AGREEMENT FOR “SMART” LED STREETLIGHT MONITORING AND CONTROL SYSTEM
BETWEEN
THE CITY OF SAN JOSE
AND
SCHREDER LIGHTING LLC

This Agreement is entered into as of ________________, 2011 between the City of San José, a municipal corporation ("City"), and Schréder Lighting LLC, an Illinois Limited Liability Company (hereafter "Schréder" or "Contractor").

RECITALS

1. WHEREAS, City has issued a Request for Proposal ("RFP") for the purchase of “Smart” Light-Emitting Diode ("LED") streetlight monitoring and control system ("System");

2. WHEREAS, Contractor has the necessary expertise and skill to provide such System and services and Contractor's proposal can best meet City's needs.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. AGREEMENT DOCUMENTS
The documents forming the entire Agreement between City and Contractor shall consist of this Agreement including:

   Exhibit A - Scope of Services – “SMART” LED Streetlight Monitoring and Control System
       Exhibit A-1 – Price Summary
       Exhibit A-2 – Schedule of Performance
       Exhibit A-3 – Project Location Sites
       Exhibit A-4 – City’s Approved LED Luminaire List
   Exhibit B - Payment Schedule
   Exhibit C - Insurance Requirements
   Exhibit D - Software License and Maintenance Support Services Agreement
   Exhibit E - Change Order Form
   Exhibit F - Buy American Provisions
       Exhibit F-1 Energy Efficiency and Conservation Block Grant Flow Down Requirements
       Exhibit F-2 – American Recovery and Reinvestment Act Guidance
       Exhibit F-3 – Contractor Certification
   Exhibit G - Notice of Exercise of Option to Extend Agreement
   Exhibit H - Proposal and BAFO Response
   Exhibit I - City of San José RFP and BAFO 10-11-10, SMART LED Streetlight Monitoring and Control System

 Agreement for “SMART” LED Streetlight Monitoring and Control System
T-20.003.012/809903
Council Agenda: 11/15/11
Item No.: 6.2b1
DRAFT - Contact the Office of the City Clerk at (408) 535-1260 or CityClerk@sanjoseca.gov for final document.
Exhibit J - Certificate of Compliance for +/- 2% Energy Measurement Accuracy Requirement

In the event any discrepancies or inconsistencies between the provisions of this Agreement and any of the above-referenced documents arise, the provisions of this Agreement will prevail. This Agreement and the Exhibits set forth above, contain all of the agreements, representations and understandings of the parties hereto, and supersede and replace any previous understandings, commitments, or agreements, whether oral or written.

2. SCOPE OF SERVICES

Contractor shall perform those services specified in detail in the attached Exhibit A, entitled "Scope of Services".

2.1 Notification

Contractor agrees to notify City promptly of any factor, occurrence, or event coming to its attention that may affect Contractor’s ability to meet the requirements of the Agreement, or that is likely to occasion any material delay in completion of the projects contemplated by this Agreement. Such notice shall be given in the event of any loss or reassignment of key employees, threat of strike, or major equipment failure.

2.2 Contractor’s Software

The terms of the licensing of the Software, including subsequent release licensed to City, shall be as set forth in the Software License and Maintenance Support Services Agreements in (Exhibit D).

2.3 Maintenance Service

The initial three (3) year period for the software/firmware maintenance and support services shall commence immediately after the conclusion of the six (6) month software/firmware warranty period as specified in Section 7 of Exhibit A, “Scope of Services.” The term of maintenance and support of the System shall be as set forth in Exhibit D, “Software License and Maintenance Support Services Agreement.”

3. TERM OF AGREEMENT

3.1 Term

The term of this Agreement is from November 15, 2011 to November 15, 2014, inclusive, subject to the provisions of Section 11 below (“Term”). Notwithstanding the foregoing, the term of the software license and the software support shall be as provided in the Software License and Maintenance Support Agreement attached as Exhibit D.

3.2 Option to Extend

City, at its sole discretion, reserves the right to exercise three (3) additional one year terms (“Option Periods”) to extend the term of the Agreement, based upon the same conditions of the initial term, subject to adjustments for compensation as set forth in Exhibit A-1, Price Summary. City shall
provide Contractor prior written notice in the form of Exhibit G of its intention to exercise its option prior to the end of the then current Term.

3.3 No Waiver
City’s agreement to extend the term of this Agreement is not a waiver of the “time is of the essence” provision in Section 4.

4. SCHEDULE OF PERFORMANCE
Contractor Services must be completed according to the schedule set out in Attached Exhibit A-2, entitled “Schedule of Performance”. Time is of the essence in this Agreement.

5. CHANGE ORDER PROCEDURE AND AUTHORIZATION

5.1 Changes
Any changes to this Agreement that relate to (i) the deletion of products or services, (ii) adding additional products, or services (iii) changing or modifying products or services, or (iv) making other changes that materially alter the scope of this Agreement or the deliverables required under this Agreement, including approval of all performance and/or payment schedules shall be made by the Director of Finance in accordance with the procedures set forth below.

5.2 Contract Change Requests
Either party hereto may, from time to time, and at any time during the term hereof request a change, as defined in the above section. (The party requesting the change is hereinafter referred to as the “Requesting Party.”) Requests for changes shall be in writing and shall be addressed and delivered to the other party. Such writing shall be identified as a "Contract Change Request," shall carry a sequential number for ease of tracking, shall set forth in detail the nature of the change requested and the costs associated therewith, and shall identify the products, services, deliverables or Schedules to be changed.

5.3 Procedures
As soon as practical after receipt by the notified party of copies of the Request, the parties shall as necessary meet to discuss the change and to ascertain its cost and schedule impacts, if any.
5.4 Change Orders

If the parties decide to implement a change request, a standard form Change Order ("CO") shall be prepared in a form substantially similar to the form attached hereto as Exhibit E, which CO shall describe the change, delineate the cost, schedule, and other impacts of the change and the payment terms for any price increase. Only City's Director of Finance and Contractor's Authorized Representative shall have authority to execute CO's to this Agreement. Execution of a CO by City's Director of Finance and Contractor's Authorized Representative shall constitute a modification hereof and shall be binding on both parties hereto.

6. COMPENSATION

City shall pay Contractor an amount not to exceed Two Million Eighty Seven Thousand Dollars ($2,087,000) during the Term of this Agreement. The terms, rate and schedule of payment are set forth in the attached Exhibit B, entitled “Payment Schedule.” This amount may be modified subject to the Section 5 Change Order Procedure and Authorization.

7. TAXES AND CHARGES

Contractor shall be responsible for payment of all taxes, fees contributions or charges applicable to the conduct of Contractor's business.

8. BUY AMERICAN ACT PROVISIONS

Any products purchased under this Agreement using funding from the American Recovery and Reinvestment Act (ARRA) shall be subject to and in compliance with the Buy American Act Provisions of the ARRA, attached hereto as Exhibits F-1 and F-2 and incorporated herein. Contractor shall provide City a signed “Contractor Certification” in the form attached hereto as Exhibit F-3 by the effective date of this Agreement. Contractor shall also retain all documentation that supports compliance to the Buy American Provisions. City shall have the right to monitor and audit Contractor's compliance with this Section including desk reviews, on-site reviews, and audits, and Contractor shall produce all records required by City sufficient to verify compliance with the Buy America program.

9. SYSTEM ACCEPTANCE

Upon final completion of each component of the System installation, City and Contractor shall conduct an Acceptance Test. The criteria for the Acceptance Tests shall be as set forth in the Scope of Services (Exhibit A). System Acceptance shall occur upon successful completion of the Acceptance Tests.

If, in the discretion of City, the System does not meet the requirements of the Acceptance Test specifications, City may permit Contractor to repair or replace the System so that the same meets the Acceptance Test specifications in all material respects, all at no additional expense to City. All
warranties shall become effective and begin to run upon the successful completion of the Acceptance Test.

Payment for any part or parts of the System or services provided hereunder, or inspection or testing thereof by City, shall not constitute acceptance or relieve Contractor of its obligations under this Agreement. City may inspect the components of the System when delivered and reject upon notification to Contractor any and all of the System which does not conform to the specifications or other requirements of this Agreement. Components of the System which are rejected shall be promptly corrected, repaired or replaced by Contractor in accordance with Contractor’s warranty obligations under this Agreement, such that the System conforms to the warranties, specifications and the other requirements of this Agreement. If City receives components of the System with defects or nonconformities not reasonably apparent on inspection, then City reserves the right to require prompt correction, repair, or replacement by Contractor in accordance with Contractor’s warranty obligations under this Agreement following the discovery of such defect or nonconformity.

10. WARRANTIES

10.1 Responsibility
Contractor understands and accepts full responsibility for all requirements and deliverables defined in this Agreement. Contractor warrants it:

10.1.1 Has read and agrees with the specifications contained in the Scope of Services (Exhibit A);

10.1.2 Fully understands the facilities, difficulties, and restrictions attending performance of the services; and

10.1.3 Contractor agrees to inform City of any unforeseen conditions which will materially affect performance of the work within 45 days of the execution of this Agreement and shall not proceed until written instructions are received from City.

10.2 New Media
Media upon which the software is delivered to City:

10.2.1 Shall be new and shall be free from defects in manufacture and materials;

10.2.2 Shall be manufactured in a good and workmanlike manner using a skilled staff fully qualified to perform their respective duties;

10.2.3 Shall, during any Warranty Period, function properly under ordinary use and operate in conformance with the Specifications;

10.2.4 In the event that media on which any software application, custom software, or third party application software is delivered is defective and cannot be read or utilized for its intended purpose by Contractor supplied or approved equipment, Contractor shall replace the defective media as soon as possible. Any delays occasioned by the failure of new media shall not be considered an excusable delay.
10.3 Warranty Period & Enforcement
The applications software and custom software shall, during any Warranty Period, function properly under ordinary use and operate in conformance with its Specifications and Documentation. During the Warranty Period, Contractor shall provide warranty services to City at no additional cost and will include all services or replacement products or product media necessary to enable Contractor to comply with the foregoing warranty. Contractor shall pass through to City any manufacturers’ warranties which Contractor receives on the System and, at City’s request; Contractor shall enforce such warranties on City’s behalf.

11. TERMINATION

11.1 Termination for Convenience
City shall have the right to terminate this Agreement, without cause, by giving not less than thirty (30) days' written notice of termination.

11.2 Termination for Default
If Contractor fails to perform any of its material obligations under this Agreement, in addition to all other remedies provided by law, City may terminate this Agreement immediately upon written notice.

11.3 Termination Authority
The Director of Finance (“Director”) is empowered to terminate this Agreement on behalf of City.

11.4 Consequences of Termination
In the event of termination, Contractor shall deliver to City copies of all reports, documents, and other work performed by Contractor under this Agreement, and upon receipt thereof, City shall pay Contractor for services performed and reimbursable expenses incurred to the date of termination.

12. INDEMNIFICATION
Contractor shall defend, indemnify and hold harmless City, its officers, employees and agents against any claim, loss or liability arising out of or resulting in any way from work performed under this Agreement due to the willful or negligent acts (active or passive) or omissions by Contractor's officers, employees or agents. The acceptance of said services and duties by City shall not operate as a waiver of such right of indemnification.

13. CONFIDENTIAL AND PROPRIETARY INFORMATION

13.1 Confidentiality
All data, documents, discussions or other information developed or received by or for Contactor in performance of this Agreement are confidential and must not be disclosed to any person except as authorized by City, or as required by law.

13.2 Ownership of Materials
All reports, documents or other materials developed or discovered by Contractor or any other person engaged directly or indirectly by Contractor to perform Contractor's services are City's property without restriction or limitation upon their use.
13.3 Ownership of Data
City shall maintain ownership and control of the data throughout the contract period. Contractor shall have the right to use the data solely to perform services under the Agreement with City. Contractor may not use the data, a subset of the data, and/or a summary of the data, or, cause or permit the data, a subset and/or a summary, to be used by any third party, outside the scope of the Agreement without the express written consent of City. Contractor shall provide City with a copy of the data in a mutually agreed upon format at regular intervals and at such additional times as City deems appropriate. Contractor warrants that throughout all operational and maintenance activities the accuracy of the database will be preserved.

13.4 Enforcement
City and Contractor agree that damages are not adequate, and no adequate remedy at law exists for any threatened or actual disclosure or use of information by Contractor in violation of the provisions of this Agreement. Accordingly, Contractor consents to the entry of an injunction against threatened or actual disclosure or use of the information in violation of any provision of this Agreement.

14. INSURANCE REQUIREMENTS
Contractor agrees to have and maintain the policies set forth in Exhibit C, entitled "Insurance Requirements," which is attached hereto and incorporated herein. All policies, endorsements, certificates and/or binders shall be subject to approval by the Risk Manager of the City of San José as to form and content. These requirements are subject to amendment or waiver if so approved in writing by the Risk Manager. Contractor agrees to provide City with a copy of said policies, certificates and/or endorsements before work commences under this Agreement.

15. WAIVER
Contractor agrees that City's waiver of any breach or violation of any provision of this Agreement shall not be deemed to be a waiver of any other provision or a waiver of any subsequent breach or violation of the same or any other provision. City's acceptance of the performance of any of Contractor's services will not be a waiver of any provision of this Agreement.

16. INDEPENDENT CONTRACTOR
Contractor, in the performance of this Agreement, is an independent contractor. Contractor shall maintain complete control over all of Contractor's employees, any subcontracting subcontractors, and Contractor's operations. Neither Contractor nor any person retained by Contractor may represent, act, or purport to act as the agent, representative or employee of City. Neither Contractor nor City is granted any right or authority to assume or create any obligation on behalf of the other.

17. COMPLIANCE WITH LAWS
Contractor shall comply with all applicable laws, ordinances, codes and regulations (collectively, "laws") of the federal, state and local governments, including without limitation, any and all laws specified elsewhere in this Agreement.
18. CONFLICT OF INTEREST
Contractor shall avoid all conflict of interest or the appearance of conflict of interest in performance of this Agreement.

19. NONDISCRIMINATION
Contractor agrees that there shall be no discrimination against, or segregation of, any person, on account of race, sex, color, age, religion, sexual orientation, actual or perceived gender identity, disability, ethnicity, national origin, marital status, or family status, in connection with or related to the performance of this Agreement.

20. GIFTS

20.1 Prohibition on Gifts
Contractor acknowledges that Chapter 12.08 of the San Jose Municipal Code prohibits City's officers and designated employees from accepting gifts as defined in Chapter 12.08.

20.2 No Offer
Contractor agrees not to offer any City officer or designated employee any gift prohibited by Chapter 12.08.

20.3 Breach of Agreement
Contractor's offer or giving of any gift prohibited by Chapter 12.08 will constitute a material breach of this Agreement. In addition to any other remedies City may have in law or equity, City may terminate this Agreement for such breach as provided in Section 11 of this Agreement.

21. DISQUALIFICATION OF FORMER EMPLOYEES
Contractor is familiar with Chapter 12.10 of the San Jose Municipal Code ("Revolving Door Ordinance") relating to the disqualification of City's former officers and employees in matters which are connected with their former duties or official responsibilities. Contractor shall not utilize either directly or indirectly any officer, employee, or agent of Contractor to perform services under this Agreement, if in the performance of such services, the officer, employee, or agent would be in violation of the Revolving Door Ordinance.

22. CONTRACTOR'S BOOKS AND RECORDS

22.1 Maintenance during Term
Contractor shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, and other documents evidencing or relating to charges for services, or expenditures and disbursements charged to City for a minimum period of three (3) years, or for any longer period required by law, from the date of final payment to Contractor pursuant to this Agreement.

22.2 Maintenance after Term
Contractor shall maintain all documents which demonstrate performance under this Agreement for a minimum period of three (3) years, or for any longer period required by law, from the date of termination or completion of this Agreement.
22.3 Inspection
Any documents required to be maintained pursuant to this Agreement must be made available for inspection or audit, at any time during regular business hours, upon written request by City Attorney, City Auditor, City Manager, or a designated representative of any of these officers. Contractor shall provide copies of such documents to City for inspection at City Hall when it is practical to do so. Otherwise, unless an alternative is mutually agreed upon, the records shall be available at Contractor's address indicated for receipt of notices in this Agreement.

22.4 Custody of Records
Where City has reason to believe that any of Contractor's documents relating to this Agreement may be lost or discarded due to dissolution, disbandment or termination of Contractor's business, City may, by written request by any of the above-named officers, require that custody of the Contractor's documents be given to City and that these documents be maintained in City Hall. City agrees to grant access to Contractor's documents to any party authorized by Contractor, Contractor's representatives, or Contractor's successor-in-interest.

23. ASSIGNABILITY
The parties agree that the expertise and experience of Contractor are material considerations for this Agreement. Unless specifically authorized by this Agreement, Contractor may not assign the performance of any obligation or interest under this Agreement without the prior written consent of City. Any attempt by Contractor to assign this Agreement, in violation of this Section, will be voidable at City's sole option.

24. SUBCONTRACTORS
Contractor may not use subcontractors to perform any services authorized under this Agreement.

24.1 Authorized Subcontractors
Notwithstanding Section 23 (ASSIGNABILITY) above, Contractor may use designated subcontractors approved in advance by City in performing Contractor's services. Contractor must obtain City's prior written consent in order to change or add subcontractors. Contractor shall be responsible for directing the work of the approved subcontractors and for any compensation due to subcontractors. City assumes no responsibility whatsoever concerning such compensation.

24.2 Compliance with Agreement
Contractor shall ensure that Contractor's subcontractors comply with this Agreement. At City's request, Contractor shall require any or all of Contractor's subcontractors to sign an agreement with Contractor requiring compliance with this Agreement.

25. GOVERNING LAW
This Agreement must be construed and its performance enforced under California law.

26. VENUE
In the event that suit is brought by either party to this Agreement, the parties agree that venue must be exclusively vested in the state courts of the County of Santa Clara, or where otherwise
appropriate, exclusively in the United States District Court, Northern District of California, San José, California.

Contractor further agrees that in the event a lawsuit involving this Agreement is filed by City, Contractor will unconditionally accept the jurisdiction of a federal or state court located in Santa Clara County, California.

27. NOTICES

All notices and other communications required or permitted to be given under this Agreement must be in writing and must be personally served, or mailed, postage prepaid via U. S. mail, or sent via courier service, addressed to the respective parties as follows:

To City: Director of Finance
City of San Jose
200 East Santa Clara St.
San Jose, CA 95113

To Contractor: John Camp, General Manager
Schréder Lighting LLC
2105 W. Corporate Drive
Addison, IL 60101
j.camp@schreder.com
(847) 621-5112

Notice will be effective on the date personally delivered or if sent by courier service, on the date of receipt. If mailed, notice will be effective three (3) days after deposit in the mail.

The parties may change their respective addresses in accordance with the provisions of this Section.

28. MISCELLANEOUS

28.1 Survival of Provisions
If any part of this Agreement is for any reason found to be unenforceable, all other parts nevertheless remain enforceable.

28.2 Assignment
Subject to the provisions of Section 23 (ASSIGNABILITY), this Agreement binds and inures to the benefit of the parties and their respective successors and assigns.
28.3 Headings
The headings of the sections and exhibits of this Agreement are inserted for convenience only. They do not constitute part of this Agreement and are not to be used in its construction.

28.4 Authority of City Manager
Where this Agreement requires or permits City to act and no officer of the City is specified, City’s Manager or the designated representative of City’s Manager has the authority to act on City’s behalf.

APPROVED AS TO FORM:

Johnny V. Phan
Deputy City Attorney

City of San José
a municipal corporation

By
Name: Mark Giovannetti
Title: Purchasing Officer
Date:____________________

“Contractor”
Schréder Lighting LLC
An Illinois Limited Liability Company

By
Name: John Camp
Title: General Manager
Date:____________________
EXHIBIT A
"SMART" LED STREETLIGHT MONITORING AND CONTROL
SCOPE OF SERVICES

The following Scope of Services defines the principal activities and responsibilities of Contractor and City for the purchase of “SMART” LED Streetlight Monitoring and Control System including software maintenance and support for a three-year term.

To the extent not inconsistent with this Agreement between City and Contractor, including this Scope of Services, Contractor’s response and Proposal 10-11-10 “SMART” LED Streetlight Monitoring and Control System (Exhibits H and I) shall supplement this statement of work and be subject to the terms and conditions of this Agreement.

1 SYSTEM OVERVIEW

Contractor agree under this Agreement to provide City a complete LED streetlight monitoring and control system made up of three main parts and as further depicted below (collectively, the “System”):

1. LED luminaires  
2. Schreder/OWLET Nightshift System  
3. Wireless Communication System

The energy efficient LED luminaires include a built-in LED driver. The wireless communication, control and monitoring capabilities are provided by the Schreder/OWLET Nightshift System (hereinafter “Control System”). There are two main components to the Control System: 1) Luminaire Controller (LuCo) and 2) Segment Controller (SeCo). Each luminaire is integrated with a LuCo that wirelessly controls the LED driver within the luminaire allowing it to be turned on/off and vary light levels. Each luminaire is aggregated to a gateway level at the SeCo. At this level, the data is collected, stored and transmitted over to the central management server located inside the City’s IT infrastructure. To facilitate the viewing of data, reports, system alerts, scheduling different light levels, and others, the System provides a web browser that serves as the graphical user interface.
2 LED LUMINAIRE

LED luminaires shall have the ability to be remotely controlled (via laptop in the field and/or desktop from an office or remote location) and compatible with the Control System. The lighting element of the LED luminaire shall consist of energy efficient, high output LEDs.

LED luminaires provided to the City by Contractor under this Agreement shall be as set forth in Exhibit A-4, City’s Pre-approved LED Luminaire List. City, at its discretion, may approve other luminaires not listed on Exhibit A-4 that meets the minimum specifications set forth in Exhibit I, Attachment A-2, which specifications are hereby incorporated herein by reference. Any LED luminaires not on the City’s Exhibit A-4 shall be subject to review and pre-approval in writing by City.

3 SCHREDER/OWLET NIGHTSHIFT SYSTEM

The LED luminaires provided by Contractor shall be remotely monitored and controlled by the Control System 1) under continuous live data connections, 2) on demand or based on a pre-defined schedule, or 3) field initiated connection request.

Contractor shall provide the City with Control System that meet or exceed the following requirements set forth in this Section 3.
3.1 Scalability
Control System shall be scalable to support 62,000 streetlights.

3.2 Hardware

3.2.1 Control System shall include all required hardware (except the management server) to control and monitor the LED luminaire and shall be fully operational.

3.2.2 In order to minimize security risks and maintain complete control of data collection activities, the central management software/firmware shall be loaded and configured on a City furnished server located inside the City’s IT infrastructure. No Contractor hosting shall be allowed.

3.2.3 City to provide server hardware that meets the manufacturer requirements, to host the Control System.

3.3 Access
City staff shall be able to have web-based access to the Control System via user name and password. Control System shall have the capability to set access rights by users and by user groups. At minimum, the Control System shall allow the following different permission rights to be assigned to a user or group of users.

3.3.1 Administrator – shall allow full access to the system and ability to manage users and groups.

3.3.2 Operation/Maintenance Access – shall allow assignment of individual device monitoring, control, and configuration rights.

3.3.3 Reports Access – shall allow view access and report generation rights.

3.3.4 Read Only Access – shall allow view access of all devices and standard reports.

3.4 Alert System
Control System shall be capable of alerting assigned users and/or user groups, via text message (SMS) and email, of LED luminaire and other monitoring and control devices of failures and degradation based on threshold settings and number of occurrences, including, but not limited to, active power, voltage, and communication failures. If an error occurs, the Control System shall generate an email or SMS to a predefined user(s).

3.5 Reporting System
Control System shall at a minimum be capable of providing standard reports for:

3.5.1 Malfunctions (error report): broken lamp/ballast, energy-limits, power factor, lost node, and communication.

3.5.2 Monitoring (live view, refreshed every 2 minutes): group, dim-level, control-signal,
run-hour, switch on/off-times, errors, energy consumption, electrical power, voltage, current, power factor, controller failure, device uptime, temperature, communication quality, timestamp, calculated sun-elevation, and device information.

3.5.3 Reporting (Energy and Detail Report): energy consumption, run hours, burning hours dimming profile, on/off times, and error list.

All reports shall be viewable online and exportable to comma separated values (CSV) and portable document format (PDF).

3.6 Network Time Protocol

Control System shall support Network Time Protocol (NTP) for synchronizing the clock(s) of the system.

3.7 Asset Management

Control System shall be capable of including existing City luminaires that have not been converted to LED and do not have a monitoring and control device included in the luminaire for the purpose of inventorying City’s streetlight system and consolidating into a comprehensive asset management system. See subsection 6.2, “Task 2, Insert Existing City Streetlight Inventory Data,” for description of required data elements.

Existing installation shall be implemented into the System via geographic information system (GIS) database from ESRI in shapefile format, web mapping service (WMS) or keyhole markup language (KML) for using Google Earth and Google Map.

3.8 Control

Control System shall be capable of automatically or manually addressing individual, groups, predetermined patterns and map driven application patterns of streetlights sequentially or simultaneously.

3.9 Power Consumption

The continuous power for each unit (luminaire and control system) shall not exceed the following:

- SeCo: 4W at light on state (default configuration). Approximately 15W at maximum power consumption depending on connected equipment.
- LuCo: approximately 2.1W at light off state.

3.10 Meantime between Failure (MTBF) Information

Contractor shall provide a Control System with minimum MTBF values of:

- SeCo: 69,834 hours, 7.97 years (40°C)
- LuCo: 67,680 hours, 7.73 years (40°C)
3.11 Off-line Logging
Control System shall support off-line logging of data that can be uploaded at a later time for:

3.11.1 Lamp Condition - lamp switch times, lamp failure, lamp day-burning, and cumulative burning.
Data of the System shall be stored and off-line logged to the LuCo and SeCo.

3.11.2 Electrical – instantaneous and running average of voltage, current, and power factor.
The current valid values shall be uploaded on demand to the server and displayed in the Graphical User Interface (GUI) monitoring section. Contractor shall log historical voltage, current and power factor values as “log-value” upon City’s request at no cost to City.

3.11.3 Energy - instantaneous and running average of active power; and cumulative active energy.
The current valid values shall be uploaded on demand to the server and displayed in the GUI monitoring section. Contractor shall log historical active power values as “log-value” upon City’s request without any cost to City.

3.12 Information Storing and Retrieval
Control System shall support storing and retrieving LED luminaire information such as pole identifier, location, mode of operation, zone, and product information (make, model, wattage and version of components). All information retrieved shall be stored in a MySQL database. The database information shall be accessible via the web interface at any time. Static, individual information shall be stored in a respective field entry.

3.13 Luminance Correction
Control System shall maintain design lighting levels by adjusting LED output due to the reduction of LED light output over time, and to compensate for higher lamp wattages that over light the roadway.

3.14 Dimming

3.14.1 Control System shall support dimming light output levels of all LED luminaires on a circuit or assigned to a zone, in a manner that will reduce energy consumption.

3.14.2 Control System shall support full range of dimming, 10 – 100% and a 0% discrete off, with a minimum of five (5) set points with set point values that can be adjusted by City.
3.15 LED Luminaire Operation Mode

Control System shall support controlling an individual LED luminaire or groups of luminaires by turning the LED luminaire on or off either directly or in a scheduled mode of operation. Manual command addressing an individual luminaire or groups of luminaires shall have the highest mode of operation priority followed by scheduled mode. Upon City’s request, Contractor shall implement other modes of operation that may include transitory and timed commands at no cost to City.

3.16 System Failure

3.16.1 If the communication system fails on the management server level or on the connectivity server and/or between the SeCo, the luminaire shall continue to operate in accordance with previous and configured program as scheduled and on/off calculation parameter are stored on both the SeCo(s) as well as in the GUI database.

3.16.2 If the communication system fails either on the SeCo or LuCo levels, the luminaire shall continue to operate in accordance with previous command. The internal astroclock within each LuCo will be activated as a redundancy function in case of non-communication of the SeCo. In redundancy mode, the device switches off the light at dawn and switches it on at dusk with any scheduled dim level which will be held for the entire night.

3.17 Energy Measurement

System shall include a metering chip that records energy consumption at the LED luminaire that can be retrieved by the Control System to generate billing reports for Pacific Gas & Electric Company (PG&E). See Section 4.3 Task 3: Development of PG&E Report and Attachment M to Exhibit I for billing report requirements. The metering chip shall meet the California Public Utilities Commission (CPUC) +/- 2% energy measurement accuracy as per energy measurement accuracy under PG&E Electrical Rule 17 and Direct Access Standards for Metering and Meter Data (DASMMD). Data collected through the control device shall be capable of recording accurately at the maximum dimming point and through the dimming range to full rated load of the fixture and off-state and shall all be accurate within the +/- 2% energy measurement accuracy level.

3.17.1 Contractor shall be solely responsible for meeting the required +/- 2% accuracy level set forth in the signed Certificate of Compliance for “+/- 2% Energy Measurement Accuracy Requirement” dated June 20, 2011 (Exhibit J) by Contractor which substantiates the energy consumption reporting accuracy of the Control System.

3.17.2 Prior to delivery of each System to City, Contractor shall test or cause to be tested each Control System to be used by City in order to determine its compliance with the accuracy requirements with the provisions of Electric Rule 17 and DASMMD and to report the results of each such test to both City and PG&E (at City’s request). No Control System will be accepted by City unless and until all tests have been passed and written documentation provided to City (including test results).

3.17.3 City and/or PG&E may randomly select, sample and test Control System at their own expense from each such lot in accordance with Electric Rule 17 and
DASMMD prior to their incorporation into the luminaires.

3.17.4 If tests of the Control System, conducted by City and/or PG&E, shows that Control System fails to meet the +/-2% energy measurement accuracy requirement, Contractor shall immediately repair or replace the failing Control System, at no additional cost to City.

3.18 System Commissioning

Contractor is responsible for System implementation/commissioning. Contractor shall deploy a System commissioning that requires minimal amount of City staff effort. For existing streetlight location and pole identification number, City can provide existing ESRI ArcGIS location and data element information. Each LED luminaire with a LuCo shall have an individual ZigBee address which is allocated to the GPS coordinates of the streetlight. The scanned data for each streetlight shall be in ESRI and/or EXCEL/CSV format. System commissioning shall also include mounting of SeCo devices in the field and web interface set up. All configurations, parameters and values are saved to the Control System devices and database.

3.19 Backup Clock

Control System shall include a built-in backup astronomical clock to control switching in case of a failure of the management server, or a break in communication between the luminaire and the management server and between the field aggregated communication device and the management server.

3.20 Sunrise & Sunset Trimming

Control System shall support the fine tuning of the LED lamp burning hours to more accurately match the lighting requirements for sunrise and sunset as established for a given lighting class and lamp type, and adjusted by time of year and location, and for sunrise and sunset by different lighting class and lamp type (lighting class and lamp type and/or time of turn-on/turn-off from sunrise and sunset adjustable by City), and automatically adjusted by time of year and location. Control System shall support configuring the sunrise and sunset trimming for each group individually.

3.21 Ability to Configure based on Ambient Light Detection

Control System shall include configuring the LED luminaire or an electrical service, branch circuit, or zone for operation based upon ambient light detection.

The on/off fine tuning of each dimming & switching group, regarding dusk and dawn, shall be achieved by using the internal astroclock and with an ambient light detector connected to the SeCo. Combination of astroclock and ambient light detector shall enable the astroclock to lock the ambient light sensor at daytime and releases the sensor early in the evening until a time shortly after sunrise to measure the optimized ambient brightness for optimized switch on/off times.
3.22 Mobile Management

Control System shall have internet based access to the system through a handheld mobile device via a native application or web browser access with a mobile web interface that has been re-designed to account for the size and UI of the mobile device.

4 WIRELESS COMMUNICATION SYSTEM

Communication between the LuCo and the SeCo devices shall be provided by Contractor. The communication between the SeCo and the management server, located in a City facility, will be provided by City via a hardware Ethernet connection or through a wireless connection via City's point to multipoint citywide IP based wireless communications system. Both connections are currently under construction and in the event that the City hardwire or wireless connection is not available at the time of the LED streetlight installation, Contractor shall provide a temporary communication link where the SeCo shall be equipped with a 3G cellular modem. A SIM card from a M2M provider (machine to machine) will give the connectivity on an IP basis to reach the SeCo over a public (internet) network. A temporary communications link shall be provided by Contractor and paid based on Exhibit A-1, “Price Summary.”

The communication between the LuCo and the SeCo shall be wireless based on the IEEE802.15.4 protocol with additional implementation of the open “ZigBee Pro” protocol standard. “ZigBee Pro” provides a reliable mesh-net functionality, as each LuCo is also a router within the RF network.

Each SeCo device shall contain an RJ45 Ethernet connector to establish connectivity to the management server.

4.1 Scalability

Wireless communication system shall be scalable to communicate with at least 62,000 streetlights.

4.2 Network Equipment Location

Contractor shall clearly identify the location of network equipment for the locations shown in Exhibit A-3, ”Project Location Sites” for City review and approval prior to installation. Contractor shall determine the best placement of the SeCo for each project location. Contractor shall clearly identify the monitoring and control bandwidth required for the communications between the field aggregated point(s) and the management server, located in a City facility.

4.3 Losses to Communication Strength

Wireless communication system shall implement frequencies and algorithms that minimize the degradation of communication due to losses, such as ambient noise for other wireless communication devices.
4.4 Network Management System

Wireless communication system shall include network management system to be used to configure network devices, including storing and collecting device data. The network management system shall present a network map of monitored network infrastructure. The maps shall include all network devices, connections, statuses of the devices, and indications of why a device is not available. The network management system shall support real-time notification to City of faults via, at a minimum, email.

4.5 Up-gradable Components

Wireless communication system shall include components that are up-gradable to allow additional functionality. The LuCo is up-gradable with an “Over The Air” (OTA) firmware upload. The SeCo is up-gradable through the TCP/IP interface in a web server based service interface.

4.6 Security

Wireless communication system shall, at minimum, provide security pertaining to protecting the communications with the monitoring and control devices, (1) physically by protecting the communications access points, and/or (2) logically by enabling security features associated with the underlying communications protocols. Control System shall support security features as described below:

Communication between LuCo and SeCo: Every network formed by the SeCo shall have a unique 64-bit Personal Area Network-ID (PAN-ID). The data transmission in this PAN is encrypted. Contractor shall work with the City to establish the security keys needed for the communication.

Communication between City server and SeCo: The SeCo shall be protected by username and password and by its IP-Filtering capabilities such that only TCP/IP devices in a certain IP-Range or IP-Address (i.e. City’s IP-Network) are allowed to connect. The SeCo supports HTTP/HTTPS and SSL tunnels, VPN-Networks and IPsec with IKE/ISAKMP, multiple tunnel support, DES, 3DES and up to 256-bit AES encryption, VPN pass-through.

4.7 Field Aggregated Point Communication Connection

Field aggregated communication equipment shall include a communication port to connect directly to City’s Ethernet over copper devices or the point to multipoint Citywide wireless devices’ RJ-45 ports. Contractor shall provide City with method of connection prior to system installation.

4.8 Real-time Notification

Network management system shall include real-time notification to City of threshold violations, set by City, based on scheduled performance tests.

5 INSTALLATION

Contractor shall be responsible for delivering System to City. All components are to be
operationally tested by Contractor and with complete unconditional collaboration of Contractor’s LED manufacturer for LED streetlights prior to delivering System to City. City will only be responsible for installing the LED luminaires and SeCo devices onto existing City streetlight poles that will provide communications to the management server.

Contractor shall be responsible for configuring Control System so that City can monitor and control the installed LED luminaires.

Contractor shall be required to provide five (5) copies of all pertinent installation and startup instructions. In addition, an electronic copy shall be provided on a CD or DVD in Adobe™ Acrobat format.

6 PROFESSIONAL SERVICES

6.1 TASK 1: Integration with Luminaire Manufacturer

6.1.1 Contractor shall hold a project kickoff meeting at City facilities within one (1) week of contract execution at a mutually agreed upon time and date. Meeting attendees shall include City Project Manager and Contractor Project Manager, with accompanying subject matter/technical experts as required or as determined by City and Contractor. The kickoff meeting shall cover all aspects of the project including schedules, critical path items, areas of responsibilities of the Contractor and City, and identify project risk items. All of the discussion shall be documented in meeting minutes developed by Contractor. Within five (5) calendar days of the meeting, Contractor shall prepare and submit the Draft “Meeting Minutes” in electronic format to all meeting participants. Contractor shall allow meeting participants five (5) working days after Draft Meeting Minutes distribution to submit comments on the Draft Meeting Minutes. Contractor shall address all comments submitted and shall prepare and submit the Final Meeting Minutes in electronic format to all meeting participants within two (2) business days of receiving all comments. City shall have the final authority on any conflicting comments on the Draft and Final Meeting Minutes. The Final Meeting Minutes shall memorialize all meeting attendees, Project related discussions, issues, and agreements which occurred during the meeting.

Deliverables: - Draft Meeting Minutes
- Final Meeting Minutes

6.1.2 Contractor shall perform all necessary work, including design, coordination, commissioning and testing, to integrate the Control System into the LED luminaires. The LED luminaires shall be delivered to City with the Control System already installed, tested and operational in the LED luminaires, subject to City inspection and approval.

Contractor shall offer the following luminaires with the Control System installed and fully tested prior to shipping to the City from the factory:

Leotek:
- GCAD1-20C-MV-NW-2X-GY-SDCM1
- GCAD1-40C-MV-NW-2X-GY-SDCM1
6.2 TASK 2: Insert Existing City Streetlight Inventory Data

6.2.1 In addition to the initial City streetlights (approximately 2,100) being converted to LED streetlights under this Agreement, Contractor shall upload City’s remaining existing streetlight inventory data for approximately 60,000 streetlights into the Control System. The existing inventory data is located in City’s ESRI ArcGIS server and a real-time connection to the server is preferred. If the Control System cannot accommodate a real-time connection, then provisions shall be implemented to automatically periodically update (timeframe of update adjustable by City) the information in the Control System with newly posted inventory data on City ESRI ArcGIS server and the Control System data should not be out of sync with City ESRI ArcGIS server by more than five (5) business days. The initial data attributes to be uploaded to the Control System are listed below. Contractor shall meet with City staff to establish additional data attributes to be uploaded to the Control System and be included at no additional cost to City above and beyond the price paid for this task.

- Pole Number
- Pole Type
- Light/Lamp Type
- PG&E Account Number
- Installation Date

Deliverables: - City’s existing streetlight inventory data uploaded into the Control System

6.3 TASK 3: Development of PG&E Report (ref. Exhibit I, Attachment M)

6.3.1 Contractor shall develop a report for utility billing that collects interval usage data that is transmitted to Pacific Gas & Electric Company (PG&E). The combined usage data report shall be in the Electronic Data Interface (EDI) 867 format that is currently used to collect energy usage data by PG&E, and conforms to the requirement in Exhibit I, Attachment M, “PG&E Report Requirements.” The report shall at a minimum include the following information with the appropriate file headers:

- All time and date information shall be in Universal (Greenwich Mean Time) with no daylight savings time adjustment
6.3.2 The report shall be capable of automatically being transferred to PG&E via email (up to five (5) email addresses that can be configured by City) on a periodic basis and the timeframe adjustable by City.

6.3.3 The report shall pass PG&E's EDI testing as described in the Exhibit I, Attachment M, “PG&E Report Requirements,” document titled “EDI 867 Checklist for Inbound Meter Usage Data.”

6.3.4 Data shall be collected for each individual day within the reporting period. The report shall include the following data:

- PG&E Account ID: Included for each streetlight record.
- PG&E Service Agreement ID (SAID): Included for each streetlight record
  - PG&E Service Point ID: Included for each streetlight record.
- Streetlight ID: The current PG&E or City assigned pole number identifying streetlight(s) with controls, matching Badge Number included in PG&E billing record.
- Installation Date (date: MMDDYYYY): The date the streetlight control was installed.
- Wattage Rating of Control Unit: The total wattage of installed control and monitoring equipment. (Required for energy use adjustment if control does not monitor own use and if control uses more than 1.0 Watt).
- Read Date/Time: Date (MMDDYYYY) and time (HHMMSS) of each read record.
- Measurement Period Read Watt Hours: Native, unaltered cumulative watt hour reading from control system for the measurement period; or native, unaltered usage value for the measurement period and all succeeding usage values for entire measurement period.
- Dimming Group ID: If streetlights are operated with different dimming schedules, then a dimming group ID is needed for each different dimming schedule and included for each streetlight record for auditing purposes to verify actual usage against intended use.
- Lamp Condition Data: burn hours, lamp failure, and lamp day-burning.
- Electrical Data: running average of voltage, current, and power factor.
- Energy Data: running average of active power.
- Equipment Changes: Report of any change to equipment during the reporting period, including lamp size, fixture, or monitoring and control changes.

6.3.5 Contractor shall incorporate additional data elements at no cost to the City above and
beyond the price paid for this task.

**Deliverables:** - *Utility billing report*

### 6.4 TASK 4: Manuals and Training

#### 6.4.1 Contractor shall provide operation, administration, and maintenance training at City’s with up to thirty (30) City personnel to receive training. It shall be comprehensive and cover all aspects of the Control System operation, configuration, and troubleshooting. Training shall include an explanation/documentation of the Control System from theory to commissioning including “hands-on” training. Contractor shall provide up to four (4) days of training of 8 hours each day at City facilities that may be held in the classroom and/or in the field. Training shall commence prior to installation of System and the schedule will be based on availability of City staff. Contractor shall provide a final training plan to City for review prior to start of the training sessions.

The training shall cover the following topics but not limited to:

- **Control System**
  - Overview and system architecture
  - Energy saving functional tool
- **Datasheets:** Luminaire controller, Segment controller
- **Installation:**
  - Luminaire controller
  - Segment controller
- **Web interface tutorial**
- **Commissioning**
- **Configuration (individual and group)**
- **Dim level configuration**
  - Scheduling
  - Reports
  - Alerts
- **ZigBee**
- **Basics and installation**

Contractor shall provide training manuals for ten (10) participants in addition to all other documentation, such as “Installation and Operations” and “Maintenance” manuals. In addition, an electronic copy shall be provided on a CD or DVD in AdobeTM Acrobat format.

Contractor shall provide all necessary equipment to be used during the training sessions for training purposes.

City may elect to audio or video record these training sessions for City’s sole use for future training purposes. The resulting recordings shall be the sole property of City and for the sole use of City.

**Deliverables:** - *Final Training Plan*
6.5 TASK 5: Supplemental Services

6.5.1 When requested and authorized in advance and in writing by the Director or the Director’s designee per Exhibit E, “Change Order Form”, Contractor shall perform certain supplemental services in connection with and directly related to the Scope of Services. Such services shall include only those services identified below, and as budget allows:

- Additional integration activities above and beyond the initial activities and number of luminaire manufactures identified under Task 1, “Integration with Luminaire Manufacturer.”
- Additional data entry beyond the initial amount described under Task 2, “Insert Existing City Streetlight Inventory Data.”
- Additional programming to implement additional reports required by PG&E as described under Task 3, “Development of PG&E Report (ref. Attachment M).”
- Additional training to train additional staff beyond those identified under Task 4, “Manuals and Training.”
- Additional data element and formatting beyond those identified under Task 3, “Development of PG&E Report.”

7 PROJECT ACCEPTANCE

7.1 Final acceptance testing of the System consisting of the wireless communications, and monitor and control system, and LED luminaires shall only begin upon completion of all software and hardware installations, communication, and demonstration of all System functions as described in this Exhibit and Tasks 1 through 5 above. The testing will comprise of thirty (30) calendar days of live continuous operation of the System and all system components including the LED luminaires. Final acceptance testing shall be performed for each batch of LED luminaires comprising of the System, shown in the Delivery Schedule Table, Section 10 of Exhibit A, “Scope of Services.” Final acceptance testing will commence seven (7) business days after all of the LED luminaires in the batch have been installed and Contractor notifies City the System is fully functional.

7.2 All System components shall be available and operational for at least ninety nine percent (99%) of the day during the thirty (30) day test period to constitute a valid test, except when:

7.2.1 Downtime caused by failures in building power and air conditioning.

7.2.2 Downtime caused by action of City technical or operation support staff (e.g. disconnecting a cable or entering an inappropriate command that causes an operating system crash).

7.2.3 Downtime caused by hardware and network environment problems unrelated to Contractor implemented system.
7.3 The System and any subparts that do not pass the acceptance test shall be restored to proper working condition or replaced in accordance with the warranties within two (2) business days from the time Contractor is notified of such failures, at no cost to City. City will notify Contractor in writing the start period of the final acceptance test and once the test has been successfully completed and approved.

**Deliverables:**
- Draft Acceptance Testing Report
- Final Acceptance Testing Report

8 SOFTWARE/FIRMWARE WARRANTY

8.1 Contractor shall provide a (6) month software/firmware warranty period that product will be free from any software and material defects and workmanship and such warranty period shall commence immediately after the City provides written notice to Contractor the System of subparts of the System has been accepted by the City in accordance with Section 7 above. Contractor shall be responsible for defects reported during the six (6) month warranty period and shall not be responsible to the extent that a defect is due to a modification of the software which has not been approved by Contractor or for use of the software in a manner that is not allowable under the terms of this Agreement.

8.2 Contractor shall provide phone technical support with a response time of two (2) hours or less during Contractor's normal business hours. This technical support shall be at no additional cost during the warranty period. The technical support shall be provided by qualified personnel with extensive knowledge of the hardware and software characteristics of the monitoring and control, and communications hardware provided in this contract.

8.3 For information on the Software License and Maintenance Agreement, see Exhibit D.

9 SYSTEM WARRANTY

9.1 Contractor shall be responsible for coordinating and resolving all warranty issues with all third parties providing any components to the System under this Agreement that include, at minimum, all manufactures/suppliers of the LED luminaire or wireless communications, and monitoring and controls.

9.2 Contractor’s monitoring and control, and communications system hardware and LED streetlight luminaire products shall have a minimum of a five (5) year warranty covering all parts for repair and/or replacement of defective items within the warranty term. Warranty shall commence thirty (30) calendar days after receipt of the final shipment of the “Smart” LED streetlight system as outlined in the Delivery Schedule Table, Section 10 of Exhibit A, “Scope of Services.” Except as otherwise provided in the next paragraph, to the extent that labor is required, such as, switching out defective monitoring and control, and communications system components after a luminaire has been removed from the pole and delivered to a repair location, Contractor agrees to supply that portion of the labor at no cost to City. To the extent that onsite labor is required (e.g. removal of a luminaire from the pole, switching out components on the pole, installing a luminaire and components onto the pole, preparing items for shipment), Contractor is not responsible as part of the warranty under this provision to provide such labor.
9.3 Defects discovered through alerts from the monitoring and control system shall be the responsibility of Contractor to identify which part or process within the System failed. Contractor shall first attempt to repair a non-working monitoring and control, and communications hardware, and/or LED luminaire remotely. If the monitoring and control, and communications hardware and/or the LED luminaire can not be repaired remotely, then Contractor shall diagnose the problem remotely to determine which monitoring and control, and communications hardware or LED luminaire has failed.

9.4 If the System fails including the monitoring and control, and communications hardware and/or the LED luminaire, then Contractor shall ship, within two (2) business days, a replacement unit to City at no additional cost. Upon receipt of the replacement unit, City will ship the failed monitoring and control, and communications hardware and/or the LED luminaire to Contractor, and shipping cost to be borne by City.

9.5 If it is not possible to remotely determine the failure, then a replacement LED luminaire that is equipped with the Control System installed inside the luminaire shall be provided.

9.6 Contractor shall provide phone technical support with a response time of two (2) hours or less during Contractor’s normal business hours. This technical support shall be at no additional cost during the warranty period. The technical support shall be provided by qualified personnel with extensive knowledge of the hardware and software characteristics of the monitoring and control, and communications hardware and the LED luminaire provided in this contract.

9.7 In the event of an epidemic “System failure”, for purposes of this provision shall be defined as twenty (20) or more non-working monitoring and control, communications hardware, and/or LED luminaire units with failures occurring within the same thirty (30) calendar day period and within one (1) year of each such unit’s installation, Contractor shall be responsible for replacing the defective units including labor to remove the defective units from the pole, switching out components on the pole, installing replacement units, and installing a luminaire and components onto the pole. Contractor, with the written approval of City, may use a third party subcontractor or City Staff, to remove the defective units and install replacement units. In the event City Staff is used, Contractor shall reimburse City based on a time and material basis.

10 DELIVERY

10.1 Delivery – Contractor shall deliver all products Free On Board (F.O.B.) destination to the following location:

City of San Jose  
Department of Transportation  
1404 Mabury Road  
San Jose, CA 95133  
Attn: Angel Alvarez

10.2 The initial purchase as listed in the Delivery Schedule Table, shown below, shall be delivered to City with the first shipment received by City four (4) weeks after Agreement execution with the next three (3) shipments delivered weekly and end seven (7) weeks after Agreement execution. City will issue Change Orders to Contractor for any additional purchases.
## Delivery Schedule for Initial Purchase of Smart LED Streetlight System

<table>
<thead>
<tr>
<th>Types of SMART LED Streetlight System</th>
<th>1st Week Shipment</th>
<th>2nd Week Shipment</th>
<th>3rd Week Shipment</th>
<th>4th Week Shipment</th>
<th>Total All Shipments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(delivery date: 4 weeks after contract execution)</td>
<td>(delivery date: 5 weeks after contract execution)</td>
<td>(delivery date: 6 weeks after contract execution)</td>
<td>(delivery date: 7 weeks after contract execution)</td>
<td>Quantity</td>
</tr>
<tr>
<td>Leotek: GCAD1-20C-MV-NW-2X-GY-SDCM1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leotek: GCAD1-40C-MV-NW-2X-GY-SDCM1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leotek: GCAD1-80C-MV-NW-3M-GY-SDCM1</td>
<td>275</td>
<td>4</td>
<td>279</td>
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<td>BetaLED: STR-LWY-2M-HT-06-D-UL-SV-700-R-43K-SPX</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Philips Lumec: GPLM-130W98LED4K-LE3-VOLT-DMG-RC-NP</td>
<td>325</td>
<td>422</td>
<td>571</td>
<td>294</td>
<td>1,612</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>600</strong></td>
<td><strong>600</strong></td>
<td><strong>600</strong></td>
<td><strong>321</strong></td>
<td><strong>2,121</strong></td>
</tr>
</tbody>
</table>

### Note:
1. SMART LED Streetlight System is the integrated LED streetlight luminaires and the wireless communication, monitoring & control system components.
2. City, at its sole discretion, may request expediting the delivery, delaying the delivery, or otherwise changing the delivery date and location at no additional cost to City.
EXHIBIT A-1
PRICE SUMMARY

1.0 General Information
For the initial purchase of 2,121 Wireless Communication Monitoring & Control System and LED luminaires, Contractor agrees to the pricing set forth in Table 1 and Table 4 below that represents Contractor’s complete costs for the System to be provided under this Agreement.

If City desire to purchase additional monitoring control system or LED Luminaires through a Change Order during the Term of this Agreement, Contractor agrees to provide such equipment based on the pricing set forth in Table 2 and Table 3.

2.0 Price Decreases During Term
Notwithstanding the above and recognizing that pricing tends to decrease over time for technology products, Contractor shall pass on to City price decreases as set forth in Section 3 below during the Term and Option Years.

3.0 Most Favored Customer Pricing
Notwithstanding anything to the contrary in this Agreement, Contractor agrees to provide City with “Most Favored Customer” pricing and ensure that the City receives the lowest pricing given to any other customers who purchases similar product(s) from Contractor. In the event Contractor provides a lower price to any of its customers for the same or similar product(s), then this lower pricing shall be offered to City to reflect the reduced prices effective as of the date lower prices were offered to those customers. City reserves the right to audit Contractor’s pricing contracts to ensure City is getting most favored customer pricing.

4.0 Pricing for Option Years
Any propose increase or decrease in pricing for the Option Years will be reviewed by the City prior to the end of the then current term. The City shall review the annual average percentage of increase or decrease in the Producer Price Index (PPI) for Industrial Commodities, published by the U.S. Department of Labor, Bureau of Statistics. The pricing may be adjusted based on the PPI and in no event shall exceed three percent (3%) annually. Any pricing changes during the Option Years as authorized under this provision shall be mutually agreed upon between the parties and documented in the Notice to Exercise Option to Extend Agreement (Exhibit G).

5.0 Future Upgrades
City reserves the right to purchase the latest products (LED luminaires and monitoring and control system) available from Contractor. Contractor shall provide all software and hardware (LED luminaires and monitoring and control system) upgrades and make available product upgrades as technology advances in compliance with Section 3, Most Favored Customer Pricing of this Exhibit A-1, “Price Summary”.

Agreement for “SMART” LED Streetlight Monitoring and Control System
T-20.003.012/808858

Page 29 of 94
**TABLE 1**

Wireless Communication Monitoring & Control System Initial Purchase (excluding luminaires)

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Qty</th>
<th>Unit of Measure</th>
<th>Unit Cost</th>
<th>Extended Cost</th>
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<tbody>
<tr>
<td></td>
<td><strong>Wireless Communication, Monitoring &amp; Control System (Include Hardware Warranty Items 1-2)</strong></td>
<td></td>
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</tr>
<tr>
<td>1</td>
<td>Luminaire Controller with Meter Chip (including any separate unit for wireless communication)</td>
<td>2,121</td>
<td>Each</td>
<td>$ 250</td>
<td>$ 530,250</td>
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<td>2</td>
<td>Wireless Gateway (quantity = # of gateways)</td>
<td>26</td>
<td>Each</td>
<td>$ 2,700</td>
<td>$ 70,200</td>
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<td>3</td>
<td>Temporary Communication from Gateway to Central Software (quantity = # of gateways multiplied by six months) See Note 1</td>
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<td>Lot</td>
<td>$ 2,970</td>
<td>$ 2,970</td>
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<td>4</td>
<td>Software License (Site License for unlimited number of Luminaires &amp; Operated on City Facility Server Hardware)</td>
<td>1</td>
<td>Lot</td>
<td>Included</td>
<td>Included</td>
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<td>5</td>
<td>Annual Software/Firmware Maintenance and Support Fee (Three Year Contract)</td>
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<td>Annual Software/Firmware Maintenance and Support Fee (Contract Extension) See Note 2</td>
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<td><strong>Professional Services</strong></td>
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<td>7</td>
<td>Task 1-Integration with Luminaire Manufacturer (Exhibit A, Section 6.1):</td>
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<td>Task 2-Insert Existing City Streetlight Inventory Data (Exhibit A, Section 6.2):</td>
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<td>Each</td>
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<td>$11,000</td>
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<td>Supervisor/Trainer</td>
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<td>$13,320</td>
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<td>Task 3-Development of PG&amp;E Report (Exhibit A, Section 6.3):</td>
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<td>Software Programmer</td>
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<td>Each</td>
<td>$150</td>
<td>$25,050</td>
</tr>
<tr>
<td></td>
<td>Supervisor/Trainer</td>
<td>20</td>
<td>Each</td>
<td>$147</td>
<td>$2,940</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td></td>
<td></td>
<td></td>
<td>$27,990</td>
</tr>
<tr>
<td>10</td>
<td>Task 4-Manuals &amp; Training (Exhibit A, Section 6.4):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Training 4 Days</td>
<td>18</td>
<td>Each</td>
<td>$150</td>
<td>$2,700</td>
</tr>
<tr>
<td></td>
<td>Subtotal</td>
<td></td>
<td></td>
<td></td>
<td>$2,700</td>
</tr>
<tr>
<td>11</td>
<td>Task 5-Supplemental Services (per labor category for this project, for example)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Project Manager (S/T fully burdened Rate)</td>
<td>1</td>
<td>Hour</td>
<td>$ 200</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Programmer (S/T fully burdened Rate)</td>
<td>1</td>
<td>Hour</td>
<td>$ 165</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Technician (S/T Fully burdened Rate)</td>
<td>1</td>
<td>Hour</td>
<td>$ 165</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Fill in any additional staff)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL COST (Initial Purchase excluding #6)**

$700,840

Notes:
1. Temporary communications shall include providing communication from gateway to central software located inside City's IT infrastructure.
2. Annual software maintenance fee shall remain fixed for a minimum of three years.
3. For Professional Services hourly rates are all inclusive (fully burdened hourly rate: all G&A, insurances, FICA, Suda/Fuda, benefits, & vacation, etc.). Any travel costs shall be included in the fully burdened rate.
4. Pricing is fixed within the term of this Agreement.
5. All amounts stated above are in U.S. Dollars.

Agreement for “SMART” LED Streetlight Monitoring and Control System
T-20.003.0121808858

Page 30 of 94
TABLE 2
Wireless Communication Monitoring & Control System Citywide Deployment (On-going Purchase)

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Qty</th>
<th>Unit of Measure</th>
<th>Unit Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Luminaire Controller with Meter Chip (including any separate unit for wireless communication) See Note 2</td>
<td>1 - 3,000</td>
<td>Each</td>
<td>$250.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3,001 - 8,000</td>
<td>Each</td>
<td>$225.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8,001 - 18,000</td>
<td>Each</td>
<td>$200.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18,000+</td>
<td>Each</td>
<td>$175.00</td>
</tr>
<tr>
<td>2</td>
<td>Controller for metering electrical draw from other devices</td>
<td>Any</td>
<td>Each</td>
<td>$215.00</td>
</tr>
<tr>
<td>3</td>
<td>Wireless Gateway</td>
<td>Any</td>
<td>Each</td>
<td>$2,700.00</td>
</tr>
</tbody>
</table>

Notes:
1. During the term of the 3-year Agreement, these are pricing for all future purchases after the original 2,100 Luminaire Controllers and 20 Segment Controllers are ordered regardless of the quantity size of future orders.
2. The quantities listed are in addition to the initial 2,100 Luminaire Controllers. For example, after the initial 2,100 luminaire controllers have been purchased and the next purchase is for 500 luminaire controllers with meter chips, then the price for each of the 500 luminaire controllers will be $250.
3. Pricing is fixed within the term of this Agreement.
4. All amounts stated above are in U.S. Dollars.

TABLE 3
LED Luminaires Pricing for Initial and On-going Purchases

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>LUMINAIRES</th>
<th>COST PER LUMINAIRE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Leotek GCAD1-20C-MV-NW-2X-GY-SDCM1</td>
<td>$242.00</td>
</tr>
<tr>
<td>2</td>
<td>Leotek GCAD1-40C-MV-NW-2X-GY-SDCM1</td>
<td>$299.00</td>
</tr>
<tr>
<td>3</td>
<td>Leotek GCAD1-80C-MV-NW-3M-GY-SDCM1</td>
<td>$488.00</td>
</tr>
<tr>
<td>4</td>
<td>Philips Lumec GPLS 65W/49LED4K-LE3-VOLT-DMG-RC-NP</td>
<td>$396.00</td>
</tr>
<tr>
<td>5</td>
<td>Philips Lumec GPLM 130W/98LED4K-LE3-VOLT-DMG-RC-NP</td>
<td>$625.00</td>
</tr>
<tr>
<td>6</td>
<td>BetaLED STR-LWY-2M-HT-06-D-UL-SV-700-R-43K-SPX</td>
<td>$636.00</td>
</tr>
</tbody>
</table>

Notes:
1. Pricing is fixed within the initial period of this Agreement.
2. All amounts stated above are in U.S. Dollars.
### LED Luminaire Initial Purchase Summary

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>TYPE OF SMART LED STREETLIGHT SYSTEM</th>
<th>QUANTITY</th>
<th>COST PER LUMINAIRE</th>
<th>EXTENDED COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Leotek GCAD1-20C-MV-NW-2X-GY-SDCM1</td>
<td>0</td>
<td>$242.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>2</td>
<td>Leotek GCAD1-40C-MV-NW-2X-GY-SDCM1</td>
<td>0</td>
<td>$299.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>3</td>
<td>Philips Lumec GPLS 65W49LED4K-LE3-VOLT-DMG-RC-NP</td>
<td>230</td>
<td>$396.00</td>
<td>$91,080.00</td>
</tr>
<tr>
<td>4</td>
<td>Leotek GCAD1-80C-MV-NW-3M-GY-SDCM1</td>
<td>279</td>
<td>$488.00</td>
<td>$136,152.00</td>
</tr>
<tr>
<td>5</td>
<td>Philips Lumec GPLM-130W98LED4K-LE3-VOLT-DMG-RC-NP</td>
<td>1,612</td>
<td>$625.00</td>
<td>$1,007,500.00</td>
</tr>
<tr>
<td>6</td>
<td>BetaLED STR-LWY-2M-HT-06-D-UL-SV-700-R-43K-SPX</td>
<td>0</td>
<td>$636.00</td>
<td>$0.00</td>
</tr>
</tbody>
</table>

**Proposal Sub-Total Cost for 2,121 LED Luminaires (Items #1 – 6)**

$1,234,732.00

**Estimated Delivery Cost**

(2,121 LED Luminaires & Communication Monitoring & Control System)

Included in pricing

**Total Cost (Initial Purchase) – LED Luminaire**

(Total amount of 2,121 LED Luminaires & Delivery Cost)

$1,234,732.00

**Notes:**

1. All amounts stated above are in U.S. Dollars.
EXHIBIT A-2
SCHEDULE OF PERFORMANCE

Implementation of this Project will proceed in accordance with the Performance Schedule set forth in Exhibit B, “Payment Schedule,” Table B-1 Performance and Payment Schedule, except as may be modified by a finalized project schedule that is approved by City in writing during the project initiation phase.

Performance and payment schedule for additional purchases beyond the initial purchase of “smart” LED streetlight systems shall be through a Change Order as set forth in Section 5, Change Order Procedure and Authorization.

The final project schedule will become the governing project schedule incorporated into the Agreement and into the Performance and Payment Schedule.

The project schedule is based upon work being accomplished Monday through Friday during normal business hours (defined as 8:00 a.m. to 5:00 p.m.), with the exception of City holidays.
# EXHIBIT A-3
## PROJECT LOCATION SITES

<table>
<thead>
<tr>
<th>Street</th>
<th>Project Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Airport Parkway</td>
<td>Airport Boulevard to Bering Drive</td>
</tr>
<tr>
<td>2 Almaden Avenue</td>
<td>280 to Alma Avenue</td>
</tr>
<tr>
<td>3 Alum Rock Avenue</td>
<td>Capitol Avenue to Manning Avenue</td>
</tr>
<tr>
<td>4 Blossom Hill Road</td>
<td>Meridian Avenue to Santa Teresa Boulevard</td>
</tr>
<tr>
<td>5 Campbell Avenue</td>
<td>Hamilton Avenue to Fallbrook Avenue</td>
</tr>
<tr>
<td>6 Capitol Avenue</td>
<td>680 to Mabury Road</td>
</tr>
<tr>
<td>7 Capitol Avenue</td>
<td>Mabury Road to Capitol Expressway</td>
</tr>
<tr>
<td>8 Cottle Road</td>
<td>Endicott Boulevard to Santa Teresa Boulevard</td>
</tr>
<tr>
<td>9 Hamilton Avenue</td>
<td>Saratoga Avenue to Atherton Avenue</td>
</tr>
<tr>
<td>10 Hillsdale Avenue</td>
<td>Bascom Avenue to Meridian Avenue</td>
</tr>
<tr>
<td>11 King Road</td>
<td>Alum Rock Avenue to Tully Road</td>
</tr>
<tr>
<td>12 Monterey Road</td>
<td>Blossom Hill Road to Bernal Road</td>
</tr>
<tr>
<td>13 Quimby Road</td>
<td>Tully Road to Capitol Expressway</td>
</tr>
<tr>
<td>14 Ocala Avenue</td>
<td>Capitol Expressway to Daytona Drive</td>
</tr>
<tr>
<td>15 River Oaks Parkway</td>
<td>Guadalupe River to Montague Expressway</td>
</tr>
<tr>
<td>16 Saratoga Avenue</td>
<td>280 to Quito Road</td>
</tr>
<tr>
<td>17 Santa Teresa Boulevard</td>
<td>85 to Blossom Hill Road</td>
</tr>
<tr>
<td>18 Senter Road</td>
<td>Quinn Avenue to Hermes Court</td>
</tr>
<tr>
<td>19 Skyport Drive</td>
<td>Guadalupe Parkway to First Street</td>
</tr>
<tr>
<td>20 Silver Creek Valley Road</td>
<td>101 to Hellyer Avenue</td>
</tr>
<tr>
<td>21 Southwest Expressway</td>
<td>Meridian Avenue to Bascom Avenue</td>
</tr>
<tr>
<td>22 Story Road</td>
<td>Senter Road to White Road</td>
</tr>
<tr>
<td>23 Tully Road</td>
<td>Seventh Street to Capitol Expressway</td>
</tr>
<tr>
<td>24 Vine Avenue</td>
<td>280 to Alma Avenue</td>
</tr>
<tr>
<td>25 Winchester Boulevard</td>
<td>Stevens Creek Boulevard to Payne Avenue</td>
</tr>
</tbody>
</table>
### EXHIBIT A-4
Approved LED Luminaires

<table>
<thead>
<tr>
<th>Replacement for LPS</th>
<th>Manufacturer Name Brand</th>
<th>Brand Name</th>
<th>Model Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>55 W</td>
<td>Leotek Electronics USA Corp.</td>
<td>Leotek</td>
<td>GCAD1-20C-MV-NW-2X-GY-SDCM1</td>
</tr>
<tr>
<td>90 W</td>
<td>Leotek Electronics USA Corp.</td>
<td>Leotek</td>
<td>GCAD1-40C-MV-NW-2X-GY-SDCM1</td>
</tr>
<tr>
<td></td>
<td>Philips Lumec</td>
<td>Lumec</td>
<td>GPLS 65W49LED4K-LE3-VOLT-DMG-RC-NP</td>
</tr>
<tr>
<td>135 W</td>
<td>Cal Lighting and GE</td>
<td>Evolve LED Roadway Light</td>
<td>ERMC0A143A2GRAY</td>
</tr>
<tr>
<td></td>
<td>Leotek Electronics USA Corp.</td>
<td>Leotek</td>
<td>GCD1-80C-MV-NW-3M-GY-SDCM1</td>
</tr>
<tr>
<td>180 W</td>
<td>BetaLED</td>
<td>LEDway Streetlight</td>
<td>STR-LWY-2M-HT-06-D-UL-SV-700-R-43K-SPX</td>
</tr>
<tr>
<td></td>
<td>Philips Lumec</td>
<td>Lumec</td>
<td>GPLM 130W98LED4K-LE3-VOLT-DMG-RC-NP</td>
</tr>
</tbody>
</table>
EXHIBIT B
PAYMENT SCHEDULE

1.0 Payment Terms

1.1 The maximum amount payable for all products and services provided during the Term of this Agreement shall not exceed Two Million Eighty-Seven Thousand Dollars ($2,087,000). Any additional products or services requested by City that would exceed the preceding maximum amount will be addressed in accordance with the Change Order Procedures. No additional services will be performed unless both parties execute a Change Order outlining the services and/or products requested and the compensation agreed for such services and/or products. Any work performed by Contractor exceeding the maximum compensation amount without a fully executed Change Order shall be at no cost to City.

1.2 Progress payments shall be made to Contractor by City based on net thirty (30) days payment terms, following acceptance of designated milestones as shown below in Table B1-Performance and Payment Schedule. All payments are based upon City’s acceptance of Contractor’s performance as evidenced by successful completion of all of the deliverables as set forth for each milestone. City shall have no obligation to pay unless Contractor has successfully completed and City has approved the Milestone for which payment is due.

1.3 Payment for any part or parts of the System provided hereunder, or inspection or testing thereof by City, shall not constitute acceptance or relieve Contractor of its obligations under this Agreement. City may inspect the components of the System when delivered and reject upon notification to Contractor any and all the System, which does not conform to the Specifications or other requirements of this Agreement. Components of the System, which are rejected shall be promptly corrected, repaired, or replaced by Contractor. If City receives components of the System with defects or nonconformities not reasonably apparent on inspection, then City reserves the right to require prompt correction, repair, or replacement by Contractor in accordance with Contractor’s warranty obligations.

2.0 Project Performance & Payment Schedule

2.1 Compensation shall be as set forth below in Table B-1 Performance and Payment Schedule.

2.1.1 All invoicing shall include only deliverables accepted and approved by City.

2.1.2 All invoices will be held pending approval of City project manager, subject to Section 1.2, Exhibit B, “Payment Schedule” above.

2.2 Work shall commence immediately upon execution of the Agreement.

2.3 All timeline dates are understood to be close of business, 5:00 p.m. Pacific Time.

2.4 If timeline dates fall on a weekend or City holiday, the date is understood to be the next business day.
2.5 Contractor shall submit invoices upon completion of Milestone according to Table B1 below. In the event City exercises options to renew maintenance and support, Contractor shall submit annual invoices to City’s Project Manager according to Table B-2 below.
Table B1 – Performance and Payment Schedule

<table>
<thead>
<tr>
<th>Milestone/Item</th>
<th>Deliverables</th>
<th>Estimated Completion</th>
<th>Compensation</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Kickoff meeting</strong>&lt;br&gt;LED Streetlight System&lt;br&gt;1&lt;sup&gt;st&lt;/sup&gt; Shipment (qty: 600)&lt;br&gt;- includes Task 1: Integration with Luminaire Manufacturer and Project Acceptance</td>
<td>• Kickoff meeting&lt;br&gt;• City receive 1&lt;sup&gt;st&lt;/sup&gt; shipment (includes LED luminaires, controllers &amp; 8 gateways)&lt;br&gt;• Controls commissioned (1&lt;sup&gt;st&lt;/sup&gt; shipment of 600 lights)&lt;br&gt;• Draft acceptance testing report&lt;br&gt;• Final acceptance testing report</td>
<td>within 1 week after contract execution&lt;br&gt;30 calendar days after receipt of 1&lt;sup&gt;st&lt;/sup&gt; shipment&lt;br&gt;1 week after the 1&lt;sup&gt;st&lt;/sup&gt; shipment installation completion&lt;br&gt;For each shipment, 7 business days after installation completion of Systems in each batch plus 30 calendar days of live continuous operation of all system components</td>
<td>$550,911&lt;br&gt;$550,492&lt;br&gt;$575,737</td>
<td>26.40%&lt;br&gt;26.38%&lt;br&gt;27.59%</td>
</tr>
<tr>
<td><strong>2. LED Streetlight System</strong>&lt;br&gt;2&lt;sup&gt;nd&lt;/sup&gt; Shipment (qty: 600)&lt;br&gt;- includes Task 1: Integration with Luminaire Manufacturer and Project Acceptance</td>
<td>• City receive 2&lt;sup&gt;nd&lt;/sup&gt; shipment (includes LED luminaires, controllers &amp; 9 gateways)&lt;br&gt;• Controls commissioned (2&lt;sup&gt;nd&lt;/sup&gt; shipment of 600 lights)&lt;br&gt;• Draft acceptance testing report&lt;br&gt;• Final acceptance testing report</td>
<td>30 calendar days after receipt of 2&lt;sup&gt;nd&lt;/sup&gt; shipment&lt;br&gt;1 week after the 2&lt;sup&gt;nd&lt;/sup&gt; shipment installation completion&lt;br&gt;For each shipment, 7 business days after installation completion of Systems in each batch plus 30 calendar days of live continuous operation of all system components</td>
<td>$10,360</td>
<td>0.50%</td>
</tr>
<tr>
<td><strong>3. LED Streetlight System</strong>&lt;br&gt;3&lt;sup&gt;rd&lt;/sup&gt; Shipment (qty: 600)&lt;br&gt;- includes Task 1: Integration with Luminaire Manufacturer and Project Acceptance</td>
<td>• City receive 3&lt;sup&gt;rd&lt;/sup&gt; shipment (includes LED luminaires, controllers &amp; 5 gateways)&lt;br&gt;• Controls commissioned (3&lt;sup&gt;rd&lt;/sup&gt; shipment of 600 lights)&lt;br&gt;• Draft acceptance testing report&lt;br&gt;• Final acceptance testing report</td>
<td>30 calendar days after receipt of 3&lt;sup&gt;rd&lt;/sup&gt; shipment&lt;br&gt;1 week after the 3&lt;sup&gt;rd&lt;/sup&gt; shipment installation completion&lt;br&gt;For each shipment, 7 business days after installation completion of Systems in each batch plus 30 calendar days of live continuous operation of all system components</td>
<td>$10,360</td>
<td>0.50%</td>
</tr>
<tr>
<td>Milestone/Item</td>
<td>Deliverables</td>
<td>Estimated Completion</td>
<td>Compensation</td>
<td>%</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------</td>
<td>----------------------</td>
<td>--------------</td>
<td>---</td>
</tr>
<tr>
<td>4. LED Streetlight System 4th Shipment (qty: 321) - includes Task 1: Integration with Luminaire Manufacturer and Project Acceptance</td>
<td>▪ City receive 4th shipment (includes LED luminaires, controllers &amp; 4 gateways)</td>
<td>30 calendar days after receipt of 3rd shipment</td>
<td>$309,444</td>
<td>14.83%</td>
</tr>
<tr>
<td></td>
<td>▪ Controls commission (4th shipment of 321 lights)</td>
<td>1 week after the 4th shipment installation completion</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Draft acceptance testing report</td>
<td>For each shipment, 7 business days after installation completion of Systems in each batch plus 30 calendar days of live continuous operation of all system components</td>
<td>$10,360</td>
<td>0.50%</td>
</tr>
<tr>
<td></td>
<td>▪ Final acceptance testing report</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Task 2: Insert Existing City Streetlight Inventory Data</td>
<td>▪ City's remaining existing streetlight inventory data uploaded into the Control System</td>
<td>2 weeks after System installation completion</td>
<td>$13,320</td>
<td>0.64%</td>
</tr>
<tr>
<td>6. Task 3: Development of PG&amp;E Report</td>
<td>▪ Utility billing report</td>
<td>1 week after installation completion of first 100 Systems</td>
<td>$27,990</td>
<td>1.34%</td>
</tr>
<tr>
<td>7. Task 4: Manuals and Training</td>
<td>▪ Final training plan</td>
<td>Begin 1 week before initial installation</td>
<td>$2,700</td>
<td>0.13%</td>
</tr>
<tr>
<td></td>
<td>▪ Training manuals and all other documentation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Maintenance and Support</td>
<td>▪ Software/Firmware Maintenance and Support Services (3 year contract)</td>
<td>6 month warranty period commences upon acceptance of first shipment Upon conclusion of the 6-month warranty, begins the 3-year Software/Firmware Maintenance and Support Services</td>
<td>$11,970</td>
<td>0.57%</td>
</tr>
<tr>
<td>9. Temporary Communication</td>
<td>▪ Temporary communication from Gateway to Central Software</td>
<td>Only as needed</td>
<td>$2,970</td>
<td>0.14%</td>
</tr>
</tbody>
</table>

**TOTAL CONTRACT AMOUNT** | **$2,086,975** | **100%**

All amounts stated above are in U.S. Dollars
Table B2: Payment Schedule for On-going Purchases

<table>
<thead>
<tr>
<th>Milestone/Item</th>
<th>Deliverables</th>
<th>Estimated Completion</th>
<th>Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. LED Streetlight System</td>
<td>▪ City receive shipment</td>
<td>TBD</td>
<td>Subject to Change Order</td>
</tr>
<tr>
<td>(qty: optional)</td>
<td>▪ Controls commissioned (qty: varies)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Draft acceptance testing report</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>▪ Final acceptance testing report</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Annual Maintenance Renewal Options:

<table>
<thead>
<tr>
<th>Year 4</th>
<th>Software/Firmware Maintenance and Support Services (lump sum)</th>
<th>1 year after conclusion of the first 3 year maintenance and support services</th>
<th>$3,990.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 5</td>
<td>Software/Firmware Maintenance and Support Services (lump sum)</td>
<td>1 year after conclusion of Year 4 maintenance and support services</td>
<td>$3,990.00</td>
</tr>
<tr>
<td>Year 6</td>
<td>Software/Firmware Maintenance and Support Services (lump sum)</td>
<td>1 year after conclusion of Year 5 maintenance and support services</td>
<td>$3,990.00</td>
</tr>
</tbody>
</table>

TOTAL OPTIONS AMOUNT $11,970.00

All amounts stated above are in U.S. Dollars
EXHIBIT C
INSURANCE REQUIREMENTS

Contractor, at Contractor's sole cost and expense, shall procure and maintain for the duration of this Agreement insurance against claims for injuries to persons or damages to property which may arise from, or in connection with, the performance of the services hereunder by Contractor, its agents, representatives, employees or subcontractors.

A. **Minimum Scope of Insurance**

Coverage shall be at least as broad as:

1. The coverage described in Insurance Services Office Form Number GL 0002 (Ed. 1/96) covering Commercial General Liability together with Insurance Services Office Form Number GL 0404 covering Broad Form Comprehensive General Liability; or that described in Insurance Services Office Commercial General Liability coverage (“occurrence”) Form Number CG 0001 Ed. 01/96; and

2. The coverage described in Insurance Services Office Form Number CA 0001 (Ed. 12/93) covering Automobile Liability, Code 1 “any auto”, or Code 2 “owned autos” and Endorsement CA 0025. Coverage shall also include Code 8 “hired autos” and Code 9 “nonowned autos”; and

3. Workers' Compensation insurance as required by the California Labor Code and Employers Liability insurance; and

B. **Minimum Limits of Insurance**

Contractor shall maintain limits no less than:

1. Commercial General Liability: $1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage. If Commercial Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit; and

2. Automobile Liability: $1,000,000 combined single limit per accident for bodily injury and property damage; and

3. Workers' Compensation and Employers Liability: Workers' Compensation limits as required by the California Labor Code and Employers Liability limits of $1,000,000 per accident.
C. **Deductibles and Self-Insured Retentions**

Any deductibles or self-insured retentions must be declared to, and approved by City's Risk Manager. At the option of City, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects City, its officers, employees, agents and contractors; or Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses in an amount specified by City's Risk Manager.

D. **Other Insurance Provisions**

The policies are to contain, or be endorsed to contain, the following provisions:

1. **Commercial General Liability and Automobile Liability Coverages**
   
   a. **Insured.** The City of San Jose, its officers, employees, agents and contractors are to be covered as additional insureds as respects: Liability arising out of activities performed by or on behalf of, Contractor; products and completed operations of Contractor; premises owned, leased or used by Contractor; and automobiles owned, leased, hired or borrowed by Contractor. The coverage shall contain no special limitations on the scope of protection afforded to City, its officers, employees, agents and contractors.

   b. **Contribution Not Required.** Contractor's insurance coverage shall be primary insurance as respects City, its officers, employees, agents and contractors. Any insurance or self-insurance maintained by City, its officers, employees, agents or contractors shall be excess of Contractor's insurance and shall not contribute with it.

   c. **Provisions Regarding the Insured's Duties After Accident or Loss.** Any failure to comply with reporting provisions of the policies by Contractor shall not affect coverage provided City, its officers, employees, agents, or contractors.

   d. **Coverage.** Coverage shall state that Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

2. **All Coverages**

   Each insurance policy required by this Agreement shall be endorsed to state that coverage shall not be suspended, voided, cancelled, or reduced in limits except after thirty (30) days' prior written notice has been given to CITY's Risk Manager.

E. **Acceptability of Insurers**

Insurance is to be placed with insurers acceptable to City's Risk Manager.
F. Verification of Coverage

Contractor shall furnish City with certificates of insurance and with original endorsements affecting coverage required by this Agreement. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.

Proof of insurance shall be mailed to the following address or any subsequent address as may be directed in writing by the Risk Manager:

CITY OF SAN JOSE
Department of Finance
Debt & Risk Management Division
200 East Santa Clara St
San Jose, CA 95113

G. Subcontractors

Contractor shall include all subcontractors as insureds under its policies or shall obtain separate certificates and endorsements for each subcontractor.
EXHIBIT D
SOFTWARE LICENSE AND MAINTENANCE AND SUPPORT SERVICES AGREEMENT
AS ATTACHED
Pursuant to Section ___ of the Agreement for "SMART" LED Streetlight Monitoring and Control System between the City of San Jose and ________________, the Agreement is hereby amended as follows:

(The following language is hereby provided as an example of how to complete this form.)

1. Contractor shall provide the following additional services at the costs indicated below:

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL**

2. The following services, products or deliverables are hereby deleted and the associated costs in amounts set forth below are also deleted:

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL**

3. EXHIBIT __ is hereby amended to read as set forth in the Revised EXHIBIT __ which is attached hereto.

4. All of the terms and conditions of the Agreement not modified by Change Order shall remain in full force and effect.

I hereby certify that an unexpended appropriation is available in Fund _____ for the Agreement, and that funds are available as of the date of this signature.

<table>
<thead>
<tr>
<th>Fund</th>
<th>Available as of Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Principal Accountant __________________ Date __________

**ACCEPTANCE**

Contractor hereby agrees to accept the amount set forth herein as payment in full of the work described and further agrees that Contractor is entitled to no additional time or compensation for such work other than as set forth herein.

<table>
<thead>
<tr>
<th>Contractor</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**APPROVED AS TO FORM**

Johnny V. Phan  
Deputy City Attorney

City of San José  

Page 45 of 94
ENERGY EFFICIENCY AND CONSERVATION BLOCK GRANT PROGRAM

SUBRECIPIENT OR SUBCONTRACTOR FLOWDOWN REQUIREMENTS

Subawardees who receive federal funds under an assistance agreement shall comply with the flow down requirements for subawardees specified in the “Special Provisions Relating to Work Funded under American Recovery and Reinvestment Act of 2009” which apply to this award. Additionally, as required by 10 CFR 600.2(b), 10 CFR 600.236, and 10 CFR 600.237, any new, continuation, or renewal award and any subsequent subaward shall comply with any applicable Federal statute, Federal rule, Office of Management and Budget (OMB) Circular and Government-wide guidance in effect as of the date of such award. These requirements include, but are not limited to the following:


b. In addition to 10 CFR 600, Appendix A, Generally Applicable Requirements, the National Policy Assurances to Be Incorporated as Award Terms in effect on date of award at http://management.energy.gov/business_doe/1374.htm apply.

c. 2 CFR 215, “Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations (OMB Circular A-110).”


f. OMB Circular A-133, “Audits of States, Local Governments, and Non-Profit Organizations.”

g. Subawardee Application/proposal as approved by DOE.

The following pages set forth subgrant flowdown provisions suggested for use in issuing subawards.

Recipients are also advised that all contracts must include the provisions in 10 CFR 600.236, “Procurement”, Section (i) “Contract Provisions”, numbers 1-13.
# Table of Contents

<table>
<thead>
<tr>
<th>Number</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>RESOLUTION OF CONFLICTING CONDITIONS</td>
<td>48</td>
</tr>
<tr>
<td>2.</td>
<td>CEILING ON ADMINISTRATIVE COSTS</td>
<td>48</td>
</tr>
<tr>
<td>3.</td>
<td>LIMITATIONS ON USE OF FUNDS</td>
<td>48</td>
</tr>
<tr>
<td>4.</td>
<td>REIMBURSABLE INDIRECT COSTS AND FRINGE BENEFIT COSTS</td>
<td>49</td>
</tr>
<tr>
<td>5.</td>
<td>USE OF PROGRAM INCOME</td>
<td>49</td>
</tr>
<tr>
<td>6.</td>
<td>STATEMENT OF FEDERAL STEWARDSHIP</td>
<td>49</td>
</tr>
<tr>
<td>7.</td>
<td>SITE VISITS</td>
<td>49</td>
</tr>
<tr>
<td>8.</td>
<td>REPORTING REQUIREMENTS</td>
<td>50</td>
</tr>
<tr>
<td>9.</td>
<td>PUBLICATIONS</td>
<td>50</td>
</tr>
<tr>
<td>10.</td>
<td>FEDERAL, STATE, AND MUNICIPAL REQUIREMENTS</td>
<td>51</td>
</tr>
<tr>
<td>11.</td>
<td>LOBBYING RESTRICTIONS</td>
<td>51</td>
</tr>
<tr>
<td>12.</td>
<td>NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) REQUIREMENTS</td>
<td>51</td>
</tr>
<tr>
<td>13.</td>
<td>HISTORIC PRESERVATION</td>
<td>51</td>
</tr>
<tr>
<td>14.</td>
<td>WASTE STREAM</td>
<td>52</td>
</tr>
<tr>
<td>15.</td>
<td>DECONTAMINATION AND/OR DECOMMISSIONING (D&amp;D) COSTS</td>
<td>52</td>
</tr>
<tr>
<td>16.</td>
<td>SUBGRANTS AND LOANS</td>
<td>52</td>
</tr>
<tr>
<td>17.</td>
<td>JUSTIFICATION OF BUDGET COSTS</td>
<td>53</td>
</tr>
<tr>
<td>18.</td>
<td>ADVANCE UNDERSTANDING CONCERNING PUBLICLY FINANCED ENERGY IMPROVEMENT PROGRAMS</td>
<td>54</td>
</tr>
<tr>
<td>19.</td>
<td>SPECIAL PROVISIONS RELATING TO WORK FUNDED UNDER AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009 (May 2009)</td>
<td>54</td>
</tr>
<tr>
<td>20.</td>
<td>REPORTING AND REGISTRATION REQUIREMENTS UNDER SECTION 1512 OF THE RECOVERY ACT</td>
<td>59</td>
</tr>
<tr>
<td>21.</td>
<td>NOTICE REGARDING THE PURCHASE OF AMERICAN-MADE EQUIPMENT AND PRODUCTS -- SENSE OF CONGRESS</td>
<td>60</td>
</tr>
<tr>
<td>22.</td>
<td>REQUIRED USE OF AMERICAN IRON, STEEL, AND MANUFACTURED GOODS -- SECTION 1605 OF THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009</td>
<td>60</td>
</tr>
<tr>
<td>23.</td>
<td>REQUIRED USE OF AMERICAN IRON, STEEL, AND MANUFACTURED GOODS (COVERED UNDER INTERNATIONAL AGREEMENTS) -- SECTION 1605 OF THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009</td>
<td>63</td>
</tr>
<tr>
<td>24.</td>
<td>WAGE RATE REQUIREMENTS UNDER SECTION 1606 OF THE RECOVERY ACT</td>
<td>66</td>
</tr>
<tr>
<td>25.</td>
<td>RECOVERY ACT TRANSACTIONS LISTED IN SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS AND RECIPIENT RESPONSIBILITIES FOR INFORMING SUBRECIPIENTS</td>
<td>67</td>
</tr>
<tr>
<td>26.</td>
<td>DAVIS-BACON ACT AND CONTRACT WORKHOURS AND SAFETY STANDARD ACT</td>
<td>67</td>
</tr>
</tbody>
</table>

Agreement for "SMART" LED Streetlight Monitoring and Control System
T-20.003.012/808858
RESOLUTION OF CONFLICTING CONDITIONS

1.

Any apparent inconsistency between Federal statutes and regulations and the terms and conditions contained in this award must be referred to the DOE Award Administrator for guidance.

2.

2. CEILING ON ADMINISTRATIVE COSTS

STATES

a. State Recipients may not use more than 10 percent of amounts provided under the program for administrative expenses (EISA Sec 545 (c)(4)). These costs should be captured and summarized for each activity under the Projected Costs Within Budget: Administration.

b. Recipients are expected to manage their administrative costs. DOE will not amend an award solely to provide additional funds for changes in administrative costs. The Recipient shall not be reimbursed on this project for any final administrative costs that are in excess of the designated 10 percent administrative cost ceiling. In addition, the Recipient shall neither count costs in excess of the administrative cost ceiling as cost share, nor allocate such costs to other federally sponsored project, unless approved by the Contracting Officer.

LOCAL GOVERNMENT (Cities & Counties) and INDIAN TRIBES

a. Local government and Indian Tribe Recipients may not use more than 10 percent of amounts provided under this program, or $75,000, whichever is greater (EISA Sec 545 (b)(3)(A)), for administrative expenses, excluding the costs of meeting the reporting requirements under Title V, Subtitle E of EISA. These costs should be captured and summarized for each activity under the Projected Costs Within Budget: Administration.

b. Recipients are expected to manage their administrative costs. DOE will not amend an award solely to provide additional funds for changes in administrative costs. The Recipient shall not be reimbursed on this project for any final administrative costs that are in excess of the designated 10 percent administrative cost ceiling. In addition, the Recipient shall neither count costs in excess of the administrative cost ceiling as cost share, nor allocate such costs to other federally sponsored project, unless approved by the Contracting Officer.

3.

3. LIMITATIONS ON USE OF FUNDS

a. By accepting funds under this award, you agree that none of the funds obligated on the award shall be expended, directly or indirectly, for gambling establishments, aquariums, zoos, golf courses or swimming pools.
b. Local government and Indian tribe Recipients may not use more than 20 percent of
the amounts provided or $250,000, whichever is greater (EISA Sec 545 (b)(3)(B)),
for the establishment of revolving loan funds.

c. Local government and Indian tribe Recipients may not use more than 20 percent of
the amounts provided or $250,000, whichever is greater (EISA Sec 545 (b)(3)(C)),
for subgrants to nongovernmental organizations for the purpose of assisting in the
implementation of the energy efficiency and conservation strategy of the eligible
unit of local government or Indian tribe.

4. REIMBURSABLE INDIRECT COSTS AND FRINGE BENEFIT COSTS

a. The Recipient is expected to manage their final negotiated project budgets,
including their indirect costs and fringe benefit costs. DOE will not amend an award
solely to provide additional funds for changes in the indirect and/or fringe benefit
costs or for changes in rates used for calculating these costs. DOE recognizes that
the inability to obtain full reimbursement for indirect or fringe benefit costs means
the Recipient must absorb the underrecovery. Such underrecovery may be
allocated as part of the Recipient's cost share.

b. If actual allowable [indirect and/or fringe benefit] costs are less than those budgeted
and funded under the award, the Recipient may use the difference to pay additional
allowable direct costs during the project period. If at the completion of the award
the Government's share of total allowable costs (i.e., direct and indirect), is less
than the total costs reimbursed, the Recipient must refund the difference.

5. USE OF PROGRAM INCOME

If you earn program income during the project period as a result of this award, you may
add the program income to the funds committed to the award and used to further
eligible project objectives.

6. STATEMENT OF FEDERAL STEWARDSHIP

DOE will exercise normal Federal stewardship in overseeing the project activities
performed under this award. Stewardship activities include, but are not limited to,
conducting site visits; reviewing performance and financial reports; providing technical
assistance and/or temporary intervention in unusual circumstances to correct
deficiencies which develop during the project; assuring compliance with terms and
conditions; and reviewing technical performance after project completion to ensure that
the award objectives have been accomplished.

7. SITE VISITS

DOE's authorized representatives have the right to make site visits at reasonable times
to review project accomplishments and management control systems and to provide
technical assistance, if required. You must provide, and must require your
subawardees to provide, reasonable access to facilities, office space, resources, and assistance for the safety and convenience of the government representatives in the performance of their duties. All site visits and evaluations must be performed in a manner that does not unduly interfere with or delay the work.

8. REPORTING REQUIREMENTS

a. Requirements. The reporting requirements for this award are identified on the Federal Assistance Reporting Checklist, DOE F 4600.2, attached to this award. Failure to comply with these reporting requirements is considered a material noncompliance with the terms of the award. Noncompliance may result in withholding of future payments, suspension or termination of the current award, and withholding of future awards. A willful failure to perform, a history of failure to perform, or unsatisfactory performance of this and/or other financial assistance awards, may also result in a debarment action to preclude future awards by Federal agencies.

b. Additional Recovery Act Reporting Requirements are found in the Provision below labeled: “REPORTING AND REGISTRATION REQUIREMENTS UNDER SECTION 1512 OF THE RECOVERY ACT.”

9. PUBLICATIONS

a. You are encouraged to publish or otherwise make publicly available the results of the work conducted under the award.

b. An acknowledgment of DOE support and a disclaimer must appear in the publication of any material, whether copyrighted or not, based on or developed under this project, as follows:

Acknowledgment: “This material is based upon work supported by the Department of Energy [National Nuclear Security Administration] [add name(s) of other agencies, if applicable] under Award Number(s) [enter the award number(s)].”

Disclaimer: “This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.”
10. FEDERAL, STATE, AND MUNICIPAL REQUIREMENTS

You must obtain any required permits, ensure the safety and structural integrity of any repair, replacement, construction and/or alteration, and comply with applicable federal, state, and municipal laws, codes, and regulations for work performed under this award.

11. LOBBYING RESTRICTIONS

By accepting funds under this award, you agree that none of the funds obligated on the award shall be expended, directly or indirectly, to influence congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. 1913. This restriction is in addition to those prescribed elsewhere in statute and regulation.

12. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) REQUIREMENTS

You are restricted from taking any action using Federal funds, which would have an adverse effect on the environment or limit the choice of reasonable alternatives prior to DOE providing either a NEPA clearance or a final NEPA decision regarding this project.

If you move forward with activities that are not authorized for Federal funding by the DOE Contracting Officer in advance of the final NEPA decision, you are doing so at risk of not receiving Federal funding and such costs may not be recognized as allowable cost share.

If this award includes construction activities, you must submit an environmental evaluation report/evaluation notification form addressing NEPA issues prior to DOE initiating the NEPA process.

13. HISTORIC PRESERVATION

Prior to the expenditure of Project funds to alter any historic structure or site, the Recipient or subrecipient shall ensure that it is compliant with Section 106 of the National Historic Preservation Act (NHPA), consistent with DOE’s 2009 letter of delegation of authority regarding the NHPA. Section 106 applies to historic properties that are listed in or eligible for listing in the National Register of Historic Places. If applicable, the Recipient or subrecipient must contact the State Historic Preservation Officer (SHPO), and the Tribal Historic Preservation Officer (THPO) to coordinate the Section 106 review outlined in 36 CFR Part 800. SHPO contact information is available at the following link: http://www.ncshpo.org/find/index.htm. THPO contact information is available at the following link: http://www.nathpo.org/map.html. Section 110(k) of the NHPA applies to DOE funded activities.
If applicable, the Recipient or subrecipient certifies that it will retain sufficient documentation, to demonstrate that the Recipient or subrecipient has received required approval(s) from the SHPO or THPO for the Project. Recipients or subrecipients shall avoid taking any action that results in an adverse effect to historic properties pending compliance with Section 106. The Recipient or subrecipient shall deem compliance with Section 106 of the NHPA complete only after it has received this documentation. The Recipient or subrecipient shall make this documentation available to DOE on DOE’s request (for example, during a post-award audit).

5.

14. WASTE STREAM

The Recipient assures that it will create or obtain a waste management plan addressing waste generated by a proposed Project prior to the Project generating waste. This waste management plan will describe the Recipient's or subrecipient's plan to dispose of any sanitary or hazardous waste (e.g., construction and demolition debris, old light bulbs, lead ballasts, piping, roofing material, discarded equipment, debris, and asbestos) generated as a result of the proposed Project. The Recipient shall ensure that the Project is in compliance with all Federal, state and local regulations for waste disposal. The Recipient shall make the waste management plan and related documentation available to DOE on DOE’s request (for example, during a post-award audit).

15. DECONTAMINATION AND/OR DECOMMISSIONING (D&D) COSTS

Notwithstanding any other provisions of this Agreement, the Government shall not be responsible for or have any obligation to the Recipient for (i) Decontamination and/or Decommissioning (D&D) of any of the Recipient’s facilities, or (ii) any costs which may be incurred by the Recipient in connection with the D&D of any of its facilities due to the performance of the work under this Agreement, whether said work was performed prior to or subsequent to the effective date of the Agreement.

16. SUBGRANTS AND LOANS

a. The Recipient hereby warrants that it will ensure that all activities by sub-grantee(s) and loan recipients to accomplish the approved Project Description or Statement of Project Objectives are eligible activities under 42 U.S.C. 171534(1)-(13). State recipients hereby warrant that they will ensure that all activities by sub-grantee(s) and loan recipients pursuant to 42 U.S.C. 17155(c)(1)(A) to accomplish the approved Project Description or Statement of Project objects are eligible activities under 42 U.S.C. 171534(3)-(13).

b. Upon the Recipient's selection of the sub-grantee(s) and loan recipients, the Recipient shall notify (i.e. approval not required) the DOE Contracting Officer with the following information for each, regardless of dollar amount:
   - Name of Sub-Grantee
   - DUNS Number
   - Award Amount
   - Statement of work including applicable activities
State recipients shall notify the DOE Contracting Officer with the above information within 180 days of the award date in Block 27 of the Assistance Agreement Cover Page.

c. In addition to the information in paragraph b. above, for each sub-grant and loan that has an estimated cost greater than $2,000,000, the recipient must submit for approval by the Contracting Officer, a SF424A Budget Information – Nonconstruction Programs, and PMC 123.1 Cost Reasonableness Determination for Financial Assistance (available at http://www.eere-pmc.energy.gov/forms.aspx).

17. JUSTIFICATION OF BUDGET COSTS

6.

a. In the original application, the recipient did not provide sufficient information to justify the approval or release of funds for the proposed activities. In order to receive reimbursement for the costs associated with the activities listed in the approved Statement of Project Objectives (SOPO), a justification for all proposed costs must be submitted to the DOE Contracting Officer.

b. The Recipient must provide justification for the following costs:

   Personnel Costs:
   The Recipient must submit cost justification for the following personnel costs: for approval by the Contracting Officer.

   Fringe Benefit Costs:
   The Recipient must submit a fringe benefit rate proposal/agreement for approval by the Contracting Officer.

   Travel Costs:
   The Recipient must submit cost justification for the following travel costs: for approval by the Contracting Officer.

   Equipment Costs:
   The Recipient must submit vendor quotes for equipment with an individual item cost of $50,000 or more, for approval by the Contracting Officer.

   Supplies Costs:
   The Recipient must submit cost justification for the following supplies costs: for approval by the Contracting Officer.

   Contractual Costs:
   1. The recipient shall provide the following information for each individual or company that will receive EECBG funding, regardless of dollar amount:
      - Name
      - DUNS Number
      - Award Amount
      - Statement of work including applicable activities
2. In addition to the information in paragraph 1. above, for each individual or company that has an estimated cost greater than $2,000,000, the Recipient must submit a separate SF424A Budget Information – Nonconstruction Programs, and Budget Justification. The DOE Contracting Officer may require additional information concerning these individuals or companies prior to providing written approval.

Other Direct Costs:
The Recipient must submit cost justification for the following other direct costs: for approval by the Contracting Officer.

Indirect Costs:
The Recipient must submit an indirect rate proposal/agreement for approval by the Contracting Officer.

c. Upon written notification and/or approval by the Contracting Officer, the Recipient may then receive payment for the activities listed in the approved SOPO for allowable costs incurred in accordance with the payment provisions contained in the Special Terms and Conditions of this agreement. These written notifications and/or approvals will be incorporated into the award by formal modification at a future date.

18. ADVANCE UNDERSTANDING CONCERNING PUBLICLY FINANCED ENERGY IMPROVEMENT PROGRAMS

The parties recognize that the Recipient may use funds under this award for Property-Assessed Clean Energy (PACE) loans, Sustainable Energy Municipal Financing, Clean Energy Assessment Districts, Energy Loan Tax Assessment Programs (ELTAPS), or any other form or derivation of Special Taxing District whereby taxing entities collect payments through increased tax assessments for energy efficiency and renewable energy building improvements made by their constituents. The Department of Energy intends to publish "Best Practices" or other guidelines pertaining to the use of funds made available to the Recipient under this award pertaining to the programs identified herein. By accepting this award, the Recipient agrees to incorporate, to the maximum extent practicable, those Best Practices and other guidelines into any such program(s) within a reasonable time after notification by DOE that the Best Practices or guidelines have been made available. The Recipient also agrees, by its acceptance of this award, to require its sub-recipients to incorporate to the maximum extent practicable the best practices and other guideline into any such program used by the sub-recipient.

19. SPECIAL PROVISIONS RELATING TO WORK FUNDED UNDER AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009 (May 2009)

Preamble
The American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, (Recovery Act) was enacted to preserve and create jobs and promote economic recovery, assist those most impacted by the recession, provide investments needed to increase economic efficiency by spurring technological advances in science and health, invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits, stabilize State and local government budgets, in order to minimize and avoid reductions in essential services and counterproductive State and local tax increases. Recipients shall use grant funds in a manner that maximizes job creation and economic benefit.

The Recipient shall comply with all terms and conditions in the Recovery Act relating generally to governance, accountability, transparency, data collection and resources as specified in Act itself and as discussed below.

Recipients should begin planning activities for their first tier subrecipients, including obtaining a DUNS number (or updating the existing DUNS record), and registering with the Central Contractor Registration (CCR).

Be advised that Recovery Act funds can be used in conjunction with other funding as necessary to complete projects, but tracking and reporting must be separate to meet the reporting requirements of the Recovery Act and related guidance. For projects funded by sources other than the Recovery Act, Contractors must keep separate records for Recovery Act funds and to ensure those records comply with the requirements of the Act.

The Government has not fully developed the implementing instructions of the Recovery Act, particularly concerning specific procedural requirements for the new reporting requirements. The Recipient will be provided these details as they become available. The Recipient must comply with all requirements of the Act. If the recipient believes there is any inconsistency between ARRA requirements and current award terms and conditions, the issues will be referred to the Contracting Officer for reconciliation.

Definitions

For purposes of this clause, Covered Funds means funds expended or obligated from appropriations under the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5. Covered Funds will have special accounting codes and will be identified as Recovery Act funds in the grant, cooperative agreement or TIA and/or modification using Recovery Act funds. Covered Funds must be reimbursed by September 30, 2015.

Non-Federal employer means any employer with respect to covered funds -- the contractor, subcontractor, grantee, or recipient, as the case may be, if the contractor, subcontractor, grantee, or recipient is an employer; and any professional membership organization, certification of other professional body, any agent or licensee of the Federal government, or any person acting directly or indirectly in the interest of an employer receiving covered funds; or with respect to covered funds received by a State or local government, the State or local government receiving the funds and any contractor or subcontractor receiving the funds and any contractor or subcontractor of the State or local government; and does not mean any department, agency, or other entity of the
Recipient means any entity that receives Recovery Act funds directly from the Federal
government (including Recovery Act funds received through grant, loan, or contract) other than
an individual and includes a State that receives Recovery Act Funds.

Special Provisions

A. Flow Down Requirement

Recipients must include these special terms and conditions in any subaward.

B. Segregation of Costs

Recipients must segregate the obligations and expenditures related to funding under the
Recovery Act. Financial and accounting systems should be revised as necessary to segregate,
track and maintain these funds apart and separate from other revenue streams. No part of the
funds from the Recovery Act shall be commingled with any other funds or used for a purpose
other than that of making payments for costs allowable for Recovery Act projects.

C. Prohibition on Use of Funds

None of the funds provided under this agreement derived from the American Recovery and
Reinvestment Act of 2009, Pub. L. 111-5, may be used by any State or local government, or any
private entity, for any casino or other gambling establishment, aquarium, zoo, golf course, or
swimming pool.

D. Access to Records

With respect to each financial assistance agreement awarded utilizing at least some of the funds
appropriated or otherwise made available by the American Recovery and Reinvestment Act of
2009, Pub. L. 111-5, any representative of an appropriate inspector general appointed under
section 3 or 8G of the Inspector General Act of 1988 (5 U.S.C. App.) or of the Comptroller
General is authorized --

(1) to examine any records of the contractor or grantee, any of its subcontractors or
subgrantees, or any State or local agency administering such contract that pertain to, and involve
transactions that relate to, the subcontract, subgrant, grant, or subgrant; and

(2) to interview any officer or employee of the contractor, grantee, subgrantee, or agency
regarding such transactions.

E. Publication

An application may contain technical data and other data, including trade secrets and/or
privileged or confidential information, which the applicant does not want disclosed to the public
or used by the Government for any purpose other than the application. To protect such data, the
applicant should specifically identify each page including each line or paragraph thereof.
containing the data to be protected and mark the cover sheet of the application with the following Notice as well as referring to the Notice on each page to which the Notice applies:

Notice of Restriction on Disclosure and Use of Data
The data contained in pages of this application have been submitted in confidence and contain trade secrets or proprietary information, and such data shall be used or disclosed only for evaluation purposes, provided that if this applicant receives an award as a result of or in connection with the submission of this application, DOE shall have the right to use or disclose the data here to the extent provided in the award. This restriction does not limit the Government's right to use or disclose data obtained without restriction from any source, including the applicant.

Information about this agreement will be published on the Internet and linked to the website www.recovery.gov, maintained by the Accountability and Transparency Board. The Board may exclude posting contractual or other information on the website on a case-by-case basis when necessary to protect national security or to protect information that is not subject to disclosure under sections 552 and 552a of title 5, United States Code.

F. Protecting State and Local Government and Contractor Whistleblowers.

The requirements of Section 1553 of the Act are summarized below. They include, but are not limited to:

Prohibition on Reprisals: An employee of any non-Federal employer receiving covered funds under the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, may not be discharged, demoted, or otherwise discriminated against as a reprisal for disclosing, including a disclosure made in the ordinary course of an employee's duties, to the Accountability and Transparency Board, an inspector general, the Comptroller General, a member of Congress, a State or Federal regulatory or law enforcement agency, a person with supervisory authority over the employee (or other person working for the employer who has the authority to investigate, discover or terminate misconduct), a court or grant jury, the head of a Federal agency, or their representatives information that the employee believes is evidence of:

- gross management of an agency contract or grant relating to covered funds;
- a gross waste of covered funds;
- a substantial and specific danger to public health or safety related to the implementation or use of covered funds;
- an abuse of authority related to the implementation or use of covered funds; or
- as violation of law, rule, or regulation related to an agency contract (including the competition for or negotiation of a contract) or grant, awarded or issued relating to covered funds.

Agency Action: Not later than 30 days after receiving an inspector general report of an alleged reprisal, the head of the agency shall determine whether there is sufficient basis to conclude that the non-Federal employer has subjected the employee to a prohibited reprisal. The agency shall either issue an order denying relief in whole or in part or shall take one or more of the following actions:

Agreement for “SMART” LED Streetlight Monitoring and Control System
T-20.003.0121808858
- Order the employer to take affirmative action to abate the reprisal.
- Order the employer to reinstate the person to the position that the person held before the reprisal, together with compensation including back pay, compensatory damages, employment benefits, and other terms and conditions of employment that would apply to the person in that position if the reprisal had not been taken.
- Order the employer to pay the employee an amount equal to the aggregate amount of all costs and expenses (including attorneys' fees and expert witnesses' fees) that were reasonably incurred by the employee for or in connection with, bringing the complaint regarding the reprisal, as determined by the head of a court of competent jurisdiction.

Nonenforceability of Certain Provisions Waiving Rights and remedies or Requiring Arbitration: Except as provided in a collective bargaining agreement, the rights and remedies provided to aggrieved employees by this section may not be waived by any agreement, policy, form, or condition of employment, including any predispute arbitration agreement. No predispute arbitration agreement shall be valid or enforceable if it requires arbitration of a dispute arising out of this section.


G. Reserved

H. False Claims Act

Recipient and sub-recipients shall promptly refer to the DOE or other appropriate Inspector General any credible evidence that a principal, employee, agent, contractor, sub-grantee, subcontractor or other person has submitted a false claim under the False Claims Act or has committed a criminal or civil violation of laws pertaining to fraud, conflict of interest, bribery, gratuity or similar misconduct involving those funds.

I. Information in Support of Recovery Act Reporting

Recipient may be required to submit backup documentation for expenditures of funds under the Recovery Act including such items as timecards and invoices. Recipient shall provide copies of backup documentation at the request of the Contracting Officer or designee.

J. Availability of Funds

Funds obligated to this award are available for reimbursement of costs until 36 months after the award date.

K. Additional Funding Distribution and Assurance of Appropriate Use of Funds
Certification by Governor – For funds provided to any State or agency thereof by the American Reinvestment and Recovery Act of 2009, Pub. L. 111-5, the Governor of the State shall certify that: 1) the state will request and use funds provided by the Act; and 2) the funds will be used to create jobs and promote economic growth.

Acceptance by State Legislature -- If funds provided to any State in any division of the Act are not accepted for use by the Governor, then acceptance by the State legislature, by means of the adoption of a concurrent resolution, shall be sufficient to provide funding to such State.

Distribution -- After adoption of a State legislature's concurrent resolution, funding to the State will be for distribution to local governments, councils of government, public entities, and public-private entities within the State either by formula or at the State's discretion.

L. Certifications

With respect to funds made available to State or local governments for infrastructure investments under the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, the Governor, mayor, or other chief executive, as appropriate, certified by acceptance of this award that the infrastructure investment has received the full review and vetting required by law and that the chief executive accepts responsibility that the infrastructure investment is an appropriate use of taxpayer dollars. Recipient shall provide an additional certification that includes a description of the investment, the estimated total cost, and the amount of covered funds to be used for posting on the Internet. A State or local agency may not receive infrastructure investment funding from funds made available by the Act unless this certification is made and posted.

20. REPORTING AND REGISTRATION REQUIREMENTS UNDER SECTION 1512 OF THE RECOVERY ACT

(a) This award requires the recipient to complete projects or activities which are funded under the American Recovery and Reinvestment Act of 2009 (Recovery Act) and to report on use of Recovery Act funds provided through this award. Information from these reports will be made available to the public.

(b) The reports are due no later than ten calendar days after each calendar quarter in which the Recipient receives the assistance award funded in whole or in part by the Recovery Act.

(c) Recipients and their first-tier subrecipients must maintain current registrations in the Central Contractor Registration (http://www.ccr.gov) at all times during which they have active federal awards funded with Recovery Act funds. A Dun and Bradstreet Data Universal Numbering System (DUNS) Number (http://www.dnb.com) is one of the requirements for registration in the Central Contractor Registration.

(d) The recipient shall report the information described in section 1512(c) of the Recovery Act using the reporting instructions and data elements that will be provided online at
http://www.FederalReporting.gov and ensure that any information that is pre-filled is corrected or updated as needed.

21. NOTICE REGARDING THE PURCHASE OF AMERICAN-MADE EQUIPMENT AND PRODUCTS -- SENSE OF CONGRESS

10. It is the sense of the Congress that, to the greatest extent practicable, all equipment and products purchased with funds made available under this award should be American-made.

*Special Note: Definitization of the Provisions entitled, "REQUIRED USE OF AMERICAN IRON, STEEL, AND MANUFACTURED GOODS – SECTION 1605 OF THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009" and "REQUIRED USE OF AMERICAN IRON, STEEL, AND MANUFACTURED GOODS (COVERED UNDER INTERNATIONAL AGREEMENTS) – SECTION 1605 OF THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009" will be done upon definition and review of final activities.


12. If the Recipient determines at any time that any construction, alteration, or repair activity on a public building or public works will be performed during the course of the project, the Recipient shall notify the Contracting Officer prior to commencing such work and the following provisions shall apply.

(a) Definitions. As used in this award term and condition—

(1) Manufactured good means a good brought to the construction site for incorporation into the building or work that has been—

(i) Processed into a specific form and shape; or

(ii) Combined with other raw material to create a material that has different properties than the properties of the individual raw materials.

(2) Public building and public work means a public building of, and a public work of, a governmental entity (the United States; the District of Columbia; commonwealths, territories, and minor outlying islands of the United States; State and local governments; and multi-State, regional, or interstate entities which have governmental functions). These buildings and works may include, without limitation, bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, power lines, pumping stations, heavy generators, railways, airports, terminals, docks, piers, wharves, ways, lighthouses, buoys, jetties, breakwaters, levees, and canals, and the construction, alteration, maintenance, or repair of such buildings and works.

(3) Steel means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements.
(b) Domestic preference. (1) This award term and condition implements Section 1605 of the American Recovery and Reinvestment Act of 2009 (Recovery Act) (Pub. L. 111–5), by requiring that all iron, steel, and manufactured goods used in the project are produced in the United States except as provided in paragraph (b)(3) of this section and condition.

(2) This requirement does not apply to the material listed by the Federal Government as follows:

To Be Determined

(3) The award official may add other iron, steel, and/or manufactured goods to the list in paragraph (b)(2) of this section and condition if the Federal Government determines that—

(i) The cost of the domestic iron, steel, and/or manufactured goods would be unreasonable. The cost of domestic iron, steel, or manufactured goods used in the project is unreasonable when the cumulative cost of such material will increase the cost of the overall project by more than 25 percent;

(ii) The iron, steel, and/or manufactured good is not produced, or manufactured in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or

(iii) The application of the restriction of section 1605 of the Recovery Act would be inconsistent with the public interest.

(c) Request for determination of inapplicability of Section 1605 of the Recovery Act. (1)(i) Any recipient request to use foreign iron, steel, and/or manufactured goods in accordance with paragraph (b)(3) of this section shall include adequate information for Federal Government evaluation of the request, including—

(A) A description of the foreign and domestic iron, steel, and/or manufactured goods;

(B) Unit of measure;

(C) Quantity;

(D) Cost;

(E) Time of delivery or availability;

(F) Location of the project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign iron, steel, and/or manufactured goods cited in accordance with paragraph (b)(3) of this section.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed cost comparison table in the format in paragraph (d) of this section.

(iii) The cost of iron, steel, and/or manufactured goods material shall include all delivery costs to the construction site and any applicable duty.
Any recipient request for a determination submitted after Recovery Act funds have been obligated for a project for construction, alteration, maintenance, or repair shall explain why the recipient could not reasonably foresee the need for such determination and could not have requested the determination before the funds were obligated. If the recipient does not submit a satisfactory explanation, the award official need not make a determination.

(2) If the Federal Government determines after funds have been obligated for a project for construction, alteration, maintenance, or repair that an exception to section 1605 of the Recovery Act applies, the award official will amend the award to allow use of the foreign iron, steel, and/or relevant manufactured goods. When the basis for the exception is nonavailability or public interest, the amended award shall reflect adjustment of the award amount, redistribution of budgeted funds, and/or other actions taken to cover costs associated with acquiring or using the foreign iron, steel, and/or relevant manufactured goods. When the basis for the exception is the unreasonable cost of the domestic iron, steel, or manufactured goods, the award official shall adjust the award amount or redistribute budgeted funds by at least the differential established in 2 CFR 176.110(a).

(3) Unless the Federal Government determines that an exception to section 1605 of the Recovery Act applies, use of foreign iron, steel, and/or manufactured goods is noncompliant with section 1605 of the American Recovery and Reinvestment Act.

(d) Data. To permit evaluation of requests under paragraph (b) of this section based on unreasonable cost, the Recipient shall include the following information and any applicable supporting data based on the survey of suppliers:

### Foreign and Domestic Items Cost Comparison

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit of measure</th>
<th>Quantity</th>
<th>Cost (dollars)*</th>
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</table>

List name, address, telephone number, email address, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.

Include other applicable supporting information.

*Include all delivery costs to the construction site.

Agreement for “SMART” LED Streetlight Monitoring and Control System
T-20.003.012/808858
23. REQUIRED USE OF AMERICAN IRON, STEEL, AND MANUFACTURED GOODS (COVERED UNDER INTERNATIONAL AGREEMENTS) – SECTION 1605 OF THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009

(a) Definitions. As used in this award term and condition—

Designated country — (1) A World Trade Organization Government Procurement Agreement country (Aruba, Austria, Belgium, Bulgaria, Canada, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, and United Kingdom;

(2) A Free Trade Agreement (FTA) country (Australia, Bahrain, Canada, Chile, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Mexico, Morocco, Nicaragua, Oman, Peru, or Singapore); or

(3) A United States-European Communities Exchange of Letters (May 15, 1995) country: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, and United Kingdom.

Designated country iron, steel, and/or manufactured goods — (1) Is wholly the growth, product, or manufacture of a designated country; or

(2) In the case of a manufactured good that consist in whole or in part of materials from another country, has been substantially transformed in a designated country into a new and different manufactured good distinct from the materials from which it was transformed.

Domestic iron, steel, and/or manufactured good — (1) Is wholly the growth, product, or manufacture of the United States; or

(2) In the case of a manufactured good that consists in whole or in part of materials from another country, has been substantially transformed in the United States into a new and different manufactured good distinct from the materials from which it was transformed. There is no requirement with regard to the origin of components or subcomponents in manufactured goods or products, as long as the manufacture of the goods occurs in the United States.

Foreign iron, steel, and/or manufactured good means iron, steel and/or manufactured good that is not domestic or designated country iron, steel, and/or manufactured good.

Manufactured good means a good brought to the construction site for incorporation into the building or work that has been—

(1) Processed into a specific form and shape; or

(2) Combined with other raw material to create a material that has different properties than the properties of the individual raw materials.
Public building and public work means a public building of, and a public work of, a governmental entity (the United States; the District of Columbia; commonwealths, territories, and minor outlying islands of the United States; State and local governments; and multi-State, regional, or interstate entities which have governmental functions). These buildings and works may include, without limitation, bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, power lines, pumping stations, heavy generators, railways, airports, terminals, docks, piers, wharves, ways, lighthouses, buoys, jetties, breakwaters, levees, and canals, and the construction, alteration, maintenance, or repair of such buildings and works.

Steel means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements.

(b) Iron, steel, and manufactured goods. (1) The award term and condition described in this section implements—

(i) Section 1605(a) of the American Recovery and Reinvestment Act of 2009 (Pub. L. 111–5) (Recovery Act), by requiring that all iron, steel, and manufactured goods used in the project are produced in the United States; and

(ii) Section 1605(d), which requires application of the Buy American requirement in a manner consistent with U.S. obligations under international agreements. The restrictions of section 1605 of the Recovery Act do not apply to designated country iron, steel, and/or manufactured goods. The Buy American requirement in section 1605 shall not be applied where the iron, steel or manufactured goods used in the project are from a Party to an international agreement that obligates the recipient to treat the goods and services of that Party the same as domestic goods and services. This obligation shall only apply to projects with an estimated value of $7,443,000 or more.

(2) The recipient shall use only domestic or designated country iron, steel, and manufactured goods in performing the work funded in whole or part with this award, except as provided in paragraphs (b)(3) and (b)(4) of this section.

(3) The requirement in paragraph (b)(2) of this section does not apply to the iron, steel, and manufactured goods listed by the Federal Government as follows:

To Be Determined

(4) The award official may add other iron, steel, and manufactured goods to the list in paragraph (b)(3) of this section if the Federal Government determines that—

(i) The cost of domestic iron, steel, and/or manufactured goods would be unreasonable. The cost of domestic iron, steel, and/or manufactured goods used in the project is unreasonable when the cumulative cost of such material will increase the overall cost of the project by more than 25 percent;

(ii) The iron, steel, and/or manufactured good is not produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality; or
(iii) The application of the restriction of section 1605 of the Recovery Act would be inconsistent with the public interest.

(c) **Request for determination of inapplicability of section 1605 of the Recovery Act or the Buy American Act.** (1)(i) Any recipient request to use foreign iron, steel, and/or manufactured goods in accordance with paragraph (b)(4) of this section shall include adequate information for Federal Government evaluation of the request, including—

(A) A description of the foreign and domestic iron, steel, and/or manufactured goods;

(B) Unit of measure;

(C) Quantity;

(D) Cost;

(E) Time of delivery or availability;

(F) Location of the project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign iron, steel, and/or manufactured goods cited in accordance with paragraph (b)(4) of this section.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed cost comparison table in the format in paragraph (d) of this section.

(iii) The cost of iron, steel, or manufactured goods shall include all delivery costs to the construction site and any applicable duty.

(iv) Any recipient request for a determination submitted after Recovery Act funds have been obligated for a project for construction, alteration, maintenance, or repair shall explain why the recipient could not reasonably foresee the need for such determination and could not have requested the determination before the funds were obligated. If the recipient does not submit a satisfactory explanation, the award official need not make a determination.

(2) If the Federal Government determines after funds have been obligated for a project for construction, alteration, maintenance, or repair that an exception to section 1605 of the Recovery Act applies, the award official will amend the award to allow use of the foreign iron, steel, and/or relevant manufactured goods. When the basis for the exception is nonavailability or public interest, the amended award shall reflect adjustment of the award amount, redistribution of budgeted funds, and/or other appropriate actions taken to cover costs associated with acquiring or using the foreign iron, steel, and/or relevant manufactured goods. When the basis for the exception is the unreasonable cost of the domestic iron, steel, or manufactured goods, the award official shall adjust the award amount or redistribute budgeted funds, as appropriate, by at least the differential established in 2 CFR 176.110(a).

(3) Unless the Federal Government determines that an exception to section 1605 of the Recovery Act applies, use of foreign iron, steel, and/or manufactured goods other than
designated country iron, steel, and/or manufactured goods is noncompliant with the applicable Act.

(d) Data. To permit evaluation of requests under paragraph (b) of this section based on unreasonable cost, the applicant shall include the following information and any applicable supporting data based on the survey of suppliers:

**Foreign and Domestic Items Cost Comparison**

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List name, address, telephone number, email address, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.

Include other applicable supporting information.

*Include all delivery costs to the construction site.

**14. WAGE RATE REQUIREMENTS UNDER SECTION 1606 OF THE RECOVERY ACT**

(a) Section 1606 of the Recovery Act requires that all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the Federal Government pursuant to the Recovery Act shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code.

Pursuant to Reorganization Plan No. 14 and the Copeland Act, 40 U.S.C. 3145, the Department of Labor has issued regulations at 29 CFR parts 1, 3, and 5 to implement the Davis-Bacon and related Acts. Regulations in 29 CFR 5.5 instruct agencies concerning application of the standard Davis-Bacon contract clauses set forth in that section. Federal agencies providing grants, cooperative agreements, and loans under the Recovery Act shall ensure that the standard Davis-Bacon contract clauses found in 29 CFR 5.5(a) are incorporated in any resultant covered contracts that are in excess of $2,000 for construction, alteration or repair (including painting and decorating).

Agreement for "SMART" LED Streetlight Monitoring and Control System
T-20.003.012/808858
(b) For additional guidance on the wage rate requirements of section 1606, contact your awarding agency. Recipients of grants, cooperative agreements and loans should direct their initial inquiries concerning the application of Davis-Bacon requirements to a particular federally assisted project to the Federal agency funding the project. The Secretary of Labor retains final coverage authority under Reorganization Plan Number 14.

15. 25. RECOVERY ACT TRANSACTIONS LISTED IN SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS AND RECIPIENT RESPONSIBILITIES FOR INFORMING SUBRECIPIENTS

(a) To maximize the transparency and accountability of funds authorized under the American Recovery and Reinvestment Act of 2009 (Pub. L. 111-5) (Recovery Act) as required by Congress and in accordance with 2 CFR 215.21 “Uniform Administrative Requirements for Grants and Agreements” and OMB Circular A–102 Common Rules provisions, recipients agree to maintain records that identify adequately the source and application of Recovery Act funds. OMB Circular A–102 is available at http://www.whitehouse.gov/omb/circulars/a102/a102.html.

(b) For recipients covered by the Single Audit Act Amendments of 1996 and OMB Circular A–133, “Audits of States, Local Governments, and Non-Profit Organizations,” recipients agree to separately identify the expenditures for Federal awards under the Recovery Act on the Schedule of Expenditures of Federal Awards (SEFA) and the Data Collection Form (SF–SAC) required by OMB Circular A–133. OMB Circular A–133 is available at http://www.whitehouse.gov/omb/circulars/a133/a133.html. This shall be accomplished by identifying expenditures for Federal awards made under the Recovery Act separately on the SEFA, and as separate rows under Item 9 of Part III on the SF–SAC by CFDA number, and inclusion of the prefix “ARRA-” in identifying the name of the Federal program on the SEFA and as the first characters in Item 9d of Part III on the SF–SAC.

(c) Recipients agree to separately identify to each subrecipient, and document at the time of subaward and at the time of disbursement of funds, the Federal award number, CFDA number, and amount of Recovery Act funds. When a recipient awards Recovery Act funds for an existing program, the information furnished to subrecipients shall distinguish the subawards of incremental Recovery Act funds from regular subawards under the existing program.

(d) Recipients agree to require their subrecipients to include on their SEFA information to specifically identify Recovery Act funding similar to the requirements for the recipient SEFA described above. This information is needed to allow the recipient to properly monitor subrecipient expenditure of ARRA funds as well as oversight by the Federal awarding agencies, Offices of Inspector General and the Government Accountability Office.

26. DAVIS-BACON ACT AND CONTRACT WORKHOURS AND SAFETY STANDARD ACT

Definitions: For purposes of this provision, “Davis Bacon Act and Contract Work Hours and Safety Standards Act,” the following definitions are applicable:

1. “Award” means any grant, cooperative agreement or technology investment agreement made with Recovery Act funds by the Department of Energy (DOE) to a Recipient. Such Award must require compliance with the labor standards clauses and wage rate requirements of the Davis-Bacon Act (DBA) for work
performed by all laborers and mechanics employed by Recipients (other than a unit of State or local government whose own employees perform the construction) Subrecipients, Contractors, and subcontractors.

(2) "Contractor" means an entity that enters into a Contract. For purposes of these clauses, Contractor shall include (as applicable) prime contractors, Recipients, Subrecipients, and Recipients' or Subrecipients' contractors, subcontractors, and lower-tier subcontractors. "Contractor" does not mean a unit of State or local government where construction is performed by its own employees.

(3) "Contract" means a contract executed by a Recipient, Subrecipient, prime contractor, or any tier subcontractor for construction, alteration, or repair. It may also mean (as applicable) (i) financial assistance instruments such as grants, cooperative agreements, technology investment agreements, and loans; and, (ii) Sub awards, contracts and subcontracts issued under financial assistance agreements. "Contract" does not mean a financial assistance instrument with a unit of State or local government where construction is performed by its own employees.

(4) "Contracting Officer" means the DOE official authorized to execute an Award on behalf of DOE and who is responsible for the business management and non-program aspects of the financial assistance process.

(5) "Recipient" means any entity other than an individual that receives an Award of Federal funds in the form of a grant, cooperative agreement, or technology investment agreement directly from the Federal Government and is financially accountable for the use of any DOE funds or property, and is legally responsible for carrying out the terms and conditions of the program and Award.

(6) "Subaward" means an award of financial assistance in the form of money, or property in lieu of money, made under an award by a Recipient to an eligible Subrecipient or by a Subrecipient to a lower-tier subrecipient. The term includes financial assistance when provided by any legal agreement, even if the agreement is called a contract, but does not include the Recipient's procurement of goods and services to carry out the program nor does it include any form of assistance which is excluded from the definition of "Award" above.

(7) "Subrecipient" means a non-Federal entity that expends Federal funds received from a Recipient to carry out a Federal program, but does not include an individual that is a beneficiary of such a program.

(a) Davis Bacon Act

(1) Minimum wages.

   (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of...
1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and, without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The Contracting Officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the Contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination;

(2) The classification is utilized in the area by the construction industry; and
(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(C) In the event the Contractor, the laborers or mechanics to be employed in the classification or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this Contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the Contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.
(2) Withholding. The Department of Energy or the Recipient or Subrecipient shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the Contractor under this Contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the Contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the Contract, the Department of Energy, Recipient, or Subrecipient, may, after written notice to the Contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii) (A) The Contractor shall submit weekly for each week in which any
Contract work is performed a copy of all payrolls to the Department of Energy if the agency is a party to the Contract, but if the agency is not such a party, the Contractor will submit the payrolls to the Recipient or Subrecipient (as applicable), applicant, sponsor, or owner, as the case may be, for transmission to the Department of Energy. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead, the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime Contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the Department of Energy if the agency is a party to the Contract, but if the agency is not such a party, the Contractor will submit them to the Recipient or Subrecipient (as applicable), applicant, sponsor, or owner, as the case may be, for transmission to the Department of Energy, the Contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the Recipient or Subrecipient (as applicable), applicant, sponsor, or owner).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the Contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the Contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;
(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the Contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the “Statement of Compliance” required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 3729 of title 31 of the United States Code.

(iii) The Contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Department of Energy or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the Contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees—

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for Agreement for “SMART” LED Streetlight Monitoring and Control System T-20.003.012/808858
the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a Contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on
the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees, and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The Contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this Contract.

(6) Contracts and Subcontracts. The Recipient, Subrecipient, the Recipient's, and Subrecipient's contractors and subcontractor shall insert in any Contracts the clauses contained herein in (a)(1) through (10) and such other clauses as the Department of Energy may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The Recipient shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of the paragraphs in this clause.

(7) Contract termination: debarment. A breach of the Contract clauses in 29 CFR 5.5 may be grounds for termination of the Contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this Contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this Contract shall not be subject to the general disputes clause of this Contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Recipient, Subrecipient, the Contractor (or any of its subcontractors), and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this Contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
(ii) No part of this Contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).


(b) Contract Work Hours and Safety Standards Act. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No Contractor or subcontractor contracting for any part of the Contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The Department of Energy or the Recipient or Subrecipient shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under any such contract or any other Federal contract with the same prime Contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Contracts and Subcontracts. The Recipient, Subrecipient, and Recipient's and Subrecipient's contractor or subcontractor shall insert in any Contracts, the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The Recipient shall be responsible for compliance by any subcontractor or lower tier
subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

(5) The Contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the Contract for all laborers and mechanics, including guards and watchmen, working on the Contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. The records to be maintained under this paragraph shall be made available by the Contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the Department of Energy and the Department of Labor, and the Contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

(c) Recipient Responsibilities for Davis Bacon Act

(1) On behalf of the Department of Energy (DOE), Recipient shall perform the following functions:

(i) Obtain, maintain, and monitor all Davis Bacon Act (DBA) certified payroll records submitted by the Subrecipients and Contractors at any tier under this Award;

(ii) Review all DBA certified payroll records for compliance with DBA requirements, including applicable DOL wage determinations;

(iii) Notify DOE of any non-compliance with DBA requirements by Subrecipients or Contractors at any tier, including any non-compliances identified as the result of reviews performed pursuant to paragraph (ii) above;

(iv) Address any Subrecipient and any Contractor DBA non-compliance issues; if DBA non-compliance issues cannot be resolved in a timely manner, forward complaints, summary of investigations and all relevant information to DOE;

(v) Provide DOE with detailed information regarding the resolution of any DBA non-compliance issues;

(vi) Perform services in support of DOE investigations of complaints filed regarding noncompliance by Subrecipients and Contractors with DBA requirements;

(vii) Perform audit services as necessary to ensure compliance by Subrecipients and Contractors with DBA requirements and as requested by the Contracting Officer; and

(viii) Provide copies of all records upon request by DOE or DOL in a timely manner.
(d) Rates of Wages

The prevailing wage rates determined by the Secretary of Labor can be found at http://www.wdol.gov/.

Covered Activities/Projects

Based on the OMB Interim Guidance, HUD has determined that the Buy American requirement applies to certain CFDA programs funded under the Recovery Act. As noted above, the Buy American requirement only applies to projects for the construction, alteration, repair, or maintenance of public buildings or public works. The Homelessness Prevention and Rapid Re-Housing Program (HPRP) does not provide funding for such activities, and, therefore, would not trigger the Buy American requirement. Also, privately owned housing would not ordinarily be subject to the Buy American requirement. Accordingly, the Buy American requirement would not usually apply to the Tax Credit Assistance Program (TCAP), which assists low-income housing tax credit projects that are privately owned. See section II for definitions of public building and public work, privately-owned housing and publicly-owned housing. By contrast, the Buy American requirement applies to most contracts using CFDA Recovery Act funds for the construction or alteration of public housing and certain mixed-finance projects. See Question 15 in Addendum 5 for further discussion.

For the CDBG-R and NSP2 programs, the Buy American requirement applies to eligible activities using CDBG-R and NSP2 funds for the construction, alteration, repair, or maintenance of public buildings and public works. This would include funding the construction and/or rehabilitation of public facilities and improvements that are owned by governmental entities. Facilities owned and operated by private entities are not considered publicly owned, and therefore not subject to the Buy American requirement. For similar reasons, the Buy American requirement would not apply when CDBG-R and NSP2 funds are used to develop privately owned housing.

II. Definitions

The following terms are critical to the interpretation and implementation of the Buy American requirement and apply to the process described in this guidance:

The terms General Counsel, HUD, Public Housing Agency (PHA) and Secretary are defined in 24 C.F.R. 5.100.

The terms Contract, Grant, Local Government, and Obligation are defined in 24 C.F.R. 85.3.

Governmental Entities: The United States; the District of Columbia; commonwealths, territories, and minor outlying islands of the United States; State and local governments; and multi-State, regional, or interstate entities which have governmental functions. 2
and in the proper form or specification as specified in the project plans and design.

**Satisfactory Quality**: The quality of iron, steel, or the relevant manufactured good as specified in the project plans and designs.

**Steel**: An alloy that includes at least 50 percent iron, between 0.2 and 2 percent carbon, and may include other elements. Production in the United States of the iron or steel used in the project requires that all manufacturing processes must take place in the United States, except metallurgical processes involving refinement of steel additives. These requirements do not apply to iron or steel used as components or subcomponents of manufactured goods used in the project. 2 C.F.R. 176.70(a)(3) and 176.140(a)(3).

Use: The obligation of funds. HUD has adopted the definition of “obligation” as it appears in 24 C.F.R. 85.3.

### III. Implementation

Applicable HUD grant agreements providing Recovery Act assistance (e.g., CDBG-R grant agreements) explicitly require compliance with OMB guidance implementing section 1605. See Addendum I. In carrying out CED Recovery Act activities, the HUD grantees should first assess whether the activity may involve the construction, alteration, maintenance, or repair of a public building or public work. See Section 6 and Addendum 5 for guidance.

When the Buy American requirement applies, the HUD grantees should take the following steps:

1. A provision requiring compliance with the Buy American requirement must be placed in requests for applications or proposals, subrecipient agreements, bidding documents, and contracts for the assisted activity/project. The OMB Interim Guidance noted above specifies standard contract and award terms. HUD grantees should also consider using the sample language provided in Addendum 1.

2. The Buy American requirement must be applied in a manner consistent with United States obligations under international agreements. The requirement to adhere to U.S. obligations under international agreements can be found in section 1605(q) of the Recovery Act only pertains to international agreements listed in 2 C.F.R. 176.90. The Appendix to Subpart B in the OMB Interim Guidance enumerates the entities that are subject to U.S. obligations under international agreements. Accordingly, this exception only applies to HUD grantees listed, or included within the entities listed, in the Appendix to Subpart B. If the iron, steel, or manufactured goods to be used in a project are from a Party to an international agreement listed in 2 C.F.R. 176.90, and the grantee is required under the international agreement to treat the goods and services of that Party the same as domestic goods and services, then the Buy American requirement will not apply. For example, a State grantee listed in the Appendix buys steel under an international agreement from a designated country that is also a Party to the international agreement. The foreign steel is treated as if it is domestically produced for the purposes of the Buy American requirement. Also note that pursuant to 2
and any applicable duty.

C. The HUD grantee must provide documentation/support to show that it has made a good faith effort to solicit bids for domestic construction materials/manufactured goods, as demonstrated by at least one of the following (check at least one):
   1. Language in request for bids/proposals;
   2. Language in contracts; and
   3. Communications with contractor.

III. Requirements Applicable in Certain Circumstances

In addition to the General Requirements in Section II above, if a HUD grantee is submitting an exception based on cost because the inclusion of iron, steel and manufactured goods produced in the United States will increase the cost of the overall project by more than 25 percent or based on unavailability because iron, steel, and manufactured goods are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality, the information in Section IIIA or B below must also be included in the exception request submission package, as applicable.

A. Exception Request Based on Cost: If the HUD grantee's request is based on a belief that inclusion of iron, steel and manufactured goods will result in an increase in cost of the overall project by more than 25 percent, in addition to the General Requirements above, the request must include all of the following (check each one). It is important to note that a cost comparison must be completed for each item that the HUD grantee believes will cumulatively increase the overall cost of the project. The HUD grantee must provide a separate cost comparison table (Table 1 below) for each item and then complete the cumulative total table (Table 2 below) which should illustrate that the overall cost is more than 25% due to the inclusion of iron, steel, and manufactured goods produced in the United States.

<table>
<thead>
<tr>
<th>Description of Item</th>
<th>Unit of Measure</th>
<th>Quantity</th>
<th>Cost (dollars)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1/Foreign Supplier</td>
<td>Foreign steel, iron, or manufactured good</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 1/Foreign Supplier</td>
<td>List name, address, telephone number, email address, and contact for foreign supplier</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 1/Domestic Supplier 1:</td>
<td>Domestic steel, iron, or manufactured good</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 1/Domestic Supplier 2 (if available):</td>
<td>Domestic steel, iron, or manufactured good</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B. Exception Request Based on Unavailability:

In the event that the iron, steel, and manufactured goods are not available in the United States, the HUD grantee must provide a separate unavailability table (Table 3 below) which should illustrate that the materials are not available within the United States.

<table>
<thead>
<tr>
<th>Description of Item</th>
<th>Unit of Measure</th>
<th>Quantity</th>
<th>Cost (dollars)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 2/Unavailability</td>
<td>Unavailability</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. The HUD grantee provided the following supporting documentation (necessary to demonstrate the availability, quantity, and quality of the materials for which the exception is requested). Please note that the HUD grantee must address all three of these conditions in order to be considered for this exception:

**Quantity/Availability Comparison Table (Table 1)**

<table>
<thead>
<tr>
<th>Description of Item</th>
<th>Unit of Measure</th>
<th>Quantity</th>
<th>Time of Delivery/Avail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1/Foreign Supplier</td>
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<td></td>
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<tr>
<td>Foreign steel, iron, or manufactured good</td>
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</tr>
<tr>
<td>List name, address, telephone number, email address, and contact for foreign supplier</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 1/Domestic Supplier 1:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic steel, iron, or manufactured good</td>
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<td></td>
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</tr>
<tr>
<td>List name, address, telephone number, email address, and contact for Supplier 1</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Item 1/Domestic Supplier 2 (if available):</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Domestic steel, iron, or manufactured good</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>List name, address, telephone number, email address, and contact for Supplier 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 1/Domestic Supplier 3 (if available):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic steel, iron, or manufactured good</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>List name, address, telephone number, email address, and contact for Supplier 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Description*:</td>
<td></td>
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</tr>
</tbody>
</table>

*Including project schedule and relevant excerpts from project plans, specifications, and permits indicating the required quantity and quality of construction materials.

2. The HUD grantee must certify that it has made efforts to find available domestic sources.

3. The HUD grantee must maintain documentation of its process for identifying suppliers, and a list of contacted suppliers.

4. The HUD grantee must attach a statement from the contractor confirming the non-availability of the domestic construction materials for which the exception is sought.
c. one or more lenders or funding partners or the construction contractor receding their commitment to the project resulting in the project being significantly delayed or rendering it infeasible;

d. a HUD grantee missing the obligation and expenditure deadlines specified in the Recovery Act (CDBG-R funds must be expended by September 30, 2012 and for NSP2 funds, 50% expended within 2 years of obligation availability and 100% within 3 years of obligation availability);

e. jobs not being created or retained;

f. negative economic consequences to a neighborhood or locality if a project is delayed or cannot be built; or

g. other compelling negative hardships related to the above; and

6. The costs and activities comply with all applicable program requirements, including environmental, labor standards and (where applicable for CDBG-R activities) pre-award cost limitations.

II. For Projects Already Under Construction Prior to Acceptance of CDBG-R or NSP2 Funds

Due to the national financial crisis, a HUD grantee may find that a project that was previously under construction has lost one or more of its funding commitments and is now halted due to the loss of this funding commitment(s). In seeking additional funding sources, the HUD grantee may decide the commitment of CDBG-R or NSP2 Recovery Act funds to the project is the best way to get the project back on track and to resume construction. The project’s existing construction contract may include the use of steel, iron, or manufactured goods that do not meet the Buy American requirement. The HUD grantee may take advantage of this exception, however, in order to complete the project. In such cases, the construction work must have been carried out in compliance with all applicable CDBG or NSP2 requirements, such as the National Environmental Policy Act (NEPA) and Davis-Bacon. Therefore, in selecting projects, a relevant consideration would be whether the project has already received other federal financial assistance.

To be a project under construction, a project must have the following characteristics prior to the date of HUD’s execution of the Grant Agreement:

1. The HUD grantee has secured the remaining financial commitments for the project and these sources are currently available to the project;

2. The HUD grantee has an existing construction contract and general contractor.
g. other compelling negative hardships related to the above; and

6. The costs and activities, including the initial construction, comply with all applicable program requirements, including environmental, labor standards, and (where applicable for CDBG-R activities) pre-award cost limitations.
When one of the following exceptions applies, the contracting officer may acquire a foreign end product without regard to the restrictions of the Buy American Act:

- (b) Nonavailability. The Buy American Act does not apply with respect to articles, materials, or supplies if articles, materials, or supplies of the class or kind to be acquired, either as end items or components, are not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality.

- (i) Class determinations. (f) A nonavailability determination has been made for the articles listed in 25.104. This determination does not necessarily mean that there is no domestic source for the listed items, but that domestic sources can only meet 50 percent or less of total U.S. Government and nongovernment demand.

- (ii) Before acquisition of an article on the list, the procuring agency is responsible to conduct market research appropriate to the circumstances, including seeking of domestic sources. This applies to acquisition of an article as:

  - (A) An end product; or

  - (B) A replacement part for equipment of foreign manufacture, and for which domestic parts are not available.
Addendum 5.

Questions and Answers

Q1: How does a HUD grantee determine 1) whether a product or contract is likely to include iron, steel and/or manufactured goods subject to the restriction, and 2) whether such materials qualify as "produced in the United States" in accordance with the Buy American requirement?

A1: Product labels and descriptions shall be relied on. If in doubt, contact the manufacturer. In the event that the country of origin is uncertain, HUD grantees should document the means used in their attempts to verify the country of origin (e.g., informal consultations with manufacturers, suppliers, construction contractors, etc.). Also refer to the Office of Management and Budget (OMB) Interim Guidance entitled Requirements for Implementing Sections 1512, 1605, and 1606 of the American Recovery and Reinvestment Act of 2009 for Financial Assistance Awards, 74 Fed. Reg. 18449 (April 23, 2009) (to be codified at 2 CFR Part 176) (as now in effect and as may be amended from time to time) available at https://budget.gov/recovery/fedregister/2009/0423/oe176.pdf. HUD grantees should also consider using the sample language provided in Addendum 1.

Q2: Will the Buy American steel and iron requirement apply to manufactured items such as appliances, heat pumps, and generators. If so, what is the process to determine if they meet the standards and what documentation will be required?

A2: Yes. As stated above, product labels and descriptions shall be relied on. If in doubt, contact the manufacturer and maintain supporting records.

Q3: What information does a HUD grantee need to include in their contracts and agreements regarding the Buy American requirement?

A3: The OMB Interim Guidance noted above specifies standard contract and award terms. HUD grantees should also consider using the sample language provided in Addendum 1.

Q4: Does the Buy American requirement extend to heating and cooling units?

A4: Yes. Manufactured goods must be manufactured in the United States, but there is no requirement with regard to the origin of components or subcomponents used in manufactured goods. See 2 C.F.R. 176.70(a)(2)(ii).

Q5: The HUD grantee is interested in purchasing water heaters that are assembled in the U.S. and all parts are manufactured in the U.S. except for the relief valve. Does this meet the Buy American requirement?
Q10: Does the Buy America requirement affect the purchase of materials from the time the funds are introduced into the project, or is it retroactive to the start of the project? For example, the contractor may have already purchased the materials that are affected by the requirement.

A10: Buy America would not apply to work already performed and funded with non-Recovery Act funds.

Q11: A HUD grantee has a public works project already under construction using non-HUD (and non-Recovery Act) funds. CDBG-R funds will be used to fund an additional increment of construction work (e.g., 4 additional blocks of sewer lines); that work was initially included in the construction bids, but was excluded from the construction contract because the bids came in over budget. Will the Buy American requirement apply only to the CDBG-R funded portion of the project, or will the requirement retroactively apply to the entire project?

A11: When a project for the construction of a public building or public work is assisted, in whole or in part, with CDBG-R funds, the Buy American requirement applies prospectively to all construction work performed from the time CDBG-R funds are introduced into the project. This would include both CDBG-R and non-Recovery Act funded activities that are part of a single project. The Buy American requirements would not apply retroactively to work already performed and funded with non-Recovery Act funds. HUD has granted an exception for public works projects already under construction prior to acceptance of CDBG-R funds. See Addendum 3.

Q12: What are the consequences for noncompliance with the Buy American requirement?

A12: HUD must follow the requirements in 2 C.F.R. 176.130. In addition to other lawful remedies, HUD reserves the right to disallow costs or to take other corrective or remedial actions deemed appropriate.

Q13: Where can I find additional information on the Buy American requirement?


Q14: Does the Buy American requirement apply when a structure will be owned by a private, nonprofit entity but is classified in the CDBG regulations as a public facility?
Q18: An NSP2 application is submitted by a consortium that includes local government and private nonprofit organizations.
(a) If funded, will all activities of the consortium be subject to the Buy American provisions?
(b) Does it matter whether the lead member of the consortium is a local government versus a private nonprofit organization?
(c) If a nonprofit consortium member purchases residential properties from a local government consortium member, does Buy American apply?
(d) If a nonprofit consortium member purchases foreclosed residential properties directly from the lender, using local government funds for acquisition, rehabilitation, or new construction, does Buy American apply?

A18: The Buy American requirement applies to projects ("public buildings and public works"), rather than entities. If the consortium or consortium member intends to use NSP2 funds for the construction, alteration, repair or maintenance of a public building or public work, then the Buy American requirement applies. Generally speaking, a structure or improvement owned by a governmental entity is considered a public building and public work. A structure owned by a private entity is not usually considered publicly owned, and therefore not subject to the Buy American requirement. See sections 1. and V.2. of the CFDA Implementation Guide as well as Q&A 15. Also, the Buy American does not apply when NSP2 funds are used solely for land acquisition, as this is not considered construction, alteration, maintenance, or repair of a public building or public work. See Q&A 9.

Q19: If a governmental entity has a long-term lease interest in a privately-owned building, does that make it public?

A19: In the CDBG program, a long-term lease (a lease in excess of 15 years) of a privately-owned building by a governmental entity is treated as an acquisition. Accordingly, the building would be considered to be owned by the governmental entity and, therefore, a public building.
EXHIBIT F-3
CONTRACTOR CERTIFICATION

Section 1605 of the American Recovery and Reinvestment Act (ARRA) states that:

"None of the funds appropriated or otherwise made available by this Act may be used for a project for the construction, alteration, maintenance, or repair of a public building or public work unless all of the iron, steel, and manufactured goods used in the project are produced in the United States."

Please provide the information below:

U.S. location ("Location") of "substantial transformation"¹ of the product

<table>
<thead>
<tr>
<th>Street Address</th>
<th>City</th>
<th>State</th>
<th>Zip</th>
</tr>
</thead>
</table>

Contact at the Location

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
</table>

Description of how the product is "substantially transformed" at the Location (attach additional sheet as needed)

The undersigned hereby certifies that 1) the information provided above is accurate, and 2) that all of the iron, steel, and manufactured goods which are funded by monies from the ARRA under the (Name of Construction Contract) has been manufactured domestically as defined by the Buy American provision (Section 1605) of ARRA.

Name of Contractor

Date

Signature of Authorized Official

Title


Agreement for "SMART" LED Streetlight Monitoring and Control System

T-20.003.012/808858
EXHIBIT G
NOTICE OF EXERCISE OF OPTION TO EXTEND AGREEMENT

<table>
<thead>
<tr>
<th>AGREEMENT TITLE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTRACTOR</td>
</tr>
<tr>
<td>Name and Address:</td>
</tr>
<tr>
<td>DATE:</td>
</tr>
</tbody>
</table>

Pursuant to Section _____ of the Agreement referenced above, the City of San Jose ("City") hereby exercises its option to extend the term under the following provisions:

<table>
<thead>
<tr>
<th>OPTION NO.</th>
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</thead>
</table>

**NEW OPTION TERM**

| Begin date: |
| End date: |

| MAXIMUM COMPENSATION for New Option Term: |

For the option term exercised by this Notice, City shall pay Contractor an amount not to exceed the amount set forth above for Contractor’s services and reimbursable expenses, if any. The undersigned signing on behalf of the City of San Jose hereby certifies that an unexpended appropriation is available for the term exercised by this Notice, and that funds are available as of the date of this signature.

**CITY OF SAN JOSE**
a municipal corporation

By ___________________________
Name: _______________________
Title: _______________________
Date: _______________________

Agreement for “SMART” LED Streetlight Monitoring and Control System
T-20.003.0121808858
Page 91 of 94
EXHIBIT H
PROPOSAL AND BAFO RESPONSE

Schreder’s proposal and BAFO response to be incorporated by reference
EXHIBIT I
CITY OF SAN JOSE RFP AND BAFO 10-11-10
“SMART” LED STREETLIGHT MONITORING AND CONTROL SYSTEM

RFP and BAFO to be incorporated by reference
EXHIBIT J

CERTIFICATE OF COMPLIANCE
FOR +/-2% ENERGY MEASUREMENT ACCURACY REQUIREMENT

The undersigned hereby certifies that 1) the monitoring and control system reports energy consumption to an operating level of accuracy within +/- 2% in accordance with PG&E Electrical Rule 17 and Direct Access Standards for Metering and Meter Data (DASMMD), 2) the control device must be capable of recording accurately through the load range expected, and 3) data collected at the maximum dimming point and through the dimming range to full rated load of the fixture and off-state must all be accurate within the +/- 2% accuracy level required.

The OWLET luminaire controller is capable of measuring power consumption at the full rated load for each of the luminaire wattages (180W, 135W, 90W and 55W) thru the dimming range down to a minimum 5W input for each wattage and maintain a minimum 2% accuracy. The OWLET luminaire controller will also measure the power consumption when each of the luminaire wattages is at a “stand-by” state and consuming 2.1W and maintain a minimum 2% accuracy.

It is our understanding that the “load range expected” and “maximum dimming point” in the BAFO specification will not go below a 20% DIM level and that the OWLET metering system meets the terms of the specification. In fact, since the OWLET meter maintains it’s 2% accuracy when each of the luminaires is receiving only 5W of power, then theoretically the OWLET metering system is accurate when the 55W luminaire is dimmed to 9%, the 90W luminaire is dimmed to 5%, the 135W luminaire is dimmed to 4% and the 180W luminaire is dimmed to 3%. We cannot imagine a streetlight or pedestrian luminaire in the above wattages and lumen outputs being dimmed beyond 20%, let alone down to 9% or 3%.

OWLET can also program the firmware and/or software so that the luminaires cannot be dimmed lower than 20% or 10% and the OWLET controls will then measure within 2% accuracy from full rated load thru the entire dimming range as well as when the luminaires are at a “stand-by” state.

OWLET Telemanagement Systems / Schreder Lighting LLC

Name of Contractor

June 20, 2011

Date

Signature of Authorized Official

Director of Business Development

Title

Agreement for “SMART” LED Streetlight Monitoring and Control System
T-20.003.012/808858

Page 94 of 94