

THE ENERGY SOLUTIONS COMPANY

ECOGREEN MARKETS AND PARTNERS



- California
- Nevada
- Utah
- Arizona
- Hawaii
- New York
- Pennsylvania



Expansion Markets

- Oregon
- Washington
- Colorado
- Wyoming
- Florida
- North Carolina
- South Carolina
- Massachusetts
- Connecticut
- Mississippi
- Georgia



















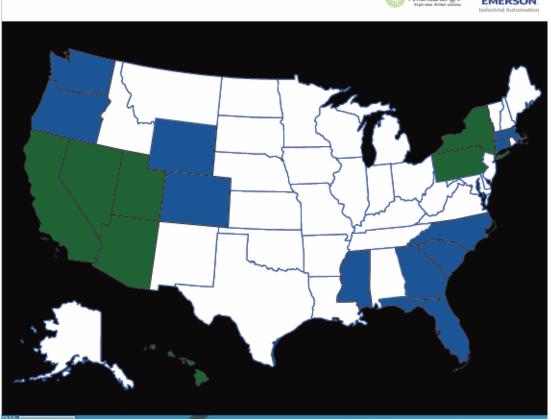












ECOGREEN CUSTOMERS

















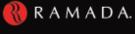


































































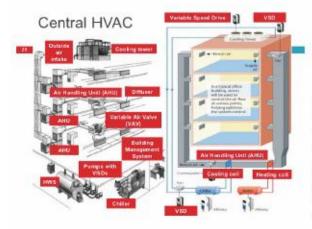








ENERGY SOLUTIONS





HVAC-THERMOSTATS

- · Wireless drop-in replacement thermostat
- · Set HVAC schedules remotely
- Prevent changes or misuse by staff
- Set and forget
- · Adjusts automatically for weather changes
- · Minimizes unnecessary HVAC operation
- · Reduces energy usage by intelligent control



MECHANICAL VFDs/VSDs/Motor Control/Pumps

- Major savings in system motor energy use
 - Reduced wear and tear on the motors
- · More precise levels of controls of applications





WINDOW TINT

Can reduce up to 85% of the heat from the sun

- · Provides up to 99% rejection of ultraviolet light
- · Reduces 95% of the glare
- By window tinting your office you can also enjoy up to 15 degrees of saved temperature from the film itself which translates into energy cost savings on air conditioning.



REFRIGERATION



ASH CONTROLLERS

AntiSweat Heat (ASH) Controllers

- Will use sensors to only heat the glass when it is really needed
- Will only heat the glass just enough to avoid any condensation that occurs
- ASH function can be turned off during closed hours to further save energy

ECM & CONTROLLERS

Evaporation Control Motors (ECM) and Controllers

- Allows the user to centralize control of key refrigeration systems
- Gives the user the ability to schedule operating temperatures and unit defrost times
- Energy and operational savings are realized through integration of smart control algorithms.



School District Focus



Newport Mesa Unified School District
San Jacinto Unified School District
Fallbrook Unified School District
Pleasant Valley Unified School District
Baker School District
Atascadero
Romoland
Antelope Valley

City Focus

Laguna Niguel
Laguna Hills
Tustin
Montclair
Woodside
Fallbrook

SCE On-Bill Financing Video Features YMCA (EcoGreen customer): on.sce.com/obf

Alterations

TABLE 141.0-E Requirements for Luminaire Alterations

Quantity of existing affected luminaires per Enclosed Space ¹	Resulting Lighting Power for Each Enclosed Space	Applicable Mandatory Control Provisions for Each Enclosed Space	Multi-level Lighting Control Requirements for Each Altered Luminaire
	Alterations that do not change	the area of the enclosed space or the	space type
Sum total < 10% of existing luminaires	Existing lighting power is permitted	Existing provisions are permitted	Existing controls are permitted
Sum total ≥ 10% of existing luminaires	≤ 85% of allowed lighting power per Section 140.6 Area Category Method	§130.1(a), (c)	Two level lighting control ² or §130.1(b)
	> 85% of allowed lighting power per Section 140.6 Area Category Method	§130.1(a), (c), (d) ³	§130.1(b)
Alterations that	change the area of the enclosed space	e or the space type or increase the ligh	ting power in the enclosed space
Any number	Comply with Section 140.6	§130.0(d) ³ §130.1(a), (c), (d) ³ , (e)	§130.1(b)

- 1. Affected luminaires include any luminaire that is changed, replaced, removed, relocated; or, connected to, altered or revised wiring, except as permitted by EXCEPTIONS 1 and 2 to Section 141.0(b)2Iii:
- 2. Two level lighting control shall have at least one control step between 30 and 70% of design lighting power in a manner providing reasonably uniform illuminations
- 3. Daylight controls in accordance with Section 130.0(d) are required only for luminaires that are altered.

2013 Title 24 Standards 50

Alterations

To qualify as a Luminaire Modification-in-Place, lighting systems shall be modified in only one or more of the following methods:

- Replacing lamps and/or ballasts.
- Changing the number or type of light source in a luminaire including socket renewal, removal or relocation of sockets.
- Changing the optical system of a luminaire.
- Installing lighting control systems devices.
- Replacement of whole luminaires one for one in which the only electrical modification involves disconnecting the existing luminaire and reconnecting the replacement luminaire.

2013 Title 24 Standards 51

Alterations

TABLE 141.0-F=Requirements for Luminaire Modifications-in-Place

For compliance with this Table, building space is defined as any of the following:

- 1. A complete single story building
- 2. A complete floor of a multi floor building
- 3. The entire space in a building of a single tenant under a single lease
- 4. All of the common, not leasable space in single building

Quantity of affected luminaires per Building Space per annum	Resulting Lighting Power per Each Enclosed Space Where ≥ 10% of Existing Luminaires are Luminaire Modifications-in-Place	Applicable mandatory control provisions for each enclosed space ¹	Applicable multi-level lighting control requirements for each modified luminaire ²
Sum total < 40 Luminaire Modifications-in-Place	Existing lighting power is permitted	Existing provisions are permitted	Existing controls are permitted
Sum total ≥ 40 Luminaire	≤ 85% of allowed lighting power per Section 140.6 Area Category Method	§130.1(a), (c)	Two level lighting control ³ Or §130.1(b)
Modifications-in-Place	> 85% of allowed lighting power per Section 140.6 Area Category Method	§130.0(d) ⁴ §130.1(a), (c), (d) ⁴	§130.1(b)

- 1. Control requirements only apply to enclosed spaces for which there are Luminaire Modifications-in-Place.
- 2. Multi-level controls are required only for luminaires for which there are Luminaire Modifications-in-Place.
- 3. Two level lighting control shall have at least one control step between 30% and 70% of design lighting power in a manner providing reasonably uniform illuminations
- 4. Daylight controls in accordance with Section 130.0(d) are required only for luminaires that are modified-in-place.

2013 Title 24 Standards 52

OBF Application & Reservation Process



Customer/Vendor submits Online Project Application & OBF Loan Application



If OBF Application is Complete, Funds are Pre-Committed





Upon passing Credit Review + LTC, Funds are Reserved



4 Project installed And Installation Report (IR) submitted



IR package reviewed by technical engineer



Based on final project review, final LTC done, and loan terms finalized







Customer receives Incentive and OBF Funds



San Jacinto High School

ENERGY AUDIT

 500 Idyllwild Drive
 Approx Building Size
 - SF

 San Jacinto, CA 92583
 Energy Rate
 0.157 KWh



EXISTING			Suggested Replacements & Savings									
Existing Bulb	Watts/Fix	# of	Opera Hours-D	-	Location	Replacement	Watts/Fix	# of	Watts/bulbs	Usage	KWh	Annual Savings
		Fixtures				Bulb		Fixtures	Saved	Saved	Saved	
4"3qPole, HP3	465 w	25	12 7 /	4380	Parking Lot	120w LED Area Light	120 w	25	8625 W	74.2%	37,778	\$5,931.07
Outdoor Flood	295 w	1	12 7 /	4380	Flag Pole	90w LED Outdoor Flor	90 w	1	205 W	69.5%	898	\$140.97
Outdoor Flood	1080 w	1	12 7 /	4380	Campus Bidg	160w LED Outdoor Fit	160 w	1	920 W	85.2%	4,030	\$632.65
Rnd Pole, Brnze 135w	188 w	26	12 7 /	4380	Campus Parking Lot	120w LED Area Light	120 w	26	1768 W	36.2%	7,744	\$1,215.78
4" Grey pole Shoebox	465 w	6	12 7 /	4380	Campus Parking Lot	120w LED Area Light	120 w	6	2070 w	74.2%	9,067	\$1,423.46
HighBay	295 w	32	8 5 /	2086	Wood Shop	70w LED High Bay	70 w	32	7200 W	76.3%	15,017	\$2,357.69
ODFL	295 w	3	12 7 /	4380	Bidg 700	90w LED Outdoor Flor	90 w	3	615 w	69.5%	2,694	\$422.91
BR40	120 w	16	8 5 /	2086	Theater	14w LED BR40	14 w	16	1696 W	88.3%	3,537	\$555.37
PAR38 Halogen	60 w	52	8 5 /	2086	Theater+	14w LED PAR38	14 w	52	2392 W	76.7%	4,989	\$783.28
A19 Ican	60 w	6	8 5 /	2086	Cafeteria	12w LED A19	12 w	6	288 W	80.0%	601	\$94.31
HighBay	295 w	12	10 6 /	3129	Gym	100w LED High Bay	100 w	12	2340 W	66.1%	7,321	\$1,149.37
HighBay 8 Lamp 42wP	336 w	85	10 6 /	3129	Gyms (6 are Emergency)	100w LED High Bay	100 w	85	20060 W	70.2%	62,759	\$9,853.19
High Bay	295 w	60	10 5 /	2607	Weight Room	70w LED High Bay	70 w	60	13500 W	76.3%	35,196	\$5,525.84
	w		/				w		w			
	w		/				¥		w			
Totals		325		43487				325	61679 w	72.5%	191,630	\$30,085.88

Watts Saved	61,679
Annual KWh Saved	191,630
Avg Annual Res Powered by Savings	23.2
Annual CO2 Savings (MT)	143
Average Electrical Savings	72.5%
ROI During Payback	12.1%
Payback Period Yrs****	8.2

Potential Write-Off Amount					
	Capital	Interest	Total		
Year 1	52,212	11,983	64,195		
Year 2	52,212	9,571	61,783		
Year 3	52,212	7,036	59,248		
Year 4	52,212	4,371	56,584		
Year 5	52,212	1,570	53,783		
	\$261,062	\$34,532	\$295,594		

\$2,507.16	Approximate Energy Savings Per Month
\$30,085.88	Energy Savings Per Year
\$169,596.90	Total Savings Over 5 Years **
\$396,555.81	Total Savings After 10 Years**
\$13,414.09	Estimated Energy Rebate
\$0.00	IRS Tax Deduction 179D Available
\$0.00	Estimated Federal Tax Savings***
762,682,930	Btu Savings Per Month
\$0.00	Bulb Replacement Savings Per Year
\$0.00	Bulb Replacement Savings Per Lifetime of LED
\$4,926.56	Loan Payment *

NOTE: Attached calculations do not include depreciation deduction for project cost.

** Reflects 6% per year cost of energy increase + Bulb Replacement

*** Based on IRS 179D Deduction @ 35% federal tax rate

^{*}Payment is based on a 5 year loan at 5% interest oac, actual my vary.

^{****}Payback Period Yrs = (Total Project Cost - Rebate - Estimated Fed Tax Savings- Bulb Replacement) / Estimated Savings per Year

On-Bill Financing Program - Preliminary Loan Term Calculation (LTC1)

Completion Date/Time: 5/22/2013 3:46 PM Project Number: 317-13-0500376870 Customer Number: 1-0-005-5926

2-00-445-0706 Customer Account Number: **OBF Application Receipt Date:** 4/9/2013

Project Type(s): Customized

Market Segment: Government and Institutions

SAN JACINTO UNIFIED SCH DIST Business Name: Reference Name: SAN JACINTO HIGH SCHOOL

500 IDYLLWILD DR SAN JACINTO, CA 92583 Address:

City, CA Zip:

*** LTC1 ***

ACTUAL TERMS WILL BE CALCULATED BASED ON FINAL REVIEW AND VERIFICATION OF THE PROJECT INSTALLATION REPORT

LTC1 Reserved Amount is \$245,766.67 First month payment is \$377.61 98 subsequent monthly payments \$2,503.97

PROJECT ECONOMIC SUMMARY		EXPLANATION
A. AVERAGE ELECTRIC BILLING RATE past 12 months (Cents/kWh)	\$ 0.157	16 Based on Billing History
B. ENERGY EFFICIENCY PROJECT SAVINGS		
B.1. Estimated Annual Kilowatt Hour Savings (kWh)	191,19	.3 From Approved Project Application
B.2. Estimated Annual Dollar(\$) Savings	\$ 30.047	62 Estimated Annual kWh Savings x Average Rate = \$ savings (B.1 x A)
B.3. Estimated Monthly Dollar(\$) Savings	\$ 2,503	
C. COSTS		
C.1. Estimated Total Project Cost	\$ 261,061 \$ 15,295	
C.2. Estimated Total Rebate/Incentive C.3. Estimated Potential Loan Amount (Gross Amount)	\$ 15,295 \$ 245,766	
C.4. LTC1 Reserved Amount		From LTC1 calculation following Approved Project Application
C.5. LTC2 Reserved Amount		LTC2 Loan Amount per policy cannot be greater than LTC1 amount
D. LOAN		
D.1. Gross Amount for Potential Financing	\$ 245,766	
D.2. Monthly Loan Repayment Amount D.3. Actual loan term (Months)	\$ 2,503	97 (B.3) 15 Time required to repay loan in months (D.1) / (D.2)
D.4. Actual loan term (Years)		Time required to repay loan in years (D.3) /12
E. LOAN LIMIT TESTS		
E.1. Market Segment Amount of Loan Test (Min/Max Loan Amount)		
E.1.1 Market Segment Amount of Loan Test (win/max Loan Amount)	\$ 5.0	00 Minimum Loan Amount per Service Account or Bundle
E.1.2. Market Segment Maximum Loan Amount	\$ 250.0	
E.1.2. Warket Segment Maximum Loan Amount E.1.3. Within Market Segment Limit?	ъ 250,0 Y	Is D.1 within loan amount limits Y/N?
		is 5.1 William total carrotate arrive 1741
E.2. Customer Loan Limit Test (Previous Loans for this Service Account) E.2.1. Service Account Loan Amount Limit	\$ 250.0	D0 (E.1.2) or \$1M for G&I Facility
E.2.2. Previous Loans Reserved for this Service Account		Total of previous OBF loans + reservations
E.2.3. Estimated Amount Eligible for Loans	\$ 250,000	
E.2.4. Within Available Amount?	\$ 230,000 Y	Is D.1. < E.2.3. Y/N?
		15 D.1. <u>5</u> E.2.5. Till!
E.3. Length of Loan Test E.3.1. Loan Length Limit (months)	120	CIA (lighting) = 36, CIA (non-lighting) = 60, G&I = 120 months
	Y	Is D.3 within limit Y/N?
E.3.2. Within Loan Length Limit?		IS D.3 WIGHT HITHE TAN?
E.4. Expected Useful Life (EUL)* Loan Length Limit Test	447	FULL in months of macoure with greatest MA/h contilluding
E.4.1. Applicable Measure EUL (months)	144	EUL in months of measure with greatest kWh contribution
E.4.2. Within EUL Loan Length Limit?	Y	Is D.3 within limit Y/N?
E.5. EXCEPTION ANALYSIS (If any E.1 thru E.4. yields a "No")		Exception Analysis Loan Minimum Requirement Test
		Does the loan amount from Exception Analysis meet the \$5K loan minimum requirement? YES
E.5.1. Monthly Loan Repayment Amount		Based on minimum loan requirement of \$5K and supplemental
E.5.2. Max Allowable Loan Terms (Months)		Exception Analysis, this amount qualifies for an estimated OBF
E.5.3. Net Amount for Financing		loan.
"Expected Useful Life (EUL): Each measure is expected to perform satisfactorily for a period of time. An EUL for each energy efficiency measure is assigned by the California Energy Commission (CEC).		

Considering Solar?

- Solar Program Utility Net Metering is running out!
- Simply by replacing your light bulbs, fixtures and mechanical hardware will drastically reduce your electricity usage and carbon footprint
- By making your property as efficient as possible first, will reduce your solar layout requirement by as much as half!
- Solar Panels, installation and permitting are very expensive with 7+ year ROI.
- Partial generation.
- LEDs products last 10-15 yrs hours of operation depending and pay for themselves in 3-5 years or less



Thank you for this opportunity to assist you in saving energy!! 949-364-6800