

## Financing Energy Efficiency Projects for Cities, Counties and Special Districts

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California Energy Commission  
ABAG Energy Watch Partnership  
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This program is funded by California utility ratepayers under the auspices of the California Public Utilities Commission (CPUC.)



## Energy Commission & Its Functions

Energy policy and information advisor to the California governor  
and legislature

### Major functions:

- License power plants
- Assess current and future energy trends
- Advance energy technologies
- Assess alternative transportation fuels
- Develop Buildings & Appliance Standards.
- Promote energy efficiency and renewable energy**



## Energy Commission Programs for Public Agencies

- **Technical Assistance Programs to Help Identify Energy Saving Projects**
  - ☑ Energy Partnership Program
  - ☑ Bright Schools Program
  
- **Energy Project Funding**
  - ☑ Can provide up to 100% of your project costs
  - ☑ Energy savings are used to repay us back for the funds that you use



## Energy Partnership Program

**Do you need help identifying energy projects?**



- We can provide:
  - ☑ Comprehensive energy audits for both gas and electric systems
  - ☑ Project specific feasibility studies
  - ☑ New construction and retrofit project review assistance
  - ☑ Contractor selection and bid specification assistance
  - ☑ DOE qualified specialist to assess your steam and heating systems and provide training to maximize energy savings

**Energy Commission pays up to \$20,000 of our consultant's cost**



## Energy Partnership Program Partial List of Bay Area Participants

### Alameda County

- County of Alameda
- City of Alameda
- City of Berkeley
- City of Fremont
- City of Kensington
- City of Oakland
- City of Pleasanton
- Ohlone College

### Marin County

- County of Marin
- Town of Fairfax
- Town of San Anselmo
- City of Sausalito

### Contra Costa County

- County of Contra Costa
- City of Martinez
- City of San Ramon
- Contra Costa Co Regional Med

### Monterey County

- City of Monterey
- City of Seaside
- City of Capitola
- Hartnell Community College



## Energy Partnership Program Partial List of Bay Area Participants

### Santa Clara County

- County of Santa Clara
- City of Campbell
- City of East Palo Alto
- City of Los Gatos
- City of Morgan Hill
- City of Palo Alto
- City of San Jose
- City of Santa Clara
- Mid Peninsula Regional  
Open Space District
- City/County of San Francisco
- San Francisco CCD

### Santa Cruz County

- City of Capitola
- City of Santa Cruz
- City of Watsonville

### San Mateo County

- County of San Mateo
- City of Burlingame
- City of Millbrae
- City of South San Francisco
- Mills Peninsula Health Services
- Montara Water and Sanitary Dist



## Energy Partnership Program Partial List of Bay Area Participants

### Solano County

- County of Solano
- City of Benicia
- City of Dixon
- City of Fairfield
- City of Rio Vista
- Fairfield Suisun Sewer District

### Sonoma County

- County of Sonoma
- City of Cloverdale
- City of Santa Rosa
- City of Sebastopol



## Energy Efficiency Funding Available Now: \$26 Million

- Funding for energy efficiency and self generation projects
- Interest rate is 3.95%
- Can provide up to 100% funding for projects
- Up to \$3 million per application — no minimum

**EASY LOANS**  
No application fees, points, or hidden costs

**Interest Rate**  
**3.95%**

FINANCING FOR ENERGY EFFICIENCY  
& ENERGY GENERATION PROJECTS

**APPLICATION**

- Public schools & colleges
- Public Hospitals
- Local Governments
- Special Districts
- Public Care Institutions

ARNOLD SCHWARZENEGGER  
Governor  
California Energy Commission  
100 Howe Energy Dr. (Sacramento) Sacramento, CA 95834  
Phone: (916) 227-4100



First come, first served



## Unique Financing Features

- Simple application, no fees or points
- Technical review of each application
- Pay us back with the estimated savings from your projects
- First payment due min. 6 months after project completion and after energy cost savings are accrued
- Up to 15 years to pay us back, no penalty for paying us back early
- Funds can supplement incentives/rebates
- Loans are not collateralized or secured
- Complementary technical support available during and after project installation
- Max. Loan = Annual cost savings x 10 years



## Energy Efficiency Financing Partial List of Bay Area Participants

### Alameda County

- City of Alameda
- City of Albany
- City of Berkeley
- City of Union City
- City of Oakland
- City of San Leandro
- County of Alameda
- Ohlone CCD
- Peralta CCD
- Chabot Las Positas CCD
- Oakland USD
- Hayward USD
- Newark USD
- Washington Township Hospital

### Contra Costa County

- City of Richmond
- City of El Cerrito
- City of Martinez
- County of Contra Costa
- Mt. Diablo USD
- John Swett USD
- Knightsen ESD

### Marin County

- County of Marin
- City of Sausalito
- City of Novato
- Ross SD
- Ross Valley SD



## Energy Efficiency Financing Partial List of Bay Area Participants

### San Mateo County

- County of San Mateo
- City of Redwood City
- City of San Carlos
- City of Daly City
- City of Burlingame
- City of Belmont
- City of San Carlos
- Jefferson UHSD
- Portola Valley SD
- Woodside ESD
- San Mateo Co Harbor Dist

### Santa Clara County

- City of Campbell
- City of Cupertino
- City of Gilroy
- City of Santa Clara
- City of San Jose
- County of Santa Clara
- Town of Los Gatos
- Town of Los Altos Hills
- Berryessa USD
- Cupertino USD
- Los Altos ESD
- Cambria Union ESD
- West Valley Mission CCD



## Energy Efficiency Financing Partial List of Bay Area Participants

### Monterey County

- City of Capitola
- City of Monterey
- City of Seaside

### Napa County

- County of Napa
- City of Napa
- Napa Valley USD

### City/County of San Fran.

- San Francisco USD

### Santa Cruz County

- County of Santa Cruz
- City of Santa Cruz

### Solano County

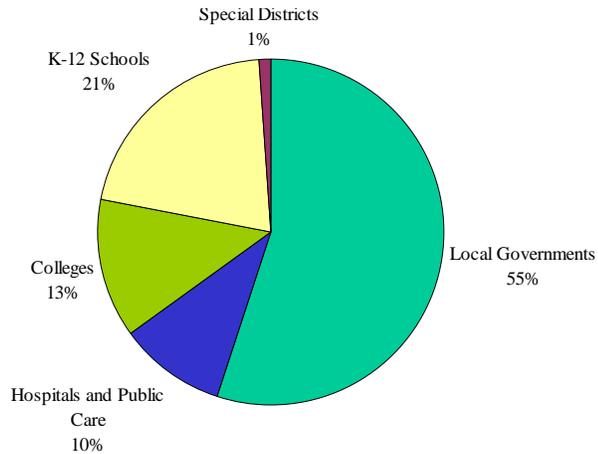
- County of Solano
- City of Fairfield
- City of Rio Vista

### Sonoma County

- County of Sonoma
- City of Santa Rosa
- City of Healdsburg
- City of Cloverdale
- Harmony Union SD
- Liberty Elementary SD
- Oak Grove USD
- Piner Olivet USD

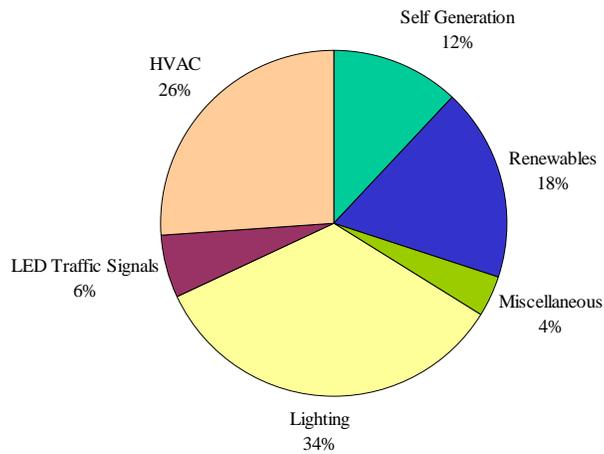


## 698 Recipients Have Received Loans Totaling Over \$189 Million



## What Has Been Funded with Loans?

Over \$122 million in loans since 2000



## City of Los Angeles Street Light Conversion Loan

### ■ Baseline conditions

- ☑ 160 watt incandescent (2,560 Lumens)
- ☑ Series wiring
- ☑ Electric rate includes maintenance + electricity

### ■ Upgrade

- ☑ 55 watt induction lamps (2,800 mean lumens)
- ☑ Parallel wiring
- ☑ Electric rate for electricity only



4,800 street lights converted



## City of San Carlos

**“The indoor comfort problems at city hall have been eliminated!”**

Richard Averett, Finance Director

“The CEC low interest loan program helped the city make upgrades to our city hall HVAC equipment... This new upgrade allows the city to provide a more comfortable environment for the employees and the public and also saves us money on our utility bills.”



**CEC Loan: \$657,303**

Annual Cost Savings: \$81,151

Simple Payback: 8.1 years



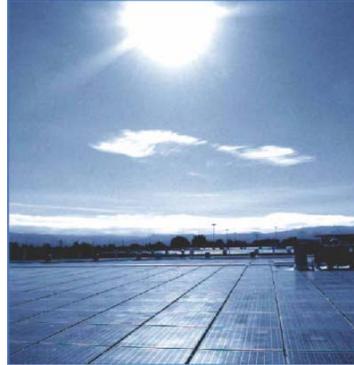
## Alameda County

**“We have the largest rooftop solar system in the nation!”**

Matt Muniz, P.E., Energy Program Manager

“With the Energy Commission’s Energy Efficiency Financing Program we installed our 1.18 MW solar project at Santa Rita Jail. As a result we are now saving \$423,000 annually. The loan application was simple and straightforward.”

**CEC Loans Totaling: \$4,214,848**  
Annual Cost Savings: \$423,000  
Simple Payback: 4.6 years



## San Francisco Installs LED Traffic Signals

**“Our annual electricity for traffic signals has been reduced from approximately \$1.4 million a year to approximately \$400,000 a year.”**

- LED traffic modules consume 80 to 90 percent less electricity.
- The old incandescent lamps were replaced annually, while most LED modules last from four to seven years. The yellow LED modules last even longer.

**CEC Loans: \$3,392,216**  
Annual Cost Savings: \$1,000,000  
Simple Payback: 3.4 years



## Simple Application Process

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- **Complete one page application**
  - ✓ If you already have a feasibility study, attach it with your application.
  - ✓ If you don't have a study, contact us for assistance in identifying projects.
- **Governing body resolution can come later**



## When Will Funds Be Available?

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- **Applications can be approved in approx. 6 weeks**
- Expenses can be incurred after CEC approval
- CEC pays invoices on a reimbursement basis
  - ☑ Contractor/vendor invoices plus proof of payment
  - ☑ Quarterly Progress Report
  - ☑ Invoices are paid within 4-6 weeks, funds can be wired for quicker payout



## Maximize Your Funding

**Question:** We want to replace our heating and cooling system, but it has a long payback. How can we maximize the funding from the CEC?

**Answer:** Package it with other energy efficiency measures so that the overall payback is as close to 10 years as possible. We can help identify projects to maximize your cost savings, such as:

- Lighting
- Heating and cooling system improvements
- Equipment controls
- Motor replacement



## Putting the Package Together

Project	Annual Cost Savings	Project Cost	Simple Payback (yrs)
Lighting Retrofits	\$30,000	\$150,000	5
Mechanical Controls	\$6,000	\$30,000	5
Vending Machine Controls	\$1,300	\$1,300	1
Chiller Replacement	\$10,000	\$200,000	20
Total	\$47,300	\$381,300	8

**CEC Funding for efficiency package = up to \$381,300**

**CEC Funding if chiller was only project funded = \$100,000**



## Funding for Photovoltaic Systems

**Question:** Can we get funding for a photovoltaic system?

**Answer:** Yes, but to maximize our funding, package it with other energy efficiency measures so that the overall payback is as close to 10 years as possible. We can help identify projects to maximize your cost savings.



## Funding for Photovoltaics

Project	Annual Cost Savings	Project Cost	Simple Payback (yrs)
Lighting Retrofits	\$30,000	\$150,000	5
Mechanical Controls	\$6,000	\$30,000	5
Vending Machine Controls	\$1,300	\$1,300	1
50 kW (AC) PV System	\$9,000	\$425,000	47
Total	\$46,300	\$606,300	13

**CEC Funding for efficiency package = up to \$463,000**

**CEC Funding if PV was only project funded = \$90,000**



## Use Our Own versus CEC Funds?

**Question:** We only have budget for some of the projects. Should we budget for the additional projects in future years or use CEC funding to get the projects done now?

**Answer:** You will save more money if you do the projects now rather than wait for budgeted funds. If your projects have a 4 year payback, the internal rate of return is about 25 percent. At a loan interest rate of 3.95 percent, you'll be earning 16 percent on your energy project investments!



## CEC Funds Versus Our Own Funds

**Project Assumptions:**

Project Cost = \$400,000  
Annual Cost Savings = \$100,000  
CEC funds = \$400,000 at 3.95% interest rate

**With CEC Funding:**

Savings = \$100,000/yr  
Interest payment (avg) = \$12,300/yr  
Net savings = \$87,700/yr  
Net savings in 5 yrs = \$438,500

**With Own Funding Budgeted 2 years later**

Years 1-2 = -\$200,000  
Years 3-5 savings = \$300,000  
Net savings in 5 yrs = \$100,000



## Benefits of Retrofitting Your Facilities NOW!

- Energy costs are increasing about the rate of inflation (conservatively 3% per year)
- Utility Incentives are available
- Cut energy cost & update your equipment
- Reduce maintenance costs and downtime
- Improve your work environment
- Reduce harmful emissions/ carbon foot-print
- CEC project assistance and funding available

**We're ready to help you get started**



## Websites

- **Energy Efficiency Financing Program**
  - [www.energy.ca.gov/efficiency/financing](http://www.energy.ca.gov/efficiency/financing)
- **Energy Partnership Program**
  - [www.energy.ca.gov/efficiency/partnership](http://www.energy.ca.gov/efficiency/partnership)
- **Bright Schools Program**
  - [www.energy.ca.gov/efficiency/brightschoools](http://www.energy.ca.gov/efficiency/brightschoools)
- **Solar Projects**
  - [www.gosolarcalifornia.ca.gov](http://www.gosolarcalifornia.ca.gov)



## Contacts for Information

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