

**STREET LIGHTING UPGRADE
GUARANTEED SAVINGS CONTRACT**

BETWEEN

THE CITY OF HARRISBURG, PENNSYLVANIA

AND

THE EFFICIENCY NETWORK, INC.

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THIS STREET LIGHTING UPGRADE GUARANTEED SAVINGS CONTRACT DATED AND EFFECTIVE AS OF THIS 21st of September, 2015 ("Contract"), by and between The City of Harrisburg, Pennsylvania, with its principal place of business at 123 Walnut Street, Suite 212, Harrisburg, Pennsylvania 17101 ("City" or "Customer") and The Efficiency Network, Inc., a Pennsylvania based corporation, with its principal place of business located at 1501 Reedsdale Street, Suite 401, Pittsburgh, Pennsylvania 15233 ("TEN").

RECITALS

WHEREAS, City has issued a Request for Proposals for Street Lighting Upgrade and TEN has been selected as a qualified provider of such services; and,

WHEREAS, City intends for TEN to implement a street lighting upgrade project throughout the City, based upon the scope of work as set forth in TEN's Proposal, dated October 15, 2014 (the "Proposal"); and in conjunction with this Street Lighting Upgrade Contract ("Contract" or "SLUC"); and,

WHEREAS, TEN has conducted a survey of street lighting equipment owned and operated by City for the Project as described in the Investment Grade Audit and delivered a written summary thereof to City in TEN's Audit dated May 7, 2015, which contains a detailed description of certain street lighting systems projects ("SLSP's") to be installed; and,

WHEREAS, City desires that TEN provide the services necessary to specify, procure, install, monitor and guarantee the savings of said SLSP's in accordance with the Pennsylvania Guaranteed Energy Savings Act known as Act 39; and,

WHEREAS, with respect to the Project, City shall: (i) internally fund the Project, or (ii) provide financing for the Project, or (iii) provide funding for the Project from any combination of clauses (i) and (ii), and City has notified TEN of same; and,

WHEREAS, City and TEN have set forth below the terms and conditions as well as each party's duties, obligations and rights in connection with the Project, as defined hereinbelow;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is mutually acknowledged, and with the intent to be legally bound hereby, the parties hereto covenant and agree that:

TERMS AND CONDITIONS

1.0 RESPONSIBILITIES OF TEN

1.1 **Recitals.** The foregoing recitals are incorporated herein and made a part hereof.

TEN and City shall execute this Contract under which the Street Lighting Upgrade Project shall be implemented. Notwithstanding anything to the contrary in this Contract, including, but not limited to, all Contract Documents, any additional projects shall only be undertaken, or developed, at the sole and absolute discretion of the City.

Project. "Project" shall mean a street lighting project for the City's owned and maintained street lighting including those within the City owned and/or maintained by the local utility company, based upon the scope of work as set forth in TEN's Proposal dated October 15, 2014, as further detailed in TEN's Audit dated May 7, 2015 and Revised Audit dated August 14, 2015, and the Street Lighting Upgrade Contract ("SLUC") Exhibit 5 and other Contract Documents, where such work is to be performed in accordance with the terms and conditions of this Contract and the Project's Contract Documents.

Project Savings Definitions. For purposes of this Contract: (i) "Electric Savings" shall mean the total reduction in the Customer's electric energy consumption, expressed in kilowatt hours for electrical energy; (ii) "kW Reduction" shall mean the total reduction in the Customer's electric energy consumption expressed in kilowatts for electric demand; (iii) "Capital, Operation and Maintenance Savings" shall mean the total stipulated capital cost avoidance and reduction in Customer's operation and maintenance costs resulting from the installation and operation of the Project as determined in accordance with the Investment Grade Audit (IGA) Report; and (vi) "Project Savings" shall mean the total reduction in the Customer's energy of every type, capital, operating and maintenance costs related to the Project's implementation.

Work. The Scope of Work or "Work" shall refer to all acts by TEN necessary to fulfill all of its obligations under the Contract Documents, as hereinafter defined, and shall include the specification, procurement and installation of Equipment, as defined below, with respect to the Project and performance of three phases of Basic Services, as hereinafter defined, in accordance with the terms and conditions set forth in the Contract Documents.

Contract Documents. The "Contract Documents" shall consist of: (i) this Contract and the Project's Exhibits and amendments attached hereto; (ii) City's Request for Qualifications and TEN's Response to Request for Qualifications; (iii) City's Request for Proposal and TEN's Project Proposal; (iv) Streetlight Inventory Audit performed by TEN dated May 7, 2015 and Revised Streetlight Inventory Audit dated August 14, 2015; and (v) Investment Grade Audit and Revised Investment Grade Audit dated August 14, 2015 with exhibits and attachments attached thereto and (vi) Project Prevailing Wage Rates dated May 11, 2015 which are incorporated herein by reference.

Substantial Completion. "Substantial Completion" is the stage in the progress of the Work for the Project, as mutually agreed by the parties, when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that City can utilize the Work for its intended use.

Equipment. The various items of equipment (including all hardware and software), devices or materials installed by TEN in the Premises and/or at the Equipment Locations for the purpose of improving the utility and/or operating efficiency, reducing utility consumption, or reducing the utility and/or operating costs of the Premises and/or Equipment Locations in Investment Grade Audit.

Work Schedule. The Project's Work Schedule shall be attached hereto as SLUC's Exhibit 5 and made a part hereof, the Work Schedule describes the portions of the Design Specification and Installation Work based on the Equipment as it shall be completed, either as a group or individually ("Portions").

Measurement Year. During the Savings Term, as defined in Section 3., the first Measurement Year shall commence on the Acceptance Date, as defined in Section 1.3(g) herein below, and each succeeding Measurement Year shall commence on each successive anniversary of the Acceptance Date thereafter.

- 1.2 Phase I Design Specification Work. Upon execution of the SLUC and the Project's Exhibits, TEN is authorized to and shall commence and perform the following Phase I Design Specification Work:

(a) Prepare necessary design and specification documents for the Project's SLSP for submittal to City for approval within the time frames set forth in SLUC Exhibit 5, as attached hereto and made a part hereof ("Design Documents");

(b) Upon completion of the Project's Design Documents for each item of Equipment, and City's review of same, TEN shall provide City with an approval form ("Project Design Approval Form") to be executed by City to signify its approval of the Design Documents; and

(c) Investigate, review and determine if there are any hazardous materials at any of the sites where the SLSPs are to be installed and at any other site where "Installation Work" is to occur.

1.3 Phase II Basic Services – Installation Work. Upon City's execution of each Project Design Approval Form and Notice To Proceed as set forth in Exhibit 2, Attachment A, TEN is authorized to and shall commence and perform the following Project Phase II Installation Work:

(a) Remove any and all hazardous materials discovered pursuant to the investigation contemplated in Section 1.2(c);

(b) Furnish and be responsible for all of the "Installation Work," which shall include labor, materials, tools, equipment, insurance and project management necessary to satisfactorily specify, procure, install, inspect, start-up, and test the Project in accordance with the SLUC, Design Documents, and Exhibit 4, attached hereto and made a part hereof, and to perform tree trimming and the other provisions of the Contract Documents;

(b) Perform and prosecute the Installation Work in accordance with the Work Schedule as set out in the Project's SLUC Exhibit 5, as attached hereto and made a part hereof;

(c) Comply in all respects with all applicable Federal, State and local laws, codes and applicable permits relating to the Project, the Premises and/or Equipment Locations and the performance of the Work. Perform the Work so that, upon completion, the Project meets and will be capable of being operated in compliance with all requirements of all applicable laws, applicable codes, applicable permits, and all standards of the National Electric Code as then in effect and using methods and equipment that are accepted as prudent electrical, mechanical and civil engineering practice;

(d) Provide locked, insured and secure storage facilities for the storage of material, equipment and tools as well as the temporary storage of waste materials;

(e) Collect, temporarily store, and contract for the transportation and disposal of all non-hazardous waste and ballast and fluorescent lamp wastes generated during the Work. City agrees that TEN is acting as a bailee only; provided, however, that at no time shall TEN assume (i) title to any waste materials generated, or (ii) responsibility for the final disposition of hazardous waste generated under this Contract. In this regard, TEN is not, nor becomes the generator of any hazardous waste by virtue of performing this Contract. TEN shall use City's EPA identification number on all paperwork which accompanies the waste during temporary storage, transportation and disposal. TEN shall provide City with evidence from the disposal companies of proper handling, transport, recycling and disposal of such hazardous materials by the disposal company;

(f) Prepare and present to City as-built documentation setting forth the as-built condition of the Project including a list and location of all equipment installed, the capacity reduction and the expected Project Savings; and,

(g) Upon Substantial Completion of each Portion of the Project's Installation Work, TEN shall provide City with a Substantial Completion Form to be executed by City to signify its approval of the Substantial Completion of that Portion of the Installation Work, excluding punch list items. The date of Substantial Completion for each Portion of the Installation Work shall be as evidenced by an executed Substantial Completion Form and shall be referred to as the "Portion Substantial Completion Date." Upon Substantial Completion of the final Portion of the Installation Work, all Portions of the Project's Installation Work, excluding punch list items, shall be substantially completed, and City shall execute a Project Final Completion Approval Form, supplied by TEN, which acknowledges the date when all Portions of the Project's Installation Work have been completed ("Project Acceptance Date"). Punch list items must be completed to the City's reasonable satisfaction within forty five (45) days of execution of the Project Final Completion Approval form. Notwithstanding any other provisions of the Contract Documents, City may hold a reserve of ten (10%) of the total Phase II installation compensation (e.g. \$336,587.40) until completion of all punch list items.

1.4 Phase III Basic Services – Savings Measurement and Guarantee Services. Immediately following the Project Acceptance Date, TEN is authorized to and shall commence and perform the following Phase III Savings Measurement and Guarantee Services with regard to the Project:

(a) Set-up and administer program for the annual verification of project savings achieved as set forth in the Project's SLUC Exhibit 5, as attached hereto.

(b) Provide Project Savings Performance Guarantee as provided in Section 7 herein below; and,

(c) Perform contract administration functions during the Savings Term, as defined in Section 3.3 herein below, which shall include but not be limited to: (i) conducting periodic meetings with Customer to determine whether any changes in the Project have occurred, or may occur, that has resulted, or may result, in changes in the anticipated savings from the Project; (ii) assisting the Customer in assessing the actual or anticipated impacts, if any, from such changes; (iii) advising the Customer regarding options as a result of such changes, and (iv) analyzing savings reports on an annual basis to confirm operating assumptions for purposes of the Project Savings Performance Guarantee.

2.0 RESPONSIBILITIES OF CITY

2.1 City covenants and agrees that it shall provide the following services and perform the following acts at its sole cost and expense in a timely manner so as not to delay the Work of TEN:

(a) Provide all criteria and information as to City's requirements for the Project and designate in writing a person with authority to act on City's behalf on all matters concerning the Project;

(b) Promptly review and approve all Design Documents;

(c) Cooperate with TEN during the installation scheduling and provide all necessary access to, on and within the Premises and/or at Equipment Locations to allow TEN and its subcontractors to proceed with the Project Work and responsibilities in a timely fashion;

(d) Warrants hereby that to the best of its knowledge and belief the Premises and/or Equipment Locations are in compliance with all applicable laws, statutes, rules, regulations, codes, ordinances and other requirements of all governmental agencies or authorities which in any way relate to the Work and services to be provided by TEN under this Contract or to the Equipment to be installed by TEN at the Premises and/or Equipment Locations;

(e) Operate the Equipment in accordance with the terms of this Contract, and with standard and customary operating practices consistent with the intended use of the Equipment and with all applicable electrical and mechanical codes;

(f) Pay TEN or cause TEN to be paid for satisfactory services and Work rendered in accordance with Sections 4 and 5 and the Project's SLUC Exhibit 5, attached hereto and made a part hereof;

(g) That City shall not unreasonably withhold, condition or delay: (i) its approval of the SLUC, (ii) its approval of the Design Documents, (iii) its execution of the Design Approval Form, (iv) its acceptance of the Installation Work, (v) its execution of the Substantial Completion Forms for each Portion of the Installation Work, or (vi) its execution of the Final Completion Approval Form.

3.0 TERM OF CONTRACT AND COMMENCEMENT OF THE WORK

3.1 The term of this Contract ("Term") shall begin as of the date of this Contract first written above and shall terminate on the day of the Savings Term, as defined in Section 3.4 below, unless otherwise terminated by City or TEN pursuant to terms of this Contract.

3.2 Upon execution of this Contract and the necessary Exhibits attached hereto, TEN shall finalize the development of the Project. TEN shall commence Design Specification Work, as set forth in Section 1.2 above and shall thereafter diligently pursue the Work in accordance with Sections 1.3 and 1.4 hereinabove. The second phase of the Work ("Phase 2 Basic Services") shall be authorized and shall commence upon issuance of a notice to proceed from the City in accordance with the Project's Exhibit 2, Attachment A ("Design Approval and Notice To Proceed"). TEN shall thereafter diligently pursue the Work assigning to it a priority that will complete the Project's installation in accordance with the milestone schedule and no later than the completion date set forth in the Project's SLUC Exhibit 5.

3.3 TEN shall commence the third phase of its services ("Phase 3 Basic Services") upon the Project Acceptance Date in an acceptance certificate to be executed by City ("Project Acceptance Certificate") in a form similar to Exhibit 2.

3.4 "Savings Term" shall mean the period commencing on the Acceptance Date in an acceptance certificate to be executed by City ("Project and continuing for a period of months immediately following the Acceptance Certificate") in a form similar to Exhibit 2. Date as set forth in Exhibit 5, Schedule D. Notwithstanding any Schedule, Exhibit or provision contained in this Contract or the Contract Documents which for estimation, projection, guarantee or calculation purposes sets forth a different time period for the Savings Term, all such estimations, projections, guarantees or calculations in the Schedules, Exhibits and provisions of this Contract and the Contract Documents shall be automatically reduced to reflect the actual Savings Term.

4.0 COST OF THE WORK

4.1 City and TEN have agreed to certain Project Cost pricing parameters as set forth in Exhibit 3. TEN shall utilize such parameters in the adjustments, if adjustments needed to project scope, of the Project-related costs during the audit and implementation phases of Work.

4.2 As full compensation for the Project Work and conditioned upon TEN satisfactorily complying with all terms and provisions of this Contract, City shall pay to TEN the payment amounts for each Phase of Work as described in Sections 1.2, 1.3 and 1.4 hereinabove and as set forth on the Project's SLUC Exhibit 5 to be attached hereto and made part hereof ("Project Cost of the Work"). The Project Cost of the Work shall be increased or decreased as set forth in the

Project's SLUC Exhibit 5 for "Changes in the Work" approved in accordance with Section 6. The payment amounts shall be paid in accordance with Section 5 hereof.

- 4.3 The payment amounts shall be based upon the information included in the Project's SLUC and shall include payment for all equipment, materials, labor and services relating to TEN's performance of its obligations. Notwithstanding the foregoing, TEN shall not be liable for state or local real estate taxes on the Premises and/or Equipment Locations (if any), or federal, state or local income taxes with respect to City's income from operation of the Project.
- 4.4 If during TEN's performance of the Phase I and Phase II Services under this Contract, it becomes necessary for TEN to propose an amendment to the Project Cost of the Work, TEN shall do so through the "Changes in the Work" provisions set forth in Section 6 of the Contract.

5.0 TERMS OF PAYMENT

- 5.1 Payment to TEN for the Project Cost of the Work shall be made as follows:

(a) For Phase I Work related to development of the SLUC, an amount for auditing services rendered and related expenses incurred to date relating to the preparation of the SLUC as set forth in the Project SLUC Exhibit 5, Schedule C. For Phase I Design Specification Work, as defined in Section 1.2, based upon progress billing for Equipment and Design Document services completed by the invoice date;

City shall pay TEN as compensation for Phase I Work, as defined in Section 1.2 of the Contract, the amount of \$203,270. 50% of the total compensation for Phase I Work will be invoiced immediately after execution of this contract with the remaining 50% to be invoiced upon City's execution of the Project Design Approval Form. City acknowledges that confirmation of design for the Project shall be compensated under this Contract as a portion of the Phase I cost.

(b) For Phase II Installation Work, as defined in Section 1.3, based upon progress billing for the Project Cost of Work set forth in the Project's SLUC Exhibit 5 for installation services completed by the invoice date; and,

City shall pay TEN as compensation for Phase II Installation Work, monthly progress amounts totaling \$3,365,874. The monthly progress amounts shall be invoiced based upon a percentage of the Phase II Work completed each month and shall contain sufficient documentation to support the invoiced amount.

(c) For Phase III Savings Measurement and Verification Services, as defined in Section 1.4, as set forth in the Project's SLUC Exhibit 5, attached hereto and made a part hereof, to be paid at the submission of the Measurement and Verification Report.

As compensation for Phase III Savings Measurement and Verification Services for the Project, as set forth in Exhibit 5, Schedule D of this SLUC, City shall pay a fee at the submission of the Measurement and Verification Report as set forth below:

Year 1	\$10,000
Year 2	\$5,000
Year 3	\$5,150
Year 4	\$5,305
Year 5	\$5,464

Year 6	\$5,628
Year 7	\$5,796
Year 8	\$5,970
Year 9	\$6,149
Year 10	\$6,334

- * Note: Measurement and Verification (M&V) services will be provided within 12 months after the construction period and every year following, up to 10 years as described in Section 7 herein below, unless the City terminates the Measurement and Verification Services earlier.
- 5.2 Within twenty (20) days of receipt by City of TEN's invoice, City shall (i) determine whether the Work performed conforms with the requirements of this Contract; (ii) determine whether TEN's invoice has been properly submitted; and (iii) determine and notify TEN concerning any part of the invoiced amount which is in dispute. Once City has made such determinations, City shall pay TEN within thirty (30) days of TEN's invoice date for all undisputed amounts. City shall endeavor to make all payments due hereunder within ninety (90) days from receiving an invoice therefore; however, the City shall not be responsible for paying any penalties or interest or late fees.
- 5.3 TEN warrants that any and all taxes or municipal claims that may be payable to the City (City of Harrisburg) by TEN are current and not delinquent. If the City determines that there is an outstanding delinquency or if any taxes or municipal claims become delinquent and owing during the term of this Contract or prior to final payment by City, TEN will grant City the right to set-off that indebtedness against any amounts owing to TEN under the terms of the Contract. City reserves the right to apply set-off payments in whatever manner it deems appropriate.

6.0 CHANGES IN THE PROJECT & ADDITIONAL SERVICES

- 6.1 Changes in the Project's Scope of Work may be accomplished after execution of the Project's SLUC Schedules and during the Project's Design Specification Work and Installation Work periods by "Change Order," agreed to and acknowledged in writing by the City and TEN. Only the City's designee as noted in Exhibit 5 for the Project shall have authority to approve such Change Order(s) and process the same for signature by the appropriate City officials. Such written Change Order shall state the change in the Project's Work, the amount of the adjustment in the Project Cost of the Work, adjustment in savings if any, and the extent of any adjustment in the time to perform the Project's Installation Work, if any. Agreed to "Changes in the Work" shall be performed as set forth in the Change Order and in accordance with the applicable provisions of the Contract Documents as amended thereby.

The City may at any time during the Contract period on an "as needed basis" request additional services from TEN in connection with the Project, including but not limited trenching of sidewalks and installation of conduit, AW6 wiring and junction boxes. Agreement to provide additional services shall documented by a Change Order following the Change Order procedures stated above.

- 6.2 TEN may experience additional costs for reasons which could not reasonably have been anticipated or controlled by TEN. Such circumstances might include but are not limited to the following:
- a. Deletion or substantial modification, at the request of the City of scope, previously included in SLUC Exhibit 5.
 - b. New equipment, unrelated to the Project, installed; changes to the number and configuration of the street lighting poles, or to their use, or changes to equipment and systems or

their operation; changes to utility rates – relative to what existed prior to or during the installation of this contract, or was anticipated in this Contract approved by the City.

c. Concealed or unknown conditions, found below the surface, in the environment, or elsewhere in the Premises, which conditions are not ordinarily expected to exist, which have not been previously disclosed to or identified by TEN, or which differ materially from those generally recognized as inherent in work of the character contemplated by this Contract.

d. Changes in the work necessitated by the enactment or revision of codes, laws, or regulations subsequent to the date of the Contract.

e. TEN is delayed in the progress of the Project by the actions or omissions of the City, City's employees, others for whom the City is responsible, or third persons, changes ordered in the work, labor disputes, fire, unusual delay in transportation, adverse weather conditions not reasonably anticipated, unavoidable casualties, or other causes beyond TEN's control including but not limited to wiring, grounding, previous faulty installation, and code violation.

f. Additional work may be requested by the City which is beyond the requirements of this contract. Work that is not necessitated for implementation of the contracted work is "additional work".

If a Change in the Project affects the Project's Cost of the Work, the Project's Work Schedule, the Project Savings, the Project Savings Performance Guarantee, or any other Contract Document, then the City and TEN shall use their best efforts to mutually agree on the changes and amendments to all of the Contract Documents impacted by the requested Change in the Project and shall amend them and this Contract accordingly.

7.0 PROJECT SAVINGS PERFORMANCE GUARANTEE

- 7.1 TEN guarantees that the Project shall provide Customer with a "Guaranteed Dollar Savings Amount" for each Measurement Year of the Savings Term, as set forth in Schedule D, Exhibit 1, attached hereto and made part hereof.
- 7.2 In order to reconcile this Project Savings Performance Guarantee, the "Actual Project Dollar Savings Amount" for each Measurement Year shall be determined by TEN in accordance with the procedures of the Measurement and Verification Plans as set forth and summarized in Schedule E, attached hereto and made part hereof, and the formulae and procedures set forth in Schedule D attached hereto and made part hereof. This reconciliation shall occur within ninety (90) days of the end of each Measurement Year during the Savings Term.
- 7.3 If the Actual Project Dollar Savings Amount is equal to or greater than the Guaranteed Dollar Savings Amount for that Measurement Year, then no reconciliation reimbursement from TEN to Customer is necessary. If the Actual Project Dollar Savings Amount is less than the Guaranteed Dollar Savings Amount for that Measurement Year, then TEN shall reimburse Customer for the difference between the Guaranteed Dollar Savings Amount and the Actual Project Dollar Savings Amount ("Dollar Savings Shortfall Amount") for that Measurement Year, subject to the terms, conditions, procedures, reconciliations and formulae which are further outlined in Schedule D, which is attached hereto and made part hereof.

8.0 WARRANTIES CONCERNING THE WORK

- 8.1 TEN warrants that: (i) the Installation Work shall be performed in a workmanlike manner; (ii) the Installation Work shall in all respects be of good quality, free from all faults and defects in workmanship and material; (iii) the Installation Work shall be in compliance with the requirements of this Contract; and (iv) all materials, equipment and other items incorporated (or to be incorporated) in the Installation Work or consumed (or to be consumed) in the performance of the Installation Work shall be new. The Warranty Period shall commence for each Portion of the Installation Work as of the "Portion Substantial Completion Date" set forth in its Substantial Completion Form, as defined in Section 1.3(g), and shall continue until the expiration of ten (10) years after the such Portion Substantial Completion Date, unless otherwise noted in Exhibit 5, Schedule A. The period prior to the expiration of the applicable warranty shall be known as the "Warranty Period".
- 8.2 If at any time during the Warranty Period, TEN receives from City written notice of any failure to comply with the warranty set forth in Section 8.1 above, TEN shall promptly and at such times as City reasonably directs, satisfactorily correct such noncompliance.
- 8.3 TEN shall assign to the benefit of City all equipment and materials warranties from vendors and manufacturers in connection with the Work.
- 8.4 TEN shall provide all labor warranties associated with approved manufacturer material warranties secured by City.

[NOTE: Additional warranties will be spelled out in a warranty addendum, once TEN negotiates the best warranty on the behalf of the City.]

9.0 TITLE AND WAIVER OF LIEN

- 9.1 TEN warrants good title to all materials, equipment, and supplies furnished by it, its subcontractors, and/or vendors that become part of the Project or are purchased for City for the operation, maintenance or repair thereof. Title to all of said materials, equipment, and supplies shall pass to City free and clear of all liens, claims, charges, security interests and encumbrances, upon full payment of the Phase I and Phase II Portions of the Project's Cost of Work, as set forth on the Project's SLUC Exhibit 5, Schedule C, as attached hereto and made a part hereof. TEN shall execute any and all documents necessary to transfer or assign title to the City and ensure that any transfer or assignment will not invalidate any title to said materials, equipment and supplies.
- 9.2 TEN shall indemnify and hold harmless and defend City from and against any and all loss, costs, damages and expense arising out of or in connection with any and all mechanic's and material liens filed in connection with the Work, including, without limitation, all expenses and attorneys' fees incurred by City in discharging any liens or similar encumbrances.
- 9.3 To the extent permitted by applicable law, TEN hereby covenants and agrees to waive any and all liens it may have against City pursuant to the terms of this Agreement and TEN shall execute any and all documents necessary, including a stipulation against liens, to effectuate the same.

10.0 TERMINATION

- 10.1 City may notify TEN of its intent to terminate this Contract with or without default at any time by giving written notice of termination ("Termination Notice") to TEN in accordance with the terms of this Contract. In the event that the Termination Notice states that TEN is in default of this

Contract, TEN shall have the opportunity to cure any default stated in such Termination Notice within a reasonable period of time as set forth in Section 13. If TEN is unable to cure such default stated in the Termination Notice within a reasonable period of time as set forth in Section 13, then City shall have the right to terminate this Contract. If City terminates the Contract without default on the part of TEN, City shall pay to TEN as compensation for the Work performed and expenses incurred, through the date of termination. TEN may terminate this Contract for City's failure to pay TEN for amounts due TEN under this Contract after the period set forth in a Termination Notice has expired. City shall have the opportunity to cure any default stated in a Termination Notice for failure to pay TEN for Work that is not in dispute within a thirty (30) days of the date of the Termination Notice. Following such Termination Notice, TEN shall have the right in its sole discretion to stop all Work without any liability to City until TEN is paid in full. A Contract termination by either party in accordance with this Section 10 shall terminate each party's liabilities or obligations with respect to the other party, except for obligations or liabilities arising under this Contract and not discharged prior to the date of such termination, including but not limited to amounts owed to TEN for Work performed hereunder, however the warranties shall remain in full force and effect after termination of this Contract. The termination rights set forth in this Section 10 shall be in addition to the termination rights set forth in Section 14.

- 10.2 Notwithstanding any provision in this Contract to the contrary, the City's obligation to pay any amounts due under this Contract or to perform any covenants requiring or resulting in expenditure of money are contingent and expressly limited to the extent of annual appropriations made to fund City's obligations under this Contract. Nothing contained in this Contract shall be construed as creating any monetary obligation on the part of the City beyond such current and specific legislative appropriations. In the event that the legislature fails to appropriate the funds sufficient to allow City to make the payments to TEN for a specific Project as required under this Contract, City may terminate such Project as of the end of the last fiscal year for which such appropriation is available. In such event, all obligations of the City with regard to such Project will cease so long as all payments previously approved or appropriated have been paid, and all interest of the City in the Project's Equipment will terminate and all Project-related obligations of TEN shall be terminated. Notwithstanding the foregoing, any and all warranties for installed equipment under this Contract shall remain in effect during any applicable warranty periods. Notwithstanding the foregoing, the City agrees not to terminate this Contract under this provision for the fiscal year in which this Contract is executed. If any future funds are appropriated in order to continue the operation of the Project, the City will use its best efforts to obtain inclusion of funds in its budget.

11.0 FORCE MAJEURE

Neither party shall be responsible or liable hereunder for any injury or damage, and each party shall be excused for the period of any delay in the performance of its respective obligations hereunder when caused or prevented from doing so, by force majeure. For the purposes of this Contract, the term "force majeure" means a cause or causes beyond such party's control, which shall include, without limitation, drought, flood, earthquake, storm, unusual weather, fire, lightning, epidemic, war (whether declared or undeclared), riot, civil disturbance, sabotage, explosions, strikes, transportation disruptions, the existence of geological artifacts or hazardous material or substance conditions that could not reasonably have been discovered by the exercise of prudent engineering practice, permits, licenses, and other required authorizations from any local, state, or federal agency or person for any of the facilities or equipment necessary to provide service hereunder after diligent efforts to obtain same, or restraint by court.

12.0 INSURANCE AND BONDING

- 12.1 During the performance of the Phase II Work, TEN shall provide and cause its Project subcontractors to provide the insurance set forth in Section 16.4.
- 12.2 In carrying out the Work, each party shall take the necessary precautions to protect the other party's property from damage caused by the other's operations.
- 12.3 TEN shall furnish City with
- (a) **Performance Bond:** A bond with approved surety, in an amount equal to one hundred percent (100%) of the total contract price, to guarantee the performance of the work, and to indemnify and save City harmless because of TEN's default in this respect. The Bonding Company must have a rating of B+, A-, A or A+ as determined by Best's Rating Services or an equivalent agency.
 - (b) **Labor and Material Payment Bond:** A separate bond, with approved corporate surety, in an amount equal to one hundred percent (100%) of the Phase II cost, to secure the payment of all material furnished, and all labor performed, under the terms hereof; and

13.0 INDEMNIFICATION

- 13.1 **INDEMNITY:** TEN hereby agrees to indemnify, save and hold harmless, and defend City, its officers, agents and employees from and against all liens, charges, claims, demands, losses, costs, judgments, liabilities, and damages of every kind and nature whatsoever, including court costs and attorney's fees arising by reason of: the performance by TEN of any services under this Contract; any act, error or omission of TEN or of an agent, employee, licensee, contractor or subcontractor of TEN; and any breach by TEN of any of the terms conditions or provisions of this Contract.
- 13.2 Notwithstanding any limitation of liability language set forth in the Contract, TEN will agree to indemnify, save and hold harmless, and defend the City (City of Harrisburg), its officers, agents and employees from and against all liens, charges, claims, demands, losses, costs, judgments, liabilities, and damages of every kind and nature whatsoever, including court costs and attorney's fees arising out of or related to any violation by TEN of copyright, trade secret or other proprietary right of any third party in connection with any product licenses hereunder. Such indemnification is not limited to the amount equal to the fees actually paid by City (City of Harrisburg) for the affected product.

14.0 EVENTS OF DEFAULT

- 14.1 Events of Default. Each of the following events shall be deemed to be an "Event of Default" hereunder:
- (a) Either party shall fail to perform or observe any of the material terms or conditions or provisions of this Contract and (i) such failure shall not be rectified or cured within thirty (30) days after written notice thereof from the non-defaulting party or if such failure is not susceptible to being rectified or cured within thirty (30) days, diligent efforts have not been undertaken in good faith within such thirty (30) day period to effect rectification or cure, and such defaulting party does not actively pursue rectification or cure; provided, however, that notwithstanding any provisions contained in this Contract to the contrary, an Event of Default shall have occurred if such failure is not rectified or cured within ninety (90) days following written notice thereof by the non-defaulting party;
 - (b) Either party shall be involved in financial difficulties as evidenced by:

(i) A voluntary or involuntary petition in bankruptcy is filed by or against it that is not dismissed within ninety (90) days;

(ii) Any significant adverse change in the financial condition of such party that may materially affect such party's ability to perform its obligations under this Contract;

(iii) An insolvency of such party, any arrangement or assignment of its assets for the benefit of its creditors, or the appointment of a receiver or trustee of its assets;

14.2 Remedies Upon Default. Subject to the defaulting party's cure rights as set forth in Section 14.1 above, the non-defaulting party shall have the choice of one or more of the following remedies:

(a) Terminate this Contract by delivery of a Notice of Termination as set forth in Section 10; or

(b) Exercise all remedies available at law or at equity or other appropriate proceeding for any breach, controversy, dispute or claim arising out of the interpretation or implementation of any of the terms and conditions of this Contract, including recovery of amounts due and unpaid by the other party, which the parties are unable to resolve by negotiation.

15.0 MISCELLANEOUS

15.1 The Contract shall be governed by the laws of the Commonwealth of Pennsylvania, without regard to conflict of law provisions thereof. Each party hereto consents to the exclusive jurisdiction of the state courts of Pennsylvania situate in the County of Dauphin, Pennsylvania or in the United States District Court for the Middle District of Pennsylvania for any litigation that may arise out of this Agreement and each party hereto waives any objection based on *forum non conveniens* or any other objection to such venue. The United Nations Convention on Contracts for Sale of Goods shall not apply.

15.2 The provisions of Sections 11 and 12 hereof shall survive the termination (whether by completion of the Work or otherwise) of the Contract.

15.3 Except for TEN's right to utilize subcontractors for the installation services and TEN's right to assign the Contract to any parent, subsidiary or affiliated corporation, neither City nor TEN shall assign, sublet or transfer any rights under or interest in this Contract without the written consent of the other, which shall not be unreasonably withheld by either party.

15.4 TEN acknowledges that attainment of financing for construction of the Project may be subject to conditions that are customary and appropriate for the parties providing financing. Therefore, TEN agrees to cooperate with City in the good faith negotiation and execution of any reasonable amendment to or modification of this Contract required by any financing entities in order to obtain such financing. TEN acknowledges and agrees that City's obligations under this Contract are contingent upon obtaining such financing necessary to cover the costs of the Project. In the event City is unable to obtain such financing, then after written notice from City to TEN this Contract shall terminate and neither party shall have any liability to the other thereunder. Except as stated below regarding use of grant funds, TEN shall have no obligation to order Equipment or perform any Work until the financing for the Project has been obtained as evidenced by a lender's financing commitment letter ("Financing Commitment") to the City. The parties hereby acknowledge that the City has been awarded a Pennsylvania Energy Development Authority ("PEDA") grant in the amount of \$500,000 from the Pennsylvania Department of Environmental Protection for the street light LED conversion work covered under this Contract. Notwithstanding any other terms or provisions of this Contract, TEN agrees at anytime prior to or subsequent to receipt of a Financing Commitment at City's direction to order such equipment and/or perform such work on the Project

as the City directs in order to expend the PEDA grant funds and any other grant funding the City may receive in support of the Project. It being understood that TEN's obligation to commence and perform work under the Contract supported by the grant funding shall not be contingent upon City's receipt of a Financing Commitment, TEN's commencement and performance of work under the Contract pursuant to grant funding shall not be deemed a waiver of City's right to terminate this Contract pursuant to this Section.

- 15.5 The provisions of this Contract are intended for the sole benefit of City and TEN and there are no third party beneficiaries hereof.
- 15.6 Each party hereto represents and warrants to the other that (i) it has adequate power and authority to conduct its business as presently conducted or contemplated hereby to be conducted by it, to enter into this Contract and to perform its obligations hereunder, and (ii) the individual executing this Contract has, is vested with, and possesses fully authority to bind the party on whose behalf he or she executes this Contract. Further, City represents to TEN that this Contract has been duly authorized, executed and delivered by it and does not contravene any law, rule or regulation applicable to it.
- 15.7 All notices to be given by either party to the other shall be in writing and must be delivered or mailed by certified mail, return receipt requested, postage prepaid, or sent by a nationally recognized overnight carrier addressed as set forth below. Notices are deemed delivered or given and become effective forty-eight (48) hours after deposit in the U.S. mails if inailed as aforesaid or upon actual receipt if otherwise delivered.

To TEN:
The Efficiency Network, Inc
Attention: Robert Campbell, President
1501 Reedsdale Street, Suite 401
Pittsburgh, PA 15233

To Customer:
City of Harrisburg, Pennsylvania
Attention: Wayne Martin, PE
City Engineer
123 Walnut Street, Suite 212
Harrisburg, PA 17101

or such other addresses as either party may designate by written notice to the other.

- 15.8 It is understood and agreed that TEN and its employees, agents and contractors, are independent contractors and are not to be considered an agent or employee of the City. TEN shall be responsible for all costs and expenses, including any required payment and withholding of any taxes or other obligations, concerning its employees, agents and contractors.
- 15.9 This Contract, when executed, together with all Contract Documents, shall constitute the entire agreement between both parties concerning the installation of the Equipment, and supersedes any prior or contemporaneous written or oral agreements, representations or warranties between them regarding the subject matter hereof.
- 15.10 This Contract shall not be amended, modified or assigned without the prior written consent of the parties hereto.
- 15.11 This Contract shall not be terminated except by its express terms set forth herein.
- 15.12 In the event of any conflict between the terms of this Contract and any other Contract Document, the terms of this Contract shall prevail.

- 15.13 No action or failure to act by the City or TEN shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach hereunder, except as may be specifically agreed in writing.
- 15.14 In the event one or more of the provisions contained in this Contract shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision thereof and this contract shall be construed as if such illegal, invalid or unenforceable provision had never been contained herein.
- 15.15 All light level outputs associated with the work in this contract will be consistent with sample areas and design approval documents provided to the City for approval prior to Phase II (installation phase) of this Contract.
- 15.16 Any works, ideas, discoveries, inventions, products, or other information, whether or not copyrightable, trade markable, patentable (collectively, the "Work Product") developed in whole or in part by the Contractor in connection with the Services shall automatically become the exclusive property of the City. No license or conveyance of any such rights to the Contractor is granted or implied under this Agreement. Contractor, without further consideration, agrees to sign all documents necessary to confirm or perfect the exclusive ownership of the City to the Work Product. The terms of this Paragraph shall survive termination of this Agreement.
- 15.17 Contractor during the term of this Agreement may have access to proprietary, private and/or otherwise confidential information ("Confidential Information") of the City, including its elected and appointed officials, employees, contractors and agents. Confidential Information shall mean all non-public information including without limitation, all social security, tax, financial, investment, operational, personnel, and statistical information of the City. Contractor will not at any time or in any manner, either directly or indirectly, use for the personal benefit of the Contractor, or divulge, disclose, or communicate in any manner any Confidential Information. Contractor will protect such information and treat the Confidential Information as strictly confidential. This provision shall continue to be effective after the termination of this Agreement. Upon termination of this Agreement, Contractor will return to City all Confidential Information, whether physical or electronic, and other items that were used, created, or controlled by the Contractor during the term of this Agreement.
- 15.18 Neither Contractor nor any subcontractor shall use the name of the City of Harrisburg, publish any information contained in or derived from the City's records, or quote the opinion of any City employee in any advertising, publicity, endorsement or testimonial, without the prior written approval of the City. The terms of this Paragraph shall survive termination of this Agreement.
- 15.19 In no event shall City be liable to Contractor, its employees, agents, subcontractors or any third party, for any indirect, incidental, consequential, special or exemplary damages, whether in an action of contract, negligence, strict liability or other tortious action, arising out of this Agreement. Both Parties recognize that this Agreement reflects a reasonable allocation of risks and that such allocation is a significant inducement to provide the services described in this Agreement to the City.
- 15.20 Contractor hereby represents and warrants to City that its execution and performance of this Agreement does not and will not breach any other agreement and does not require the consent of any other person or entity. Contractor hereby represents and warrants to City that there is no relationship that would create a conflict of interest with the City under applicable law. The Contractor will not be prevented or restricted by virtue of providing the services under this Agreement from providing services to other entities or individuals.

- 15.21 The terms and conditions of this Agreement that by their sense and context are intended to survive termination hereof shall so survive, including without limitation the sections relating to indemnification.
- 15.22 TEN shall within twenty (20) days of the execution of this Agreement cause the Streetlight Inventory Audit and Investment Grade Audit documents to be certified by an engineer licensed in the Commonwealth of Pennsylvania. TEN will also have a Pennsylvania licensed engineer certify all project plans and post-installation project compliance and quality tests upon presentment to the City. TEN agrees, at its sole cost and expense, to make any revisions to the Contract Documents required to attain said certifications.

16.0 STANDARD TERMS.

- 16.1 **ANTI-DISCRIMINATION.** TEN shall not discriminate in its employment on the basis of race, color, religion, ancestry, national origin, place of birth, sex, age, disability, non-job related handicap, or sexual orientation. TEN shall incorporate in any subcontracts which may be permitted under the terms of this Contract a requirement that said subcontractors also comply with the provisions of this Section.
- 16.2 **RIGHTS IN DATA: COPYRIGHTS: DISCLOSURE.**
- a. **Definition.** The term "data" as used in this Agreement includes written reports, studies, drawings, or other graphic, electronic, chemical or mechanical representations.
- b. **Rights in Data.** All data developed pursuant to this Agreement shall be the property of City and City shall have the full right to use such data for any official purpose and in whatever manner deemed desirable and appropriate, including making it available to the general public. Such use shall be without any additional payment to or approval by TEN. City shall have unrestricted authority to publish, disclose, distribute and otherwise use, in whole or in part, any data developed or prepared under this Contract.
- c. **Copyrights.** No data developed or prepared in whole or in part under this Contract shall be subject to copyright in the United States of America or in any other country. TEN hereby relinquishes or shall cause to be relinquished any and all copyrights and/or privileges to data developed or prepared under this Contract without any additional payment to TEN therefore. TEN shall not include in the data any copyrighted matter unless TEN obtains the written approval of the Director of the Office of City Engineer of City and provides the said Director with written permission of the copyrighted owner for TEN to use such copyrighted matter in the manner provided herein.
- d. TEN may include data developed under this Contract in future publications. Such use does not interfere with the rights of CITY described in paragraphs a, b, and c.
- 16.3 **COMPLIANCE WITH LAWS.** TEN shall fully obey and comply with all laws, ordinances and administrative regulations duly made in accordance therewith, which are or shall become applicable to the work done under this Contract.
- 16.4 **INSURANCE REQUIREMENTS.** TEN and each of its Subcontractors shall not commence the Installation Work until each has obtained all insurance referred to herein and has provided proof of said coverage to City. All insurance shall be provided by insurance companies acceptable to City in its reasonable discretion. All policies shall be endorsed to provide that in the event of cancellation, non-renewal

or material modification, City shall receive thirty (30) days' written notice thereof. TEN and its Subcontractors shall provide Certificates of Insurance to City within fifteen (15) days prior to the start of the Installation Work, which Certificates of Insurance shall: (i) evidence that City and others required by the Contract Documents are "Additional Insured's" to the applicable insurance policy, (ii) specifically confirm, and the policy shall be endorsed to provide, that such Additional Insured coverage is primary and non-contributory to any other coverage available to the Additional Insured's, whether or not collectible, and (iii) evidence compliance with all insurance provisions noted herein. TEN and its Subcontractor shall secure, pay for and maintain the following insurance policies in full force and effect until the occurrence of the completion of its respective part of the Installation Work:

a. **WORKERS' COMPENSATION:** Pennsylvania Statutory Workers' Compensation coverage and employers' Liability coverage in accordance with the requirements of Pennsylvania law.

b. **COMPREHENSIVE AUTOMOBILE LIABILITY:** Comprehensive Automobile Liability coverage for all owned, non-owned and automobiles used in connection with the Work with the following minimum limits:

Bodily Injury	-	\$1,000,000 Each Person
	-	\$1,000,000 Each Occurrence

Property Damage	-	\$1,000,000 Each Occurrence
-----------------	---	-----------------------------

Coverage shall include all owned, non-owned and hired vehicles.

c. **COMPREHENSIVE GENERAL LIABILITY:** Comprehensive General Liability insurance coverage including, as applicable, Contractor Liability, Products/Completed Operations and Independent Contractor's Liability (if a Subcontractor subcontracts to another all or any portion of the Work), Personal Injury Liability, Broad Form Property Damage, and coverage shall include Property Damage, Explosion (X), Collapse (C) and Underground Damage hazards (U) with the following minimum limits:

Bodily Injury	-	\$1,000,000 Each Person
	-	\$1,000,000 Each Occurrence
	-	\$2,000,000 Aggregate

Property Damage	-	\$1,000,000 Each Occurrence
	-	\$2,000,000 Aggregate

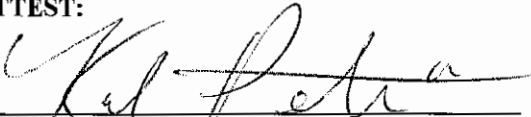
The General Liability policy shall be endorsed to provide a Per Job General Aggregate.

d. **UMBRELLA EXCESS LIABILITY:** Umbrella Excess Liability policy with a minimum limit of \$1,000,000.


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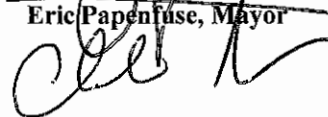
IN WITNESS WHEREOF, the duly authorized officers or representatives of the parties have set their hand on the date first written above.

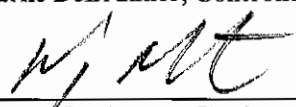
ATTEST:


Kirk Petroski, City Clerk

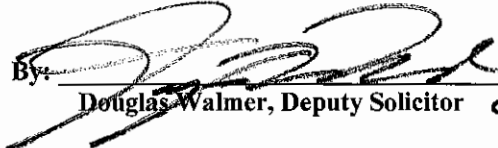
CITY OF HARRISBURG

By: 
Eric Papenfuss, Mayor


By: 
Charlie DeBrunner, Controller

By: 
Wayne Martin, City Engineer

Approved for Form & Legality:

By: 
Douglas Walmer, Deputy Solicitor 9/16/15

ATTEST:


Name: NEIL A. GROVER

Title: CITY SOLICITOR

TEN

By: 

Name: Troy T. Geanopoulos

Title: CEO

Tax I.D. No.: 45-4618116

CONTRACT EXHIBITS

EXHIBIT 1, PROJECT ASSUMPTIONS AND DEVELOPMENT PARAMETERS

EXHIBIT 2, PROJECT APPROVALS

Attachment A –Phase II - Project Design Approval and Notice To Proceed

Attachment B – Phase III - Project Acceptance Certificate

EXHIBIT 3, PROJECT PRICING INFORMATION

EXHIBIT 4, GENERAL CONDITIONS FOR CONSTRUCTION

EXHIBIT 5, PROJECT INFORMATION

Schedule A – Scope of Work, Equipment Description and Warranty

Schedule B – Work Schedule

Schedule C – Payment for the Work

Schedule D – Measurement and Verification Service

Exhibit 1 – Guaranteed Dollar Savings Amounts Per Measurement Year

Schedule E – Lighting Audit and Calculation of Project Savings

EXHIBIT 6, PENNSYLVANIA PREVAILING WAGES PROJECT RATES

EXHIBITS

EXHIBIT 1**PROJECT ASSUMPTIONS AND DEVELOPMENT PARAMETERS****DETERMINATION OF SAVINGS :****Determination of Energy Cost Savings**

Energy Cost Savings will be calculated by comparing actual energy use with the energy use in the Base Period. City and TEN, by mutual consent, may elect to determine Savings for some or all installations by sub-metering, direct measurement and calculation, or some other means, rather than by direct comparison with the Base Year. In this event, TEN will perform the necessary calculations, which will be subject to approval by the City as set forth in the Project's SLUC. Energy use in the Base Year may be adjusted in accordance with the SLUC.

Energy Costs**Generation:**

Guttman Energy \$ 0.06743 / kWh

Transmission and Distribution:

PPL Electric Utilities Corporation, Rate Schedule SE, Energy Only Street Lighting Service*:

Distribution Charge (I):

Street Lighting Equipment on Company (PPL) Pole \$ 0.08407/ kWh
Street Lighting Equipment on Customer (City of Harrisburg) Pole or Support \$ 0.03996 / kWh

Web reference:

<https://www.pplelectric.com/at-your-service/electric-rates-and-rules/current-electric-tariff/~media/PPLElectric/At%20Your%20Service/Docs/Current-Electric-Tariff/rate-se.pdf>

Energy Costs for the purposes of this contract are escalated at 1.50% per year for the term of the repayment period.

*The City also has 123 lights on PPL SHS rate schedule, 155 lights on PPL SM rate schedule and lights on PPL metered accounts.

Determination of Operating Cost Savings

Operating Cost Savings are due to the 10 year material and labor warranty provided through this Contract as the warranties relate to the equipment installed as part of this Contract.

EXHIBIT 2
PROJECT APPROVALS

EXHIBIT 2, ATTACHMENT A

PHASE II - PROJECT DESIGN APPROVAL AND NOTICE TO PROCEED

In accordance with the Street Lighting Upgrade Contract ("Contract"), dated _____, 2015 between The City of Harrisburg, Pennsylvania ("City") and The Efficiency Network ("TEN"), City is hereby acknowledging the following:

TEN has performed the Phase I Design Specification Work for the project its preparation and submittal to City of the necessary design and specification documents for the Project ("Design Documents").

City has reviewed the Design Documents and hereby designates its approval of the Design Documents by execution of this Project Design Approval Form.

TEN is hereby authorized to commence work on the installation of the above referenced Project in accordance with the Design Documents and the following:

- Project Information summarized in Project SLUC Exhibit 5, Schedule A;
- The time period as set forth in Project SLUC Exhibit 5, Schedule B;
- The Project Cost Amount as set forth in Project SLUC Exhibit 5, Schedule C;
- Measurement and Verification protocols summarized in Project SLUC Schedule D; and
- Lighting Audit and Project Savings Calculations in Project SLUC Exhibit 5, Schedule E.

Such Project Exhibits have been duly executed by both the City and TEN.

Execution of this Design Approval and Notice to Proceed by City:

By: _____

Date: _____

Approval and Notice Acknowledgement By TEN:

By: _____

Date: _____

EXHIBIT 2, ATTACHMENT B

PHASE III - PROJECT ACCEPTANCE CERTIFICATE

In accordance with the Street Lighting Upgrade Contract ("Contract"), dated _____, 2015 between The City of Harrisburg, Pennsylvania ("City") and The Efficiency Network, Inc. ("TEN"), City is hereby accepting that all portions of the Installation Work are substantially complete and operational as of [_____] ("Project Acceptance Date").

City and TEN acknowledge the attached "punch list" of items to be completed by TEN no later than the dates as specified on the attached sheet for each item, in accordance with the terms of the Contract and its Scope of Work.

In accordance with the terms of the Contract, TEN is hereby authorized to conduct the Savings Measurement and Verification Services, which includes the measurement and verification of the Actual Energy Savings in accordance with SLUC Exhibit 5, Schedule D.

Project Acceptance Certified by City:

By: _____

Date: _____

Project Acceptance Acknowledgement By TEN:

By: _____

Date: _____

EXHIBIT 3 - PROJECT PRICING INFORMATION**Project Cost Adjustments for “Changes in the Project”:**

In accordance with Section 6 of the Contract, TEN may experience additional costs or losses of Project Savings for reasons which could not reasonably have been anticipated or controlled by TEN, including but not limited to, those occurrences as listed in Contract Section 6.2. As a result of the occurrences as set forth in Section 6, adjustments to the Project Cost may be authorized if, for example, TEN experiences additional costs above those established in the Project Cost Budget or if there is a deletion or substantial modification to the Project by the City.

All Changes to the Project shall be presented by TEN in accordance with Section 6 of the Contract and shall be approved in writing by the City. Any adjustments to the Project Cost shall be billed/credited by TEN in accordance with the same general pricing and other terms set forth in this Contract. TEN shall have no obligation to act on modifications to the Project Scope of Work unless it agrees to do so in writing. In the event of an approved increase in the Project Cost, the City shall pay TEN directly for such additional cost. All such calculations and estimates by TEN for modifications to the Scope of Work, Project Cost and Project Savings will be submitted in writing to the City. Any objections to the calculations and estimates will be made by the City in writing.

A) UNIT PRICE FOR EACH ADDITIONAL or DEDUCTED UNIT (units added to or deducted from Quantities Listed in Schedule A, Exhibit 5 :

NOTE:

- 1) All unit pricing is inclusive of all materials and labor.
- 2) Quantities for each type of equipment can be found in the Investment Grade Audit Report, Section 2: Project Scope.

UNIT PRICE FOR EACH ADDED OR DEDUCTED TECHNOLOGY

Equipment	City Approved Part #	Material Cost	Labor Cost	Total
(2) Fixtures Nema Open Dusk/Dawn 45-watt LED	Cooper CRTK-R-A08-E-120-2-10K-AP	\$ 143	\$ 209	\$ 352
7-Pin Wireless Node	Telensa T2A2N-B-3	\$ 118	\$ 117	\$ 235
ACORN/BLVD 125-watt LED	Truly Green Solutions 310882 w/Ext Dvr	\$ 412	\$ 209	\$ 621
ACORN/BLVD 36-watt LED	Truly Green Solutions 310822-G4	\$ 159	\$ 209	\$ 368
ACORN/BLVD 54-watt LED	Truly Green Solutions 310842-G4	\$ 166	\$ 209	\$ 375
ACORN/BLVD 80-watt LED	Truly Green Solutions 310862 w/Ext Dvr	\$ 482	\$ 209	\$ 691
Acorn/Tear Drop 125-watt LED	Truly Green Solutions 310882 w/Ext Dvr	\$ 561	\$ 209	\$ 770
Acorn/Tear Drop 54-watt LED	Truly Green Solutions 310842-G4	\$ 166	\$ 209	\$ 375
Acorn/Tear Drop 80-watt LED	Truly Green Solutions 310862 w/Ext Dvr	\$ 412	\$ 209	\$ 621
Canopy 55-watt LED	Econolight E-CC6L06NZ	\$ 295	\$ 209	\$ 504
Cobra Head 100-watt LED w/Node	Cooper VERD-A02-D-U-T3-4N7-10K-K-AP	\$ 178	\$ 117	\$ 295
Cobra Head 140-watt LED w/Node	Cooper VERD-A02-D-U-T3-4N7-10K-K-AP	\$ 178	\$ 117	\$ 295
Cobra Head 250-watt LED w/Node	Cooper NVN-AE-03-D-U-T3R-10K-4N7-K-AP	\$ 473	\$ 117	\$ 590

Cobra Head 45-watt LED w/Node	Cooper VERD-A016-D-U-T3-4N7-10K-K-AP	\$ 166	\$ 117	\$ 283
Cobra Head 55-watt LED w/Node	Cooper VERD-A018-D-U-T3-4N7-10K-K-AP	\$ 166	\$ 117	\$ 283
Cobra Head 70-watt LED w/Node	Cooper VERD-A028-D-U-T3-4N7-10K-AP	\$ 178	\$ 117	\$ 295
Dec post top 54-watt LED	Truly Green Solutions 310842-G4	\$ 166	\$ 209	\$ 375
Double (2) Acorn/Tear drop 54-watt LED	Truly Green Solutions 310842-G4	\$ 166	\$ 209	\$ 375
Drum 70-watt LED	Econolight E-CC6L06NZ	\$ 295	\$ 209	\$ 504
Gateway (Base Station)	Telensa BS-E-LM	\$ 12,390	\$ 1200	\$13,590
Granville 54-watt LED	Truly Green Solutions 310842-G4	\$ 333	\$ 209	\$ 542
Jelly Jar 70-watt LED	Econolight E-PG1L08CS	\$ 295	\$ 209	\$ 504
Long - Globe 54-watt LED	Truly Green Solutions 310842-G4	\$ 166	\$ 209	\$ 375
NC Die Cast Aluminum 54-watt LED	Truly Green Solutions 310842-G4	\$ 166	\$ 209	\$ 375
NC DIE CAST ALUMINUM floods 54-watt LED	Truly Green Solutions 310842-G4	\$ 166	\$ 209	\$ 375
Nema Open Dusk/Dawn 100-watt LED	Cooper CRTK-R-A12-E-120-2-10K-AP	\$ 165	\$ 209	\$ 374
Nema Open Dusk/Dawn 140-watt LED	Cooper CRTK-R-A12-E-120-2-10K-AP	\$ 165	\$ 209	\$ 374
Nema Open Dusk/Dawn 35-watt LED	Cooper CRTK-R-A08-E-120-2-10K-AP	\$ 143	\$ 209	\$ 352
Nema Open Dusk/Dawn 45-watt LED	Cooper CRTK-R-A08-E-120-2-10K-AP	\$ 143	\$ 209	\$ 352
Nema Open Dusk/Dawn 55-watt LED	Cooper CRTK-R-A08-E-120-2-10K-AP	\$ 143	\$ 209	\$ 352
Nema Open Dusk/Dawn 70-watt LED	Cooper CRTK-R-A08-E-120-2-10K-AP	\$ 143	\$ 209	\$ 352
Octagon Fixture 125-watt LED	Truly Green Solutions 310882 w/Ext Dvr	\$ 166	\$ 209	\$ 375
Round Domed Shoe Box 125-watt LED	Truly Green Solutions 310882 w/Ext Dvr	\$ 166	\$ 209	\$ 375
Round Domed Shoe Box 54-watt LED	Truly Green Solutions 310842-G4	\$ 412	\$ 209	\$ 621
Wall Pack 45-watt LED	Cooper XTOR2A-PC1	\$ 150	\$ 209	\$ 359
Wall Pack 70-watt LED	Cooper XTOR2A-PC1	\$ 150	\$ 209	\$ 359

B) UNIT PRICE FOR EACH ADDITIONAL or DEDUCTED TREE TRIMMING LOCATION (tree trimming locations added to or deducted from Quantities Listed below:

NOTE:

- 1) All unit pricing is inclusive of all materials and labor.

UNIT PRICE FOR EACH ADDED OR DEDUCTED TREE-TRIMMING LOCATION

TREE TRIMMING LOCATIONS	QUANTITY	UNIT TOTAL COST
Per Location	868	\$ 109

This contract includes tree trimming locations as per above. Actual, completed tree trimming locations will be

9/16/2015

communicated and invoiced to the City for approval and made part of payment requests within the project contract. For specific tree trimming locations, see Investment Grade Audit.

EXHIBIT 4**GENERAL CONDITIONS FOR CONSTRUCTION**

These construction terms shall be implemented in conjunction with the specifications for the Scope of Work which are provided in the SLUC and any Design Documents.

GC-1 Definitions.

A. "The City", "TEN", "Contract", "Premises", and "Project", shall have their respective meanings specified in the Street Lighting Upgrade Contract to which these General Conditions are attached.

B. "Support" means the following: TEN's officers, employees, agents, and representatives; TEN's suppliers, and subcontractors of any tier; the respective officers, employees, agents, and representatives of TEN's suppliers, and subcontractors of any tier; and any other person or entity acting under the direction or control or on behalf of TEN or any of TEN's suppliers or subcontractors of any tier in connection with or incident to the performance of the Work or this Contract.

C. "Work" shall refer to all acts by TEN necessary to fulfill all of its obligations under the Contract Documents, as defined in Section 1.1 of the Contract, and shall include the specification, procurement and installation of Equipment with respect to the Project and performance of three Phases of Services, as defined in Sections 1.2, 1.3 and 1.4 of the Contract, and in accordance with the terms and conditions set forth in the Contract Documents. Work includes all of the following furnished (or to be furnished), and the performance of all other obligations, under this Contract by TEN or its Support, personnel, labor, and supervision; technical, professional, and other services; equipment, materials, tools, supplies, goods, and other property; transportation, information, drawings, plans, specifications, design, data, and other items.

GC-2 Performance of the Work.

A. Unless specifically modified by the City and TEN in a Contract Amendment or Change in the Work agreed to by both parties, all materials and all equipment listed in the SLUC, and/or approved Design Documents, and all labor by all trades which are required to complete the installation are included in TEN's Work. TEN shall be and act as an independent contractor (and not as the agent or representative of the City) with regard to performance of the Work and this Contract. TEN has the right to suspend performance of work on any City directed change of a value in excess of ten percent (10%) of the Phase II Cost of Work in the absence of agreement on price and schedule impact of such change. City agrees to pay TEN on a time and materials basis, for a mutually-agreed upon predetermined amount, for changed work being performed while the parties are negotiating the price and schedule impact of the change.

B. Subject to compliance with the requirements of this Contract, TEN shall perform the Work in accordance with its own methods. Any equipment, apparatus, machinery, material, small items not mentioned in detail and labor not hereinafter specifically mentioned that may be found necessary to complete or perfect any portion of the installation in a substantial manner and in compliance with the requirements stated, implied, or intended in the SLUC, Design Documents shall be furnished and installed without extra cost to the City.

C. TEN shall fully cooperate with the City and the general traffic and coordinate the Work to minimize traffic delays. If any Work depends upon the results of work performed by the City or others, TEN shall, prior to commencing such Work, notify the City of any actual or apparent deficiencies or defects in such work that render such other work unsuitable for performance of the Work in accordance with this Contract.

D. TEN shall provide the City with a list of its subcontractors prior to TEN entering into a subcontract for services. TEN is directly responsible for obtaining the performance of and making all payments to all subcontractors, suppliers and those who perform any and all services or provide any and all supplies to or for the

Project, unless directly contracted for by the City; and further, such subcontractors, suppliers and those who perform services shall have no recourse to or against the City, unless directly contracted for by the City.

GC-3 Compliance with Laws; Permits.

A. TEN shall comply, and shall ensure that the Work and all of TEN's Support comply, with all applicable laws, ordinances, rules, regulations, orders, licenses, permits, and other requirements, now in effect. TEN shall execute and deliver to the City all documents as may be required or appropriate to effect or to evidence such compliance or such change in expenses, if any. All laws, ordinances, rules, regulations, orders, licenses, and permits required to be incorporated in agreements of this character are incorporated herein by this reference.

B. Unless otherwise specified in this Contract or directed by the City, TEN shall obtain and pay for all permits, inspections, licenses, and fees required to perform the Work in accordance with this Contract. TEN shall advise the City in writing and consult with the City prior to applying for any permit or other authorization from, or entering into any agreement with, any governmental authority with regard to the Work.

GC-4 TEN Representations.

TEN represents and warrants the following to the City (in addition to any other representations and warranties contained in the Contract Documents), which representations and warranties shall survive the execution and delivery of this Contract, any termination of this Contract and the final completion of the Work:

- A) TEN and its Subcontractors are financially solvent, able to pay all debts as they mature and possessed of sufficient working capital to complete the Work and perform all obligations hereunder;
- B) TEN is able to furnish the plant, tools, materials, supplies, equipment and labor required to complete the Work and perform its obligations hereunder and has sufficient experience and competence to do so;
- C) TEN is authorized to do business in the Commonwealth of Pennsylvania and is properly licensed by all necessary governmental and public and quasi-public authorities having jurisdiction over TEN and over the Work and the Project

GC-5 Construction and Project Management.

A. TEN shall provide for a Construction Manager who shall be responsible for providing the following services:

- Coordinate all Project details and Support's construction activities;
- Perform on-site observations and inspections of the progress and quality of the Work for conformance with Contract Documents;
- Communicate with the City's representative(s) on a regular basis to insure work schedules. The City's representatives are **Wayne Martin, City Engineer and Kevin Baum, Streetlight Supervisor**;
- Submit written monthly progress reports to the City no later than the 5th day of each month reporting on the prior month's progress, planned progress for the current month, indicating any issues or project concerns and such other information and on such reporting forms as the City requests.
- Record all construction changes or deviations in writing to the City;
- Schedule and attend regular project meetings with the City representative;
- Conduct or observe and report on tests/measurements required by the Contract Documents; and
- Maintain construction records in an orderly manner.
- Submit certified applications for payment of work completed on City approved forms. Failure to submit applications for payment may delay payment of invoices.

B. Pre-Construction Meeting - TEN shall coordinate and attend a pre-construction meeting with the City, TEN and TEN's subcontractors to discuss:

- approved installation work plan schedule;
- mobilization plan;
- inspection plan;
- coordinating storage, parking, delivery of material;
- daily clean-up;
- service calls;
- hazardous material storage and disposal procedures;
- start-up, testing, inspection and acceptance procedures; and
- safety concerns and other pertinent information procedures.

C. Progress Meetings - Once the installation starts, TEN shall hold regular monthly (or more frequent) meetings or phone conferences with the City to coordinate the work schedule, receiving material, report on the status of removal of hazardous waste, provide progress reports, discuss the progress of the job and other matters important to the successful completion of the project.

D. Operation and Maintenance Manuals - TEN shall submit for review, prior to final inspection, one (1) complete copy, in 3-ring binder, or one (1) complete copy, electronically formatted, the following:

1. Maintenance instructions and catalog data for each piece of equipment, plus any applicable maintenance instructions for the system(s);
2. Copies of all approved shop drawings;
3. Equipment warranties and certificates;
4. All operation and maintenance data.

GC-6 Quality Assurance and Inspection.

A. TEN shall use the best approved method for performing the work. Only good workmanship will be accepted, all other will be rejected. All items furnished shall be new items unless the SLUC identifies reuse of existing items.

B. TEN shall perform such detailed examination, inspection, tests, and quality surveillance of the Work as will ensure that the Work is progressing and is being completed in strict accordance with this Contract.

C. All Work shall at all times be subject to inspection by the City.

GC-7 Protection of Persons and Property.

A. TEN shall take all reasonable precautions which are necessary to prevent bodily harm to persons and damage to any property or environment in connection with performance of the Work. Without limiting the generality of the foregoing, TEN shall erect and maintain such barricades, signs, flags, and other safeguards as are required. TEN agrees to abide by the City's and the Pennsylvania Department of Transportation safety policies and regulations

B. Once accepted by City, the City shall be responsible for and shall bear any and all risk of loss, deterioration, theft, vandalism, or destruction of or damage to the Work and anything used (or to be used or consumed) in connection with the Work, including but not limited to Equipment, unless such loss, theft, destruction or damage results from the sole negligence or willful misconduct of TEN or its Support. TEN shall work with the

City to arrange for secured storage, enclosure or other protection of the Work and anything used (or to be used or consumed) in connection with the Work.

C. Unless otherwise specified in this Contract or directed, in writing, by the City, all structures and other improvements damaged, altered or removed by TEN or any of its Support in connection with the performance of the Work shall be repaired, replaced, or otherwise restored by TEN to at least as good quality and condition as existed prior to such damaging, alteration, or removal.

D. Unless otherwise specified in this Contract or directed, in writing, by the City, TEN shall ensure that no utility (including all supply, disposal, distribution and communication systems, and all similar or related facilities, equipment, and other property) is damaged, removed or unreasonably interrupted by TEN or any of its Support in connection with the performance of the Work. If TEN requires the temporary shut off of any utility, TEN shall request the City's approval thereof at least twenty-four (24) hours in advance of the time it requires the shut off.

GC-8 Environmental Considerations

A. Site Inspection

1. From the date of this Contract until the Work contemplated hereunder commences, the City shall afford authorized representatives of TEN reasonable access to the Premises for the purpose of inspecting the Work area in the Premises or Equipment Location (sometimes the "Site"). As reasonably requested by TEN, the City shall provide City personnel to accompany the representatives of TEN and provide all material information with respect to the Site and existing or known Environmental Conditions (as defined in subparagraph 2 below) which are present on or at the Site.

2. The term "Environmental Condition" shall mean the presence of environmental contamination, including the presence of any of the following (collectively, "Hazardous Materials"): oil or other petroleum products; flammable explosives; asbestos and asbestos containing materials; polychlorinated biphenyls (PCBs); urea formaldehyde insulation; radioactive materials; hazardous wastes; fungus, mold, mildew, spores or other biological or microbial agents the presence of which may affect human health, impair occupancy or materially affect the utility of the Site or Premises; toxic or contaminated substances or similar materials, including, without limitation, any substances which are "hazardous substances," "hazardous wastes," "hazardous materials" or "toxic substances" under the Hazardous Materials Laws (defined below) and/or other applicable environmental laws, ordinances or regulations, and tanks or containers whether regulated or not.

3. Hazardous Materials Laws, shall mean all federal, state and local laws, ordinances and regulations relating to Hazardous Materials ("Hazardous Materials Laws"), including, without limitation: the Clean Air Act, as amended, 42 U.S.C. Section 7401 et seq.; the Federal Water Pollution Control Act, as amended, 33 U.S.C. Section 1251 et seq.; the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. Section 6901 et seq.; the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (including the Superfund Amendments and Reauthorization Act of 1986, "CERCLA"), 42 U.S.C. Section 9601 et seq.; the Toxic Substances Control Act, as amended, 15 U.S.C. Section 2601 et seq.; the Occupational Safety and Health Act, as amended, 29 U.S.C. Section 651; the Emergency Planning and Community Right-to-Know Act of 1986, 42 U.S.C. Section 11001 et seq.; the Mine Safety and Health Act of 1977, as amended, 30 U.S.C. Section 801 et seq.; the Safe Drinking Water Act, 42 U.S.C. Section 300f et seq.; any substance subject to the National Emissions Standard Hazardous Air Pollutants as found in 40 C.F.R. Part 61; and all comparable state and local laws, applicable laws of other jurisdictions or orders and regulations.

B. Environmental Condition Remediation; and Removal and Disposal of Florescent Lamps and Ballasts.

1. Except as provided in GC-8 F 3 and 4 below, if TEN encounters an Environmental Condition at the Premises (including the Site) which may interfere with the Work to be performed under this Contract, TEN shall notify the City and shall promptly take any and all measures necessary to remove and properly dispose of the

Hazardous Materials. TEN shall be solely responsible for the costs and expenses associated with the removal of the Hazardous Materials necessary to provide the Work in this Contract.

2. Outdoor Trash Receptacles for cardboard, metal, and general rubbish shall be supplied and paid for by TEN, as applicable.

GC-9 General Requirements.

A. In the event of any conflict with Contract Documents, applicable codes and ordinances shall take precedence over the requirements set forth in this Contract.

B. TEN shall cooperate at all times with the City's staff in all matters concerning scheduling the work, unavoidable interference with the City's normal working routine, access to work areas, placing and removing temporary barricades, and protection and other safety procedures. All work shall be scheduled with the approval of the City. Work shall not interfere unduly with building operations.

C. TEN shall notify the City of any system deficiencies and repair costs promptly after the pre-construction survey. TEN shall, at the City's discretion and the City's expense, repair existing system deficiencies as required to produce a complete and operable system under a Change in the Work process. As a minimum, repairs to the system shall conform to the original standard of construction for the existing equipment.

D. Installations shall be performed by skilled and certified technicians and trades people.

E. TEN shall confine all operations in the performance of the Work (including, but not limited to, storage, assembly, vehicle parking, ingress, egress, and movement of Equipment, materials, tools, and workers) to such areas and during such time periods as set forth in the Work Schedule and approved by City. Unless otherwise directed by the City, acceptance and handling of Work materials shall be performed by TEN. Storage of materials or tools for the work within a building shall be limited to areas approved by the City. Outside storage will be permitted only when approved by the City. City shall not be required to provide vehicle parking on the Premises or elsewhere.

F. TEN shall cause its Support to keep the Work areas, and access to such areas, cleared of rubbish, refuse, and other debris, and in a reasonably neat, clean, and safe condition. Upon completion of Work each day, TEN shall promptly remove all rubbish, refuse, and other debris and all of its equipment and surplus equipment and materials not to be used at or near the same location during later stages of the Work and make areas safe for conduct of business.

GC-10 Non-Discrimination/Sexual Harassment Clause.

During the Term of this Contract, TEN agrees as follows:

a. In the hiring of any employees, performance of work, or any other activity required under the Contract or any subcontract, TEN, subcontractor, or any person acting or behalf of TEN or subcontractor shall not by reason of gender, race, religious creed, age, sexual orientation or color, discriminate against any citizen of this Commonwealth who is qualified and available to perform the work to which the employment relates.

b. Neither TEN nor any subcontractor nor any person on their behalf shall in any manner discriminate against or intimidate any employee for the performance of work, or any other activity required under the Contract on account of gender, race, religious creed, or color.

c. TEN and its subcontractors shall establish and maintain a written sexual harassment policy and shall inform its employees of the policy.

d. TEN and each subcontractor shall furnish all necessary employment documents and records to and permit access to its books, records, and accounts by governmental agency for purposes of investigation to ascertain compliance with the provisions of this Nondiscrimination/Sexual Harassment Clause.

e. TEN shall include the provisions of this Nondiscrimination/Sexual Harassment Clause in every subcontract so that such provisions will be binding upon each subcontractor.

f. City may cancel or terminate the Contract, and all money due or to become due under the Contract may be forfeited for a violation of the terms and conditions of section a and b of this Nondiscrimination/Sexual Harassment Clause.

GC-11 Human Relations Act.

The provisions of the Pennsylvania Human Relations Act, Act 222 of October 27, 1995 (P.L. 744) (43 P.S. Section 951, Et. Seq) of the Commonwealth of Pennsylvania prohibit discrimination because of race, color, religious creed, ancestry, age, sex, national origin, handicap or disability, by employers, employment agencies, labor organizations, contractors and others. TEN shall agree to comply with the provisions of this Act as amended that is made part of this specification, including but not limited to, the language of the Commonwealth's non-discrimination clause in PA Code 349.101. TEN agrees that it will comply with the provisions of the Act, and all other federal, state or local anti-discrimination laws, regulations and ordinances.

GC-12 Discrimination Prohibited.

According to 62 Pa C. S. A. article 3701, TEN agrees that:

In hiring of employees for performance of work under this Contract, or any subcontract, no such contractor or sub-contractor shall, by reason of race, creed or color, discriminate against citizen of the Commonwealth of Pennsylvania who is qualified and available to perform the work to which the employment relates.

No contractor, sub-contractor, nor any person on his behalf, shall in any manor work under this contract on account of race, creed or color.

The Contract may be canceled or terminated by the City and all money due or to become due hereunder may be forfeited, for a second or any subsequent violation of the terms or conditions of this portion of the Contract.

EXHIBIT 5**PROJECT INFORMATION**

City Address: Office of City Engineer, 123 Walnut Street, Suite 212, Harrisburg, PA 17101

City's Designee: Wayne Martin, P.E

SCOPE OF WORK: The Project Scope of Work is based upon installation of the street lighting related equipment quantities listed in Exhibit 5, Schedule A. Should the as-built quantities change, the Scope of Work shall be adjusted by the added or deducted unit quantities. Such Scope of Work adjustments shall be set forth in Change Order(s) to be prepared by TEN and approved by City from time to time during the installation period in accordance with Section 6 of the Contract.

PROJECT LOCATIONS: Project Locations for the Street retrofitted shall be in various traffic intersection locations throughout the City of Harrisburg as set forth in Exhibit 5, Schedule E. The specific Project Locations shall be updated as part of the As-built documentation provided by TEN. Installation progress reports shall be generated by TEN from time to time during the installation period to document Work completed at specified Project Locations up to the date of such progress report.

PROJECT SAVINGS:

Utility Savings: The Annual Electric Savings is based upon the pre-retrofit City billed amounts less the post-retrofit, as-built billing amounts projected for the traffic lighting quantities listed in Exhibit 5, Schedule E. The Project's Estimated Annual Electric Usage (kWh) amounts for post-retrofit utility billings will be based upon the as-built street lighting quantities, operating hour assumptions, kWh, and billing rates in accordance with the procedures set forth in Exhibit 5, Schedule E.

Should the as-built quantities change, the projected electric usage shall be adjusted by the added or deducted unit quantities multiplied by the corresponding kWh usage per unit. Such electric kWh adjustments shall be set forth in Change Order(s) to be prepared by TEN and approved by the City from time to time during the installation period in accordance with Section 6 of the Contract. An updated Electric Usage Spreadsheet and electric utility billing model will be provided by TEN for the as-built Project at the end of the installation period.

Base Utility Rates: The utility rates are set forth in Exhibit 1. There are no gas or water savings associated with this work.

Operational and Maintenance Savings: In addition to the energy savings, this Project also creates significant material and maintenance contract savings. These savings will be quantified for the City once TEN negotiates the best possible warranty for the City with the ultimate equipment vendor. Savings associated with the maintenance of the City's street lighting will also be significant and quantified for the City.

EXHIBIT 5, SCHEDULE A

SCOPE OF WORK, EQUIPMENT DESCRIPTION and WARRANTY

1. NEW TECHNOLOGY

TEN will upgrade the following quantities of street lights with long-life LED replacements. Detailed description of the retrofit has been provided in TEN's Proposal, dated October 15, 2014, and updated quantities have been provided below and in Exhibit 3.

Equipment	Quantities
11- Customer Owned Equipment on Utility Owned Pole*	3,768
12- Customer Owned Equipment on Customer Owned Pole*	2,081
1- Overhead Supply - Wood Pole*	13
2- Overhead Supply - Metal Pole*	15
3- Underground Supply - Low Mount*	34
4- Underground Supply - High Mount*	207
7- Underground Supply - Wood Pole*	9
Fixture Node**	4,259
Segment Controllers/Gateways**	4
PDA Kit**	2
Mapping Program & Software**	1
Factory Onsite Startup & Training (Controls)	1

*Based on PPL Utility Billing Codes

**Definitions:

Fixture Node: Replacement to the twist-on photocell top of an existing fixture. Not on decoratives.

Segment Controllers/Gateways: Mounted on pole or building and receives data and transmits commands to nodes.

PDA Kit: Outdoor configuration device that allows for easy and fast on-site installation, with bar-code scanning and GPS positioning of the head and local refinement of its position on street maps.

Mapping Program & Software: The most recent version of a Supplier - or City-hosted softwaresystem known as "PLANet" from Telensa, Ltd. that will enable the City to remotely control the City's LED street lights including but not limited to dimming, switching, monitoring, GPS and electronic maintenance notification functionality. The software will be deployed during construction sized to meet the needs of the City of Harrisburg's locations. It is unlimited in scale and provides an extensive set of diagnostic capabilities. Included in this Contract is all equipment and installation thereof by TEN required for the software to fully function including by way of example but not limited to Fixture Nodes/Telecells, Gateway/Base-stations/Segment Controllers, radio, antenna and standard (except for a supply server and required network connectivity for a City hosted software system), license fees and user fees for three users, network and software system planning, integration, installation and commissioning costs, any software customizations necessary to attain full functionality and training costs for two days of training for City employees and officials and all travel related expenses and gratuities for software representatives in connection with the software scope of work and training. All software training will be provided within the City. Also included within the fully loaded Contract price, are Annual Hosting, Support & Update fees during the first year after final completion of the installation and commissioning of the software system. The total estimated year 1 up-front costs to TEN for all of the foregoing software scope of work and year 1 Annual Hosting, Support and Update Fees is \$540,756. City will be responsible annually thereafter for the cost of continued hosting, support and updates for the software system, which is estimated at approximately: 1) \$12,750/year for a supplier-hosted service and support or 2) \$9,600 for a City-hosted service with supplier support. The hosting option best suited for the City of Harrisburg will be decided during the installation of the project as this is when information necessary to make the decision becomes available. No long term contracts are available for this software as a service (SAAS). There shall be no other usage-related charges for the software. All data shall be the property of the City. It is understood that

final pricing of the software is dependent upon the exact configuration of the software product and system and the services required. TEN and the City agree to work together to negotiate the best software agreement and cost schedule with Telensa. Should it be determined that the annual cost to the City for hosting, support, updates and any other similarly related costs for maintaining the software will exceed \$15,000 per year, the City and TEN, at the City's election's shall work together to identify an alternate software supplier.

Note: Project Locations for the Street lights retrofitted shall be provided as part of the As-built documentation provided by TEN. Installation progress reports shall be generated by TEN during the installation period to document work completed at specified Project Locations up to the date of such progress report.

TEN will update the City's existing GIS software system with the new data being provided under this Contract

Warranty

The following **manufacturer** warranties will pass through TEN directly to the City to ensure that the City will have direct access to the full value of the manufacturers' warranty over the term of the contract.

Equipment	Manufacturer	Warranty Period
Cobra Heads	City approved. See elsewhere in this agreement and in IGA.	10 Years
Decorative Retrofit Kits	City approved. See elsewhere in this agreement and in IGA.	6 Years
Fixture Mounted Nodes	City approved. See elsewhere in this agreement and in IGA.	10 Years
Segment Controllers	City approved. See elsewhere in this agreement and in IGA.	10 Years
Misc. Wall Packs, Canopy, Jelly Jar, Shoebox	City approved. See elsewhere in this agreement and in IGA.	5 Years

TEN will provide a **labor** warranty to provide all labor necessary to install all equipment warranted by the manufacturer and provided by the City to TEN.

2. TREE TRIMMING

TEN will perform tree trimming services at 868 locations as designated in the Investment Grade Audit. When determined to be necessary, TEN will comply with PennDOT Publication 212 and all tree trimming will be in accordance with the ANSI A300. The ANSI standards represent the industry criteria for performing tree care operations. The standards are often used for identifying professional requirements, as well as for the preparation of tree care contract specifications such as is the scope here in this contract. TEN will incorporate said standards in all subcontractor contracts and direct all of its subcontractors to comply with the appropriate sections of ANSI A300. TEN and its subcontractors will coordinate and consult with the City's Engineer and Arborist on all tree-trimming work. TEN will be responsible for chipping and disposal of all branches and debris in connection with the tree trimming. The City may designate a specific disposal site within the City. See Investment Grade Audit and PennDOT Publication 212 for further details.

EXHIBIT 5, SCHEDULE B**WORK SCHEDULE****STREET LIGHTING UPGRADE**

Final Design Completion:	TEN shall complete final design of the project within two (2) weeks of execution of this SLUC.
Final Design Completion, Decorative, & Miscellaneous Lighting:	TEN shall complete final design of the project within four (4) weeks of execution of this SLUC
Final Design Review/Approved:	City shall review final design withing two (2) weeks of presentation of design documents by TEN and suggest any changes thereto.
Utility Rebate Pre-approval	TEN shall complete final utility pre-approval of the project within two (2) weeks of execution of customer design approval
Commence Tree Trimming Services	Approximately two (2) weeks after Utility pre-approval
Commence Street Lighting Installation	Approximately four (4) weeks after tree trimming commencement
Substantial Completion	Within twenty (20) weeks after installation commencement.
Field Utility Approval & Bill Reconciliation	Within four (4) weeks after Substantial Completion
Final Completion and Project Acceptance	Within two (2) weeks after final utility reconciliation

EXHIBIT 5, SCHEDULE C - PAYMENT FOR THE WORK

A. Project Cost of Work: The Project Cost of Work includes all amounts to furnish and be responsible for all of the Project Work as specified in Exhibit 5, Schedule A, which shall include labor, materials, tools, equipment, insurance and supervision necessary to satisfactorily specify, design, procure, install, inspect, start-up and test the Equipment and monitor the savings for the Project in accordance with the provisions of this Contract. The Cost of the Work is divided into three phases as follows:

1. Phase I and Phase II Work. City shall pay TEN as compensation for Phase I Work, as defined in Section 1.2 of the Contract, and Phase II Installation Work, as defined in Section 1.3 of the Contract, monthly progress amounts totaling not to exceed amount of \$3,569,144 for the Project. The monthly progress amounts shall be invoiced based upon a percentage of the Phase I and Phase II Work completed and shall contain sufficient documentation to support the invoiced amount. City acknowledges that TEN's Work conducted to conduct the audit, prepare the design and negotiate the pricing for materials and subcontractor labor for the Project shall be compensated under this Contract as a portion of the Phase I cost.

Description	Phase I Cost	Phase II Cost	Total Cost
Street Lighting Upgrade	\$203,270*	\$3,365,874	\$3,569,144

*This Phase I Cost includes the cost of the Inventory Audit (\$24,813) completed by TEN pursuant to the Inventory Audit Agreement between TEN and the City of Harrisburg dated December 8, 2014.

For purposes of the Guarantee, Customer and TEN agree that the Act 129 Utility Rebate estimate is \$284,129, based on the current audit in Investment Grade Audit (IGA). TEN makes no guarantee with regard to utility rebates. Rebate, savings and project costs will be revised if the quantity of fixtures types change or the Utility providing the rebate changes the rebate offered.

There will be no ongoing subscription costs to the City for the software implemented as part of this project.

Note: Additions / Reductions in Scope –

The Phase II Project Cost is based upon installation of the street light quantities listed in Exhibit 3 and Exhibit 5, Schedule A. Should such as-built quantities change, the Phase II cost shall be adjusted by the added or deducted unit quantities multiplied by the per unit prices set forth in Exhibit 3. Such cost adjustments shall be set forth in Change Order(s) to be prepared by TEN and approved by City from time to time during the installation period in accordance with Section 6 of the Contract.

2. Phase III Measurement and Verification Services. As compensation for Phase III Savings Measurement and Verification Services for the Project, as set forth in Exhibit 5, Schedule D of this SLUC, City shall pay a fee at the submission of the Measurement and Verification Report as set forth below:

Year 1	\$ 10,000
Year 2	\$ 5,000
Year 3	\$ 5,150
Year 4	\$ 5,305
Year 5	\$ 5,464
Year 6	\$ 5,628
Year 7	\$ 5,796
Year 8	\$ 5,970
Year 9	\$ 6,149
Year 10	\$ 6,334

9/16/2015

* Note: Measurement and Verification (M&V) services will be provided within 12 months after the construction period and every year following, upto 10 years, unless the City terminates the Measurement and Verification Services earlier.

EXHIBIT 5, SCHEDULE D

MEASUREMENT and VERIFICATION SERVICE

A. Performance Verification Procedures

TEN shall provide savings measurement and guarantee services to confirm the Project savings levels as specified in Exhibit 5, Schedule D, Exhibit 1. The savings measurement involves pre and post installation determination of energy usage billing for the equipment. For this approach, once the post installation calculations are made, the energy use is quantified and stipulated operating and billing parameters are applied to yield confirmed energy dollar savings.

At the end of the installation period, the actual energy usage for the As-built retrofits will be calculated, and savings will be adjusted to match as-built fixture counts.

Savings verification for this Project will consist of the following steps:

A complete, location inventory of all lighting fixtures affected by the lighting retrofit has been compiled and set forth in the Investment Grade Audit. The inventory includes the following information – Location, Fixture type, Quantity and kWh and billing amounts.

A similar inventory of the As-built retrofit will be compiled listing the same categories of information with updated quantities and post-retrofit kWh usage and billing amounts after Phase III is complete.

Post-retrofit Capacity (kW) : TEN shall determine the As-built Post-retrofit kW for each type of retrofit (“Actual Capacity”).

Baseline Operating Assumptions: The baseline operating assumptions for the Project have been stipulated in Schedule E per PPL rate schedule and shall be used to calculate the Post-retrofit electric usage.

Electric Energy Usage: At the end of the installation period, the Actual Capacity (kW) and the Baseline Operating Assumptions, shall be used to determine the Post-retrofit Electric Energy Usage (kWh).

Electric Dollar Savings: The Actual Electric Energy Usage shall be multiplied by the corresponding unit prices and totaled to yield the Post-retrofit Electric Dollar amount for billing purposes (“Post-retrofit Billing Amount”). Unit prices to be used shall be the base unit prices set forth in Exhibit 1.

B. Reconciliation Procedures

Reconciliation Adjustments: For each Measurement Year, the Actual Project Dollar Savings Amount shall be compared and reconciled with the appropriate Guaranteed Dollar Savings Amount for the Project as set forth in Schedule D, Exhibit 1, on a Reconciliation Statement to be prepared by TEN and submitted to City within ninety (90) days following the end of that Measurement Year.

(i) Positive Reconciliation: If for a Measurement Year, the Guaranteed Dollar Savings Amount less the Actual Project Dollar Savings Amount is equal to or less than zero, then this difference shall be referred to as a “Positive Reconciliation Amount” and no reimbursement to City is necessary.

(ii) Negative Reconciliation: If for a Measurement Year, the Guaranteed Dollar Savings Amount less the Actual Project Dollar Savings Amount is greater than zero, then this difference shall be referred to as the “Dollar Savings Shortfall Amount” and City shall have the right to reimbursement for the Dollar Savings Shortfall Amount determined using the following procedure:

Reimbursement of Dollar Savings Shortfall Amount:

TEN shall reimburse Customer for the Dollar Savings Shortfall Amount within thirty (30) days following the date of the Reconciliation Statement (the "Reconciliation Payment"). TEN shall develop and maintain a Project tracking spreadsheet which shall track the Project's Energy and Dollar Savings performance and the amounts and balances as set forth above which might be carried over from Measurement Year to Measurement Year. Such Project tracking spreadsheet shall be part of a Project Savings Performance report that TEN shall generate at the end of each Measurement Year where monitoring services are provided by TEN during the Savings Term.

However, TEN shall not be required to reimburse any Dollar Savings Shortfall Amount if (a) Customer modifies, disconnects or fails to operate or maintain the Energy Conservation Measures (ECM's) in accordance with the procedures set forth in the final as-built lighting audit or Operations Manual, (b) Customer is in material breach of or in material default under this Contract, including but not limited to failure to maintain the equipment and systems in good working order and condition, (c) this Contract has terminated (due to a non-breach occurrence) as permitted or provided for in this Contract, (d) the equipment suffers fire, flood or other casualty, until the equipment is properly repaired and restored, or (e) Customer is not in material compliance with, or any of the conditions to TEN's obligations are not materially satisfied in accordance with, the terms of this Contract. TEN reserves the right to modify its Project Savings Performance Guarantee based on any modifications to the Project. This Project Savings Performance Guarantee is contingent upon TEN's involvement with the Project's performance monitoring, without which the Project Savings Performance Guarantee shall cease. Accordingly, TEN's annual Guarantee Administration Services shall be purchased by Customer for the period set forth in Schedule C in order for the Project Savings Performance Guarantee to remain in effect.

C. Clarification of Bonding

TEN shall provide a payment and performance bond in the amount of 100% of the Phase II (Construction) Cost of the Work, as set forth on Schedule C, attached hereto and made part hereof. The amount shall include all Changes in the Work. The Bond shall comply with the provisions of Public Works Contractors' Bond Law of 1967, 8 PS Section 191, et seq. The Bond shall specifically exclude coverage for those portions of the Contract or the Work pertaining to design services, the Project Savings Performance Guarantee, the Phase III Basic Services, and any other part of this Contract and the Contract Documents which do not relate specifically to construction management and supervision of Work for purchasing and installing of Equipment by TEN, or for work to be accomplished by the Customer. The Bond shall be with Great American Insurance Company which is qualified to do business in the Commonwealth of Pennsylvania and shall be in a form reasonably acceptable to the Customer.

SCHEDULE D, EXHIBIT 1**GUARANTEED DOLLAR SAVINGS AMOUNTS PER MEASUREMENT YEAR**

For the Project, the Guaranteed Dollar Savings Amounts per Measurement Year during the Project Savings Guarantee Period are set forth below:

Project Savings Guarantee Period = 10 years.

MEASUREMENT YEAR	GUARANTEED DOLLAR SAVINGS AMOUNTS
Year 1	\$ 510,332.88
Year 2	\$ 517,987.88
Year 3	\$ 525,757.70
Year 4	\$ 533,644.06
Year 5	\$ 541,648.72
Year 6	\$ 548,773.45
Year 7	\$ 558,020.05
Year 8	\$ 566,390.35
Year 9	\$ 574,886.21
Year 10	\$ 583,509.50
TOTAL	\$ 5,461,950.81

* **Note:** For purposes of the Guarantee, Customer and TEN agree that the Act 129 Utility Rebate estimate is \$284,129. TEN makes no guarantee with regard to utility rebates.

* **Note:** To the extent that the actual final Project Scope is modified, then the Project Cost, Savings and Rebates amount shall be adjusted accordingly.

EXHIBIT 5, SCHEDULE E,**LIGHTING AUDIT AND CALCULATION OF PROJECT SAVINGS****Lighting Audit**

TEN's City of Harrisburg Street Lighting Audit, May 7, 2015, is attached hereto as Schedule E, and shall be incorporated herein as part of the SLUC for the Project for Street Lighting Retrofit. The following wattages and hours of operation were used in the savings calculations.

LED LAMP WATTAGES

Existing Equipment	Pre-(billing) Wattage*	Proposed Equipment	Proposed Wattage**
(2) Fixtures Nema Open Dusk/Dawn	215	(2) Fixtures Nema Open Dusk/Dawn 175 Mercury Vapor to 48-watt LED	48
ACORN/BLVD	84	ACORN/BLVD 70 High Pressure Sodium to 36-watt LED	36
ACORN/BLVD	120	ACORN/BLVD 100 High Pressure Sodium to 54-watt LED	54
ACORN/BLVD	120	ACORN/BLVD 100 2- High Pressure Sodium to 54-watt LED	54
ACORN/BLVD	120	ACORN/BLVD 100 High Pressure Sodium to 54-watt LED	54
ACORN/BLVD	176	ACORN/BLVD 150 2- High Pressure Sodium to 54-watt LED	54
ACORN/BLVD	176	ACORN/BLVD 150 High Pressure Sodium to 54-watt LED	54
ACORN/BLVD	211	ACORN/BLVD 175 2- Metal Halide to 54-watt LED	54
ACORN/BLVD	215	ACORN/BLVD 175 Mercury Vapor to 54-watt LED	54
ACORN/BLVD	232	ACORN/BLVD 200 2- High Pressure Sodium to 54-watt LED	54
ACORN/BLVD	232	ACORN/BLVD 200 High Pressure Sodium to 80-watt LED	80
ACORN/BLVD	477	ACORN/BLVD 400 Mercury Vapor to 80-watt LED	80
ACORN/BLVD	317	ACORN/BLVD 250 High Pressure Sodium to 125-watt LED	125
ACORN/BLVD	313	ACORN/BLVD 250 Metal Halide to 125-watt LED	125
ACORN/BLVD	459	ACORN/BLVD 400 Metal Halide to 125-watt LED	125
Acorn/Tear Drop	211	Acorn/Tear Drop 175 Metal Halide to 54-watt LED	54
Acorn/Tear Drop	477	Acorn/Tear Drop 400 Mercury Vapor to 80-watt LED	80
Acorn/Tear Drop	317	Acorn/Tear Drop 250 2- High Pressure Sodium to 125-watt LED	125
Acorn/Tear Drop	317	Acorn/Tear Drop 250 High Pressure Sodium to 125-watt LED	125
Acorn/Tear Drop	313	Acorn/Tear Drop 250 Metal Halide to 125-watt LED	125
Acorn/Tear Drop	499	Acorn/Tear Drop 400 High Pressure Sodium to 125-watt LED	125
Acorn/Tear Drop	477	Acorn/Tear Drop 400 Mercury Vapor to 125-watt LED	125
Acorn/Tear Drop	459	Acorn/Tear Drop 400 Metal Halide to 125-watt LED	125
Canopy	120	Canopy 100 High Pressure Sodium to 55-watt LED	55
Cobra Head	215	Cobra Head 175 Mercury Vapor to 51-watt LED	51
Cobra Head	84	Cobra Head 70 High Pressure Sodium to 51-watt LED	51
Cobra Head	120	Cobra Head 100 High Pressure Sodium to 51-watt LED	51
Cobra Head	120	Cobra Head 100 High Pressure Sodium to 54-watt LED	51

Cobra Head	176	Cobra Head 150 High Pressure Sodium to 72-watt LED	72
Cobra Head	211	Cobra Head 175 Metal Halide to 72-watt LED	72
Cobra Head	300	Cobra Head 250 Mercury Vapor to 72-watt LED	72
Cobra Head	120	Cobra Head 100 High Pressure Sodium to 92-watt LED	92
Cobra Head	176	Cobra Head 150 High Pressure Sodium to 92-watt LED	92
Cobra Head	317	Cobra Head 250 High Pressure Sodium to 92-watt LED	92
Cobra Head	477	Cobra Head 400 Mercury Vapor to 92-watt LED	92
Cobra Head	317	Cobra Head 250 High Pressure Sodium to 157-watt LED	157
Cobra Head	477	Cobra Head 400 Mercury Vapor to 157-watt LED	157
Cobra Head	813	Cobra Head 700 Mercury Vapor to 157-watt LED	157
Cobra Head	499	Cobra Head 400 High Pressure Sodium to 157-watt LED	157
Cobra Head	1123	Cobra Head 400 Mercury Vapor to 157-watt LED	157
Dec post top	215	Dec post top 175 Mercury vapor to 54-watt LED	54
Double (2) Acorn/Tear drop	120	Double (2) Acorn/Tear drop 200 2- High Pressure Sodium to 54-watt LED	54
Drum	211	Drum 175 4-Metal Halide to 70-watt LED	75
Granville	120	Granville 100 High Pressure Sodium to 54-watt LED	54
Granville	211	Granville 175 Metal Halide to 54-watt LED	54
Jelly Jar	211	Jelly Jar 70-watt LED	22
Long – Globe	211	Long - Globe 175 Metal Halide Pulse Start to 54-watt LED	54
NC Die Cast Aluminum	211	NC Die Cast Aluminum 175 Metal Halide to 54-watt LED	54
NC DIE CAST ALUMINUM floods	459	NC DIE CAST ALUMINUM floods 400 2- Metal Halide to 54-watt LED	54
Nema Open Dusk/Dawn	176	Nema Open Dusk/Dawn 100-watt LED	73
Nema Open Dusk/Dawn	215	Nema Open Dusk/Dawn 140-watt LED	73
Nema Open Dusk/Dawn	84	Nema Open Dusk/Dawn 35-watt LED	48
Nema Open Dusk/Dawn	215	Nema Open Dusk/Dawn 45-watt LED	48
Nema Open Dusk/Dawn	120	Nema Open Dusk/Dawn 55-watt LED	48
Nema Open Dusk/Dawn	176	Nema Open Dusk/Dawn 70-watt LED	48
Octagon Fixture	459	Octagon Fixture 400 Metal Halide to 125-watt LED	125
Round Domed Shoe Box	459	Round Domed Shoe Box 140-watt LED	140
Round Domed Shoe Box	211	Round Domed Shoe Box 70-watt LED	70
Round Domed Shoe Box	120	Round Domed Shoe Box 55-watt LED	55
Wall Pack	215	Wall Pack 45-watt LED	45
Wall Pack	176	Wall Pack 70-watt LED	45

*Based on PP&L Utility Bills

**Based on City Approved Manufacturer Wattage may change depending on location (High Crime, Traffic control, existing source, etc.)

OPERATING HOUR ASSUMPTIONS

All proposed fixtures will be charged using the current utility (PP&L) SE tariff rate of 4,300 hours of operation each year, even though the control system will be installed. All pre-project street lighting is being charged at 4,300 hours.