CITY OF ALBANY

MEMORANDUM

DATE: November 18, 2009

TO: Sustainability Committee

FROM: Nicole Almaguer, Environmental Specialist

SUBJECT: Energy Efficiency Projects/Grant Funding Update

The following outlines status regarding regional partnerships that have been created to develop grant applications for the competitive federal stimulus funding opportunities offered by the California Energy Commission (CEC).

1. ***CaliforniaFIRST Municipal Financing Program***
   As reported in the October memo, Alameda County and City Managers met on September 9th to discuss partnership opportunities regarding climate action and ARRA competitive State Energy Program (SEP) funds. SEP funds are targeted towards larger scale energy efficiency projects/partnerships, and managed by the CEC. The County staff, with the help of staff from all the cities, agreed to develop a grant proposal for the purpose of assisting city and county collaborations to develop a financing program in coordination with CaliforniaFIRST (AB 811, similar to Berkeley FIRST) for energy efficiency and renewable energy installations. Renewable Funding is the project provider for the CaliforniaFIRST program – additional detail on this entity is attached.

   After further review of grant requirements and discussions with CEC staff it was determined that the SEP funds are intended for regional partnerships larger than just a singular county. The County networked with other agencies interested in a financing program to develop a larger base for the grant application. The grant application now includes 14 counties. These counties (along with their cities) are: Alameda, San Mateo, Santa Clara, Solano (these 4 are also participating in the ABAG region SEP 2 application), Fresno, Kern, Monterey, Sacramento, San Benito, San Diego, San Luis Obispo, Santa Cruz, Ventura, Yolo. Sacramento County is serving as the lead, along with Renewable Funding and Ecology Action Nonprofit.

   The grant application will range at approximately $15-20M, and provide regional deliverables such as marketing and interest rate buy-down for the first round of financing (which makes the interest rate more attractive to early adopters than it would be otherwise). One specific amount that will also be covered by a SEP 1 awards are legal/set-up fees required for all jurisdictions in the County (without grant funds these fees will range at approximately $10,000). We will also receive direct funding to Alameda County, allocated by a population-based formula to be

determined.

Albany can further take advantage of this upcoming program by providing additional outreach to residents to encourage as many retrofit projects to be conducted within the City as possible.

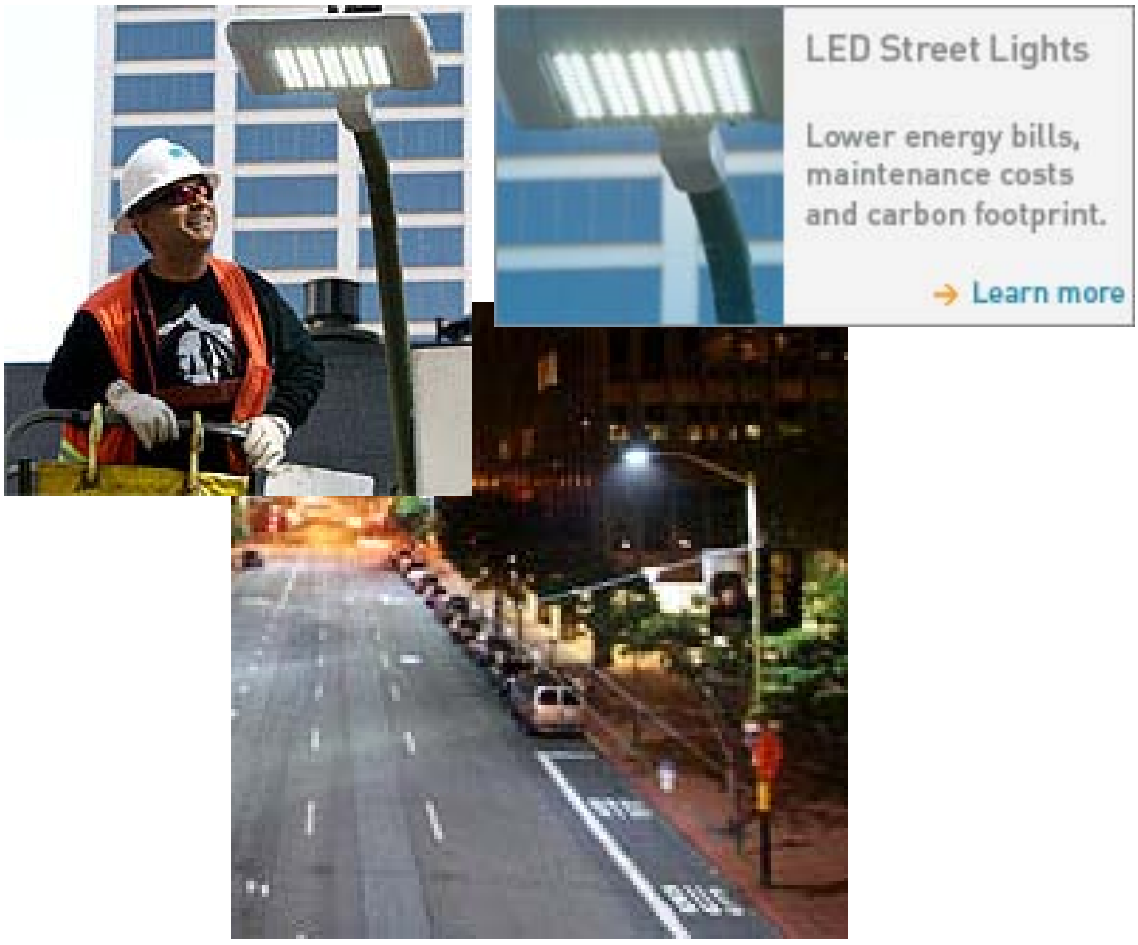
The grant application is due to the CEC by December 21, and award announcements are expected by February 11, 2010. The City has previously expressed formal interest in this program, and will now need to submit a letter of intent and City Council Resolution for the grant application, scheduled for review at the December 7th City Council meeting.

Stopwaste.org is collaborating with ABAG on a separate SEP grant application to further the "Green Packages" program, developing technical specifications for energy projects/retrofits in existing facilities, train workers, create jobs for retrained workers and youth through regional partnerships. Alameda, San Mateo, Santa Clara, Solano are partnering on this grant application.

2. ***Small Cities Partnership***
   The small cities of Albany, El Cerrito, Piedmont and San Pablo partnered on a grant opportunity from the EPA to provide an energy efficiency/climate change coordinator to assist each city in pursuing climate action projects. El Cerrito is serving as the grant lead. El Cerrito is now in process of discussing grant terms with the EPA to outline the grant award contract. Additional information regarding this grant award, including program start date, is expected in early 2010.

Attachments:
1. CaliforniaFIRST Program Report

Pacific Gas and Electric Company®



Preliminary Proposal

LED Street Light Turnkey Replacement Service

Prepared for:

City of Albany, California
October 26, 2009

October 26, 2009

Ms. Nicole Almaguer
Environmental Specialist
CITY OF ALBANY
979 San Pablo Avenue
Albany, CA 94706

RE: PG&E Street Light Turnkey Replacement Service Proposal

Ms. Almaguer:

PG&E is pleased to present the following proposal to the City of Albany for the replacement of existing city-owned street lights with new clean, bright and energy efficient LED lighting technology. Thank you for the time the City has invested to date assisting in the development of this proposal.

We are excited about this project because helping Albany meet energy conservation, energy cost reduction and environmental stewardship goals is consistent with three themes that motivate and drive PG&E – customer satisfaction, energy conservation, and partnering with our communities to demonstrate environmental leadership in the energy industry.

The following proposal provides a description of the project scope, goals and costs. If you have any questions or needs for additional information, do not hesitate to contact me.

We look forward to working with you and the entire City of Albany team on a successful project.

Regards,
PACIFIC GAS AND ELECTRIC COMPANY

Brent Patera
Business Development Manager

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Executive Summary

The City of Albany (its citizens, staff and elected officials) is committed to the goals of fiscal responsibility and environmental stewardship. Financial challenges caused by the current economic situation, constraints on staffing levels, and increasing pressure to reduce environmental impact has put the city in the difficult position of improving environmental performance with limited financial resources.

In most cities, street lights represent one of the largest items of both energy cost and energy consumption, accounting for as much as a third of all municipal energy costs. The City of Albany is no different in this regard. The implementation of LED street light technology provides an excellent opportunity to reduce utility and maintenance costs, advance energy conservation and reduce Albany's overall carbon footprint – all in a simple, quick and cost-effective project. The anticipated energy cost savings from the replacement of the 640 cobrahead street lights considered in this proposal is approximately $28,723.00 in the first year alone!

Pacific Gas and Electric Company, in support of our commitment to our customers and the environment, has developed a convenient turnkey program for the replacement of street lights with this new, clean, and efficient lighting technology that provides significant return on investment.

PG&E's program is intended to provide our customers with the most efficient and reliable process for street light replacement, delivered according to PG&E's high standards for project oversight, thoroughness, and safety. The value-added benefits for the City of Albany include the following:

- Simple, one-stop source for technical assistance, installation and support
- Consultation on light selection, including photometric validation
- Turnkey installation, including dedicated project management
- Access to PG&E's volume purchasing position
- All labeling of fixtures and poles required for new tariff and rebates
- All administrative work to register tariff change and secure rebates
- GIS Data for ALL of Albany's street lights
- One (1) Year Replacement Guarantee and Five (5) Year Product Warranty
- Cooperation in ARRA reporting

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Scope of Work

PG&E proposes to replace approximately 640 street lights in the City of Albany. This represents all of the cobrahead streetlights owned by the City. Following consultation with City Staff, the decorative lights owned by the City have been excluded from the project scope. For reference, the decorative lights are primarily located on Solano and Masonic Avenues, with the balance distributed in various locations throughout the City. The subject lights are further detailed in the attached exhibits. A summary of the quantities, types and sizes are as follows:

Existing HPSV	Fixture	Rebates	Proposed New	QTY
70W	Cobrahead	$50	20 LED, Gen C	393
100W	Cobrahead	$75	30 LED, Gen C	7
150W	Cobrahead	$100	50 LED, Gen C	45
200W	Cobrahead	$100	60 LED, Gen C	93
250W	Cobrahead	$150*	60 LED, Gen C	78
400W	Cobrahead	$200*	90 LED, Gen C	24
			Total	**640**

*Rebate amounts shown for fixtures over 200W are pending CPUC approval.

The selection of LED replacement lights for this proposal has been determined with consideration from the manufacturer's recommendations for typical applications, recommendations from photometric studies conducted by an independent third party and guidance from City staff.

Please see technical data for LED replacement lights included in the attached exhibits.

Note that the quantities, types and sizes of replacement lights specified in this proposal are provided based on the best available data from the City of Albany, PG&E records, and a physical inspection of the target areas. Although care has been taken to ensure the accuracy of the replacement inventory, errors may be found. Should adjustments need to be made to the quantity, type or size of the lights, PG&E will confer with the City and the project price will be adjusted to reflect the change, if needed.

PG&E expects to deliver the benefits of innovative lighting technology to the City of Albany within 90 -120 days from the date PG&E receives a formal notice to proceed.

Savings & Environmental Stewardship

The replacement of existing street lights with new efficient and high quality lighting technology offers significant benefits to the city and the environment. New lighting technology dramatically reduces the consumption of energy while providing high quality, optically-pleasing “white light.” In representative installations in PG&E’s service area, respondents to community surveys consistently express high levels of satisfaction – specifically noting a general sense of appropriate lighting levels, improved optical acuity, and feelings of increased safety as a result of the new lighting.

Reduced energy consumption also means less energy expense for the city and a reduction in the overall production of greenhouse gases (GHGs). Lighting replacement will reduce the demands on the city’s general fund while reducing its overall carbon footprint.

And, last but not least, new lighting technology significantly reduces the cost of operations and maintenance through increased lamp life. Because new lamps last on average three (3) to five (5) times longer than High Pressure Sodium Vapor (HPSV), replacement cycles are reduced from once every five (5) years today to an estimated once every fifteen (15) to twenty (20) years. Note, however, that the photo controller may require replacement, estimated on average, once every ten (10) years.

Validation of expected savings and CO_2 reduction, including details and assumptions, are available from the Clinton Climate Initiative (CCI).

Rebates and Incentives

As part of our commitment to serve our communities and promote environmental stewardship, PG&E offers a variety of programs and services to assist customers in achieving their energy and environmental goals. Among the most successful of these programs are the incentives PG&E offers for energy efficiency.

PG&E currently offers a rebate program that can be accessed to support the replacement of legacy street lighting technologies, including High Pressure Sodium Vapor (HPSV), Low Pressure Sodium Vapor (LPSV), Mercury Vapor (MV) and Metal Halide (MH).

In summary, a "per fixture" rebate is paid for the replacement of HPSV street lights with LED fixtures from an approved list of vendors. All of the LED street lights proposed for this turnkey project are approved for this rebate program.

The pricing estimates provided below include all available rebates.

Funding Opportunities

Both the Federal Government and the State of California are actively involved in promoting and supporting the efforts of local governments to reduce the consumption of energy - its associated expense and its effects on the environment. There are currently two (2) funding opportunities available to the City of Albany for the proposed street light replacement project.

Calculated Block Grant: The first is the DoE/CEC Energy Efficiency and Conservation Block Grant (EECBG) program funded by the American Recovery and Reinvestment Act of 2009 (ARRA). This program allocates funds to local governments for the implementation of projects that measurably reduce the amount of energy consumed by a jurisdiction. This program names street light replacement among the projects that are "deemed" appropriate for the use of these funds.

Low Interest Financing: The second is the low interest financing program provided by the California Energy Commission (CEC) for local government, schools, colleges and universities to implement projects that reduce their annual cost of energy. The energy savings realized through efficiency and conservation measures fund the repayment of these loans. As with the grant program above, the CEC identifies street light replacement as a suggested use of these funds.

This proposal and the associated budgetary pricing estimates anticipate the use of the above funding opportunities for the completion of a successful project.

Budgetary Pricing Estimate

It is our understanding that the City of Albany is planning to use approximately $80,000 from their EECBG funds for this project, with the balance of the project cost coming from a low interest loan from the CEC. The summaries provided below reflect that assumption. Detailed estimates can be found in the attached exhibits.

LED Cobrahead Replacement	Pricing	Quantity
Estimated Total Project Price	$389,102	640
Estimated Rebate Value	$52,800	
Total Net Estimated Price	**$336,302**	**640**

The following summaries account for the two (2) funding sources.

EECBG Funded Replacements	Pricing	Quantity
Estimated Price (171 x 70W HPSV)	$88,935	171
Estimated Rebate Value	$8,550	
Total Net Estimated Price	**$80,385**	**171**

Low Interest Loan Replacements	Pricing	Quantity
Estimated Price (469 x various wattages)	$300,167	469
Estimated Rebate Value	$44,250	
Total Net Estimated Price **	**$255,917**	**469**

**** Note:** Per CEC underwriting criteria, the replacement of 469 lights yields an annual energy cost savings of $24,114 and a qualifying loan amount of approximately $313,483 which will easily cover the cost of the replacement. ($24,114 x 13).

PG&E has partnered with the Clinton Climate Initiative (CCI) who has provided the calculations for the payback period, energy savings, avoided maintenance, and CO_2 reduction. CCI can also work with you to further discuss additional financing options that may be available to you. Please contact Robert Koenig with the CCI at rkoenig@clintonfoundation.org.

New Street Light Rate (LS2)

To further support communities in their goals to reduce energy costs and improve environmental stewardship, PG&E developed and applied for a new tariff recognizing energy efficient street lighting technologies. The California Public Utility Commission (CPUC) has recently approved a new rate schedule (tariff) for

LED streetlights. The replacement street lights proposed for this project qualify for the new tariff. The benefits of the new tariff are reflected in all cost estimates and calculations provided in this proposal.

Lighting Selection

As part of the Turnkey Replacement Program, PG&E has worked closely with city staff, the lighting manufacturer and company in-house technical resources to determine the appropriate lighting replacements for Albany's existing HPSV street lights. The design goals for the project are to achieve the energy savings, reduced operations & maintenance costs and improved light quality available from today's market-leading LED replacement technology while maintaining the lighting level currently provided by the existing fixtures.

For this project, we have selected a combination of LED Cobrahead replacement fixtures to be installed. All lighting replacements have been selected to achieve the above design goals.

Roadway Cobraheads: The target area specified for this project consists of standard roadway Cobrahead fixtures equipped with various sizes of HPSV lamps ranging from 70W to 400W. For this application, PG&E is proposing the replacement of the existing cobrahead fixtures with LED cobrahead fixtures sized to deliver the level of lighting currently provided by the existing HPSV lamps.

Installation and Material Management

PG&E will install the proposed lighting fixtures using union or union-friendly third-party licensed electrical contractors. All contractors will be qualified and approved through PG&E's sourcing organization to be properly bonded and insured. Contractors will be trained by PG&E and the lighting manufactures in the appropriate methods and procedures to ensure proper installation and performance of the replacement equipment. All work will be completed in a "workmanlike manner" and in accordance with industry best practices and all pertinent standards and regulations.

PG&E will source and manage all fixtures and miscellaneous materials required to complete installation of the replacement lighting. All materials will be staged and managed by PG&E from a secure storage facility either located on property provided by the City of Albany or at the nearest PG&E controlled facility. All materials will be the responsibility of PG&E until installed in their permanent locations.

Traffic Control and Permitting

During installation, PG&E will provide traffic control procedures appropriate for each work location according to the requirements set forth by the City.

PG&E will obtain all permits required by the City. For the purposes of this proposal, it is assumed that no fees will be charged by the City.

Project Management, Inspection and Acceptance

A qualified PG&E project manager will be assigned to this project to ensure that it is completed on time and according to specification. The project manager will be the functional "single point of contact" between Albany and PG&E to simplify and control communication throughout the project. Prior to commencement of the project, the project manager will prepare a proposed project schedule for discussion, comment and approval. The project manager will schedule a pre-commencement "kick-off" meeting with Albany and the installation contractor to confirm procedures and will conduct periodic project review meetings as needed to ensure project quality, progress and customer satisfaction.

Qualified PG&E personnel will conduct periodic inspections during the project to ensure work quality and progress against the schedule. In the event the inspector encounters deficiencies in the work, Albany and the project manager will be notified so that corrections can be made in a timely manner. Upon completion of the work, PG&E will conduct a final inspection with Albany to confirm all work has been completed according to specifications. Any deficiencies will be noted in a punch list of work to be completed by PG&E before final acceptance by Albany.

Disposal & Recycling

Disposal of the universal waste material, including fixtures, lamps, ballasts, packaging, etc., will be handled by PG&E according to Environment Protection Agency requirements. The contractor will be trained to properly remove the existing fixtures and place them in designated disposal bins which will be supplied and housed by PG&E.

Rate Change, Rebate/Incentive Application and Labeling

PG&E has established rebates and pricing tariffs to incent the replacement of inefficient lighting technologies. As a condition of the rebates and tariff, certain actions must be taken by the customer (Albany) to qualify for the rebates and/or incentives and complete the transition to the new tariff rate.

As part of this proposal, PG&E will coordinate the required actions on behalf of Albany to ensure the timely receipt of all the benefits of the qualifying rebates, incentives and rate changes. Specifically:

- PG&E will process forms for all customer requested rebates and rate changes.

- PG&E will coordinate the proper labeling of all the new fixtures required to qualify for the available rebates.
- PG&E's turnkey project manager will oversee the application processes to ensure that Albany receives the rebates and new pricing in a timely manner.

GIS Information

GIS data for street lights is currently available from PG&E for a fee. Following completion of the project, PG&E will provide any GIS data developed for the new fixtures at no cost.

Additionally, PG&E is currently undertaking the physical inventory of all the lights in our service area. As part of this turnkey offering, once an area is completed and the data is available, the GIS information collected during the inventory of Albany will be provided at no additional cost.

Replacement Guarantee and Product Warranty

The work completed under this turnkey program is covered by a one (1) year full replacement guarantee offered by PG&E and a five (5) year product warranty from the manufacturer, both commencing on the date of acceptance.

If a newly installed lamp or fixture fails within the first year of installation, PG&E will replace it at no cost to Albany. In the event of a failure, Albany will notify PG&E, and PG&E will manage the replacement including all labor and the coordination of the return/replacement process for the fixtures.

After the first year of installation, Albany will assume the responsibility for the replacement of any failures. During years two (2) through five (5) of installation, Albany will be the beneficiary of two manufacturer's warranties. If a light or photocell controller fails during this period, Albany will notify the manufacturer and manage the return/replacement process according to the manufacturer's standard warranty terms. Albany will be responsible for any and all labor required to remove, ship, receive and replace failed equipment.

At no time will PG&E, the contractor or the equipment manufacturer be responsible for "knock-downs", painting or any other maintenance of the poles or fixtures.

Project Reporting

PG&E will provide Albany with information to assist them with the reporting requirements for American Recovery and Reinvestment Act (ARRA) funding upon request.

Exhibits

LED Street Light Replacement
Turnkey Service Agreement

PG&E LED Street Light Program
Fact Sheet

LED Street Light Replacement Turnkey Service
Budget Estimate Worksheet

Street Light Energy Savings Comparison

Street Light Target List/Area

LED Street Light
Product Specifications

Product Warranty Information

PG&E LED Street Light Turnkey Replacement Service

non-binding price estimate to be used for budgetary purposes only

City of: **Albany to 88,976**

date of this estimate: 11.10.09

Number of Lights to be Replaced	Voltage	Type	Wattage	Lumens	Rate	Suggested Replacement LED
189	120	HPS	70		LS-2	20 LED
	240	HPS	70		LS-2	20 LED
	120	HPS	100		LS-2	30 LED
	120	HPS	150		LS-2	50 LED
	120	HPS	250		LS-2	80 LED
	240	HPS	200		LS-2	60 LED
	240	HPS	250		LS-2	60 LED
	240	HPS	400		LS-2	90 LED
189						

Total Project Price*: $98,296
Total PG&E Rebates: $9,450
Net Estimated Price: $88,846

*Notes and Assumptions:

Price includes purchase of requested street lights, installation and field verification of installed lights, disposal service, rate change and rebate application processing.
No permitting costs included in total project price.
Includes one year warranty on labor and 5 year manufacturer warranty.
Prices may vary depending upon LED light model and make selected.
Prices subject to change without notice*
Project price assumes all lights to be replaced will be cobra head fixtures and will not include post top, shoe box, tear drop, or decorative fixtures
Project price assumes all street lights to be replaced are currently in operating condition.
Project price assumes no restrictions on installations will be made (e.g.--heavy traffic area, special hours for installation, etc.)
Project price assumes all street lights to be replaced are at an operating voltage between 120-240 volts AC.

Payback period (years): 11
Energy cost savings in first year*: $4,486
Energy savings (kWh/year): 36,323
CO2 reduction (kilograms/year): 19,033
Avoided maintenance expenses in first year:** $1,323

Notes:

These calculations are provided by the Clinton Climate Initiative who can discuss alternative financing options with you. Their calculations are based on an assumptions model — they are not to be taken as final estimates Please contact Robert Koenig at rkoenig@clintonfoundation.org or by cell: (617)-331-4030 for further information.

*Future year savings will grow with the expected increase in electricity and labor costs.
**Avoided maintenance expenses are compared to maintaining HPSV lights.

Assumptions:

- 4100 operating hours»
- 4% annual increase in electricity rate
- $0.122 $/kWh electricity cost
- 0.524 kg/kWh emission factor
- 24.4-year life of LED fixture
- 4.9-year life of HPSV lamp
- $26 per year maintenance cost for HPSV
- $19 per year average maintenance cost for LED