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EXHIBIT A

ABAG ENERGY WATCH

DIRECT INSTALL LIGHTING PROGRAM

LIGHTING VENDOR AGREEMENT

JULY 2006

ENERGY SOLUTIONS

This program is funded by California utility ratepayers under the auspices of the California Public Utilities Commission. California consumers are not obligated to purchase any full-fee service or other service not funded by this program.

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ABAG ENERGY WATCH: DIRECT INSTALL LIGHTING PROGRAM

LIGHTING VENDOR AGREEMENT

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INTRODUCTION

As part of the Association of Bay Area Governments (ABAG) Energy Watch Program, Energy Solutions is implementing a direct install lighting program (Program). The Program is designed to provide turnkey lighting efficiency improvement services for facilities in Alameda, Contra Costa, Napa, San Mateo, Santa Clara, Solano, and Sonoma counties. The following is a vendor agreement document. Vendors providing installation and or maintenance services under this program must first agree to the terms outlined in this document.

PROGRAM DATES

The Program will begin May 15, 2007 through December 31, 2008.

The above Program dates are subject to available program funding and, depending on participation levels, may be adjusted. Any changes in program dates will be communicated to actively enrolled participants.

ELIGIBILITY REQUIREMENTS

Program participants will benefit by receiving professional lighting services while vendors will assist the program in delivering such services. Following are eligibility requirements.

Program Participants
Participants must meet the following eligibility requirements:

PG&E Customer Type

Participants must have a Pacific Gas and Electric electric account and contribute to the Public Goods Charge (PGC). The PGC is typically found as a surcharge on all accounts.

Location

Participant must be located within Alameda, Contra Costa, Napa, San Mateo, Santa Clara, Solano, and Sonoma counties.

Comprehensiveness

The Program requires that comprehensive lighting energy efficiency improvements be performed at the participant's facilities. Program participation is subject to acceptance of the complete Lighting Facility Recommendation Form as proposed by the Program. Participants are not allowed to pick and choose among the recommended lighting measures.

This Agreement is subject to the Contractor submitting a complete proposal that identifies the work to be performed and costs. The San Mateo County Public Works Director must approve this proposal and written authorization from the San Mateo County Public Works Director is required before any work can commence on any of the facilities covered by the proposal. The

Public Works Director, at his sole discretion, shall have the authority to exclude individual facilities, in which case Contractor shall not provide the materials or perform the work on the excluded facilities, and the County shall incur no cost as a result of such exclusions.

Exclusivity

Program participants must **not** pursue any other PGC funded incentives for the work performed through this program. Participants may pursue additional PGC funded incentives for energy efficiency improvements that are outside the scope of this program. If you have questions as to other potential programs, please ask the Program manager for additional information.

INCENTIVE PAYMENT PROCESS

PG&E incentive payments are made from the program directly to installation vendors. The customer participant is responsible to the installation vendor for any balance due. The following section describes the method by which project costs are determined and incentive amounts are determined and paid.

Project Cost

Costs are established through unit pricing. As a condition of their participation, lighting installation vendors agree to the program's established unit pricing prior to receiving any work through the program. Installation situations not covered by the established unit prices will be negotiated prior to installation. The customer participant is made aware of the overall project cost, available incentive and any participant cost share that they are directly responsible for. Other than the identified participant cost share, the installation vendor will not collect any additional monies from the participant for the work performed.

Incentive Amount

The following are a set of criteria to be used in determining the incentive amount for participating projects.

Non-Energy Related Costs

Prior to calculating incentive amount, any non-energy related cost shall be subtracted from the project cost. Non-energy costs potentially include items such as wiring upgrades and new fixture housings. Replacement of fixture lenses will be considered at the Program's discretion and will be based on maintaining a minimum lighting quality of the completed job.

Incentive Amounts

All facilities are eligible for up to 100% of energy related project costs. Incentives are calculated at a maximum of $0.20 per gross annual kWh. In no case will incentives be issued for more than the overall project cost. The

percentage of job costs covered by the program depends on the mix of measures on each project.

Participant Cost Share

The amount that the participant directly owes to the installation vendors is known as the participant share. The participant cost share is equal to the sum of lighting project cost minus the available incentive amount. Participant cost share amounts are due after installations have been completed and the participant has signed off on the project application with an ABAG Energy Watch representative. The Participant Cost Share does not include charges for initial inspection, project management or the on-site review of the completed installation as the Program covers those costs.

This Agreement is subject to the Contractor submitting a complete proposal that identifies the work to be performed and costs. The Public Works Director must approve this proposal and written authorization from the Public Works Director is required before any work can commence on any of the facilities covered by the proposal. The Public Works Director, at his sole discretion, shall have the authority to exclude individual facilities or components from the scope of work, in which case Contractor shall not provide the materials or perform the work on the excluded components, and the County shall incur no cost as a result of such exclusions.

Program Incentive Payment Process

The process outlined below will be followed prior to incentive payments being issued.

Facility Survey

1. Program staff or contractor will perform an on-site survey of each facility to document current conditions of the lighting system. The surveys will identify energy saving opportunities and will include measure identification and detailed fixture counts.

Facility Recommendation Form

1. Facility Recommendation Form is based on Facility Survey findings and identifies, among other project details, energy saving measures to be implemented, project cost, incentive amount and participant cost share.
2. Program staff will review and finalize Facility Recommendation Form with participant.
3. Participant signature authorizing work is obtained.
4. Facility Recommendation Form is provided to installation vendor(s) for approval.
5. Vendor signature approving Facility Recommendation Form is obtained.
6. Recommendation found on the Facility Recommendation Form are performed.

Installation Verification

1. Vendor(s) submits official invoice to Program based on actual work performed.
2. Program staff will verify installation has occurred.

3. Participant signature acknowledging the satisfactory execution of the Facility Recommendation Form is obtained.
4. Program staff reviews the amount due by the participant to the installation vendor(s). This amount is equal to the Participant Share.
5. Incentive Amount is issued to the installation vendor(s).

IRS 1099 REPORTING

Program payments are issued to installation vendors and are taxable. All installation vendors participating in this program must provide tax identification for reporting purposes. A Form 1099 will be submitted to the IRS and any entity, other than a corporation, that receives combined payments totaling $600 or more. A Form 1099 will not be issued to corporations, as corporations are directly responsible for reporting taxable income.

DISPUTE RESOLUTION

In the event that the Participant has any questions, complaints or disputes regarding the Program, the Program team member will attempt to answer and resolve the participant's questions or complaints within a reasonable timeframe (typically three business days or sooner). Lighting vendors should notify the Program Manager Michael McGaraghan at (510) 482-4420 x242 within 24 hours of any complaints, even in cases where the vendor believes she or he can resolve the complaint without referring it to the Program Manager for resolution.

In the event that the Participant believes their questions or complaints have not been satisfactorily answered or resolved within 5 business days, the Participant will be referred to the ABAG Energy Watch Program Manager Bruce Chamberlain at (510) 482-4420 x227 and the Pacific Gas and Electric Company Project Manager will be informed. The Participant shall then be requested to state in writing the date, time, exact location, persons involved, specific nature of complaints, amount of any loss, and any other information relevant to the complaint, and deliver the complaint to the Program Manager for consideration. The Program Manager shall investigate the claim and make a determination of the final disposition of the complaint within ten business days. When communicating this resolution to the participant, the Program Manager will inform the Participant in writing of the option to appeal the decision to Pacific Gas and Electric Company and/or the CPUC's Energy Division.

Remedying Complaints

If the Program team members are determined to be at fault, the team member at fault shall remedy the claim at its own cost. The team members shall abide by the Program Manager's decision. Claims shall be remedied within ten normal business days of final resolution, unless the Program Manager gives approval for another timeframe.

INSTALLATION STANDARDS

Initially, apart from system design, there are two components that help ensure a high quality efficient lighting system: 1) proper equipment and 2) installation standards. High quality equipment installed improperly, or low quality (or out of spec) equipment installed using the best methods will yield unsatisfactory results.

This document contains the installation standards for the Program. The detailed Measure Specifications, in conjunction with the Measure List, provide fixture-by-fixture retrofit specifications for the most common efficient lighting retrofit scenarios that qualify for this Program. The equipment installations must meet the standards listed below. Equipment must be installed in a manner that yields expected energy savings and provides appropriate lighting levels for the long term.

Installation standards go far beyond how a piece of equipment is wired and attached to a structure. An approach involving the entire process, beginning at installation scheduling and ending at final acceptance, is needed to ensure the customer and installation vendor (Contractor) are satisfied with the new lighting system. The balance of this document addresses the Installation Standards required for this Program.

Interpretation of Facility Recommendation Forms

The Contractor is responsible, before proceeding with an installation, for verifying pre-retrofit site conditions. The Contractor is responsible for reading and fully understanding the survey recommendations (Facility Recommendation Form) to verify what type equipment and how that equipment is to be installed. Any questions regarding Facility Recommendation Form, or equipment to be installed shall be forwarded to the Program staff before proceeding.

Customer Service

Good customer service is the first step in realizing high customer satisfaction. The following customer service strategies are required to foster communication and ensure the lighting system is installed in a timely fashion with minimal disruption to the Customer's place of business.

Scheduling

The Contractor (or in some cases Program staff) is responsible for scheduling the installation with the Customer. In some circumstances the work schedule may have to be adjusted to perform installation after normal Contractor business hours to avoid disruption to the Customer's business. The installation shall be scheduled within 15 working days of approval of the project (customer availability shall be taken into account).

Response Time

In the case that the Customer has logistical questions of the Contractor, the Contractor is required to respond to inquiries to the Customer in a timely fashion. Responses to inquiries by the Customer shall be given within 48 hours. A response does not necessarily mean an answer will be given, but that person-to-person communication shall be attempted to ascertain the nature of the information that is requested. If the information needed is not available on short notice, the parties shall agree upon a reasonable time when a full response is to be expected. If information is available on short notice, it shall be delivered by a mutually agreed upon

method (telephone call, voice mail, email, fax, etc.) within 24 hours. Difficulties with response times shall be referred to the Program staff.

The Contractor is responsible to complete the installation in a timely manner. This means that an installation shall not be done piecemeal. Once an installation has begun, the Contractor is required to be on site every day during Contractor's normal business hours (or at a time pre-arranged with Customer) for the full work period until the installation is complete. This means that the Contractor shall have all required materials in stock prior to beginning installation. Contractor shall inform the Customer if the installation appears to be taking longer than the original estimate. Unless approved by the Program staff, all installation shall be completed within 5 normal business days. Corrections as identified during final acceptance or quality control surveys shall be performed within 10 normal business days.

Clean-up

The Contractor shall protect people and property from damage and debris at all times during the construction process. Interior work areas shall be cleaned and restored to their initial condition at the end of each work period. The Contractor shall keep the work area clean; keep access to all areas of each building clear; move and replace furniture, files, machines, and equipment during construction; minimize interference to occupants; and interrupt building services only after attaining the Customer's approval. The Contractor shall repair damage to buildings and equipment caused by work done under this Program.

Attire

The attire and general appearance of the Contractor's installation staff shall be neat and clean. No shirts with suggestive or provocative pictures or words are to be worn by installation staff. At the beginning of the work period the installation staff attire shall be clean and in good repair. Attire shall also be appropriate to perform their assigned tasks safely. All field staff shall identify themselves to customers upon arrival on the customer premises.

Sale of Non-program Measures

If occurring prior to the completion of program participation, the sale (or solicitation) of non-program measures shall be approved by Program staff. Non-program measures are those that are not specified in the Facility Recommendation Form. A measure that is in the Measure Specifications, but is not on the Facility Recommendation Form is also considered a non-program measure unless approved by the Program Staff and added to the Facility Recommendation Form.

Installation Staff Behavior

Installation staff shall always behave respectfully to other installation staff, Customers and their customers. The installation staff shall not behave in any manner that is offensive to the customer, or their customers. This includes, but is not limited to, the use of loud or foul language, smoking, the use of illegal drugs, suggestive or provocative gestures, and leering.

RETROFIT MEASURES

This Installation Standard does not include all details required for the completion of the work, but does specify guidelines that are required to be followed for this Program. The Contractor shall be responsible for the cost of all items required for a complete and operating system. The Contractor shall provide all labor, materials, tools, equipment, and services required.

Materials

The Contractor is responsible for selecting, procuring, and installing equipment to provide functional lighting systems as outlined in this Installation Standard and the Measure Specification. All products shall be new, free from defects, and meet all of the requirements in the Measure Specification document.

Public Goods Surcharge

Projects initiated through this program are receiving public monies collected as the Public Goods Surcharge found on the Pacific Gas and Electric Company electric utility bill. Material used or installed in the completion of participating projects shall not receive any benefit, in whole or part, from the Public Goods Surcharge other than that received directly from this program.

Warranty

All materials shall be new and of good quality, free from damage or defect. Warranty periods shall commence at the time of final acceptance. All work shall be guaranteed for a period of one year after final acceptance. During this period, the Contractor shall provide replacement materials and the necessary labor at no additional cost to replace defective materials and repair incorrectly operating systems, with the exception of the labor portion of the warranty on lamps, which shall extend 30 days after the time of final acceptance.

- Ballasts - Ballasts shall be warranted for a period of not less than five years.
- Lamps - Lamps shall be warranted for a period of not less than one year.
- New Fixtures - New fixtures shall be warranted for a period of not less than one year.
- Exit Signs - Exit signs shall be warranted for a period of not less than 10 years.
- Controls - Photocells, time clocks, and occupancy sensors shall be warranted for a period of not less than three years.

Technique

Equipment and materials shall be carefully handled, properly stored, and adequately protected to prevent damage before and during installation, in accordance with the manufacturers' recommendations. Contractor shall provide all storage methods and is responsible for the cost of such storage. Contractor may utilize allowable space designated by the Customer.

Prior to commencement of work, note and report to the Program staff in writing all defective fixtures, including both electrical and safety defects, as well as code violations and aesthetic defects, e.g., missing or damaged lenses.

Cover book stacks, furniture, equipment, etc., to protect against dust and dirt during installation. Protect light fixtures and surrounding areas against smudges and dirt. The Contractor shall be solely responsible for damage or cleaning costs caused by installation.

Maintain accurate and current records of work. On a daily basis, provide the Program staff with a list of completed work by location, indicating the quantity of tasks that have been completed.

All measures below are included in the unit pricing in the Measure List except for non-standard lenses.

Fluorescent Fixture Modifications

- Remove all lamps and unused lamp holders from each project fixture.
- Remove all ballasts from each project fixture.
- Clean fixture lenses, louvers, and reflective surfaces thoroughly with soap and water to remove accumulated dirt and dust. Cleaning requirements of louvers requires feather dusting only, not ultrasonic or other similar cleaning method.
- Install new solid-state ballast(s) in each fixture as designated.
- Replace any missing or broken lamp-holders.
- Install new lamps in each fixture as designated.
- Verify fixture operation.
- Maintain existing switching capabilities unless the Program staff approves alternative switching. Tandem ballasting of abutting fixtures is permissible where tandem fixtures are through-wired, providing that existing switching capabilities are maintained. The Contractor shall mark the fixture containing the ballast.
- For fixtures requiring retrofit kits: Install retrofit kit by method approved by manufacturer. Secure reflector to fixture in manner that permits access to ballast compartment with hand tools.

Delamping

- When delamping: remove inboard lamp holders and use outboard lamp holders for replacement lamps. An exception to this policy is made if ballast compartment is located in the center of the fixture and creates a substantial divide.
- Vendors are responsible to the customer for providing proper lighting levels. In the unlikely case that lighting levels are too low when equipment is installed per the Facility Recommendation Form, contact the Program staff to discuss alternatives to alleviate the lighting deficiency.

- In all cases unused lamps, lamp holders and ballasts must be removed from fixture.

Screw-based Compact Fluorescent Assemblies

- Remove incandescent lamp or lamps from fixture.
- Install screw-based compact fluorescent assembly in existing socket, ensuring that lamp fits wholly within the fixture.

New Fixtures

- Connect fixtures to the same power source as the existing fixtures and mount at the location of the existing fixtures unless otherwise specified.
- Mounting materials and configuration shall be capable of supporting all loads in compliance with the UBC and the California Building Code.
- Fixture mounting and wiring methods shall conform to manufacturer's instructions.
- Cover and conceal gaps in the ceiling that result from the fixture replacement and paint to match unless otherwise noted.
- Fully lamp the fixtures with new lamps appropriate to the respective fixture ballast(s).

Lenses

- Measure fixture to determine proper lens dimensions and contours for fabrication. Surveyors' measurements are approximate for pricing purposes. Contractor is responsible for exact measurements used for fabrication.
- Have lens fabricated.
- Remove existing lens and dispose of properly.
- Install replacement lens, securing lens to fixture.

CONTROL MEASURES

Calibration
Control measures shall be calibrated based on manufacturer's specifications, Customer's need and the survey recommendations.

Occupancy Sensors

- Provide full coverage of areas indicated for occupancy sensor control.
- Install in accordance with manufacturer's requirements.
- In areas with suspended acoustic tiled ceilings, install low voltage wire, switching relays above the drop ceiling. In areas with plaster, wood, concrete, or spline ceilings,

install switching relays in approved enclosures and install low voltage wiring in surface-mounted raceway.

- For wall-switch replacement sensors, provide new switch plates as required. Verify proper calibration and operation.

Time Clocks

- Mount time clocks as close to lighting panel as possible.
- Install contactor(s) in approved NEMA enclosures.
- Wire to lighting circuits subject to control.
- Set time and date and program time clock schedule or schedules in accordance with customer's requirements.

Photocells

- Install in exterior daylit locations.
- Install contactor(s) as applicable.
- Wire to lighting circuits or fixtures subject to control as indicated.
- Adjust photocell as required to enable exterior lighting operation during nighttime hours exclusively.

ELECTRICAL PERMITS, CODES, CERTIFICATIONS

Materials and installation procedures shall conform to all applicable building and electrical codes, standards, and regulations, and shall meet the specified warranty standards. Wiring shall comply with the prevailing National Electrical Code (NEC). All fixtures, new and as modified, shall be UL approved. All installed fixture retrofit kits shall bear a UL classification label. For fixtures installed by the Contractor, the methods of fixture hanging shall comply with requirements of the UBC and the California Administrative Code, Title 24.

The Contractor is responsible for obtaining all required permits and licenses. All fees associated with the permits and licenses are the responsibility of the Contractor.

SAFETY

Contractor shall observe and comply with all applicable laws, ordinances, codes and regulations of governmental agencies, including federal, state, municipal and local governing bodies having jurisdiction over any or all of the scope of services, including all provisions of the Occupational Safety and Health Act of 1979 as amended, all California Occupational Safety and Health Regulations, and all other applicable federal, state, municipal and local safety regulations. All services performed by Contractor must be in accordance with these laws, ordinances, codes and regulations. Contractor shall release, defend, indemnify and hold harmless ABAG Energy Watch and Energy Solutions, its officers, agents, and employees from any and all damages, liability, fines, penalties and consequences from any noncompliance or violation of any laws, ordinances, codes or regulations.

If a death, serious personal injury or substantial property damage occurs in connection with the performance of this Contract, Contractor shall immediately notify Energy Solutions by telephone. If any accident occurs in connection with this Program, Contractor shall promptly submit a written report to Energy Solutions, in such form as Energy Solutions may require. This report shall include the following information: 1) name and address of the injured or deceased person(s); 2) name and address of Contractor's subcontractor, if any; 3) name and address of Contractor's liability insurance carrier; and 4) a detailed description of the accident.

If a release of hazardous materials or hazardous waste that cannot be controlled occurs in connection with the performance of this Contract, Contractor shall immediately notify the appropriate Police Department and Energy Solutions.

Asbestos abatement is not included as part of this Installation Standards. No work shall be performed in any area where there is a known or suspected asbestos hazard. If, in order to perform any of the work included in this Program the Contractor or the Contractor's employees must work in an area where they may be exposed to asbestos, this work shall not proceed and the Contractor shall inform Energy Solutions.

DISPOSAL, RECYCLING AND DEMOLITION

Contractor shall proceed with work in a manner that allows the reuse of suspended ceiling tiles and grid support system, surface ceiling tiles, fixtures, and fixture mounting or support hardware unless otherwise directed by the Program staff. Contractor shall also proceed with work in a manner that allows the reuse of fixture lenses.

Contractor shall document pre-existing damage to the materials listed above and report any such damage to the Program staff and Customer. The Contractor shall reimburse the Customer for the cost of materials damaged by the Contractor in the demolition or construction phase.

The cost of disposal of lamps and ballasts, other than PCB containing ballasts, shall be reflected in the unit prices associated with each retrofit. The disposal of PCB containing ballasts shall be considered as a separate unit price item. Old ballasts and unused lamp holders shall be removed. Lamps shall not be broken or crushed except in an acceptable manner at a proper disposal site. Lamps and Non PCB ballasts, and other system components shall be recycled where possible. Removed lamps, ballasts, and other debris shall be disposed of off-site, in accordance with environmental health requirements and all applicable laws, codes, and ordinances. PCB ballast disposal shall include incineration of PCB containing components. Only PCB disposal companies that are registered with the U.S. Environmental Protection Agency shall be used (http://es.epa.gov/techinfo/specific/lamp-bal.html). Upon request, the Contractor shall provide the Program staff with evidence of proper transportation and disposal for all PCB bearing ballasts removed from the Program participants' site.

Dispose of removed fixtures. On-site refuse containers shall not be used for disposal of any material whatsoever, without prior approval of the Customer. While it is not mandatory, Contractor is encouraged to recycle fixtures (as scrap metal, not for reuse) that are removed.

Contractor shall remove all materials, equipment and debris immediately upon completion of the project or at the end of each workday (unless Customer agrees to provide storage space).

Lamps and ballasts removed shall not be reused in new locations.

CHANGE ORDERS AND OUT OF SCOPE OF WORK MODIFICATIONS

Under no circumstances shall the Contractor deviate in a substantive way from the work defined in the Installation Standards, Measure Specifications, and Facility Recommendation Form without advance written approval from the Program Staff and the Director of Public Works. It is the responsibility of the Contractor to identify any substantive discrepancies in fixture quantities prior to or during construction of each space, and to notify the Program staff in writing of any proposed changes in scope. If the Program staff provides written approval to proceed with fixture quantity changes, the unit prices provided in Equipment Specifications shall be utilized to determine the change in cost.

Work performed by the Contractor that is not related to the Program (the approved Facility Recommendation Form and any approved change orders) is not considered part of this Program and as such shall not be recognized as a responsibility to be dealt with in any manner using Program staff or funding. It should be noted that part of the Program goal is to achieve a comprehensive efficient lighting retrofit. Any additional, eligible, efficient lighting related work should be approved by the Program staff and added to the Facility Recommendation Form.

FINAL ACCEPTANCE

Initially, upon project completion, the Program staff shall conduct installation verification survey before final acceptance. The new retrofit system shall be reviewed for completeness before the Contractor receives the incentive. After a probationary period, during which 100% of the sites shall receive a survey (to ensure that the contractor is fully complying with the Program requirements), the surveys shall be performed on a random basis unless surveys warrant resuming a probationary period. The Contractor is responsible for installing the new efficient lighting system per the Measure Specifications, Installation Standards and the Facility Recommendation Form. To be acceptable, the system must be capable of maintaining minimum light levels as specified by the Illuminating Engineering Society. Written acceptance by the Customer on the Program Application/Coupon is required for final acceptance and incentive payment.

Correction

If during the installation verification survey there are found discrepancies from the Installation Standards, Measure Specifications, or the Facility Recommendation Form, the Contractor is responsible, at the Contractor's expense, to bring the installation into conformance with the Installation Standards, Measure Specifications, and the Facility Recommendation Form before the incentive will be paid. Future incentives on other projects may be withheld until the installation in question is brought into conformance. Corrections as identified during final acceptance or QC surveys shall be performed within 10 normal business days.

Contracts and Payment:
For costs not covered by the program, Contractor shall also enter into a contract with the Customer for all goods and services specified by the Facility Recommendation Form and shall adhere to the Installation Standards and Equipment Specifications. The amount of the Customer contract may not exceed the unit prices less the Contractors incentive payment. The Contractor is responsible to deliver and install those goods specified in the contract. The Customer is responsible financially for any payment for goods and services under the contract, minus the Program incentive, made payable to the Contractor.

Appendix A: Fixed Unit Prices

The table found in this appendix contains the fixed unit prices for the Program. Products installed must conform to the Installation Standards described earlier in this document and Appendix B: Eligible Products Specification. Fixed unit prices include all charges including but not limited to material, installation, travel, and applicable taxes. For measures not listed in the below table, a negotiated price will be agreed upon prior to installation.

Lighting Measure	Lamps	Ballast	Unit Material Cost
2 U-lamps - 2x2	2	1	53
3L F17T8/REFL	3	1	62
3L F17T8/LO Ballast	3	1	62
2L F17T8/REFL	2	1	56
1L F17T8	1	1	38
2L F17T8	2	1	40
1L F25T8 / LO ballast	1	1	42
2L F25T8 / LO ballast	2	1	42
1L F25T8	1	1	42
4L F25T8 / LO ballast	4	1	42
4L F17T8	4	1	50
1L F32T8 / LO Ballast	1	1	37
1L F32T8	1	1	37
1L F32T8/HO ballast	1	1	42.5
2L F32T8/LO ballast	2	1	41
2L F32T8	2	1	41
2L F32T8/3 lamp ballast	2	1	37
2L F32T8/HO Ballast	2	1	45
Tandem 2L F32T8 w/one 4L Ballast	2	0	30
Tandem 2L F32T8 w/one 4L HO Ballast	2	0	32
2L F32T8 w/ 2 LO power ballasts	2	1	59
2L F32T8 w/ Reflector	2	1	62.5
2L F32T8, 2L F17T8 / 4-lamp LO ballast	4	1	59
3L F32T8/3 lamp ballast	3	1	46
3L F32T8/3 lamp LO ballast	3	1	46
3L F32T8/3 lamp HO ballast	3	1	52
3L F32T8 W/ 2 Ballasts	3	2	60
3L F32T8 Master/Slave	3	2	52
3L F32T8 Master/Slave LO	3	2	52
4L F32T8/4 lamp	4	1	50
4L F32T8/4 lamp LO Ballast	4	1	50
4L F32T8/4 lamp HO Ballast	4	1	55
4L F32T8 w/ Two Ballasts	4	2	62
5L F32T8/ 2 LO Ballasts	5	2	83
6L F32T8 w/ 2 & 4-lamp LO ballasts	6	2	87

6L F32T8 w/ 2 3-lamp LO ballasts	6	2	87
8L F32T8 w 4 and two 2-lamp LO Ballasts	8	3	132
12L F32T8 w 3 4-lamp LO Ballasts	12	3	138
8' Strip w/ 2, 4' Lamps	2	1	40.25
12' Strip W/ 3, 4' Lamps	3	1	46.75
3' 1L Strip	1	1	34
3' 2L Strip w/ 2 electronic ballasts	2	2	61.5
3' 2L Strip	2	1	37
4' 1L Refl Stripkit	1	1	46
6' 4L Stripkit	0	0	26
8' Stripkit w/ 2, 4' lamps LO Ballast	2	1	65
8' Stripkit w/ 2, 4' lamps	2	1	66.25
8' Stripkit w/ 2, 4' lamps 3L Ballast	2		63.75
8' Stripkit w/ 2, 4' lamps HO Ballast	2	1	70
8' Stripkit w/ 4, 4' lamps HO Ballast	4	1	80
8' Stripkit w/ 4, 4' lamps	4	1	75.75
8' Refl Stripkit w/ 2, 4' lamps LO Ballast	2	1	69.5
8' Refl Stripkit w/ 2, 4' lamps	2	1	69.5
8' Refl Stripkit w/ 2, 4' lamps 3L Ballast	2	1	67
8' Refl Stripkit w/ 2, 4' lamps HO Ballast	2	1	72
Tandem 8' Refl Stripkit w/ 2, 4' lamps; 1 4L Ballast	2	0	60
Tandem 8' Refl Stripkit w/ 2, 4' lamps; 4L HO Ballast	2	0	62.5
8' Refl Stripkit w/ 3, 4' lamps	3	1	74.75
8' Refl Stripkit w/ 4, 4' lamps	4	1	79
8' Refl Stripkit w/ 4, 4' lamps HO Ballast	4	1	84
8' Indust Stripkit w/ 2, 4' lamps LO Ballast	2	1	74.5
8' Indust Stripkit w/ 2, 4' lamps	2	1	75
8' Indust Stripkit w/ 2, 4' lamps 3L Ballast	2		73
8' Indust Stripkit w/ 2, 4' lamps HO Ballast	2		76.5
8' Indust Stripkit w/ 4, 4' lamps	4		84.25
8' Indust Stripkit w/ 4, 4' lamps HO ballast	4	1	89
4' HI kit w/ one horizontal side	0	0	18
8' HI kit w/ one horizontal side	0	0	27
8' 1-lamp T8 lamp and Ballast	1		56.5
8' 2-lamp T8 lamp and Ballast	2	1	65.5
8' 4-lamp T8 lamps and Ballast	4	2	115
8' 2-lamp T8 lamp and HO Ballast	2	1	96
8' HO w/ Refl Kit 4, 4' lamps	4		79
8' HO w/ Refl Kit 2, 4' lamps	2	1	68
8' HO w/ Indust Kit 4, 4' lamps	4		84.25
4' HO Refrig Kit w/ 1, 4' T8 TG 2L ballast	1	1	49
6' HO Refrig Kit w/ 1, 4' T8 TG 2L ballast	1	1	70
6' HO Refrig Kit w/ two 3' T8 TG	1	1	90
New 1x13 CFL Drum Fixture	1		65
New 2x13 CFL Drum Fixture	2		67.5
New 2X13 CFL Flood Fixt (silver or black)	2		67.5

New 1x13 CFL Wall Pack Fixture	1		65
New 2x13 CFL Track Light Fixture (white/black)	2		43.5
New 1x32 CFL Track Light Fixture (white/black)	1		43.5
New 1x42 CFL Track Light Fixture (white/black)	1		43.5
6" CFL Recessed Downlight Retrofit	1		75
7 watt reflector CFL (PAR 38)	1		18.5
16 watt reflector CFL (PAR 38)	1		18.5
23 watt reflector CFL (PAR 38)	1		18.5
9 watt Screw-in CFL	1		9
9 watt reflector CFL (R20)	1		18.5
15 watt Screw-in CFL	1	0	9
18 watt Screw-in CFL	1	0	9
19 watt Screw-in Globe CFL	1		22.5
20 watt Screw-in CFL	1		9
23 watt Screw-in CFL	1	0	9
27 watt Screw-in CFL	1		9
100 watt Screw-in CFL	1		49
42W CFL Flood	1		22.5
42W screw-in CFL	1		22.5
New hardwired 30w circline (119 Series)	1	1	60
New hardwired 40w circline (142 Series)	1	1	65
55W 2-D CFL Fixture	1	0	75
GE Genura CFL Flood	1		22.5
New 100 W Metal Halide Fixture	1	1	170
25W Ceramic Metal Halide w/ integral ballast (par 38)	1	0	87.4
New LED EXIT w/ Battery	1	0	60
New LED EXIT w/ Bug-Eyes & Battery	1		100
Emergency Lighting	1	0	
Wall-mounted Occupancy Sensor	1		76
Ceiling-mounted Occupancy Sensor	1	0	235
Adder for 2' reflector	0	0	10
Adder for 4' reflector	0	0	10
Adder for 1-piece lamp reflector	0	0	7
Adder for 4' angled 2-cove reflector	0	0	19
Adder for New HiBay - 6L T8 HO (for new not retrofit)	6	2	236.41
Adder for High Output Ballast	0	1	5.5
Adder 4' Rapid Start PCB Ballast Disposal	0	1	3.25
Adder HO PCB Ballast Disposal			7.25
Adder 8' Slimline PCB Ballast Disposal	0	1	6.25
Adder for lift	0	0	200
Adder for New Conduit	0	0	50
Adder for Junction Box	0	0	10
Adder for Technician Labor	0	0	45
Adder for Electrician Labor	0	0	60

Adder for additional electronic ballasts	0	0	13
Adder for Ceiling Tile $5	0	0	5
Adder for Ceiling Tile $8	0	0	8
Adder for 2X4 prismatic lens	0	0	12
Adder for T8 Tube Guard	0	0	4
Adder for high bay wire cage	0	0	29.23
Adder for Finelite centering kit	0	0	3
Adder for ALP RDI-AC-HT kit	0	0	89
Adder for lift kit	0	0	20
Adder Re-lamp, clean 4’ section w/ 1 lamps	1	0	5
Adder Re-lamp, clean 4’ section w/ 2 lamps	2	0	10
Adder Re-lamp, clean 4’ section w/ 3 lamps	3	0	15
Adder Re-lamp, clean 8’ section w/ 2 lamps	2	0	12.5
Adder Re-lamp, clean 8’ section w/ 4 lamps	4	0	20
Adder Re-lamp, clean 8’ section w/ 6 lamps	6	0	30
Adder for 4' socket centering kit	0	0	7
Adder for 8' socket centering kit	0	0	14
Adder for 4' wrap around prismatic lens	0	0	42
Adder for 4' suspended D/I height (2 lamp)		0	4
Adder for 8' suspended D/I height (2 lamp)		0	9
Adder for 8' suspended D/I height (4 lamp)			9
Adder for 8' suspended D/I height (6 lamp)			16
Adder for 10' to 12' fixture height		0	3
Adder for 12' to 14' fixture height		0	5
Adder for tandem wire labor	0	0	4
Adder for battery backup pack	0	0	120
Adder for 4' Amerillium radial, lensed fixture (for 1-lamp)	0	0	168
Adder for new sockets	0	0	1
Adder for ballast disconnect	0	0	1.71
Adder for 2X2 prismatic lens	0	0	20.87
Adder for 1X4 prismatic lens			20.87
Adder for 3-lamp 2x4 reflector	0	0	19.58
Single Switch	0	0	15
Double Switch	0	0	20
Photocell	0	0	40
New 2' 1-lamp strip fixture W/reflector	1	1	75
New 4' 1-lamp corridor wrap fixture	1	1	89.41
New 4' 1-lamp Refl strip fixture	1	1	75
New 4' 1-lamp fixture replacing incandescent	1	1	75
New 4' 2-lamp strip fixture /existing 2 lamp strip	2	1	75

New 4' 2-lamp wrap fixture /existing 2 lamp strip	2	1	125
New 4' 2-lamp strip fixture /incandescent	2	1	75
New 4' 2-lamp wrap fixture /incandescent	2	1	125
New 8' strip fixture w/ 2- 4' lamps /incandescent	2	1	125
New 8' Refl strip fixture w/ 2, 4' lamps	2	1	140
New 8' Refl strip fixture w/ 2, 4' lamps HO Ballast	2	1	146
New 2x4 troffer w/ 2, 4' lamps, prismatic lens	2	1	154
New 2x4 troffer w/ 2, 4' lamps HO Ballast, prismatic lens	2	1	154
New 8' Strip fixture w/ 2, 4' lamp /existing 2 lamp strip	2	1	128.75
New 8' Refl strip fixture w/ 4, 4' lamp	4	1	139
New 8' Wrap fixt w/ 2, 4' lamps and security diffuser	2	1	180.25
New HiBay - 3L T8 HO	3	1	180.4
New HiBay - 2L T8 HO	2	1	180.4
New HiBay - 4L T8 HO	4	1	178.46
New HiBay - 6L T8 HO	6	2	236.41
New HiBay - 12L T8 HO	12	4	436.09

Appendix B Eligible Products Specification

Equipment must meet the requirements listed below. As described in the Program Installation Standards, equipment must be installed in a manner that delivers the expected savings while maintaining the appropriate lighting levels.

Compact Fluorescent Lamps (CFLs)
Ballasts must be electronic. The lamp/ballast combination must have an efficacy of $\geq$ 40 lumens per watt (LPW). Lamp color temperature shall be 2700°K unless specified otherwise. Lamp color rendering index (CRI) must be ≥ 75. Lamps must be warranted for a minimum of 10,000 hours.

All product classifications for which there is an ENERGY STAR® rating

1. Must be ENERGY STAR certified, or
2. a) Must be Produced by a manufacturer with a least 5 ENERGY STAR rated CFLs, and
   b) Must meet the ENERGY STAR requirements for average lamps life, CRI, and lumens per watt, and
   c) Must be produced with essentially similar components to the manufacturer's ENERGY STAR products, and
   d) No comparable ENERGY STAR rated exact alternative is available

The lumen output of the ENERGY STAR bulb and/or ENERGY STAR fixture

1. Must be comparable with the lumen output of the existing incandescent or halogen product, or
2. If the lumen output differs, it must provide an illumination level specifically preferred by the participant.

Specialty lamps may only be replaced by a product recommended by the manufacturer to replace such a lamp. These specialty lamps include, but are not limited to: floodlights, vanity lights and lamps specifically designed for outdoor use.

All globes, shades, and lenses must continue to fit the fixture as designed by the manufacturer. Compact fluorescent bulb elements may not protrude from the fixture significantly more than the incandescent bulb being replaced.

Lights in low usage areas may not be retrofitted under this program. Low usage areas include, but are not limited to: closets, garage door openers, tool sheds, refrigerators and ovens.

T8 Lamp and Electronic Ballast Systems

800 series 32-watt high-lumen linear T8 lamps with electronic ballasts

Lamps must be "premium" quality, meaning that they must have a minimum rated life (at 3-hour start rating) of 24,000 hours with rapid-start ballasts or instant start ballasts. Lamps must have a CRI $\geq$ 85. Lamps must have color temperature of 3500K, 4100K, or 5000K as specified in Facility Recommendation Form. 4-foot Lamps must have an initial (catalog) lumen output $\geq$ 3050 lumens. Lamps must carry a one-year warranty. Lamps shall be designated as "low mercury content," with < 6 mg of mercury per 4-foot lamp.

Ballasts must be electronic and operate lamps between 20-35 kHz. Ballasts must be UL-listed and have a power factor (PF) of ≥0.90. Ballasts for 4-foot lamps must have total harmonic distortion (THD) ≤ 20% at full light output; ballasts for 2, 3, and 8-foot lamps must have THD ≤32% at full light output. Standard ballasts must have a ballast factor of 0.85-1.0. Reduced output ballasts must have a ballast factor of 0.74-0.85. High output ballasts must have a ballast factor of 1.05-1.18. Ballasts must carry a five-year warranty.

All F32T8 ballasts with normal or low Ballast Factors must be high-efficiency ballasts. High-output ballasts are not required to be high-efficiency ballasts. High-efficiency ballasts are required in both retrofit measures and new fixtures. Installation measures with 4-foot T8s and low or normal Ballast-Factors must have "high-efficiency" ballasts from the following list of manufacturers and brand names. Other brands of ballasts may be approved by program staff at the suggestion of a vendor or supplier.

Program-Approved High-Efficiency Ballasts:

Sylvania Quicktronic High-Efficiency

Advance Optanium

GE Ultramax

Howard Hex

Universal ULTim8

Dimming Ballasts

In addition to meeting the other characteristics required for ballasts, dimming ballasts must be controlled by a photocell or comparable device to qualify as such.

Program Start Ballasts

Program start ballasts shall extra efficient ballasts from one of the following manufacturers:

Advance Optanium PS
GE Ultrastart
Sylvania PSX

Lenses
Lenses shall be made from clear prismatic, acrylic material of 0.125" thickness. Wrap-around lenses must be sized and contoured to be similar to factory-supplied lenses in appearance. Flat lenses must be cut evenly and sized properly so they can be installed in a secure manner.

Reflectors
Reflectors and reflector kits must be constructed of steel or aluminum and have a white enamel finish with a total reflectivity ≥ 88%.

Interior High-Intensity Discharge (HID) Fixtures
Only complete, new metal halide or high-pressure sodium (HPS) fixtures qualify. Lamps must have a minimum efficacy of 60 LPW for compact sources (≤100W) or 80 LPW for standard or full-size sources (>100W).

Exterior High-Intensity Discharge (HID) Fixtures
Only complete, new metal halide or high-pressure sodium fixtures qualify. Metal halide or high-pressure sodium lamps must have a minimum efficacy of 60 LPW for compact sources (≤ 100 watts) and 80 LPW for standard or full-size sources (> 100 watts).

High Output (HO) T-5 Fixtures
Only complete, new four-foot HOT5 fixtures qualify.

Low-wattage Exit Signs
Low-wattage exit signs must replace or retrofit an incandescent exit sign. All new exit signs and retrofit kits must be UL or ETL-listed, have a minimum lifetime of 10 years, and have an input wattage of ≤ 6W. Conversion must meet local fire codes.

Occupancy Sensors
Only passive infrared and/or ultrasonic detectors are eligible. Switch-mounted and wall- or ceiling-mounted sensors must be hardwired and control interior lighting fixtures. Switch-mounted lighting occupancy sensors - defined as self-contained (no exterior switchpack or relay) units designed to replace a standard wall switch - must not control more than 1000 watts. Sensor must include sensitivity and time delay adjustments.

Daylight Harvesting Controls
Only on/off control technologies will be considered in this category. All sensors and controls shall be equipped with reliable means to guarantee the elimination of inappropriate on/off cycling. Ceiling-mounted daylight control systems shall include both sensor and lighting circuit switching devices, and shall allow adjustment of the daylight levels governing control points. Wallbox daylight sensors shall support bi-level switching, must not control more than 1000 watts and may also include integrated occupancy sensing.

Other
Other technologies may be considered. For any technology not covered above, the Vendor must obtain equipment specification approval from the Program staff.

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