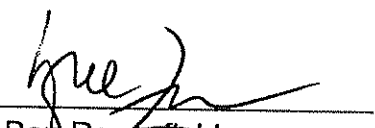
15 APPROVED AS TO FORM:
 16 DENNIS J. HERRERA, City Attorney

APPROVED AS TO CLASSIFICATION
 DEPARTMENT OF HUMAN RESOURCES

17 By: 
 18 Thomas Owen
 19 Deputy City Attorney

By: 
 Micki Callahan
 Director


20 APPROVED: _____
 21 Mayor

22 APPROVED: 
 23 Ben Rosenfield
 24 Controller
 25

Department of the Environment
 BOARD OF SUPERVISORS

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RECOMMENDED:


Jared Blumenfeld, Executive Director
Department of the Environment



TO: Angela Calvillo, Clerk of the Board of Supervisors
FROM: Mayor Gavin Newsom
RE: Ordinance authorizing Accept and Expend grant in the amount of
\$750,635 from the United States Department of Energy's Solar America
Initiative
DATE: February 23, 2010

Dear Madame Clerk:

Attached for introduction to the Board of Supervisors is an ordinance authorizing the San Francisco Department of the Environment to accept and expend a grant in the amount of \$750,635 from the United States Department of Energy's Solar America Initiative for San Francisco Sustainable Financing Program to remove barriers to the deployment of solar technologies in San Francisco.

I request that this item be scheduled in Budget and Finance Committee or Without Committee Reference.

Should you have any questions, please contact Starr Terrell (415) 554-5262.

TO: Angela Calvillo, Clerk of the Board of Supervisors
FROM: The Department of the Environment
DATE: 12/3/09
SUBJECT: ASO Amendment with Accept and Expend for Federal Grant
GRANT TITLE: San Francisco Solar Financing Program

Attached please find the original and 4 copies of each of the following:

Proposed ASO amendment including Accept and Expend; original signed by Department, Mayor, Controller, City Attorney, Human Resources

Grant information form, including disability checklist

Grant budget

Grant application

Grant award letter from funding agency

Other (Explain): Legislative Checklist

Special Timeline Requirements:

Departmental representative to receive a copy of the adopted ordinance:

Name: Shawn Rosenmoss

Phone: 415-355-3746

Interoffice Mail Address:

Certified copy required: Yes

No

(Note: certified copies have the seal of the City/County affixed and are occasionally required by funding agencies. In most cases ordinary copies without the seal are sufficient).

File Number: _____
(Provided by Clerk of Board of Supervisors)

Grant Information Form
(Effective January 2000)

Purpose: Accompanies ASO amendment including proposed Board authorization to accept and expend grant funds.

The following describes the grant referred to in the accompanying ordinance:

1. Grant Title: San Francisco Solar Financing Program (SF²)
2. Department: Department of the Environment
3. Contact Person: Shawn Rosenmoss Telephone: 415-355-3746
4. Grant Approval Status (check one):
 Approved by funding agency Not yet approved
5. Amount of Grant Funding Approved or Applied for: \$ 750,635
- 6a. Matching Funds Required: \$ 736,015
b. Source(s) of matching funds (if applicable): Matching funds are primarily being provided through the salaries of existing City staff, who will contribute to the project by performing task that are currently part of their regular duties.
- 7a. Grant Source Agency: U.S. Department of Energy Solar America Initiative
b. Grant Pass-Through Agency (if applicable): none
8. Proposed Grant Project Summary:

This grant helps remove barriers to the City's deployment of solar technologies by supporting the development of the San Francisco Sustainable Financing Program (SF²), developing and implementing innovative solar Power Purchase Agreement models for the commercial sector and public schools and supporting the development of an innovative solar financing program for affordable housing over a two-year period.

The project ultimately reduces the City's overall greenhouse gas emissions by facilitating the use of renewable solar power to replace fossil fuel burning technologies. The grant supports the City's current program that incentivizes solar power.
9. Grant Project Schedule, as allowed in approval documents, or as proposed:
Start-Date: January 1, 2010 End-Date: December 31, 2011
10. Number of new positions created and funded: 1
11. If new positions are created, explain the disposition of employees once the grant ends? The position will End.
- 12a. Amount budgeted for contractual services: \$166,000
b. Will contractual services be put out to bid?

Yes, Contracts to consultants will be awarded based on the standard City contracting process of issuing an RFP and selecting contractors based on responses.

c. If so, will contract services help to further the goals of the department's MBE/WBE requirements? Yes

d. Is this likely to be a one-time or ongoing request for contracting out? One-time

13a. Does the budget include indirect costs? Yes No

b1. If yes, how much? \$97,909

b2. How was the amount calculated? 15% of the total direct costs requested -- the amount allowed by the funding agency

c. If no, why are indirect costs not included?

Not allowed by granting agency

To maximize use of grant funds on direct services

Other (please explain):

14. Any other significant grant requirements or comments:

****Disability Access Checklist****

15. This Grant is intended for activities at (check all that apply):

Existing Site(s)

Existing Structure(s)

Existing Program(s) or Service(s)

Rehabilitated Site(s)

Rehabilitated Structure(s)

New Program(s) or Service(s)

New Site(s)

New Structure(s)

16. The Departmental ADA Coordinator and/or the Mayor's Office on Disability have reviewed the proposal and concluded that the project as proposed will be in compliance with the Americans with Disabilities Act and all other Federal, State and local access laws and regulations and will allow the full inclusion of persons with disabilities, or will require unreasonable hardship exceptions, as described in the comments section:


Comments:

Departmental or Mayor's Office of Disability Reviewer: _____


JOAN PAUL SCOTT
(Name)

Date Reviewed: 11-27-2010

Department Approval: _____

 David Assmann
(Name)

Acting Director

(Title)


(Signature)

San Francisco Department of the Environment - San Francisco Solar Financing (SF) Project

Solicitation Number DE-FOA-0000078

	Description	Other notes	DoE Year 1	Match Year 1	Total Year 1	DoE Year 2	Match Year 2	Total Year 2	Total DOE	Total Match	Total Project
PERSONNEL											
Principal Environmental Specialist 5644 Energy & Climate Program Manager	10% FTE	Current Staff Ensure integration with efficiency and climate projects	\$10,777	\$10,777	\$10,777	\$10,777	\$10,777	\$10,777	\$0	\$21,554	\$21,554
Senior Environmental Specialist 5642-Renewable Energy	50% FTE	Current Staff Manage project; coordinate with other City programs and staff; coordinate with other municipalities	\$47,229	\$47,229	\$47,229	\$47,229	\$47,229	\$47,229	\$0	\$94,458	\$94,458
Environmental Assistant 5638 Solar Program Coordinator	100% FTE	Grant funded for the length of the grant. Coordinate day-to-day implementation of project; ensure integration with other solar initiatives	\$66,846	\$66,846	\$66,846	\$66,846	\$66,846	\$66,846	\$133,692	\$0	\$133,692
Public Service Aide 9822 Renewable Energy	100% FTE	Current staff. Assist with project implementation	\$36,530	\$36,530	\$36,530	\$36,530	\$36,530	\$36,530	\$0	\$36,530	\$36,530
Principal Env. Specialist 5644 Outreach Coordinator	10% FTE	Coordinate development and publication of outreach materials, develop/maintain Dept. website	\$18,892	\$18,892	\$18,892	\$18,892	\$18,892	\$18,892	\$0	\$37,783	\$37,783
Programs Manager Principal Env. Specialist 5644-Energy Efficiency	30% FTE	Manage energy efficiency programs; support integration of solar and EE work	\$32,331	\$32,331	\$32,331	\$32,331	\$32,331	\$32,331	\$0	\$64,662	\$64,662
Environmental Specialist 5640 Energy Efficiency	50% FTE	Perform energy efficiency audits for all buildings participating in Tasks 2-4	\$40,638	\$40,638	\$40,638	\$40,638	\$40,638	\$40,638	\$0	\$81,276	\$81,276
Environmental Specialist 5640 Energy Efficiency	50% FTE	Perform energy efficiency audits for all buildings participating in Tasks 2-4	\$40,638	\$40,638	\$40,638	\$40,638	\$40,638	\$40,638	\$0	\$81,276	\$81,276
Environmental Assistant 5638 Energy Efficiency Marketing Coordinator	50% FTE	Assist with integration of solar and EE into outreach materials	\$33,423	\$33,423	\$33,423	\$33,423	\$33,423	\$33,423	\$0	\$66,846	\$66,846
Subtotal Personnel			\$66,846	\$260,458	\$327,304	\$66,846	\$223,928	\$290,774	\$133,692	\$484,385	\$618,077
Fringe	28%		\$18,717	\$72,928	\$91,645	\$18,717	\$62,700	\$81,417	\$37,434	\$135,628	\$173,062
Total personnel			\$85,563	\$333,386	\$418,949	\$85,563	\$286,627	\$372,190	\$171,126	\$620,013	\$791,139
TRAVEL											
Airfare	2 people @ \$600 ea	Required travel to DoE SAC annual meetings	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$2,400	\$0	\$2,400
Hotel & Per Diem	2 staff @ \$250/dy	Required travel to SAC annual meetings (5 days)	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$5,000	\$0	\$5,000
Solar Meetings / Conferences		To attend/present at key solar conferences	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$6,000	\$0	\$6,000
Subtotal Travel			\$6,700	\$0	\$6,700	\$6,700	\$0	\$6,700	\$13,400	\$0	\$13,400
EQUIPMENT											
Solar Equipment		Will be procured using standard city practices. Solar PV and SWH equipment purchase (Tasks 3 & 4)	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$150,000	\$0	\$150,000
Clean Power Estimator software	1 license @ \$6000/yr	To provide potential solar customers more accurate solar cost/savings info through Solar Map	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$12,000	\$0	\$12,000
OnGrid software	1 license (2 users) @ \$1100/yr	To provide potential solar customers detailed solar assessment reports through Solar Founder's Circle	\$1,100	\$1,100	\$1,100	\$1,100	\$1,100	\$1,100	\$2,200	\$0	\$2,200
Subtotal Equipment			\$82,100	\$82,100	\$82,100	\$82,100	\$82,100	\$82,100	\$164,200	\$0	\$164,200



San Francisco Department of the Environment

San Francisco Department of the Environment

DoE Solicitation # DE-FOA-0000078



GAVIN NEWSOM Mayor
JARED BLUMENFELD Director

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A Request to the US Department of Energy for Solar America Initiative Special Projects Solicitation Number DE-FOA-0000078

San Francisco Solar Financing Project

Department of the Environment
City & County of San Francisco
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San Francisco, CA 94102
(415) 355-3700
FX: (415) 554-6393
www.sfenvironment.com

Technical Contact:
Jared Blumenfeld, Director
415-355-3701
jared.blumenfeld@sfgov.org

Business Contact:
Shawn Rosenmoss, Manager of Grants and Fundraising
415-355-3746
shawn.rosenmoss@sfgov.org

1. PROJECT OBJECTIVES

The San Francisco Solar Financing Project proposes to implement a comprehensive approach to addressing the main barrier facing increased adoption of solar in San Francisco: lack of financing options. The Project will do so by:

- Supporting the development of the San Francisco Sustainable Financing Program (SF²);
- Developing and implementing an innovative commercial solar PPA model;
- Developing and implementing an innovative solar PPA model to put solar on public schools; and
- Supporting the development of an innovative solar financing program for affordable housing.

2. PROJECT DESCRIPTION

A. Approach to Overcoming Key Barriers that Hinder the City from Reaching Its Solar Potential

San Francisco has served as a national leader in the development of renewable energy on both city-owned and privately-owned buildings. There are currently approximately 1,400 solar PV installations totaling nearly 8 MW in the City. While this places San Francisco near the top of the list among large cities in the U.S. for number of systems installed and total MW installed, SF still has a long way to go before it reaches its aggressive renewable energy goals.

San Francisco's approach to identifying and overcoming barriers hindering the City from reaching its solar potential has its foundation in soliciting stakeholder feedback and involvement. In 2002 San Francisco's Department of the Environment (SF Environment) held a series of consultations with solar installers and customers, revealing several barriers, namely lengthy permit reviews, high permit costs (in some cases totaling 10% of the project cost), and inconsistency between inspectors regarding permitting procedures and installation requirements. After discussions with the Building Inspection and Planning departments, a series of trainings was held for inspectors to visit installations and discuss installation requirements with systems designers and installation engineers. Another series of meetings was held with the Fire Department, Planning Department, and the public to discuss procedures and costs. As a result a "pre-approval" process was established for solar installers, and the permit fee structure was altered to dramatically reduce solar permit fees.

In 2007 a Solar Task Force was convened to address the major barriers to the deployment of solar in San Francisco. The Task Force identified the following major barriers: (i) lack of public awareness; (ii) difficulty of installation; and (iii) cost. The City has taken significant steps to address these barriers. To address the first—lack of public awareness—San Francisco developed the SF Solar Map (www.sf.solarmap.org), which allows users to pull up an aerial photo of their building and see the building's estimated solar potential, along with information about costs, available incentives, how to find installers and other important information to help them go solar. The award-winning SF Solar Map serves as a "one-stop shop" for San Francisco's residents and businesses interested in solar, and has been a model for a number of other cities' solar maps. The City has also implemented a number of solar outreach campaigns and programs, such as the Solar Champions training program, a partnership with PG&E's Pacific Energy Center to train community leaders to become a local solar resource for people in their community, and the Mayor's Solar Founder's Circle, which provides free solar PV and solar water heating assessments and energy efficiency audits to businesses and non-profits in the City.

To address the second barrier—difficulty of installation—SF Environment again worked with the Department of Building Inspection in 2007-2008 to further streamline the City's solar permitting

requirements, resulting in the solar permitting process we have in place today, which is quick (over the counter), affordable (\$125 for most PV installations) and accessible.

To address the third barrier—cost—San Francisco has developed one of the largest voluntary municipal solar incentive programs in the country. The "GoSolarSF" program (www.solarsf.org) provides up to \$4,000 for homeowners and up to \$10,000 for businesses—and even more for low income residents and non-profit organizations—to install solar PV on their properties. The GoSolarSF incentive, coupled with the California Solar Initiative rebate and federal tax credit, provides more than half the cost of a typical residential installation.

The cost barrier, however, has only been partially addressed. As described in detail in Section 3, the high up-front cost of solar remains a major obstacle facing solar technologies' widespread adoption.

B. Plan for How the Project Will Continue After the Initial DOE Funding Has Been Depleted

Funding from USDOE will be used as "seed funding" to create solar financing structures that, if successful, will remain in place and thrive long after grant funding is expended. Financing structures will continue providing service future generations of projects. The completed projects will serve as flagship examples of economically viable systems. The City will continue to use its own funds to market the financing programs created and solar water heating to the commercial, residential and multifamily markets.

C. How the Project Can Serve As a Model for Replication within the City, by Other Cities and/or Other Jurisdictions

If successful, the proposed Solar Financing Project can be both expanded for larger implementation within the City and replicated by other jurisdictions. We believe the establishment of this program would provide a blueprint for a nation-wide program that municipalities could implement to reduce barriers to deployment of solar installations on residential, medium-sized commercial, public school and affordable housing buildings. There are many factors that make this program replicable:

- Financing is a barrier being faced by most jurisdictions.
- The building types to be addressed are common in most jurisdictions: residential, mid-sized commercial, schools, affordable housing, etc.
- In Task 1, the SF² program, San Francisco is one of many jurisdictions seeking to implement such tax-bill financing programs. Examples of how these programs can be done successfully will provide lessons learned for other municipalities' programs.
- In Task 2, creating a new commercial PPA model, if successful, this program will open up a whole new revenue stream (medium-sized commercial solar customers) for solar PPA providers. If there's money to be made, PPA providers will want to replicate the model elsewhere.
- In Task 3, as described below, putting solar on schools is particularly challenging in San Francisco, where their per-kWh cost of electricity is so low. If it can be done here, it can be done anywhere.
- In Task 4, SF Environment is working with a national organization seeking to create a model that can be replicated around the country to finance energy improvements on affordable housing buildings.
- For all tasks, local government investment is a small amount of staff time to provide the template and help market the program

D. Impact of the Project on the City's Long-term Goal for Solar Energy, and How the Project Directly or Indirectly Will Assist the City in Reaching the Installation Targets

A city of 750,000 residents, San Francisco has served as a leader in the promotion of solar technologies in the municipal, commercial, residential and commercial sectors since the early 1970s. In 2002, the City undertook a bold initiative to control its energy future by developing an Electricity Resource Plan (ERP), which set ambitious renewable energy and energy efficiency goals. As stated in the ERP, the City set itself on a path that would "allow for gradual displacement of existing fossil fuel generation by increased energy efficiency and renewable energy technologies, with a long term goal of zero greenhouse gas emissions and minimal environmental impacts from the generation of electricity." The ERP set ambitious renewable energy goals, including a target of 50 MW of in-city renewable capacity—31 MW of which is designated for solar—by the end of 2012.

As mentioned previously, while strides have been made toward reaching these targets—currently 1,400 solar PV installations totaling nearly 8 MW installed in the City, with another 5+ MW in municipal projects planned for the coming year—we still have a long way to go. Using its solar mapping data, SF Environment estimates that San Francisco's rooftops could support 500 MW to 1 GW of solar potential—enough, potentially, when coupled with aggressive energy efficiency measures, to power the entire City. While we know the potential is there to reach our goals of being 100% renewably powered, significant steps need to be taken to build sectors, and "mainstream" solar power.

If successful, we believe the Tasks to be implemented under the proposed SF Solar Financing Project could vastly increase the amount of solar installed in the City. Specific targets include:

- At least \$20 million in tax-lien financed "loans" to finance energy efficiency, renewable energy and water conservation improvements.
- At least 100 new solar water heating systems installed city-wide.
- At least 2 MW of commercial solar projects installed using the new proposed commercial solar PPA model.
- At least 1 MW of new solar installed on public schools.
- At least 2 affordable housing projects applying innovative debt financing to install solar and energy efficiency improvements on their properties.

E. How the City Intends to Utilize Project Funds, How the Project will Enhance Key Activities within the City that Cannot be Adequately Addressed Under Existing Solar America City Award, While Complementing Existing Activities

The City intends to use project funds primarily for staff, consultants and equipment costs. San Francisco's existing Solar America Cities (SAC) award has helped significantly promote and develop the local solar market. For example, SAC funds indirectly funded the development of the GoSolarSF solar incentive program and the SF Solar Map, and directly funded the Mayor's Solar Founders' Circle. However, in implementing these projects, we identified that the key barrier hindering the wide-scale adoption of solar in San Francisco is lack of viable financing options. We also identified new opportunities to put solar on schools and in affordable housing. There is insufficient time and funding in the existing award to implement the solutions that are necessary to move the market. The tasks to be implemented in the proposed SF Solar Financing Project will implement these solutions.

3. PROJECT IMPLEMENTATION PLAN

A. Proposed Activities and How the Project Will be Implemented

The San Francisco Solar Financing Project will work to address this barrier through the following four tasks: i) San Francisco Sustainable Financing Program (SF²); ii) Developing a New Commercial Solar PPA Model; iii) Solar Financing for Public Schools; and iv) Solar Financing for Affordable Housing.

i. Task 1: San Francisco Sustainable Financing Program (SF²)

The largest constraint to buildings becoming more renewably powered and energy efficient is the large up-front cost of making these improvements. Despite government incentives to decrease the up-front cost for solar and energy efficiency projects, these improvements still cost upwards of several thousand dollars. As a result, many San Francisco building owners have found it impossible to make energy efficiency and renewable energy sustainable improvements to their buildings.

San Francisco is currently developing the "San Francisco Sustainable Financing" (SF²) program, an on-tax bill financing program that will make up to \$20 million available in tax-lien financing to local residents and businesses to make solar, other renewables, energy efficiency and water conservation improvements to their buildings. San Francisco has selected a team led by Renewable Funding and Stone and Youngberg (which has helped the cities of Berkeley, CA, and Boulder, CO, and Sonoma County establish similar financing programs) to administer and provide financial services for the program, and is on track to launch the program by the end of this year. Similar to the "Berkeley FIRST" model, San Francisco is establishing a citywide Mello-Roos Special Tax District that will be available to finance privately-owned solar and other renewable energy, energy efficiency and water conservation improvements. This financing program is attached to the property, rather than the individual, and is paid back through property taxes over the useful life of the improvement (with a maximum of 20 years). To participate in the program, a property owner will apply to the City to finance a set of projects identified after an energy and/or water use audit. Upon approval of the application and the loan documents, the completion of the related project, and the execution of documents authorizing the levy of the special tax against the property the City will then finance the net cost of the project after rebates, tax credits and other incentives.

Under this Task, SF Environment will support the development and implementation of SF² by conducting significant outreach to previously untapped markets that we think will benefit from this program. SF Environment and other City agencies already have programs and significant marketing campaigns in place to identify possible energy efficiency and solar PV customers who might be interested in participating in the SF² program. However, to date, very little marketing has been done to promote SWH in San Francisco.

Many feel that SWH is the energy efficiency resource with the greatest technical and economic potential to reduce residential natural gas use in California. Residential building energy use accounted for 19% of San Francisco's total greenhouse gas emissions in 1990. Water heating accounts for 38% of residential demand for natural gas and approximately 4.1% of San Francisco's total CO₂ emissions, or 0.33 million tons of CO₂ per year. A preliminary SWH market analysis conducted by the San Francisco Department of the Environment finds that San Francisco's residential SWH market has a technical potential between 460-1,008 MW_{th}, or 8.6-19 million therms/yr. These energy savings represent roughly 0.05-0.11 million short tons of CO₂ emissions per year, which is approximately a 0.6% to 1.4% further reduction from San Francisco's latest 2005 emissions inventory. With an estimated 300-400 domestic solar hot water systems

installed city-wide of a total 141,000 residential buildings. San Francisco's solar hot water market remains significantly underdeveloped.

Solar water heating technology has several advantages in San Francisco's urban environment:

- It requires relatively little roof area;
- Shading has a smaller impact on system performance than it does on PV performance;
- Landlords often have incentives to adopt solar water heating because they usually pay for tenants' gas usage;
- Collector technology is mature;
- Initial capital costs are modest; and
- Limited incentives are needed to stimulate market development.

With recent changes in the federal solar tax credit program, which offer SWH customers a tax credit of up to 30% of the installed cost of their SWH system, and a new state SWH incentive program, expected to be in place January 1, 2010, now is the best time to launch a citywide SWH campaign to significantly expand the local market for residential and commercial solar water heating systems.

Thus, in Task 1, SF Environment will conduct a marketing program to build citywide awareness about the SF program, and to target key market sectors considered good candidates for SWH, specifically residential multi-tenant buildings, hotels, gyms and public pools. Task 1 sub-tasks will include:

Sub-task 1.1. Develop Marketing Campaign to Build Awareness About and Increase Participation in the SF Program – SF Environment will work with other City agencies and SF administrator such as sf.solarmap.org, solarsf.org and stenergywatch.org, print media, marketing materials, utility bill inserts, neighborhood meetings and other speaking opportunities.

Sub-task 1.2. Develop Solar Water Heating Outreach Campaign – SF Environment will launch a citywide SWH campaign to significantly expand the local market for residential and commercial solar water heating systems. SF Environment will target key market sectors considered good candidates for SWH, specifically residential multi-tenant buildings (where landlords usually pay for tenants' gas usage), hotels, gyms and public pools.

Task 1 Targets:

- At least \$20 million in SF "loans" to finance energy efficiency, renewable energy and water conservation improvements.
- At least 100 new SWH systems installed city-wide.

ii. Task 2: Developing New Commercial Solar PPA Model

In September 2008, with support from the Solar America Cities program, San Francisco created the Mayor's Solar Founder's Circle, which provides free on-site solar assessments to businesses and non-profit organizations in San Francisco interested in going solar. The goal of this program is to foster 5 MW of new commercial and non-profit solar installations by the end of this year. To date, SF Environment has conducted 83 on-site solar assessments, and has another 25 scheduled. These buildings are estimated to have a collective 2.97 MW in PV capacity. Of these, the majority of individual projects are estimated in the 10-99 kW range.

SF Environment has been able to follow up with most Founders' Circle participants to find out whether they are planning to move forward with solar installations, and if not, why not. Of those we've followed

up with, only a small number (4) are moving forward (ie, getting bids from installers). The majority of the remaining building owners (81%) have identified upfront cost and/or lack of viable financing options as the main obstacle to installing solar.

Between the categories of large commercial and residential lies a mid-market group of buildings with rooftops that will support a PV system of between 10-99 kW in capacity that are in solar "limbo." These buildings are generally commercial and light industrial, and are often owner-occupied. While these building's electricity needs and rooftop solar capacity make them well-suited for solar, they are underrepresented in terms of actual deployments in the City. These businesses generally lack the ability to buy a solar system outright, and would have a hard time justifying a capital expense with such a long payback to their CFOs even if they did. Similarly, these types of solar projects do not make good candidates for commercial loans, especially in today's credit-constrained environment. Finally, given the mid-size nature of their solar projects, they are usually overlooked by solar power purchase agreement (PPA) providers, which traditionally are interested only in larger projects of 100 kW or more to justify the relatively high transaction costs associated with putting solar PPAs in place.

A few emerging solar PPA providers, however, are beginning to think creatively about innovative approaches to overcoming this "mid-market" challenge and tapping this previously untapped—and potentially significant—solar market. In conventional solar PPAs, the federal solar tax credit (plus accelerated depreciation), combined with the ability to aggregate and sell the project's Renewable Energy Certificates (RECs), have provided the key economic elements making the project work. However, there are other federal incentive programs—specifically, federal incentives designed to stimulate economic investment in low-income neighborhoods—which have not yet been tapped by solar PPA providers, but could be harnessed to open up the mid-sized commercial solar PPA market. These include:

- **New Markets Tax Credits (NMTC)** – The NMTC Program permits taxpayers to receive a credit against federal income taxes for making qualified equity investments in designated Community Development Entities (CDEs). Substantially all of the qualified equity investment must in turn be used by the CDE to provide investments in low-income communities. The credit provided to the investor totals 39 percent of the cost of the investment and is claimed over a seven-year credit allowance period. In each of the first three years, the investor receives a credit equal to five percent of the total amount paid for the stock or capital interest at the time of purchase. For the final four years, the value of the credit is six percent annually. Investors may not redeem their investments in CDEs prior to the conclusion of the seven-year period. An organization wishing to receive awards under the NMTC Program must be certified as a CDE by the Community Development Financial Institutions Fund (the Fund) of the United States Department of the Treasury.
- **Community Reinvestment Act (CRA) Credits** – Enacted by Congress in 1977, the CRA program is intended to encourage banks to help meet the credit needs of the communities in which they operate, including low- and moderate-income neighborhoods, consistent with safe and sound banking operations. The CRA requires that each insured depository institution's record in helping meet the credit needs of its entire community be evaluated periodically, and this record is taken into account in considering an institution's application for deposit facilities, mergers and acquisitions. Banks are constantly looking for ways to meet their CRA requirements; therefore, solar PPAs for businesses in low- and moderate-income neighborhoods in their service territories may be very attractive. While CRA credits may not provide additional financial incentives for solar projects, they may increase banks' appetites to invest in such projects.

The barriers to solar installation are highest in underserved communities, where financing problems above are compounded by the historic "redlining" practices. The proposed program would actually make

installations in such areas more attractive, since banks would be especially incented to make loans to solar installations in underserved communities in order to qualify for NMTCs and CRA credits.

San Francisco will develop a new solar PPA model to take advantage of these federal incentives and tap the mid-sized commercial solar market. Task 2 sub-tasks will include:

Sub-task 2.1. Identify Eligible Businesses – SF Environment will work with BOMA, the SF Chamber of Commerce and/or other local business associations to identify businesses in “disadvantaged” neighborhoods that are good solar candidates.

Sub-task 2.2. Conduct Technical Due Diligence – SF Environment will conduct technical due-diligence on the list of eligible businesses, including on-site solar and roof quality assessments, to confirm PV potential.

Sub-task 2.3. Identify the Solar PPA Provider – SF Environment will work with the San Francisco Building Owners and Managers Association (BOMA-SF), the Chamber of Commerce and other local business associations to identify a solar PPA provider(s) that can offer an attractive price for solar PPAs on mid-sized commercial buildings. It is expected that the PPA provider will be able to do so by taking advantage of the various federal incentive programs described above. The PPA provider will be selected through a competitive bidding process following standard RFP procedures. The RFP will be issued either by SF Environment or the local business association, to be determined at the time of issuance. SF Environment will provide technical due-diligence on prospective projects, including on-site solar and roof quality assessments.

Sub-task 2.4. Create a Standardized PPA Contract – SF Environment will create a standardized PPA contract to be used by all of the businesses participating in the program to greatly reduce the transaction costs associated with working with multiple medium-sized projects. The standard PPA contract will be developed in consultation with BOMA and/or other local business associations, prospective participants and attorneys experienced in solar PPA contract negotiation. Businesses desiring to participate in the program would agree to follow the terms of the standard contract, with the exception of three or four key issues, which could be negotiated between the business and PPA provider on a case-by-case basis. SF Environment will make objective, third-party legal counsel available to facilitate those negotiations.

Sub-task 2.5. Provide Credit Enhancement Support – Recognizing that this is a new—and therefore risky—type of solar PPA model, SF Environment will provide credit enhancement support to encourage banks to lend to these projects. Historically, banks have been reluctant to fund projects of this size, since the effort required to conduct a credit review is rarely warranted by the size of the loan. This same problem obviously applies to any commercial loan to such an entity, which has led the federal government to guarantee qualifying small business loans through the Small Business Administration. We believe a similar approach could dramatically increase banks’ willingness to loan into these markets. The City thus proposes to guarantee the first loss of any loan made under this program, ideally through the purchase of a letter of credit from an entity such as a national depository institution or a non-profit credit enhancement provider like the California Public Employee Retirement System. This would essentially homogenize the credit of program participants since it would allow the lender to rely on the credit of the City or the letter of credit provider, rather than the credit of each underlying entity. This credit enhancement from the City or the letter of credit provider might also allow the lender to pool a group of qualifying loans and sell them into the secondary market, allowing it to use the proceeds to make further loans in this space.

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Sub-task 2.6. Install the Solar Projects and Monitor Progress.

Task 2 Target:

- At least 2 MW of new commercial solar installations.

iii. Task 3: Solar Financing for Public Schools

The 153 schools in the San Francisco Unified Public School District (SFUSD) educate approximately 55,000 of San Francisco’s pre-school, elementary, middle and high school students. SFUSD, like the City itself, has a history of concern for the environment. Since the 1980s, SFUSD’s curriculum has included visits to the Environmental Science Center where kindergartners through fifth graders study ecosystem interdependence, rocks and minerals, or water and energy conservation in Fort Funston’s seaside marine and sand dune habitat. To reduce the use of harmful chemicals and greenhouse gases, the district initiated an integrated pest management (IPM) program in the 1990s and incorporated clean diesel mandates into school bus contracts several years ago. Early in this decade, SFUSD rolled out a \$50 million building retrofit program that included the installation of energy management systems and fluorescent lighting, and is currently replacing old information technologies with newer, more efficient technologies, resulting in an 85 percent reduction in IT-related energy use. SFUSD is currently drafting a district sustainability policy and compiling a list of building-focused sustainability projects that can be addressed over the next five-to-ten years, focusing on modernizing existing schools to achieve energy efficiencies rather than constructing new buildings.

As part of its sustainability policy, SFUSD is exploring installing solar PV and water heating on public schools where it makes sense based on demand, solar potential and roof age/quality. Solar power is central to the public schools’ sustainability vision not only for the clean power it offers, but also for the educational benefits it can provide. As evidenced by increasing interest in “Solar Schools” programs offered by PG&E and other utilities, schools are eager to teach their kids about the benefits of renewable energy and to integrate environmental education into the curriculum. Students can use output data from solar systems on their roofs for science and math lessons, they can learn about the earth’s orbit and orientation by analyzing system performance over the course of the day, and they can feel proud of the fact that their school is doing its part to mitigate climate change. Under PG&E’s existing Solar Schools programs (also known as “Solar on a Stick”), which donates small (1-1.5 kW) systems to schools, the amount of energy produced is barely enough to power a classroom. Numerous schools have approached SFUSD’s Sustainability Director to see if there are any opportunities to obtain larger rooftop systems.

Using data from SF Environment’s solar mapping project (www.sf.solarmap.org), SF Environment has determined the solar potential for each public school in the City—totaling 18 MW—and is working with SFUSD’s Sustainability Director to identify which schools are good candidates for solar, taking into account location in the City, solar potential, roof quality and replacement schedules and other relevant factors.

SFUSD’s power is supplied by the San Francisco Public Utilities Commission (SFPUC), which provides power to municipal facilities from the City-owned and operated Hetch Hetchy hydroproject system. SFUSD gets its power at a highly subsidized rate—3.75 cents/kWh—which makes it very difficult to economically justify solar PV, which typically costs 25-30 cents/kWh. While solar PPAs have become an attractive way to install solar on many schools around the country, due to SFUSD’s very low electric rate, most PPA providers would not be able to install solar on schools without losing money, even after taking advantage of the various solar rebates and tax credits available.

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However, SF Environment, SFUSD and SFPUC have met with solar PPA start-ups interested in combining a unique blend of incentives and federal tax incentives, similar to the model described in Task 2, to develop an innovative solar PPA structure for public schools at a per kW price significantly below current PPA market rates. Using a solar PPA model like that described in Task 2 with a few modifications, San Francisco believes it may be possible to install solar on SF's public schools in an economically viable way. The model involves the following key elements:

- A solar PPA provider, identified through a competitive RFP to be issued by SFPUC, takes advantage of the various federal incentives described in Task 2, and offers an attractively priced solar PPA for public schools in disadvantaged communities, with a cost not to exceed 23.5 cents/kWh, the amount SFPUC is paying for its 5 MW Sunset Reservoir solar PPA;
- USDOE (through SF Environment) contributes solar equipment worth \$100,000, and the PPA provider incorporates these savings into the cost of the PPA;
- SFUSD continues to pay SFPUC what it has been paying for power (3.75 cents/kWh);
- SFPUC funds the balance and retains the RECs.

If it is determined that owning the solar systems outright may offer a more economically viable approach, that alternative will be pursued in place of the PPA model.

Implementing this Task will involve the following sub-tasks:

Sub-task 3.1. Identify Eligible Schools – SFUSD has identified a list of 20 schools that are expected to qualify as “disadvantaged.” SFUSD will confirm and finalize the list of eligible schools.

Sub-task 3.2. Conduct Technical Due Diligence – SF Environment will conduct technical due-diligence on the list of eligible schools, including on-site solar and roof quality assessments, to confirm PV potential.

Sub-task 3.3. Identify the Solar PPA Provider – SFPUC will issue a competitive RFP to identify a solar PPA provider that can offer an attractively priced solar PPA to install solar on public schools in disadvantaged communities, under the conditions described above. If it is determined that owning the solar systems outright may offer a more economically viable approach, that alternative will be pursued in place of the PPA model.

Sub-task 3.4. Install the Solar Projects and Monitor Progress.

Task 3 Target:

- At least 1 MW of solar installed on public schools.

iv. Task 4: Solar Financing for Affordable Housing

Installing solar on affordable housing buildings offers many potential benefits: solar can enable working and low-income families to benefit from more sustainable and healthy housing while minimizing utility bills. In particular, older multi-family rental housing—which is home to many of our nation's low and very low-income residents—is at risk from disrepair and renovations that are decades old. These properties confront skyrocketing expenses and could greatly benefit from the reduction in operating costs that solar and energy efficiency can provide.

Installing solar on affordable housing buildings also presents numerous challenges, including poor building and roof quality, numerous pressing needs competing for limited resources, complexities

associated with installing solar on multi-tenant buildings, and other issues. The largest obstacle, by far, is the lack of affordable financing options.

Enterprise Community Partners, a national non-profit organization that provides capital and expertise for affordable housing and community development, has unveiled a new green retrofit pilot program. This pilot program, launched earlier this month, will seek to facilitate the green retrofit of over 600 housing units in the Bay Area through a combination of grants, technical support and various flexible financing products. Enterprise anticipates linking this effort with the San Francisco Solar Financing Project to bring needed resources to the owners of affordable housing as they embark on their green retrofit projects, many of which will include solar as a key component. Enterprise has been in a partner in numerous housing developments that have long desired to put solar on affordable housing buildings, but the high up front cost has proven prohibitive. Enterprise plans, through the pilot project, to test the concept that energy savings are adequate to service the debt needed to pay for energy efficiency improvements on affordable housing buildings. Enterprise has already been testing this assumption in other states across the country. In Ohio, for example, it found that energy savings of 25% or more are achievable in affordable housing properties, making the debt model viable. Enterprise is now seeking local projects where it can apply this debt approach to understand the intricacies of such an approach and to generate lessons learned. Innovative new tax credits, financing and incentive programs—such as the Business Energy ITC and Accelerated Depreciation, the New Markets Tax Credit, Community Reinvestment Act credits, and the California Solar Initiative incentive program—coupled with solar PPAs, make this an opportune time to incorporate solar into the green retrofitting of housing that serves San Francisco's low income citizens. The Mayor's Office of Housing (MOH) has been working closely with Enterprise to identify projects in San Francisco to include in the pilot program.

Under this Task, SF Environment will work with MOH and Enterprise to support the inclusion of solar PV and water heating in proposed affordable housing rehab projects being considered for Enterprise's affordable housing debt pilot program. Sub-tasks will include:

Sub-task 4.1. Conduct Technical Analysis to Identify Viable SWH Candidates – SF Environment will conduct technical due-diligence on the affordable housing rehab projects being considered for inclusion in the pilot program. This will involve conducting hot water demand analysis and on-site solar and roof quality assessments for each property being considered, and identifying which are good SWH candidates.

Sub-task 4.2. Fund the Installation of a Solar Water Heating System(s) on Selected Properties and Monitor Progress.

Task 4 Target:

- At least 2 affordable housing projects applying innovative debt financing to install solar PV or SWH and energy efficiency improvements on their properties.

B. Potential Barriers to Carrying Out the Proposed Project and Strategies for Mitigating Risks

Task	Potential Risks	Strategies for Mitigating Risks
1	<ul style="list-style-type: none"> • Low program uptake 	<ul style="list-style-type: none"> • SF Environment will conduct significant market outreach to ensure robust participation. SF Environment has a number of existing marketing channels already in place (CoSolarSF, Energy Watch, other programs), and a number of additional marketing efforts will be implemented.

	<ul style="list-style-type: none"> Solar PPA provider identified Solar projects installed and progress monitored 	
4	<ul style="list-style-type: none"> Technical analysis conducted to identify viable SWH candidates SWH systems installed progress monitored 	At least 2 affordable housing projects applying innovative debt financing to install solar and energy efficiency improvements on their properties.

4. ROLES, RESPONSIBILITIES, CAPABILITIES, KNOWLEDGE AND EXPERIENCE

A. Organizational Structure of Implementing Entity, Including Roles, Responsibilities, and Qualification of Key Personnel to Accomplish the Goals of the Projects, and Partner Roles

i. San Francisco Department of the Environment

Similar to other City departments, SF Environment is overseen by a citizen commission appointed by the Mayor. The Mayor also appoints the SF Environment Director. The Board of Supervisors, 11 members elected by district, sets City policy, law, and the budget. The Commission can recommend policy to the Board of Supervisors. The Board's legislation can be signed by the Mayor or can be vetoed if there are fewer than eight votes.

Among the City's departments, SF Environment has been charged with developing and supporting environmental actions and programs throughout the City and County of San Francisco. Through SF Environment, the City has been aggressive in its efforts to promote renewable energy and reduce greenhouse gases. For example, it is one of the few environment departments in the country with a dedicated Renewable Energy Program Manager, and in 2005 it became the only city in the U.S. with a designated Climate Action Coordinator to coordinate the City's work on reducing its CO2 emissions. In 2006, San Francisco became the first local government to have its GHG emissions certified by the California Climate Action Registry.

SF Environment's Energy and Climate Program has operated energy efficiency programs reaching over 12,000 businesses and residential properties, reducing the citywide load by over 24 MW, and is currently implementing a program to reduce another 3 MW in 2009. The Energy and Climate group worked with the SFPUC to develop the City's Electricity Resource Plan, which outlined the closure of one of the City's most polluting power plants and switching to more renewable sources of energy. The program was instrumental in achieving a primary goal of that plan—the closure of the power plant. The program works with local, regional and state groups on energy efficiency policy and issues—including both the California Public Utilities Commission and California Energy Commission.

SF Environment's other programs include:

- Clean Air Program to reduce air pollution resulting from both mobile and stationary sources through transit alternatives, alternative fuel vehicles, and commuter assistance.
- Environmental Justice Program primarily serves the City's Bayview Hunters Point and Potrero Hill neighborhoods to mitigate the environmental effects of power plants, toxic waste dumps, and freeways running through those neighborhoods.
- Green Building Program promotes resource-efficient and healthy buildings through training programs, oversight of compliance with the Resource Efficiency Ordinance, public outreach, and new policy development.

	<ul style="list-style-type: none"> While SF Environment has no control over the global financial markets, it is working with Renewable Funding and Stone & Youngberg to do everything possible to shield the program from any possible negative market impacts. The SF³ design team is also taking significant steps to ensure participants are not driven "underwater" by their participation in the program. Because the model being proposed is a new, as of yet untested commercial solar PPA model, SF Environment recognizes that it is inherently risky. However SF Environment is confident, based on discussions with partners and new entrants to the solar PPA market, that the approach can work. SF Environment will work with existing Solar Founders' Circle participants, and with local business associations such as BOMA and the Chamber of Commerce to conduct an aggressive marketing campaign to eligible businesses to foster robust participation. 	
2	<ul style="list-style-type: none"> Can't make new commercial PPA model work Low program uptake 	Because the model being proposed is a new, as of yet untested solar schools PPA model, SF Environment recognizes that it is inherently risky. However SF Environment is confident, based on discussions with partners and new entrants to the solar PPA market, that the approach can work.
3	<ul style="list-style-type: none"> Can't make new public schools PPA model work 	As evidenced by the attached letter of support, Enterprise has indicated strong interest in working with San Francisco to implement the pilot program.
4	<ul style="list-style-type: none"> Enterprise does not select any SF projects Pilot debt structure does not work 	Because the debt model being proposed has not yet been applied to many affordable housing buildings, SF Environment and Enterprise recognize that it is inherently risky. However SF Environment and Enterprise are confident, based on discussions with Enterprise's financial partners and multiple affordable housing building owners, that the model can work.

C. Key Milestones and Decision Points, Including Quantifiable Metrics that will be Used for Measuring Project Success

Task	Milestones & Decision Points	Metrics for Measuring Success
1	<ul style="list-style-type: none"> Marketing campaign designed and implemented to build awareness about and increase participation in the SF³ program SWH outreach campaign designed and implemented 	<ul style="list-style-type: none"> At least \$20 million in tax-lien financed "loans" to finance energy efficiency, renewable energy and water conservation improvements. At least 100 new solar water heating systems installed city-wide.
2	<ul style="list-style-type: none"> Eligible businesses identified Technical due diligence conducted Solar PPA provider identified Standardized PPA contract created Credit enhancement support provided Solar projects installed and progress monitored 	At least 2 MW of commercial solar projects installed using the new proposed commercial solar PPA model.
3	<ul style="list-style-type: none"> Eligible schools identified Technical due diligence conducted 	At least 1 MW of new solar installed on public schools.

- Urban Forest Program ensures that municipal departments and the public are coordinated in long-term planning for the City's trees.
- The Zero Waste Program has diverted over 70% of waste from the landfill and will attain a 75% diversion rate by 2010.
- Toxics Reduction Program provides information and services to San Francisco residents, businesses and City agencies and oversees compliance with ordinances for Integrated Pest Management Environmentally Preferable Purchasing.
- Education Program serves approximately 300 schools and 12,000 youth per year and has recently launched a children's website that addresses an array of environmental issues.
- Outreach Program has an operating database of more than 10,000 and maintains SF Environment's website which annually receives approximately 1,000,000 hits, as well as a recently-launched Chinese website. The Outreach Program has cooperative relationships with the Board of Supervisors, other policy makers, and local and regional media.

SF Environment's organizational chart is attached.

ii. Partners

San Francisco Public Utilities Commission (SFPUC)

SFPUC delivers water to most of the San Francisco Peninsula, collects and treats wastewater for San Francisco, and provides electric power services to municipal buildings. The power system delivers an average of 1.7 billion kilowatt hours of electricity annually to the City facilities, the Modesto and Turlock Irrigation Districts and tenants at the San Francisco International Airport and the Port. SFPUC has implemented a number of energy efficiency, solar and biogas generation projects in municipal facilities, including 675 kW project at Mosscone Convention Center. For the last two years, SFPUC has been researching Community Choice Aggregation, a process whereby California local governments can become the power provider for its jurisdiction without owning the distribution system. Part of the business plan has included extensive analysis of various financing mechanisms for renewable energy.

San Francisco Unified Public School District (SFUSD)

Founded in 1851, San Francisco Unified School District (SFUSD) educates approximately 55,000 of San Francisco's pre-school, elementary, middle and high school students at 34 preschools, 102 K-12 schools, eight county/court schools, and nine charter schools. SFUSD, like the City itself, has a history of concern for the environment. Since the 1980s, SFUSD's curriculum has included visits to the Environmental Science Center where kindergartners through fifth graders study ecosystem interdependence, rocks and minerals, or water and energy conservation in Fort Funston's seaside marine and sand dune habitat. To reduce the use of harmful chemicals and greenhouse gases, the district initiated an integrated pest management (IPM) program in the 1990s and incorporated clean diesel mandates into school bus contracts several years ago. Early in this decade, SFUSD rolled out a \$50 million building retrofit program that included the installation of energy management systems and fluorescent lighting, and is currently replacing old information technologies with newer, more efficient technologies, resulting in an 85 percent reduction in IT-related energy use.

Mayor's Office of Housing

The Mayor's Office of Housing (MOH) provides financing for the development, rehabilitation and purchase of affordable housing in San Francisco, and guides citywide housing policy. MOH is also responsible for monitoring and ensuring the long-term affordability and physical viability of the City's

stock of affordable housing. MOH has been a leader in promoting green building standards in the new and rehabilitated affordable housing that we support. In 2004, MOH produced the *Materials Handbook: Guidelines for Sustainable, Affordable Housing*, which outlined best practices in affordable housing development with a focus on energy efficiency, durability, recycling, and indoor air quality. In 2005, MOH partnered with Enterprise Community Partners and their Green Communities initiative on a pilot program to establish rigorous green building standards for affordable housing in San Francisco. Currently all developments financed by MOH must meet or exceed these standards. Finally, MOH has supported the development of several ground-breaking projects, including Folsom Dore Apartments, 98 units of supportive housing that was the first multifamily building in San Francisco to receive a LEED Silver rating, and 275 10th Street, our second development slated to achieve a LEED Silver designation.

Building Owners and Managers Association (BOMA) San Francisco (BOMA-SF)

The Building Owners and Managers Association (BOMA) International is the oldest and largest organization representing the commercial real estate industry with over 100 local chapters throughout North America and abroad. BOMA San Francisco (BOMA-SF), federated with BOMA International and BOMA California, was founded in 1911 and is comprised of 275 commercial office buildings totaling over 72 million square feet of space, San Francisco, Marin, Sonoma, and San Mateo counties. BOMA-SF's membership exceeds 1,000 active individuals. BOMA-SF offers commercial property owners and managers and the businesses that serve them an invaluable package of services to help them succeed in one of the nation's most challenging and competitive markets. These services include training, code compliance assistance, creating best practices for office buildings, job placement, statistical data collection, and legislative advocacy. BOMA-SF serves as a local leader in the promotion of sustainable practices in commercial office buildings, and helped craft San Francisco's Green Building Ordinance to promote greater energy efficiency and conservation of water, and the City's recently adopted Mandatory Recycling and Composting ordinance.

Enterprise Community Partners

Enterprise Community Partners is the leading provider of capital and expertise for affordable housing and community development in the nation. A national nonprofit with 25 years of experience in the community development and affordable housing field, Enterprise has raised and invested more than \$10 billion to help finance more than 250,000 affordable homes across the United States. Enterprise is a leader in promoting the greening of affordable housing, with its award winning Green Communities Initiative (www.greencommunitiesonline.org). The Green Communities Initiative provides grants, financing, tax-credit equity and technical assistance to developers for creating low-income housing according to their specific Green criteria. Enterprise is currently embarking on its next five year plan, Green2013, which has as its focal point increasing the energy efficiency of affordable housing.

iii. Partner Roles and Responsibilities

The following table describes the roles and responsibilities of each partner in the proposed project.

Partner	Task(s)	Role
SF Environment	All	Implement overall program; coordinate partners; hire subcontractors; conduct technical due diligence; conduct marketing and develop marketing materials; monitor results; reporting.
SFPUC	3	SFPUC will assist in the implementation of the proposed efforts by issuing the RFP(s), and managing the installation contract for any

SFUSD	3	municipal solar projects that might result from the grant, including the proposed initiative to put solar on public schools. SFUSD will assist in the implementation of the proposed efforts by working toward the installation of up to 20 solar PV projects on public schools in "disadvantaged communities" through an innovative solar power purchase agreement (PPA).
MOH	4	MOH will help to identify buildings within its affordable housing portfolio that can benefit from solar technology to reduce utility costs and improve building operations.
BOMA-SF	2	BOMA San Francisco will serve as a primary link between the City and San Francisco's commercial building owners. BOMA will assist in promulgating this program to its industry and helping building owners implement the innovative commercial solar PPA model successfully.
Enterprise Community Partners	4	Enterprise will facilitate the green retrofit of over 600 affordable housing units in the Bay Area, many in San Francisco, through a combination of grants, technical support and various flexible financing products.

iv. Key Personnel

Agency	Name & Title	Responsibilities in Proposed Project
SF Environment	Jared Blumenfeld, Director	Provide high-level program oversight and coordination with other City departments and partners.
SF Environment	Cai Broomhead, Energy & Climate Program Manager	Ensure Project integration with efficiency and climate projects.
SF Environment	Johanna Partin, Renewable Energy Program Manager	Provide general management and planning oversight; manage partner relationships; conduct marketing to solar PPA providers and business organizations; manage budget.
SF Environment	Jade Juhl, Solar Program Coordinator	Manage day-to-day implementation of project; perform most staff tasks; coordinate project partners; supervise subcontracts; prepare reports; manage Solar Map and other complementary solar programs.
SF Environment	Mark Westlund, Outreach Manager	Coordinate development and publication of outreach materials; develop/maintain department website.
SF Environment	Shawn Rosenmoss, Community Outreach Coordinator	Facilitate outreach to community members and CBOs.
SFPUC	John Doyle, Manager, Generation	Manage municipal solar program; coordinate with municipal efforts with proposed commercial and residential efforts; manage solar PPA for public schools task.

SFUSD	Nik Kaestner, Sustainability Director	Manage SFUSD involvement in project.
MOH	Daniel Adams, Construction Supervisor	Manage MOH involvement in project.

B. Applicant's Plan to Collaborate with Partners

SF Environment has a long working relationship with all of the City agencies and non-profit organizations partnering on this project. SF Environment has almost daily contact with SFPUC and the Mayor's Office. BOMA-SF has been a partner on many programs with the Department including Green Business Program, Green Building Task Force, Commercial Buildings Energy Task Force, the Commercial Lighting Efficiency Ordinance, the Energy Watch efficiency retrofit program, and the Earth Hour 24x7 contest. Enterprise Community Partners has been partnering on energy efficiency retrofits with SF Environment's Energy Watch retrofit program, adding measures to rehab projects on affordable housing. SF Environment will host a monthly teleconference and as-needed in person meetings with all project partners to ensure cohesion of implementation and that targets are being met.

5. PROJECT TIMETABLE

Task	Month																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1.1 SFV marketing campaign	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
1.2 SFV outreach campaign	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.1 Eligible businesses identified	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.2 Technical due diligence conducted on commercial bids	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.3 Commercial solar PPA provider identified	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.4 Standardized commercial PPA contract created	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.5 Credit enhancement support provided for commercial program	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2.6 Commercial solar projects listed and progress monitored	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.1 Eligible PPA providers identified	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.2 Eligible PPA providers identified	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.3 Schools solar PPA provider identified	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3.4 Schools solar projects installed and progress monitored	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4.1 Technical analysis conducted to identify viable afford, housing SWH candidates	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4.2 Afford, housing SWH systems installed & progress monitored	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Reporting	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

6. AMERICAN RECOVERY AND REINVESTMENT ACT (ARRA) INFORMATION

The San Francisco Solar Financing Project will support the goals of the ARRA to create local jobs and reduce greenhouse gas emissions in many ways. First, through the development of the SF Sustainable Financing program, it will provide a financing structure that can be utilized even during these difficult economic times. This financing will increase the amount of work performed. Second, the Project combines efficiency with solar, making the projects more cost-effective and widening the appeal to a greater share of the market. Third, by packaging projects with both efficiency and solar, the dollar value of the contracts will be increased. All of these factors will increase the amount of work generated locally, as well as the amount of equipment ordered from manufacturers, increasing job creation both locally and nationally. Finally, this application will support the ARRA's goal to reduce greenhouse gas emissions by adding efficiency and solar water heating which reduce natural gas usage, with a much higher CO2 reduction value per dollar than electricity. The Project will positively impact the economic needs of the City by providing affordable financing options where no viable models previously existed, and by widening access of San Francisco residents to energy efficiency and renewable energy measures to bring monthly utility costs down.



Department of Energy
 Golden Field Office
 1617 Cable Boulevard
 Golden, Colorado 80401-3359

CC: S ZMA

Ms. Johanna Partin
 Department of the Environment-City & County of San Francisco
 11 Grove
 San Francisco, CA 94102

Dear Ms. Johanna Partin:

SUBJECT: Funding Opportunity Announcement Number DE-FOA-0000078
 Recovery Act: Solar Market Transformation, Topic 1
 Application Titled: The San Francisco Solar Financing Project proposes to
 implement a comprehensive approach to addressing the main barrier facing
 increased adoption of solar in San Francisco: lack of financing options.

Evaluation of your application received in response to the subject Funding Opportunity
 Announcement has been completed. After a careful review, I am pleased to inform you that your
 application has been selected for negotiations leading to an award.

Please be aware that DOE intends to negotiate changes in the scope of your proposed activities to
 fit the needs of the Solar Energy Technologies Program and the American Recovery and
 Reinvestment Act of 2009 and as a result may choose to adjust the funding of your award. A
 DOE Project Officer will contact you to schedule an introductory phone call to discuss the
 project, budget and any potential changes to ensure negotiations for the award are completed in a
 timely manner.

We recommend that you wait until after this project discussion to engage any of your project
 partners and not incur any costs on this effort until the funding and scope of activities have been
 fully negotiated with DOE. In addition, a revised Budget (SF 424-A) and Budget Justification
 may be necessary from you and/or any subrecipients.

Note that your project will be funded with funds appropriated by the American Recovery and
 Reinvestment Act of 2009, Pub. L. 111-5. Following the project discussion, your first tier
 subrecipients will be required to obtain a DUNS number (to update the existing DUNS record),
 and register with the Central Contractor Registration (CCR). The extent to which subrecipients
 will be required to register in CCR (<http://www.evr.gov>) will be determined by the Office of
 Management and Budget (OMB) at a later date. Please see the attachment to this letter, which
 contains additional information on the Recovery Act.

In order to expedite the negotiation process, further information will be needed to clarify and
 supplement your application. Following the project discussion with the DOE Project Officer, you

Finalist Receipt Form
 Form 11-16-09-2008 Page 1



(Ms. Johanna Partin)

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will be required to submit the following information to Christina Raines, Specialist.

1. Complete each of the following required forms, which are available on the Project
 Management Center website at <https://www.eere-pmc.energy.gov/forms.aspx>

- a. Financial Assistance Pre-Award Information Sheet, PMC 121.1
**NOTE: Complete the PMC 121.1 form first and promptly email it under
 separate cover to the Specialist identified below:**
- b. Financial Information form, PMC 410.1;
- c. Environmental Checklist, ECI. (This form should be completed on line at
<https://www.eere-pmc.energy.gov/efi.aspx>.)
- d. R&D Environmental Questionnaire, PMC 111.1 (Once the Environmental Checklist,
 Questionnaire and attach it to your record at <https://www.eere-pmc.energy.gov/efi.aspx>)
- e. Statement of Project Objectives (SPO): You will be contacted by the DOE Project
 Officer in the near future to discuss the preparation of a SPO that defines the overall
 technical content of the award. This document will be similar in content to the
 Project Management Plan included in your application but without a schedule. It is
 expected that the SPO will be less than three pages in length. A sample of the
 expected SPO will be provided and explained by the Project Officer.
- f. Commitment Letters from Third Parties Contributing to Cost Sharing; If
 commitment letters are still pending or if there have been any changes
- g. Copy of your approved Indirect Rate Agreement or a Rate Proposal, following the
 guidelines in the PMC 400.2 form.
- h. Validation that all laborers and mechanics on projects funded directly by or assisted in
 whole or in part by and through funding appropriated by the Recovery Act are paid
 wages at rates not less than those prevailing on projects of a character similar in the
 locality as determined by subchapter IV of Chapter 31 of title 40, United States Code
 (Davis-Bacon Act). Go to <http://www.dhs.gov/foia-advocacy/submit-foia-requests> for
 guidance on the Davis Bacon Act.

To satisfy this requirement, please provide a written affirmation that you will comply
 with the Davis-Bacon Act and include the signature of the authorized representative
 of your organization. This requirement also applies to all subrecipients.

The Financial Assistance Regulations, found at <https://www.eere-pmc.energy.gov/forms.aspx>,
 and the OMB Circulars, found at <http://www.whitehouse.gov/OMB/circulars/index.html> will
 assist you in understanding your requirements as an award Recipient.

This fiscal year, we implemented a new electronic, paperless procurement system. Therefore,
 ALL organizations doing business with the Golden Field Office MUST BE registered with both
 the Central Contractor Registration (CCR) and with FedConnect. As a result, it is imperative
 that your organization register with FedConnect as soon as possible. Go to
https://www.fedconnect.net/FedConnect/PublicPage/FedConnect_Ready_Set_Go.asp for

additional information regarding FedConnect. Questions pertaining to FedConnect registration should be directed by e-mail to support@FedConnect.net or by phone to FedConnect Support at 1-800-899-6665.

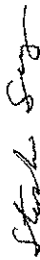
PLEASE NOTE, ELECTRONIC AUTHORIZATION OF AWARD DOCUMENTS WILL BE DONE VIA FEDCONNECT. Acknowledgement of award documents by the recipient's authorized representative through electronic systems used by the Department of Energy, specifically FedConnect, constitutes the recipient's acceptance of the terms and conditions of the award. Acknowledgement via FedConnect by the recipient's authorized representative constitutes the recipient's electronic signature.

You may incur pre-award costs 90 calendar days prior to award without prior approval or more than 90 calendar days with the prior approval of DOE. All pre-award costs are incurred at your risk (i.e., DOE is under no obligation to reimburse such costs if for any reason you do not receive an award or if the award is less than anticipated and inadequate to cover such costs). All costs must be allowable in accordance with the applicable cost principles.

If you will be unable to provide the information by the date requested or have any questions concerning the requested information, please contact Christina Raines, Specialist, at 303-273-4900 or Christina.Raines@doe.gov.

On behalf of the Department of Energy, I would like to express a sincere appreciation of your interest and participation in the Solar Energy Technology Program and look forward to initiating this worthwhile project.

Sincerely,



Stephanie Sung
DOE Project Officer

**AMERICAN RECOVERY AND REINVESTMENT ACT
FUNDING INFORMATION**

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

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

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

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

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

Be advised that Recovery Act funds can be used in conjunction with other funding as necessary to complete projects, but tracking and reporting must be separate to meet the reporting requirements of the Recovery Act and related OMB Guidance. Recipients with projects funded by sources other than the Recovery Act should plan to keep separate records for Recovery Act funds and ensure those records comply with the requirements of the Act.

Legislative Checklist to be submitted with all supporting materials for items scheduled on a Committee Consent Calendar

Board of Supervisors File Number: _____

Department: Environment

Department Contact: Shawn Rosenmoss

Contact Phone Number: 415-355-3746

Type of Legislation on Consent Calendar:

- amendments to the City Code that have no fiscal impact and have not been subjected to the 30-day rule provided in Rule 5.41 (which governs amendments to the City Code that have been determined by the President to create or revise major City policy);
- specific authorizations to sell bonds;
- the refunding of bonds when done only to achieve lower interest rates and cost savings for the City;
- authorizations for the acceptance of gifts;
- ◆ authorizations for the acceptance and expenditure of grant funds;
- authorizations for renewing property leases, with no significant changes in the terms of the lease (the implementation of COLAs is not considered a significant change in the terms of a lease);
- supplemental appropriations that only involve non-General Fund monies or re-appropriate funds that have been previously appropriated by the Board of Supervisors;
- releases of reserves under \$500,000;
- other items that the Committee Chair and the Budget Analyst agree do not require a Budget Analyst's review and report.

Description: Resolution authorizing the Department of the Environment to accept and expend a grant in the amount of \$750,635 from the U.S. Department of Energy for the Solar America Initiative to remove barriers to the deployment of renewable solar technologies in San Francisco. The main barrier facing increased adoption of solar in San Francisco is lack of financing, thus the Project will: support the development of the San Francisco Sustainable Financing Program (SF²), develop and implement innovative Power Purchase Agreement models of solar installation in the commercial sector and public schools, and develop a solar financing program for affordable housing.

Presentation of Budgetary Information to Board Committees in Conformance with Budget Analyst Reference Guide

- Summary budget information included
- Position Detail Information (included in budget)
- Equipment Detail Information
- Capital/Facilities Improvement Project Information
- Consultant/Contractor Expenditures and Selection Processes
- Written explanation and justification for budget request.

Information provided in Conformance with Budget Analyst Reference Guide for the following:

- > Amendments to City Code (Administrative Code, Municipal Code, Health Code, etc.)
- Issuance of Debt (i.e., Bonds)
- Gifts to the City
- Grants (authorization to apply for, accept and expend)
- Property Leases – City as Lessor
- Property Leases – City as Lessee
- "Proposition J" Contracts (City contractors under Charter Section 10.104)
- Releases of Reserves
- Supplemental Appropriations
- Memoranda of Understanding (MOU) and other Agreements

Other Information Provided:

Budget Analyst Reference Guide Questions

23. Describe the source of funds. U.S. Department of Energy Solar America Initiative

24. Describe the grant-funded project clearly, concisely and in layman's terms.

Funds will be used to address the lack of financing options for solar power installations in San Francisco, the primary barrier facing the increased adoption of renewable solar technologies in the City. The Project supports the development of the San Francisco Sustainable Financing Program (SF²), develops and implements innovative Power Purchase Agreement models of solar installation in the commercial sector and on public schools, and develops a solar financing program for affordable housing. The project supports the goals of the City's Climate Action Plan to reduce the City's overall greenhouse gas emissions. It also support the City current renewable energy programs that have incentivized the adoption of solar power.

25. Provide context and detail to the grant so that the proposed project can be compared to current operations.

San Francisco is seriously committed to energy security and reducing its carbon emissions in order to meet the goals of the City's Climate Action plan, as well as develop local sources of energy. The City's Climate Action Plan calls for reducing the city's CO² emissions through the development of renewable energy sources and its Electricity Resource Plan (ERP) commits the City to increasing local control over energy resources by developing renewable power and increasing efficiency.

The City has made tremendous headway in removing some barriers to installing solar technologies, such as the creation of a solar mapping system and incentive programs for the installation of photo voltaic systems. This project builds on current work by continuing to remove barriers, as well as to aggressively market solar hot water systems as a renewable energy solution.

26. Identify any ongoing costs for the Department once the grant funds expire, such as new personnel, new equipment, new leases, etc and how the Department would fund such future costs. There will be no ongoing costs to the Department once grant funds expire.

27. If the grant period has begun before the Department has been given Board of Supervisor approval, the Department should state why it is late in seeking approval and the resolution must provide for retroactivity. NA—the project will not begin without board approval.

28. State if the Department has accepted the grant or encumbered any expenses that the grant funds would reimburse the City. The Department should state why they have either accepted and/or began expending the grant funds before receiving approval. NA

29. If grant funds have been expended or encumbered, state the amount of funds that have been expended or encumbered and for what purpose. NA

30. If there is a significant delay in seeking Board of Supervisor approval from the time the grant period began, state how the proposed project would be completed in the remaining period of time available and/or if the Department has asked for or received an extension of the grant period. NA

31. If the grant is a multi-year grant, state the amount of the grant in future years and if future years would be included in the Department's budget. Include a proposed multiyear budget. The grant is for \$750,635 over two years (see budget).

32. Indicate whether or not matching funds are required from the City, and if so, in what amount and the source of such matching funds. Fifty percent (50%) match was required. The City will be providing match of \$736,015.

33. If matching funds are not required but the Department is providing in-kind contributions for the grant, the Department should clearly state how you are proposing to provide in-kind contributions. Also state whether these in-kind contributions are new services to supplement the grant or existing services. The Department is providing a match in the form of in-kind (staff time) contributions. Staff will be performing their regular duties.

34. Provide a detailed budget by object including personnel detail, equipment detail and details on services/consultants/contractors. Each line item in the budget should be explained. See attached budget

35. The number of full time equivalent positions (FTE), the Job Title, Classification, and percentage of fringe benefits should be clearly stated in the budget of the grant. In most cases, any position funded under a grant should be "G" coded, or designated as a grant funded position that would terminate when the grant expires. The resolution should state that the position(s) should be "G" coded. See attached budget.

36. If a portion of the grant funds would be spent on contractual services, the Department needs to clarify how those contracts were awarded, whether a sole-source or an RFP process. If a contract is proposed to be awarded on a sole source basis, the Department needs to clearly explain why the Department chose the contractor. The Department should provide a detailed budget for the contractual services, including the number of hours dedicated to the project and the hourly rate if applicable. SFE has some existing contracts in place, which were entered into after standard RFP process. See attached budget for details on anticipated contractual services to be provided, including expected hours and rates.

37. If a Department plans on work-ordering grant funds to another Department, the Department should note what Department would receive the work-order and what services will be provided for the work ordered funds. Funds may be work-ordered to the Repro Department for the production of outreach materials and to the City Attorney's office for legal assistance.

38. Indicate if indirect costs were included in the budget. If indirect costs are included, state how the indirect cost rate was determined. If indirect costs were not included, indicate why. The grant includes \$97,909 for indirect costs at 15%, as allowed by the funding source.

39. If travel is included in the budget, the Department should detail how many people are traveling, their identities (i.e. City employees or consultants), where they are going and for how long. Funds are included for two Department of Environment staff to travel to Solar America Initiative meetings as required by the funding source (location and dates TBD).

40. All grant reports must include a form entitled the "Grant Application Information Form" with a Disability Access Checklist at the end.