

Memorandum

To: Melissa Jones
Executive Director

Date: February 7, 2011

Telephone: (916) 654-4550

From: **California Energy Commission**
1516 Ninth Street
Sacramento CA 95814-5512

Subject: STAFF RECOMMENDATION TO APPROVE A \$953,239 LOW INTEREST-RATE LOAN WITH THE AMERICAN RECOVERY AND REINVESTMENT ACT (ARRA) FUNDS TO THE CITY OF CLOVIS FOR THE INSTALLATION OF SOLAR PHOTOVOLTAIC SYSTEMS TO BE CONSIDERED AT THE MARCH 23, 2011 BUSINESS MEETING

Summary of Item

The City of Clovis (city) has requested a \$953,239 loan to install solar photovoltaic (PV) panels at the city's Public Safety Building, Fire Station #1 and Fire Station #5.

As background, the Energy Commission, on December 2, 2009, awarded the city an \$867,200 loan for energy efficiency upgrades to the Public Safety Building, Fire Stations #1, and Fire Station #5. The city has since completed these projects, which included lighting system upgrades and mechanical equipment replacement, and is now requesting another Energy Commission loan to install PV panels on these same three facilities.

This loan request will fund the installation of a 325 kW AC PV system on carports structures at the Public Safety Building, and the installation of a 30 kW AC rooftop PV system at each of the two Fire Stations. In total, the projects will annually generate 695,289 kWh of electricity and reduce the city's electricity expense by \$86,658.

The total project cost is \$3,407,364 of which the Energy Commission loan will fund \$953,239. The city will issue a bond, and rely on utility incentives, to fund the remainder of the project cost. The Energy Commission loan will be funded at an interest rate of three percent.

Table 1 on the following page summarizes the project savings, cost and simple payback.

2589 ok
 * 2592 ok

Table 1 - Summary of Project Cost and Savings

Facility	Project Description	Annual Electric Savings (kWh)	Annual Cost Savings	Project Installation Cost	Simple Payback (years)
Public Safety Building	325 kW AC Solar PV System Installed on Carport Structures	585,228	\$71,820	\$2,930,334	40.8
Fire Station #1	30 kW AC Solar PV System Installed on Rooftop	55,030	\$7,419	\$238,515	32.1
Fire Station #5	30 kW AC Solar PV System Installed on Rooftop	55,030	\$7,419	\$238,515	32.1
Total		695,289	\$86,658	\$3,407,364	39.3
Energy Commission Loan Amount and Payback				\$953,239	11.0

Justification for Action Requested:

Energy Commission staff has determined that the loan request is technically justified and meets the requirements for a loan under ECAA. The program requires repayment of the loan, both interest and principal, within 15 years; this is equivalent to projects having a simple payback of 11 years or less. As this loan has a simple payback of 11 years, it meets the requirement of the loan program. This project will not only reduce the city's energy use but also reduce their annual greenhouse gas emissions (GHG) by 240 tons of CO₂.

The city has reduced the energy intensity of its facilities by implementing cost-effective energy efficiency projects, and will further reduce GHG emissions by installing renewable energy projects. As a result, staff recommends approval of the loan.

Project Manager

Amir Ehyai, Special Projects Office

Oral Presentation

Staff will be prepared to discuss this recommendation and to respond to questions regarding the loan.

Business Meeting Participants

Amir Ehyai, Special Projects Office, Fuels and Transportation Division

Commission Action Requested

Approve the loan and authorize the Executive Director to execute the loan documents.

A handwritten signature in cursive script that reads "Pat Perez". The signature is written in black ink and is positioned above a horizontal line.

PAT PEREZ, Deputy Director
Fuels and Transportation Division

Pros:

- Consistent with the Energy Commission's *2009 Integrated Energy Policy Report* to reduce energy use, demand, and greenhouse gas emissions through efficiency and renewable energy programs and diversify California's energy sources.
- Meets the objective of the Energy Conservation Assistance Act (Public Resources Code Section 25412 et. seq.) which is to provide loans to public agencies to maximize energy use savings and implementation of cost effective energy efficiency measures.
- Consistent with the office's work plan goals of providing loans to public agencies for cost-effective energy saving projects.

Cons:

- None