

RESOLUTION NO. 2020-45

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MARINA
APPROVING AN AGREEMENT BETWEEN THE CITY OF MARINA AND
PG&E FOR AN ON-BILL FINANCING (OBF) PROGRAM FOR CITY
FACILITY LIGHTING FIXTURE UPGRADES AND AUTHORIZING THE
CITY MANAGER TO EXECUTE THE AGREEMENT ON BEHALF OF THE
CITY SUBJECT TO FINAL REVIEW AND APPROVAL BY THE CITY
ATTORNEY

WHEREAS, in March of this year, EcoGreen Solutions conducted an energy audit at various City facilities under the Energy Efficiency Retrofit Loan Program approved by the California Public Utilities Commission (CPUC). The Program allows Cities to finance energy-efficient retrofit projects implemented under PG&E's OBF Program, and;

WHEREAS, the audit results and cost proposals provided have been deemed eligible for OBF for the next three months (ending May 2020). Another audit would be necessary should this proposal period lapse, and;

WHEREAS, at the regular meeting of December 17, 2019, the City Council adopted Resolution No. 2019-135, approving a similar agreement between the City of Marina and PG&E for an OBF Program for City facility lighting fixture upgrades. The upgrades started in February 2020 and are now completed, and;

WHEREAS, LED lighting is rapidly replacing fluorescent lighting and any hold out incandescent lighting as the most efficient alternative available today. LED lighting reduces greenhouse gas emissions and does not contribute to mercury in the waste stream, and;

WHEREAS, staff has evaluated the reports for the following audited facilities: Preston Park, Airport Firehouse, Airport Police Office, Equestrian Center, Public Works Corporation Yard, City Community Center and City Sports Center. Cost savings in retrofitting existing lighting to light emitting diode (LED) technology will be significant enough to pay for the project costs with the savings within 9.1 years. Project costs and annual cost savings are attached as **Exhibit A**, and;

WHEREAS, the City has the option at this time to enter in to an OBF agreement for retrofit of any combination of the above projects, all of the projects, or none of the projects, and;

WHEREAS, should the City Council approve this request, there is no up-front cost to the City for the retrofit improvements. The OBF Program will provide a zero-interest loan to fund the project, and PG&E will be reimbursed for project costs by the annual cost savings from the City's monthly electricity billing, and;

WHEREAS, payments from energy savings will be made through the project payment period of 9.1 years. Afterwards, the City will see a reduction in electric bills for the respective facilities.

NOW THEREFORE, BE IT RESOLVED that the City Council of the City of Marina does hereby:

1. Approve an Agreement between the City of Marina and PG&E for an On-Bill Financing (OBF) Program for City facility lighting fixture upgrades, and;
2. Authorize the City Manager to execute the Agreements on behalf of the City subject to final review and approval by the City Attorney.

PASSED AND ADOPTED, at a regular meeting of the City Council of the City of Marina, duly held on the 5th day of May 2020, by the following vote:

AYES: COUNCIL MEMBERS: Berkley, Urrutia, O'Connell, Morton, Delgado

NOES: COUNCIL MEMBERS: None

ABSENT: COUNCIL MEMBERS: None

ABSTAIN: COUNCIL MEMBERS: None

Bruce C. Delgado, Mayor

ATTEST:

Anita Sharp, Deputy City Clerk

ENERGY AUDIT

EXHIBIT A TO THE
STAFF REPORT

City of Marina

EcoGreen Sales Rep: Jay Langner

Customer Contact: Layne Long

Title of Contact: City Manager

Customer Phone: NA

Customer Email: NA

MARINA, CA. 93933

Acct: 4467294795; SAID: 6793435296

Approx. Building Size 84,441 SF
Energy Rate \$ 0.24 /kWh
Interest Rate 0%

In Reference to Quote # 800227



EXISTING				Location		Suggested Replacements				Savings			
Existing Bulb	Watts/ Fix	# of Fixtures	Existing Operating Hours-Day / Yr.	Building/Zone	Room/Area	Replacement Bulb	Watts/Fix	# of Fixtures	Watts/bulbs Saved	Usage Saved	KWh Saved	Annual Savings	
wp	w	5	7 /	park shack	front exterior lighting	Skip	w	5	w				
wp cutoff	w	1	7 /	park shack	front exterior lighting	Skip	w	1	w				
1x4 w2 i8	59 w	1	0.9 3 / 145	park shack	male bathroom	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	1	35 w	59.3%	5.08	\$1.24	
1x4 w2 i8	59 w	2	0.9 3 / 145	park shack	male bathroom	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	2	70 w	59.3%	10.17	\$2.47	
1x8 w4 4ft i8	112 w	2	0.9 3 / 145	park shack	seasonal snack shack	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	48 w	2	128 w	57.1%	18.59	\$4.52	
1x4 w2 i8	59 w	1	0.9 3 / 145	park shack	1st floor closet	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	1	35 w	59.3%	5.08	\$1.24	
1x4 w2 i8	59 w	1	0.9 3 / 145	park shack	snack shack backroom	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	1	35 w	59.3%	5.08	\$1.24	
1x4 w1 of out 2 i8	59 w	1	0.9 3 / 145	park shack	snack shack backroom	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	1	35 w	59.3%	5.08	\$1.24	
1x4 w0 out of 2 i8	59 w	1	0.9 7 / 339	park shack	1st floor pump room	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	1	35 w	59.3%	11.86	\$2.88	
4ft linear w2 i8	59 w	6	0.9 3 / 145	park shack	2nd floor	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	6	210 w	59.3%	30.50	\$7.41	
4ft linear w0 out of 2 i8	59 w	2	0.9 3 / 145	park shack	2nd floor	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	2	70 w	59.3%	10.17	\$2.47	
9" Can qt cfl w2	66 w	4	0.9 3 / 145	park shack	2nd floor	LED 6" Eco Downlight w/ Housing, 4000K, 120v, REC	10 w	4	224 w	84.8%	32.53	\$7.91	
1x4 w2 i8	59 w	4	0.9 3 / 145	park shack	basement	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	4	140 w	59.3%	20.33	\$4.94	
ED18 HPS w2 out	465 w	10	3.7 7 / 1356	Preston Park	park area lighting	LED Area Light, 5000K, UNV, PH w/ Square Pole Mount	118.2 w	10	3,468 w	74.6%	4,701.26	\$1,142.51	
ED18 HPS w1 out	465 w	7	3.7 7 / 1356	Preston Park	park area lighting	LED Area Light, 5000K, UNV, PH w/ Square Pole Mount	118.2 w	7	2,428 w	74.6%	3,290.88	\$799.76	
post top	95 w	2	3.7 7 / 1356	Preston Park	park area lighting	LED A21, 4000K	16.5 w	2	157 w	82.6%	212.83	\$51.72	
ED18 HPS	465 w	1	7.4 7 / 2711	Preston Park	park area lighting	LED Area Light, 5000K, UNV, PH w/ Square Pole Mount	118.2 w	1	347 w	74.6%	940.25	\$228.50	
highbays w3 i5 HO	179 w	10	2.5 5 / 646	airport firehouse	engine room	4' T5 LED HO Tube Type B, 4100K	75 w	10	1,040 w	58.1%	671.35	\$163.15	
2x4 w2 i8	59 w	2	2.5 5 / 646	airport firehouse	engine room storage	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	2	70 w	59.3%	45.19	\$10.98	
4ft lin i8	31 w	1	2.5 3 / 387	airport firehouse	electrical room	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	12 w	1	19 w	61.3%	7.36	\$1.79	
2x4 w2 i8	59 w	1	2.5 5 / 646	airport firehouse	kitchen	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	1	35 w	59.3%	22.59	\$5.49	
4ft lin w2 i8	59 w	1	2.5 5 / 646	airport firehouse	bathroom/shower	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	1	35 w	59.3%	22.59	\$5.49	
Lowbay CFL w2 a19	31 w	7	2.5 7 / 904	airport firehouse	break room + hallway	LED A19, 4000K, 120v w/ Socket Replacement	12 w	7	133 w	61.3%	120.20	\$29.21	
Lowbay CFL w2 a19	31 w	1	7.4 7 / 2711	airport firehouse	engine room	LED A19, 4000K, 120v w/ Socket Replacement	12 w	1	19 w	61.3%	51.51	\$12.52	
Lowbay CFL w2 a19	31 w	1	0.3 7 / 113	airport firehouse	bedroom 1	LED A19, 4000K, 120v w/ Socket Replacement	12 w	1	19 w	61.3%	2.15	\$0.52	
Lowbay CFL w2 a19	31 w	1	2.5 7 / 904	airport firehouse	bedroom 2	LED A19, 4000K, 120v w/ Socket Replacement	12 w	1	19 w	61.3%	17.17	\$4.17	
Lowbay CFL w2 a19	31 w	1	2.5 7 / 904	airport firehouse	bedroom 3	LED A19, 4000K, 120v w/ Socket Replacement	12 w	1	19 w	61.3%	17.17	\$4.17	
Lowbay CFL w2 a19	31 w	1	2.5 7 / 904	airport firehouse	bedroom 4	LED A19, 4000K, 120v w/ Socket Replacement	12 w	1	19 w	61.3%	17.17	\$4.17	
2x4 w2 i8	59 w	1	2.5 5 / 646	airport firehouse	storage closet	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	1	35 w	59.3%	22.59	\$5.49	
FLD w2 i8	31 w	1	1.5 7 / 565	airport firehouse	Firehouse sign area light	LED Flood Light, 5000K, UNV w/ Knuckle Mount	11.59 w	1	19 w	62.6%	10.96	\$2.66	
LED wpcutoff LED	w	4	2.5 7 / 904	airport firehouse		Skip	w	4	w				
LED wpcutoff LED	w	1	2.5 /	airport firehouse		Skip	w	1	w				
LED wp LED	w	1	7.4 7 / 2711	airport firehouse	small garage	Skip	w	1	w				
FLD MH	295 w	1	3.7 7 / 1356	airport firehouse		LED Flood, 5000K, UNV, PH w/ Yolk Mount	47.94 w	1	247 w	83.7%	334.92	\$81.39	
4ft lin w2 i8	59 w	5	7.4 5 / 1937	airport firehouse	small garage	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	5	175 w	59.3%	338.90	\$82.36	
wpcutoff w/MH	215 w	2	3.7 7 / 1356	airport firehouse		LED Full Cut-Off Wallpack, 5000K, UNV, PH	24 w	2	382 w	88.8%	517.84	\$125.85	
al mh	295 w	2	7.4 7 / 2711	airport firehouse	parking lot	LED Area Light, 5000K, UNV, PH w/ Square Pole Mount	73.57 w	2	443 w	75.1%	1,200.69	\$291.80	
al mh	295 w	2	3.7 7 / 1356	airport firehouse	parking lot	LED Area Light, 5000K, UNV, PH w/ Square Pole Mount	73.57 w	2	443 w	75.1%	600.35	\$145.90	
	w		/			Skip	w		w				
LED dl a19 LED	w	5	1.5 5 / 403	Equestrian Centre	stables 1	Skip	w	5	w				
dl a19	100 w	3	1.5 5 / 403	Equestrian Centre	stables 1	LED A19, 4100K, 120v	15 w	3	255 w	85.0%	102.88	\$25.00	
dl a19 cfl	33 w	6	1.5 5 / 403	Equestrian Centre	stables 2	LED A19, 4000K, 120v	6 w	6	162 w	81.8%	65.36	\$15.88	
dl a19	100 w	4	1.5 5 / 403	Equestrian Centre	stables 2	LED A19, 4100K, 120v	15 w	4	340 w	85.0%	137.17	\$33.34	
LED dl a19 LED	w	2	1.5 5 / 403	Equestrian Centre	stables 2	Skip	w	2	w				
LED fl	w	2	3.7 7 / 1356	Equestrian Centre	stables 1	Skip	w	2	w				
LED fl LED	w	26	1.5 5 / 403	Equestrian Centre	horse area	Skip	w	26	w				
FLD MH	458 w	2	1.5 5 / 403	Equestrian Centre	horse area	LED Area Light, 5000K, UNV, PH w/ Trunneon Mount	118.2 w	2	680 w	74.2%	274.19	\$66.63	
Cobra Head HPS	138 w	1	1.5 5 / 403	Equestrian Centre	horse area	LED Area Light, 5000K, UNV, PH w/ Slip Fitter	40 w	1	98 w	71.0%	39.54	\$9.61	
have not been turned on in 20+ years	w		/	Corps Depot	exterior	Skip	w		w				
have not been turned on in 20+ years	w		/	left building	female bathroom	Skip	w		w				
1x2 w2 i8	33 w	1	1.5 5 / 403	center building	female bathroom	2' T8 LED Tube Single Ended Bypass(Type B), 4000K	18 w	1	15 w	45.5%	6.05	\$1.47	
1x3 w2 i12	66 w	1	0.3 7 / 113	left building	female bathroom	3' T8 LED Tube Bypass(Type B), 4000K, UNV	24 w	1	42 w	63.6%	4.74	\$1.15	
1x4 w1/2 i8	59 w	1	1.5 5 / 403	left building	public office	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	1	35 w	59.3%	14.12	\$3.43	
1x4 w0/2 i8	59 w	2	0.3 7 / 113	center building	male bathroom	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	2	70 w	59.3%	7.91	\$1.92	
1x4 w2 i12	59 w	3	0.3 7 / 113	left building	break room - kitchen	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	3	105 w	59.3%	11.86	\$2.88	
1x4 w2 i8	59 w	4	1.5 6 / 484	left building	break room - locker room	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	4	140 w	59.3%	67.78	\$16.47	
1x4 w2 i8	59 w	4	1.5 6 / 484	center building	closet	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	4	140 w	59.3%	67.78	\$16.47	
1x4 w2 i8	59 w	1	0.3 7 / 113	left building	male bathroom	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	1	35 w	59.3%	3.95	\$0.96	
1x4 w2 i8	59 w	4	1.5 5 / 403	left building	personal office 1	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	4	140 w	59.3%	56.48	\$13.73	
1x4 w2 i8	59 w	4	1.5 6 / 484	left building	public office	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	4	140 w	59.3%	67.78	\$16.47	
1x4 w2 i8	59 w	2	1.5 6 / 484	left building	shower room	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	2	70 w	59.3%	33.89	\$8.24	
1x4 w2 i8	59 w	1	1.5 5 / 403	left building	sign room	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	1	35 w	59.3%	14.12	\$3.43	
1x4 w2 i8	59 w	4	2.5 5 / 646	left building	break room	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	4	140 w	59.3%	90.37	\$21.96	
1x4 w2 i8	59 w	6	1.5 6 / 484	left building	pvt office 2	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	6	210 w	59.3%	101.67	\$24.71	
2x4 w2 out of 3 i8	89 w	2	2.5 5 / 646	left building	pvt office 2	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	36 w	2	106 w	59.6%	68.43	\$16.63	
2x4 w2 out of 3 i8	89 w	1	2.5 5 / 646	center building	main hallway strg facil	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	36 w	1	53 w	59.6%	34.21	\$8.31	
2x4 w2 i8	59 w	5	0.3 7 / 113	center building	city plans room	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	5	175 w	59.3%	19.77	\$4.80	
2x4 w2 i8	59 w	9	0.3 7 / 113	center building	city plans room	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	9	315 w	59.3%	35.58	\$8.65	
2x4 w2 i8	59 w	1	0.3 7 / 113	center building	storage rm2	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	1	35 w	59.3%	3.95	\$0.96	

ENERGY AUDIT

City of Marina

EcoGreen Sales Rep: Jay Langner

Customer Contact: Layne Long

Title of Contact: City Manager

Customer Phone: NA

Customer Email: NA

MARINA, CA. 93933

Acct: 4467294795; SAID: 6793435296

Approx. Building Size 84,441 SF

Energy Rate \$ 0.24 /kWh

Interest Rate 0%



In Reference to Quote # 800227

EXISTING				Location		Suggested Replacements							Savings		
Existing Bulb	Watts/Fix	# of Fixtures	Existing Operating Hours-Day / Yr.	Building/Zone	Room/Area	Replacement Bulb	Watts/Fix	# of Fixtures	Watts/bulbs Saved	Usage Saved	KWh Saved	Annual Savings			
4ft lin w2 i8	59 w	7	0.3 7 / 113	left building	paint room	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	7	245 w	59.3%	27.68	\$6.73			
2x4 w0/3 i8	89 w	2	0.3 7 / 113	left building	engine room storage	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	36 w	2	106 w	59.6%	11.97	\$2.91			
2x4 w3 i8	89 w	2	1.5 5 / 403	left building	pvt office 2	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	36 w	2	106 w	59.6%	42.77	\$10.39			
2x4 w3 i8	89 w	1	2.5 5 / 646	left building	paint room	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	36 w	1	53 w	59.6%	34.21	\$8.31			
2x4 w3/3 i8	89 w	2	1.5 7 / 565	center building	storage rm 1	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	36 w	2	106 w	59.6%	59.87	\$14.55			
2x4 w0 out of 4 i8	112 w	6	0.3 7 / 113	center building	bathroom outcove	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	48 w	6	384 w	57.1%	43.38	\$10.54			
2x4 w4 i8	112 w	1	0.3 7 / 113	center building	foyer to storage facility	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	48 w	1	64 w	57.1%	7.23	\$1.76			
2x4 w4 i8	112 w	4	0.3 7 / 113	center building	sheps rm	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	48 w	4	256 w	57.1%	28.92	\$7.03			
2x4 w4 i8	112 w	6	0.3 7 / 113	center building	storage rm 1	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	48 w	6	384 w	57.1%	43.38	\$10.54			
2x4 w4 i8	112 w	6	0.3 7 / 113	center building	hr room	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	48 w	6	384 w	57.1%	43.38	\$10.54			
2x4 w4 i8	112 w	6	0.3 7 / 113	center building	storage rm3	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	48 w	6	384 w	57.1%	43.38	\$10.54			
2x4 w4 i8	112 w	4	0.3 7 / 113	center building	weight room	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	48 w	4	256 w	57.1%	28.92	\$7.03			
2x4 w4 i8	112 w	16	0.9 7 / 339	Corps Yard	main parking lot	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	48 w	16	1,024 w	57.1%	347.04	\$84.34			
AL Cobra Head HPS	465 w	1	3.7 7 / 1356	center building	storage rm2	LED Area Light, 5000K, UNV, PH w/ Slip Fitter	118.2 w	1	347 w	74.6%	470.13	\$114.25			
Lowbay HPS	188 w	2	0.3 7 / 113	center building	storage rm2	LED Canopy Light, 5000K, UNV	18.93 w	2	338 w	89.9%	38.20	\$9.28			
Lowbay HPS	188 w	13	3.7 7 / 1356	left building	engine room	LED Canopy Light, 5000K, UNV	18.93 w	13	2,198 w	89.9%	2,979.51	\$724.09			
flood w2 a19	200 w	1	3.7 7 / 1356	Corps Depot	exterior	LED PAR38, 3000K	27 w	1	173 w	86.5%	234.52	\$56.99			
wp	190 w	1	3.7 7 / 1356	Corps Depot	exterior	LED Walpack, 5000K, UNV, PH	24 w	1	166 w	87.4%	225.03	\$54.69			
wp	190 w	12	3.7 7 / 1356	left building	engine room	LED Walpack, 5000K, UNV, PH	24 w	12	1,992 w	87.4%	2,700.38	\$656.25			
highbay w/MH	458 w	18	2.5 6 / 775	left building	engine room	LED Highbay, 5000K, UNV	100 w	18	6,444 w	78.2%	4,991.74	\$1,213.11			
highbay w/MH	458 w	3	0.3 7 / 113	left building	engine room	LED Highbay, 5000K, UNV	100 w	3	1,074 w	78.2%	121.33	\$29.49			
er fixture	w	8	3.7 5 / 968			Skip	w	8	w						
	w		/			Skip	w		w						
4ft lin w2 i5	64 w	1	2.8 7 / 1017	community center	chair closet	4' T5 LED Tube(Type B), 4000K, UNV	26 w	1	38 w	59.4%	38.63	\$9.39			
4ft lin w2 i8	59 w	24	2.8 7 / 1017	community center	main room	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	24	840 w	59.3%	854.03	\$207.55			
qt cfl w12	33 w	12	2.8 7 / 1017	community center	main room	LED A19, 4000K, 120v w/ Socket Replacement	6 w	12	324 w	81.8%	329.41	\$80.06			
qt cfl 9.5in can	33 w	4	2.8 7 / 1017	community center	kitchen	LED 6" Eco Downlight w/ Housing, 4000K, 120v, REC	10 w	4	92 w	69.7%	93.54	\$22.73			
ttt cfl 9in dl	33 w	1	2.8 7 / 1017	community center	kitchen	LED A19, 4000K, 120v w/ Socket Replacement	6 w	1	27 w	81.8%	27.45	\$6.67			
dl a19 cfl	23 w	2	2.8 7 / 1017	community center	kitchen	LED A19, 4000K, 120v	6 w	2	34 w	73.9%	34.57	\$8.40			
4ft lin w2 i8	59 w	6	2.8 7 / 1017	community center	kitchen	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	6	210 w	59.3%	213.51	\$51.89			
4ft lin w2 i5	64 w	1	2.8 7 / 1017	community center	electrical room	4' T5 LED Tube(Type B), 4000K, UNV	26 w	1	38 w	59.4%	38.63	\$9.39			
4ft lin w2 i5	64 w	1	2.8 7 / 1017	community center	janitorial closet	4' T5 LED Tube(Type B), 4000K, UNV	26 w	1	38 w	59.4%	38.63	\$9.39			
cfl tt 7.25in can	33 w	1	2.8 7 / 1017	community center	bathroom foyer	LED 6" Eco Downlight w/ Housing, 4000K, 120v, REC	10 w	1	23 w	69.7%	23.38	\$5.68			
cfl tt 7.25in can	33 w	3	2.8 7 / 1017	community center	female bathroom	LED 6" Eco Downlight w/ Housing, 4000K, 120v, REC	10 w	3	69 w	69.7%	70.15	\$17.05			
1x4 w2 i8	59 w	1	2.8 7 / 1017	community center	female bathroom	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	1	35 w	59.3%	35.58	\$8.65			
7.25in can ttt cfl	33 w	2	2.8 7 / 1017	community center	male bathroom	LED 6" Eco Downlight w/ Housing, 4000K, 120v, REC	10 w	2	46 w	69.7%	46.77	\$11.37			
1x4 w2 i8	59 w	1	2.8 7 / 1017	community center	male bathroom	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	1	35 w	59.3%	35.58	\$8.65			
9in dl ttt cfl	33 w	3	7.4 7 / 2711	community center		LED A19, 4000K, 120v w/ Socket Replacement	6 w	3	81 w	81.8%	219.61	\$53.37			
9in dl ttt cfl	33 w	7	3.7 7 / 1356	community center	shack exterior lighting	LED A19, 4000K, 120v w/ Socket Replacement	6 w	7	189 w	81.8%	256.21	\$62.27			
Bollard	95 w	2	3.7 7 / 1356	community center	path lighting	LED A21, 4000K	16.5 w	2	157 w	82.6%	212.83	\$51.72			
	w	12	7.4 7 / 2711	community center	parking lot lighting	Skip	w	12	w						
	w	3	/	community center	area lighting	Skip	w	3	w						
pole goose neck	295 w	3	/	community center	area lighting	LED Post Top Retrofit Lamp, 5000K, UNV, E39	54 w	3	723 w						
LED fl w/2 BR30D	w	3	3.7 7 / 1356	airport police	1st floor outside	Skip	w	3	w						
a19	100 w	1	3.7 7 / 1356	airport police	1st floor outside	LED A19, 4100K, 120v	15 w	1	85 w	85.0%	115.23	\$28.00			
a19 cfl	23 w	1	3.7 7 / 1356	airport police	2nd floor outside	LED A19, 4000K, 120v	6 w	1	17 w	73.9%	23.05	\$5.60			
1x4 w2 i8	59 w	2	2.5 3 / 387	airport police	main hallway	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	2	70 w	59.3%	27.11	\$6.59			
1x4 w2 i8	59 w	11	2.5 3 / 387	airport police	lecture hall	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	11	385 w	59.3%	149.12	\$36.24			
1x4 w1 out of 2 i8	31 w	1	2.5 3 / 387	airport police	lecture hall	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	12 w	1	19 w	61.3%	7.36	\$1.79			
2x4 w4 i8	112 w	2	2.5 3 / 387	airport police	operations	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	48 w	2	128 w	57.1%	49.58	\$12.05			
2x4 w4 i8	112 w	2	2.5 3 / 387	airport police	operations rm 2	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	48 w	2	128 w	57.1%	49.58	\$12.05			
1x4 w2 i8	59 w	8	2.5 3 / 387	airport police	conference room	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	8	280 w	59.3%	108.45	\$26.36			
1x4 w2 i8	59 w	4	2.5 3 / 387	airport police	break room	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	4	140 w	59.3%	54.22	\$13.18			
dl circ. i8 fluorescent	31 w	2	2.5 3 / 387	airport police	1st floor main hall	Skip	31 w	2	w						
dl circ. i8 fluorescent	31 w	1	2.5 3 / 387	airport police	1st floor bathroom #1	Skip	31 w	1	w						
dl circ. i8 fluorescent	31 w	1	2.5 3 / 387	airport police	1st floor bathroom #1	Skip	31 w	1	w						
dl circ. i8 fluorescent	31 w	2	2.5 3 / 387	airport police	1st floor bathroom #2	Skip	31 w	2	w						
dl circ. i8 fluorescent	31 w	1	2.5 3 / 387	airport police	stairwell	Skip	31 w	1	w						
dl circ. i8 fluorescent	31 w	2	2.5 3 / 387	airport police	2nd floor bathroom	Skip	31 w	2	w						
BR30	65 w	1	2.5 3 / 387	airport police	2nd floor storage room	LED BR30, 3000K, 120v	10.5 w	1	55 w	83.8%	21.11	\$5.13			
dl circ. i8 fluorescent	31 w	2	2.5 3 / 387	airport police	2nd floor storage room	Skip	31 w	2	w						
1x4 w2 i8	59 w	17	2.5 3 / 387	airport police	training room	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	17	595 w	59.3%	230.45	\$56.01			
1x4 w2 out i8	59 w	1	2.5 3 / 387	airport police	training room	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	1	35 w	59.3%	13.56	\$3.29			
dl circ. i8 fluorescent	31 w	1	2.5 3 / 387	airport police	training room closet	Skip	31 w	1	w						
1x8 w4 4ft i8	112 w	1	2.5 3 / 387	airport police	2nd floor small gym	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	48 w	1	64 w	57.1%	24.79	\$6.02			
4ft lin w2 i12	72 w	3	1.2 3 / 194	sports center	concession stand	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	3	144 w	66.7%	27.89	\$6.78			
LED dl r20 LED	w	1	1.2 3 / 194	sports center	concession stand foyer	Skip	w	1	w						
1x4 w2 i8	59 w	1	1.2 3 / 194	sports center	concession stand storage rm	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	1	35 w	59.3%	6.78	\$1.65			
4ft lin w2 i12	72 w	6	2.5 5 / 646	sports center	ron's office	4' T8 LED Tube Double Ended Bypass(Type B), 4000K, UNV	24 w	6	288 w	66.7%	185.91	\$45.18			

ENERGY AUDIT

City of Marina

EcoGreen Sales Rep: Jay Langner

Customer Contact: Layne Long

Title of Contact: City Manager

Customer Phone: NA

Customer Email: NA

MARINA, CA 93933

Acct: 4467294795; SAID: 6793435296

Approx. Building Size 84,441 SF
Energy Rate \$ 0.24 /kWh
Interest Rate 0%



In Reference to Quote # 800227

EXISTING				Location		Suggested Replacements					Savings		
Existing Bulb	Watts/ Fix	# of Fixtures	Existing Operating Hours-Day / Yr.	Building/Zone	Room/Area	Replacement Bulb	Watts/Fix	# of Fixtures	Watts/bulbs Saved	Usage Saved	KWh Saved	Annual Savings	
LED a19 cfl	w	1	3.7 7 / 1356	sports center		Skip	w	1	w				
LED a19	w	1	3.7 7 / 1356	sports center		Skip	w	1	w				
Disc Post Top	188 w	1	3.7 7 / 1356	sports center		LED Post Top Retrofit Lamp, 5000K, UNV, E39	54 w	1	134 w	71.3%	181.65	\$44.15	
6.25in can wpar30	15 w	1	1.2 3 / 194	sports center		LED BR30, 3000K, 120v	10.5 w	1	5 w	30.0%	0.87	\$0.21	
FLD w2 halogen q	300 w	1	1.2 3 / 194	sports center		LED Flood Light, 5000K, UNV w/ Knuckle Mount	28.2 w	1	272 w	90.6%	52.64	\$12.79	
WP HPS E23	46 w	1	3.7 7 / 1356	sports center		LED Wallpack, 5000K, UNV, PH	12 w	1	34 w	73.9%	46.09	\$11.20	
WP HPS E23	46 w	2	3.7 7 / 1356	bathrooms	entrance	LED Wallpack, 5000K, UNV, PH	12 w	2	68 w	73.9%	92.18	\$22.40	
WP HPS E23	46 w	2	3.7 7 / 1356	bathrooms	male	LED Wallpack, 5000K, UNV, PH	12 w	2	68 w	73.9%	92.18	\$22.40	
WP HPS E23	46 w	2	3.7 7 / 1356	bathrooms	female	LED Wallpack, 5000K, UNV, PH	12 w	2	68 w	73.9%	92.18	\$22.40	
Totals		507	Ave: 1390				w	507	36,722 w	74.7%	31,393.49	\$7,629.35	

36,722	Estimated Watts Saved	Total Project Cost	\$69,432.78	Approximate Energy Savings Per Month	\$635.78
31,393	Estimated Annual kWh Saved	Total After Rebate/Incentive Project Cost	\$69,432.78	Estimated Energy Savings Per Year	\$7,629.35
3.8	Estimated Avg Annual Res Powered by Savings	****Estimated Program Payback Period Yrs.	9.10	**Estimated Total Savings Over 5 Years	\$43,007.36
23	Estimated Annual CO2 Savings (MT)			** Estimated Total Savings After 10 Years	\$100,560.90
4,908,607	Estimated Btu Savings Per Month			Estimated Energy Rebate	\$0.00
74.7%	Estimated Average Electrical Savings			Estimated IRS Tax Deduction 179D Available	\$50,664.60
				***Estimated Federal Tax Savings	\$17,732.61
9.10	Estimated Payback Period Yrs. - No Rebates, Tax Deductions or Bulb Replacement Savings			Estimated Bulb Replacement Savings Per Year	\$116.63
6.67	Estimated Payback Period Yrs. Fully Comprehensive^			^^ Estimated Bulb Replacement Savings Per Avg. Est. Life of LED	\$268,305.43
				Estimated Loan Payment	\$635.78

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

****Program Payback Period Yrs. = (Total Project Cost - Available Program Rebates or Incentives) / Estimated \$ Saved per Year

^Payback Period Yrs. = (Total Project Cost - Available Rebate or Incentive - Tax Savings) / (Estimated Savings Per Year + Bulb Replacement Savings Per Yr.)

^^Based on industry standard LED lifespan of 50,000 hrs.

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

*Payment is based on a 9.1 year loan at 0% interest OAC, actual my vary.

** Reflects energy savings per year increasing at industry standard 6% per year + Bulb Replacement

April 27, 2020

Item No. **8g(2)**

Honorable Mayor and Members
of the Marina City Council

City Council Meeting
of May 5, 2020

RECOMMENDATION TO CONSIDER ADOPTING RESOLUTION NO. 2020-, APPROVING AN AGREEMENT BETWEEN THE CITY OF MARINA AND PG&E FOR AN ON-BILL FINANCING (OBF) PROGRAM FOR CITY FACILITY LIGHTING FIXTURE UPGRADES AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE AGREEMENTS ON BEHALF OF THE CITY SUBJECT TO FINAL REVIEW AND APPROVAL BY THE CITY ATTORNEY

RECOMMENDATION:

It is recommended that the City Council:

1. Consider adopting Resolution No. 2020-, approving an Agreement between the City of Marina and PG&E for an On-Bill Financing (OBF) Program for City facility lighting fixture upgrades, and;
2. Authorizing the City Manager to execute the Agreements on behalf of the City subject to final review and approval by the City Attorney.

BACKGROUND:

In March of this year, EcoGreen Solutions conducted an energy audit at various City facilities under the Energy Efficiency Retrofit Loan Program approved by the California Public Utilities Commission (CPUC). The Program allows Cities to finance energy-efficient retrofit projects implemented under PG&E's OBF Program.

The audit results and cost proposals provided have been deemed eligible for OBF for the next three months (ending May 2020). Another audit would be necessary should this proposal period lapse.

At the regular meeting of December 17, 2019, the City Council adopted Resolution No. 2019-135, approving a similar agreement between the City of Marina and PG&E for an OBF Program for City facility lighting fixture upgrades. The upgrades started in February 2020 and are now completed.

LED lighting is rapidly replacing fluorescent lighting and any hold out incandescent lighting as the most efficient alternative available today. LED lighting reduces greenhouse gas emissions and does not contribute to mercury in the waste stream.

ANALYSIS:

Staff has evaluated the reports for the following audited facilities: Preston Park, Airport Firehouse, Airport Police Office, Equestrian Center, Public Works Corporation Yard, City Community Center and City Sports Center. Cost savings in retrofitting existing lighting to light emitting diode (LED) technology will be significant enough to pay for the project costs with the savings within 9.1 years. Project costs and annual cost savings are attached as **EXHIBIT A**.

The City has the option at this time to enter in to an OBF agreement for retrofit of any combination of the above projects, all of the projects, or none of the projects.

FISCAL IMPACT:

Should the City Council approve this request, there is no up-front cost to the City for the retrofit improvements. The OBF Program will provide a zero-interest loan to fund the project, and PG&E will be reimbursed for project costs by the annual cost savings from the City's monthly electricity billing.

Payments from energy savings will be made through the project payment period of 9.1 years. Afterwards, the City will see a reduction in electric bills for the respective facilities.

CONCLUSION:

This request is submitted for City Council consideration and possible action.

Respectfully submitted,

Edrie Delos Santos, P.E.
Senior Engineer, Engineering Division
City of Marina

REVIEWED/CONCUR:

Brian McMinn, P.E., P.L.S.
Public Works Director/City Engineer
City of Marina

Layne P. Long
City Manager
City of Marina