

STATE OF CALIFORNIA

STATE ENERGY RESOURCES  
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: TAFT CITY SCHOOL DISTRICT

**RESOLVED**, that the State Energy Resources Conservation and Development Commission (Energy Commission) approves Agreement 002-11-ECF for a loan of \$1,807,443 to the Taft City School District to install ten solar photovoltaic projects totaling 680 kilowatts alternating current, and install energy efficient lighting controls, interior and exterior lighting, and vending machine controllers at six schools and the school district office. The upgrades will save the school district about 1.2 million kilowatt-hours of electricity and reduce greenhouse gas emissions by 418 tons annually. Based on the loan amount, the simple payback is approximately 11 years. (ECAA program funding.)

**FURTHER BE IT RESOLVED**, that this document authorizes the Executive Director to execute the same on behalf of the Energy Commission.

**CERTIFICATION**

The undersigned Secretariat to the Commission does hereby certify that the foregoing is a full, true, and correct copy of a Resolution duly and regularly adopted at a meeting of the California Energy Commission held on February 8, 2012.

AYE: [List of Commissioners]

NAY: [List of Commissioners]

ABSENT: [List of Commissioners]

ABSTAIN: [List of Commissioners]

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Harriet Kallemeyn,  
Secretariat



**LOAN AWARD REQUEST**

CEC-271 (Revised 05/11)

CALIFORNIA ENERGY COMMISSION

To: Grants and Loans OfficeDate: 02 / 24 / 2012Project Manager: Akasha Kaur KhalsaPhone Number: (916) 657-4854Office Special Projects OfficeDivision: Fuels and Transportation DivisionMS- 23Project Title: Taft School PV, Lighting & Controls**Type of Request:** (check one)

<input checked="" type="checkbox"/> <b>New Agreement:</b> (include items A - F from below)	Agreement Number: <u>Assigned by the G&amp;L Office</u>
Program: <u>3% ECAA</u>	
Solicitation Name: <u>n/a</u>	
Legal Name of Recipient: <u>Taft City School District</u>	
Recipient's Full Mailing Address: <u>820 North 6<sup>th</sup> Street</u> <u>Taft, CA 93268</u>	
Recipient's Project Officer: <u>Ron Bryant</u>	Phone Number: <u>(661) 795-9801 ext.</u>
Email Address: <u>rbryant@taftcity.org</u>	
Agreement Start Date: <u>4 / 11 / 12</u>	Agreement End Date: <u>09 / 30 / 2014</u>
Annual Energy Savings: <u>\$ 164,313.00</u>	Total Loan Amount: <u>\$ 1,807,443.00</u>
Number of Repay Periods: <u>15 years</u>	

<input type="checkbox"/> <b>Amendment :</b> (Check all that apply)	Agreement Number: _____
<input type="checkbox"/> Term Extension – New End Date: _____ / _____ / _____	
<input type="checkbox"/> Change of Scope (include items A – G from below, as applicable)	
<input type="checkbox"/> Loan Augmentation: \$ _____	

**ITEMS TO ATTACH WITH REQUEST:**

- |   |  |                                 |
|---|--|---------------------------------|
| A. Loan information including application and budget details. | D. CEQA Compliance Form.               | F. ECM Codes, if applicable.    |
| B. Recipient Resolution.                                      | E. Other Documents as applicable.      | G. Justification for Amendment. |
| C. Special Conditions, if applicable.                         | • Copy of Pre-Award Correspondence     | H. Subcontractor Information    |
|   | • Copy of All Other Relevant Documents |                                 |

**California Environmental Quality Act (CEQA)**

<input checked="" type="checkbox"/> CEC finds, based on recipient's documentation in compliance with CEQA:	
<input checked="" type="checkbox"/> Project exempt: <u>Section 15301, 15311 and 15314</u>	NOE filed: <u>    /    /    </u>
<input type="checkbox"/> Environmental Document prepared: _____	NOD filed: <u>    /    /    </u>
<input type="checkbox"/> Other: _____	
<input type="checkbox"/> CEC has made CEQA finding described in CEC-280, attached	

**Funding Information:**

Source #1: <u>ECF</u>	Amount: <u>\$ 1,807,443.00</u>	Statute: <u>2011</u>	FY: <u>2011</u>	Budget List #: <u>401.007R</u>
Source #2: _____	Amount: <u>\$ 0.00</u>	Statute: _____	FY: _____	Budget List #: _____
Source #3: _____	Amount: <u>\$ 0.00</u>	Statute: _____	FY: _____	Budget List #: _____

<b>Business Meeting Approval:</b> (refer to Business Meeting Schedule)	Date due to Secretariat: <u>3 / 16 / 2012</u>
Proposed Business Meeting Date: <u>4 / 11 / 2012</u>	<input type="checkbox"/> Consent <input checked="" type="checkbox"/> Discussion
Business Meeting Participant: <u>Akasha Kaur Khalsa</u>	Time Needed: <u>(5 minutes)</u>

**Agenda Notice Statement:** (This is the description that will appear on the agenda)

Possible approval of a \$1,807,443 loan with 3.00% interest to the Taft City School District to install ten solar photovoltaic (PV) projects totaling 680 kWac, install lighting controls, install interior lighting, install exterior lighting, and install vending machine controllers at six schools and the school district office. The upgrades will save the School District about 1,210,000 kWh and 418 tons of greenhouse gases reduced annually. Based on the loan amount, the simple payback is approximately 11 years. The total installation is projected to cost \$4,854,631. (ECAA Program Funding)

# LOAN AWARD REQUEST



Please list all known Subcontractors paid with proceeds connected to the project mentioned above:  
Johnson Controls, Inc.

\_\_\_\_\_  
Project Manager                      Date                      Office Manager                      Date                      Deputy Director                      Date

\_\_\_\_\_  
Executive Director                      Date                      Presiding Policy Committee                      Date                      Associate Policy Committee                      Date

**LOAN AWARD REQUEST**

CEC-271 (Revised 05/11)

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# LOAN AWARD REQUEST



Please list all known Subcontractors paid with proceeds connected to the project mentioned above:  
Johnson Controls, Inc.

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Executive Director                      Date                      Presiding Policy Committee                      Date                      Associate Policy Committee                      Date

**EXHIBIT A  
ATTACHMENT 1  
BUDGET DETAIL/PROJECT COST AND SAVINGS**

This loan is made to the Taft City School District (“Borrower”) for energy savings measures consisting of 10 photovoltaic systems totaling 680 kW<sub>ac</sub>; interior and exterior lighting retrofits; one lighting controller; and vending machine controls to be installed on the following school properties:

	Taft City School District Office 820 North 6 <sup>th</sup> Street Taft, CA 93268	
Lincoln Junior High School 810 North 6 <sup>th</sup> Street Taft, CA 93268	Roosevelt Elementary School 811 North 6 <sup>th</sup> Street Taft, CA 93268	Parkview Elementary School 520 A Street Taft, CA 93268
Conley Elementary School 623 Rose Avenue Taft, CA 93268	Taft Primary School 212 Lucard Street Taft, CA 93268	Jefferson Elementary School 318 Taylor Street Taft, CA 93268

Table 1 below summarizes the estimated costs, savings and simple payback for the project.

TABLE 1: Summary of Project Cost and Savings

Energy Efficiency Measures	Estimated Cost	Energy Commission Loan	Estimated Annual Energy Cost Savings	Simple Payback* (Years)
10 Photovoltaic Systems totaling 680 kW <sub>ac</sub> on 7 campuses	\$4,626,275			
1 Occupancy Sensor and 3,271 Lighting Retrofits in Table 2	\$224,080			
7 Vending Machine Controllers	\$ 4,276			
<b>GRAND TOTAL</b>	<b>\$4,854,631</b>	<b>\$1,807,443</b>	<b>\$164,313</b>	<b>11</b>

\*The simple payback is based on the loan amount.

Table 2 describes the scope of the lighting retrofits. The 2,732 fluorescent lamps are to be reduced from 32W to 28W only, with no ballast change. Incandescent lamps are to be replaced by screw-in compact fluorescent (CF) bulbs. High output 24W T-5s are to be used in place of “Barn Yard” lights on 20’ poles.

**Table 2: Lighting Retrofits**

<b>Interior or Exterior</b>	<b>Description</b>	<b>Quantity</b>
Interior	Relamp fixture w/ (X) F28T8/8XX/XL LAMPS ONLY - Keep existing 2-Lamp Standard Instant Start (IS) Ballast	2,732
Interior	Retrofit Fixture w/ (4) F28T8/8XX/XL & 4L-Low Power, High Efficiency (HE) Instant Start Ballasts	224
Interior	Retrofit Fixture w/ (2) F17T8/8XX/XL/HL & 2L-Low Power, High Efficiency Instant Start Ballasts	16
Interior	Replace lamp w/ 13W Screw in CF	25
Interior	Replace lamp w/ 20W Screw-in Compact Fluorescent (CF)	17
Interior	Replace lamp w/ 42W Screw-in CF	30
Interior	Replace lamp w/ 16W Screw-in CF lamp in PAR38 reflector housing	15
Interior	Replace with 12 Screw-in CF Globe lamps - 9 watts each	1
Interior	Replace with canopy fixture with 1-CF32 lamp and electronic ballast	71
Interior	Replace with 39 watt Metal-halide PAR lamp and electronic ballast	8
Interior	Retrofit array with 4-PAR70 metal halide lamps, each with electronic ballast	4
Interior	Install New 4' Radial Wrap Fixture w/ (3) F28T8/8XX/XL Lamps & 3L-STND-HE-IS Ballast	24
Interior	Install new 2' Strip w/ (2) F17T8/8XX/XL/HL & 2L-LP-HE-IS Ballast	1
Interior	Install new 4' Wrap Fixture w/ (2) F28T8/8XX/XL, 2L-STND-HE-IS Ballast	1
Interior	Install New Gym Rated High Bay w/ (4or 6) F28T8/8XX/XL Lamps & 4L-HP-HE-IS Ballast	60
Exterior	Install new Flood Fixture w/ (2) 32W CF Lamps	1
Exterior	Install new Wallpack Fixture w/ (2) 32W CF Lamps	9
Exterior	Replace with poletop fluorescent 3-F24T5HO lamps and electronic ballasts	32
<b>Total</b>		<b>3,271</b>

The Borrower shall implement each measure listed in Table 1.

If Borrower does not complete one or more of the measures or deviates from the quantities and specifications listed in Table 1, the Energy Commission will calculate the maximum loan amount supported by the Project. The loan amount will be determined by the lesser of: 1) multiplying the annual energy cost savings by 11 years; 2) total Project costs; or 3) approved loan amount.

A letter of agreement or loan amendment may be necessary to document these changes, at the discretion of the Energy Commission.

If the Borrower has received disbursements exceeding the maximum loan amount supported by the Project, the Borrower shall refund the difference to the Energy Commission within 30 days of notification.

# Memorandum

To: Robert P. Oglesby  
Executive Director

Date: February 24, 2012

Telephone: 916-657-4854

From: **California Energy Commission**  
1516 Ninth Street MS-23  
Sacramento CA 95814-5512

Subject: RECOMMENDATION TO APPROVE AN ENERGY CONSERVATION ASSISTANCE ACT (ECAA) LOAN FOR \$1,807,443 WITH 3% INTEREST TO THE TAFT CITY SCHOOL DISTRICT TO INSTALL PHOTOVOLTAIC SYSTEMS (PV) TOTALLING 680 kW<sub>ac</sub>, RETROFIT INTERIOR & EXTERIOR LIGHTS, INSTALL LIGHTING OCCUPANCY SENSOR, AND INSTALL VENDING MACHINE CONTROLLERS AT SIX SCHOOLS AND THE SCHOOL DISTRICT OFFICE TO BE CONSIDERED AT THE APRIL 11, 2011 BUSINESS MEETING

## Summary of Item

The Taft City School District (Taft CSD) has requested a 3.00 percent loan for \$1,807,443 to help construct energy efficiency measures at six schools and the school district office. The funding for this loan will come from the Energy Conservation Assistance Account (ECAA) funds.

The ten solar photovoltaic (PV) projects totaling 680 kW<sub>ac</sub> will have mixed mounting techniques: one covered parking structure, five new shade structures, and four roof-mounted placements. The lighting improvements on the seven campuses include: one new lighting control, 32 exterior T-5s, 10 exterior and 159 interior CFLs replacing incandescents, 12 new PAR Metal Halide fixtures for the stage, 60 Gym high-bay T-8 fluorescents, 26 new T-8 fixtures, 240 retrofit fixtures w/ ballasts and 28W bulbs and 2,732 fixtures where 28W T-8 bulbs replace 32W bulbs. Vending machine controls will be installed at each school property.

The total project is projected to cost \$4,854,631.00. An Energy Commission loan at three percent interest will finance \$1,807,443. California Solar Initiative rebates are estimated at \$850,000 to \$919,000 (over 5 years), based on performance. Remaining funds will be financed by the Taft City School District. Simple payback is 11 years based on the CEC loan amount. The table below summarizes the project savings, cost, and simple payback.

TABLE 1: Summary of Project Cost and Savings

<b>Energy Efficiency Measures</b>	<b>Estimated Cost</b>	<b>Energy Commission Loan</b>	<b>Estimated Annual Energy Cost Savings</b>	<b>Simple Payback* (Years)</b>
<b>10 Photovoltaic Systems totaling 680 kW<sub>ac</sub> on 7 campuses</b>	\$4,626,275			
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<b>GRAND TOTAL</b>	<b>\$4,854,631</b>	<b>\$1,807,443</b>	<b>\$164,313</b>	<b>11</b>

\*The simple payback is based on the loan amount.

**The loan will have special conditions:**

1. Schools and the district office must enter into net metering agreements with their utility.
2. PV equipment does not exceed 213kW<sub>AC</sub> at the Lincoln Jr. High School so that electricity production is slightly less than usage capacity to break even at net zero.
3. Jefferson Elementary School must utilize the PG&E A6 utility rate schedule and send a copy of the PG&E Rate Schedule application form with their first request for reimbursement.
4. Conley Elementary School, Roosevelt Elementary School, Taft Primary School and the District Office must utilize the PG&E A10 utility rate schedule and send a copy of the PG&E Rate Schedule application form with first request for reimbursement.

**Justification for Action Requested:**

This loan increases the energy efficiency and provides economic benefits to the Taft City School District and California. The renewable generation alone will save the Taft CSD approximately \$143,000 annually in energy costs.

The Taft City School District is committed to reducing its energy consumption and greenhouse gas emissions. These projects will reduce greenhouse gas emissions by an estimated 418 tons/yr. This loan will allow the Taft CSD to save about 1,210,209 kWh and \$164,313 annually.

Energy Commission staff has determined that this loan to the Taft City School District is technically justified and meets the requirements under the Energy Conservation Assistance Act (ECAA) program guidelines.

Project Manager

Akasha Kaur Khalsa, Energy Analyst  
Special Projects Office, Fuels and Transportation Division

Oral Presentation

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

Business Meeting Participants

Akasha Kaur Khalsa, Energy Analyst

Commission Action Requested

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

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PAT PEREZ, Deputy Director  
Fuels and Transportation Division



**Taft City School District  
Photovoltaic, Lighting Retrofit, and Vending Controller Project  
Loan Amount: \$1,807,443**

**Pros and Cons**

The following are the Pros and Cons to the Energy Commission of providing a loan to the Taft City School District:

**Pros:**

- To reduce energy use, electrical demand, and greenhouse gas emissions through energy efficiency is consistent with the Energy Commission's *2011 Integrated Energy Policy Report*.
- Provides a loan to help the Taft CSD install energy efficiency projects that it may otherwise not be able to fund.

**Cons:**

- None