



Date: April 29, 2021
RFP Title: LED Streetlighting, Controls and Networking

Questions and Answers

1. Does the Local Business Entity or Local Impact Certification have any impact on the EOP?

There's no specific requirement in the Economic Opportunity Plan for the percent of Local Business Entities; however, we encourage Proposers to use Local Business Entities or subcontractors with Local Impact Certifications as much as possible. The RFP Procurement Team will look favorably on the use of Local Business Entities and subcontractors with Local Impact Certifications.

2. Is a digital download (link) to a PDF an acceptable submission format for PEA and the City?

Please refer to the RFP and the attachments on the RFP website.

https://philaenergy.org/public_bids/pea-and-the-city-of-philadelphia-request-for-propos-als-rfp-for-led-streetlighting-controls-and-networking/

3. Attachment A indicates "Community Outreach requirements defined in Section 4.3.6 of this RFP." However, Section 4.3.6 of the RFP defines Form of Contract and Requested Exceptions to Contract Terms. The Community Outreach requirements don't appear to be spelled out anywhere else in the RFP. Please advise.

This question was addressed in Addendum 1 to the RFP, which was posted to the RFP website on April 14, 2021.

4. Please clarify M. Fuller statement that the LMS must offer all of the smart city applications except streaming video.

The City interests and expectations as they relate to Smart City applications and Adaptive Lighting solutions are defined in Sections 6.4 through 6.6 in Attachment From the list in Section 6.5 of Attachment A, we assume all Smart City applications can utilize the bandwidth provided with any of the three required LMS solutions or any additional optional solutions. We recognize that the live streaming of high definition video would likely require additional bandwidth beyond that offered by the initially specified LMS network.

5. Can subcontractors provide their own listings or only through primes?

First-tier subs are welcome to have M/WBE subs. However, the prime is required to meet the ranges by subcontracting directly with M/WBEs. The prime can also count its own

work towards the ranges if it is certified as an M/WBE. Also, there is no DSBE requirement.

6. Can a two-week extension to the due date be provided?

The Deadline for Receipt of Proposals has been extended to May 28 at 5:00PM EST.

7. Is a digital download (link) to a PDF an acceptable submission format for PEA and the City as opposed to an attached file?

Please refer to the RFP and the attachments on the RFP website.

https://philaenergy.org/public_bids/pea-and-the-city-of-philadelphia-request-for-propos-als-rfp-for-led-streetlighting-controls-and-networking/

8. Attachment A | Section 7.1 – Required information about ESCO Team Profile includes the “Years of Employment with Current Company, Years of Relevant Industry Experience, Relevant Reference Projects (project names only)” for ESCO and partners. Please confirm this information does not need to be included with the firm profiles.

We believe the RFP requirements are clear.

9. Please confirm if and/or when the pre-bid recording and any associated information will be posted to the procurement site.

The presentation from the Pre-bid Meeting on April 1, 2021 is available on the RFP website.

https://philaenergy.org/public_bids/pea-and-the-city-of-philadelphia-request-for-propos-als-rfp-for-led-streetlighting-controls-and-networking/. *The recording of the meeting will not be made available.*

10. Please provide additional information regarding expectations for row 66 in the LMS Solutions tab of Attachment A1. Is the City asking for what is commonly referred to as "last gasp", the ability of the control node to communicate that it has lost power from the grid before shutting down? How does this capability, if desired, relate to the reporting requirement in row 71?

The difference between the requirement in row 66 and 71 is that one is an alarm and one is a report, respectively. The alarm would immediately send a notification that incoming power has been lost (e.g. loss of voltage). A report will be sent at a yet-to-be-specified frequency (e.g. daily, weekly) that provides a cumulative list of alarms and other performance parameters. The purpose of these rows is to identify if the proposed LMS can generate such an alarm and deliver such a report.

11. Attachment A1, LMS Solutions & Pricing, rows 141-163 | What assumptions should be made regarding the quantities for the various applications?

At this time the City does not know specifically which Smart City applications or Adaptive Lighting solutions will be implemented, the scope of those implementations, or the timing of their implementation. The Proposer should present unit pricing assuming small quantities.

- 12. Regarding rows 141-163 in the LMS Pricing tab in Attachment A1, is it the City's expectation that respondents will price these items in a quantity of one, e.g. one road temperature sensor, one flood monitoring sensor, etc.? Without more information regarding the actual applications of these technologies we would question the utility of this pricing information.**

See response to question 11 above.

- 13. Attachment A indicates "Community Outreach requirements defined in Section 4.3.6 of this RFP." However, Section 4.3.6 of the RFP defines Form of Contract and Requested Exceptions to Contract Terms. The Community Outreach requirements don't appear to be spelled out anywhere else in the RFP. Please advise.**

This question was addressed in Addendum 1 to the RFP, which was posted to the RFP website on April 14, 2021.

- 14. Attachment A.1 | Please clarify expectations regarding requirements that the proposed LMS solutions support the smart city applications listed beginning on row 113 of the LMS Solutions & Pricing tab of Attachment A1. Is support for all (or any) of these applications required?**

See response to question 4.

- 15. Section 4.3.10 of RFP – “The Procurement Team shall deem it a positive factor where the Proposer has, in the City’s sole discretion, met the Local Business Entity or Local Impact criteria.” Please clarify how meeting the Local Business Entity or Local Impact Criteria will be factored into the overall evaluation of proposals.**

See response to question 1.

- 16. Attachment A | Section 3.1.5 – “The City expects to see 3-10 qualified manufacturer solutions evaluated per product family.” Based on the RFP, it is our understanding that pricing for one (1) manufacturer is required for the proposal submission. Please confirm that the requirement to provide pricing for more than one manufacturer is only applicable after a proposer has been awarded the project (during the Final Product Evaluation/Selection phase).**

The City expects a single manufacturer per product family (e.g. cobrahead luminaires) to be identified in the RFP solutions proposed in Luminaires Solutions & Pricing tab of the RFP Submittal Worksheet (Attachment A.1). It is correct that the reference to evaluating 3-10 qualified manufacturers per product family is for the selected ESCO as part of the Product Evaluation/Selection phase discussed in Section 3.1.5 of Attachment A.

- 17. Attachment A.1, Line 135 - On the Luminaire Solution & Pricing Matrix, does the City have the locations and/or map of where the 14 different lights and control only upgrades are located throughout the City?**

For the purposes of the RFP, the quantities for each typical application identified in columns C-P are provided in rows 147 (luminaire replacement with NLC) and 148 (NLC only).

- 18. Attachment A.1, Line 135 - On the Luminaire Solution & Pricing Matrix is the “Fixture Type Quantity – LED Control Only Upgrade” the same item as the “NLC Unit Installer Cost (\$) – for existing LED luminaires, NLC Installations only” on the Lighting Management System & Smart City Performance and Pricing Submittal?**

The unit cost requested in row 135 of the Luminaire & Solutions Pricing tab is the installer cost to replace the existing HID luminaire with a new LED luminaire and attach the new NLC. As can be seen in the formula for Total Installation Pricing in row 150, the row 135 unit cost is multiplied only by the luminaire replacement quantity in row 147. In the LMS Solution & Pricing tab the Total Installation Price (row 106) includes an NLC-only install cost multiplied by the total quantity of NLC installations on existing LED luminaires.

- 19. We do not see any specific workforce diversity goals listed in the RFP. Will the City be providing these goals as part of this RFP?**

The City will not be providing any specific workforce diversity goals as part of the RFP.

- 20. Under the GESC Par. 10.1 “Coordination During Installation” it indicates the installation work should be coordinated with other City projects and contractors. Will the City provide advance schedules and scopes of this work so that the ESCO can schedule around the City’s other work?**

Yes.

- 21. Under the GESC Par. 10.7 “Hours” it implies no work from 7:00PM to 7:00AM unless specifically permitted by the Project Manager and the City. Does this City know of any areas at this time that would require working during these hours?**

No, not at this time.

- 22. For traffic control will City and/or State Police be needed? If so, can the City indicate where and what the requirements will be for Police use? Will the ESCO be responsible for associated costs?**

Proposers should price their own maintenance & protection of traffic without including additional cost for police. The City will discuss the cost for additional police traffic control with the selected Proposer.

- 23. RFP Section 4.4 - Would the City provide scoring criteria to identify how the RFP sections will be weighted, e.g. does the Workforce Development Plan carry the same weight as the pricing?**

No further detail will be provided. The evaluation criteria is listed in Section 4.4 of the RFP.

- 24. Attachment A.1 - Please unlock input cells in columns C and D for sheet “Luminaire Solutions & Pricing”. These are locked starting at row 111.**

Attachment A.1 has been updated and a new version is now available on the RFP site.

https://philaenergy.org/public_bids/pea-and-the-city-of-philadelphia-request-for-propos-als-rfp-for-led-streetlighting-controls-and-networking/.

- 25. Attachment-A- Section 3.2.4 - PECO Bill Updates & Rebate Management, “On an annual basis the ESCO will support the City with providing SL-C verification data as required by the tariff.” Is this for the full term of the project or just the 3 years of M&V?**

For the purpose of this response, assume it is only for the 3 years of the M&V period. This is subject to change for the selected ESCO.

- 26. Attachment A-1 Line 136 -139: Rewire unit cost:**

- a. Does this work reuse the arms, and if yes does it include the removal of the existing cable?**

Yes, the existing arm of the specified length is to be reused.

- b. Are these all overhead line connections?**

For these requested costs, assume the application is for an overhead connection for cobrahead and “dusk to dawn” typical application luminaire types. For post top decorative typical application luminaire types, it should be assumed re-wiring inside the entire pole height.

- c. Are inline fuse kits required for each installation?**

Yes, the city prefers inline fuses.

- d. Is this price to include the new luminaire installation cost?**

For these requested rewire costs, new luminaire installation is not to be included. These are “adder” installation costs. Standard luminaire replacement costs are requested in row 135.

- e. Will this work be done in the same visit as the Luminaire Replacement (Line 135) or as a separate deployment?**

Assume any installer-identified need for re-wiring will be done at the same time as luminaire replacement. It should be assumed the City will pre-approve this work with possible monitoring and reporting requirements.

- f. What percent of the work is 120V single phase, and what percent is 277 three phase?**

The majority of the streetlights are 120V. Only a handful of them are 240V.

- g. What is the powerline height assumed to be for this work?**

Typical mounting height is 25 feet.

- h. Luminaires like the Chinatown are post top fed underground, do we leave these cost items blank for some or all of the Spring City Luminaires?**

We have updated the Attachment A.1 worksheet to indicate not applicable for the “Decorative” typical application luminaires.

27. Attachment A-1 Lines 140-144:

- a. Are these replacement arms where there were fixtures before or new luminaire locations?**

Since we define that this “adder” cost includes the arm of specified length, cable, and tap to overhead, we would expect this cost could be applied to both replacement and new installation applications. This cost would be in addition to the luminaire replacement cost requested in row 135.

- b. If they are replacement arms, does the work occur during the luminaire replacement or during a separate visit?**

Assume as a separate visit. It would be expected that the installer would identify arms requiring replacement, skip installing the new luminaire and receive approval from the City to complete this work as part of later scheduled work effort.

- c. Are the pole materials for the new arms assumed to be wood?**

For the purposes of the RFP, assume new arms would attach to wood poles for the cobrahead and “dusk to dawn” typical application luminaires. We have updated the Attachment A.1 worksheet to indicate not applicable for the “Decorative” typical application luminaires.

- d. Are inline fuse kits required for each installation?**

Yes, the city prefers inline fuses.

- e. Will this cost be in addition to the cost of the Luminaire in line 135? (Is it an incremental add to line 135)**

Yes this is a cost “adder” to row 135.

- f. Luminaires like the Chinatown are post top fed underground, do we leave these cost items blank for some or all of the Spring City Luminaires?**

See answer in “c” above.

28. Attachment A-1 Line 134: Please describe what product warranty terms are meant by this item for the installation labor.

The City seeks a full “installation warranty” that covers both the manufacturer’s product warranty and the labor to fulfill that warranty. If the terms of the product and labor warranty do not match, please clarify.

29. Attachment A Section 3: Will the Investment Grade Audit and Design consist of the City’s entire lighting inventory including tunnel lighting, sign lighting and other

decorative lighting? Or, will it only consist of the ~124k lights earmarked for the LED Fixtures identified in the Attachment A-1?

As indicated in row 6 of the ESCO Service Fee tab of Attachment A.1, the unit price requested is for the estimated luminaire quantity of 124,232.

30. Attachment A1 Line 135: If a pole does not have power when the contractor visits the pole, do we skip installation, install the luminaire and have PECO restore power at a later date or some other solution?

For the purposes of the RFP, it should be assumed that the new luminaire and NLC be installed and the power outage be reported to the City and PECO based on an agreed-upon process to be defined.

31. Attachment A-1 Line 135: If a pole loses power while the luminaire is being installed (a short circuit due to worn out insulation or some other situation), how is this to be handled?

For the purposes of the RFP, it should be assumed that the new luminaire and NLC be installed and a rewire be completed. Please see previous answers that pertain to rewiring requirements.

32. Attachment A-1 Line 135: For streets that have metered parking, will there be any charges that the contractor will need to cover for needed closures relating work on this Project ?

Street closures require permits. Further detail can be found on the Streets Department website. The City will discuss waiving permit fees with the successful bidder. The City will also discuss the successful bidder's maintenance & protection of traffic plan.

<https://www.philadelphiastreet.com/highways/street-closure-permits/>

33. Attachment A-4 FIX-29378 - From the drawing

- a. The drawing does not match the mounting arm style of the luminaires installed. How does the luminaire attach to the fixed arm at 90° to the pole?**
Each decorative fixture has a specific mounting arm that is appropriate for that lighting.
- b. Where does the control node and or photocell get mounted in this luminaire?**
Photocells for decorative lighting are mounted differently than typical cobraheads. This will be a discussion with the successful bidder.
- c. Is the driver mounted separately or is it just not shown?**
The driver is shown in the drawing.

34. Attachment A-4 FIX-30088 - From the Drawing

- a. Where does the control node and or photocell get mounted in this luminaire?**
See response to question 33.

35. Attachment A-1 Line 133:

a. What is the basis for this labor rate?

This is a placeholder rate based on approximate current PA prevailing wage rates seen for similar projects. The selected ESCO will work with the City to submit a Prevailing Wage Determination.

b. Is it based on prevailing wages in Philadelphia or is this number to allow the City to compare costs across the respondents?

See above. This rate is not the final assumed rate, but for use in the RFP to compare costs across respondents.

c. Will the City be utilizing any PLA's for this project (i.e. union labor)?

See Section 2.5 of the RFP.

d. Does this cost include a per diem rate union electricians are receiving in the Philadelphia market?

This is a placeholder rate for the RFP only.

36. Attachment A Section 3.1.6: Trial Installation: Is this a requirement for a total of 80 lights to be installed, e.g. 20 locations times 4 lights each?

Yes. This is the number of locations and quantity of lights that should be used for the RFP.

37. Attachment A Section 6.1 Please clarify what aspects of the LMS should the city employees have the ability to customize?

As stated in the RFP, the City requires ownership, full administration, customization, and control of the LMS. It is assumed that any LMS solution proposed has the standard ability to define user inputs. Some examples may include: parameters for alarm generation, reporting delivery, lighting groups and dimming schedules.

38. Attachment A Section 6.2: City's Databridge data integration platform: Please provide more information on what the LMS is to be integrated with. Does the city have an outside vendor that they use for system integration?

The standard for the City is that the vendor will provide an API that adheres to the standards in Attachment A.3.

39. Attachment A Section 6.2 What version of CityWorks work order system does the city operate?

The Streets Department currently operates Cityworks 15.3.6 – Revision 2019.10.01.

40. Attachment A Section 6.5 Please provide the maximum bandwidth the City desires for the controllers for the future possibility to communicate information from as of yet undefined hardware or applications.

A specific bandwidth is not defined. For the purposes of the RFP we expect that the LMS solutions provided can support the Smart City applications and Adaptive Lighting solutions listed (with the exception of high-definition streaming video).

- 41. With regard to Attachment A-3 Page 3 Master Data Requirements Systems integration software code developed by the Applicant or related parties is subject to RFP Section 2.4.4: Software Source Code, we could not locate a Section 2.4.4 in the RFP Document. What is the reference document for this requirement?**

Attachment A.3 contained an incorrect reference to RFP Section 2.4.4. Systems integration software code developed by the Applicant or related parties is subject to the following Software Source Code provisions:

“The City expects delivery and ownership of the source code, including complete documentation and specifications, for custom software developed and furnished specifically for the System under any contract resulting from this RFP. For software that is proprietary to the successful Applicant or to third parties, the City expects that source code, including complete documentation and specifications, will be deposited in escrow, at no expense to the City and on terms satisfactory to the City, with regular updates of the deposited code and documentation to reflect enhancements, upgrades, updates, and corrections to the software.”

- 42. RFP Section 3.6: Evaluation Committee expects to make a final selection of one or more Proposers. How will the GIS Audit and IGA be performed, as well as the trials be implemented by the city with multiple ESCOs?**

The City reserves the right to select more than one Proposer. Should that occur, we will discuss the appropriate division of work at that time.

- 43. RFP Section 3.1.2: Please explain how the city wishes to add the PECO Utility Bills to the LSDB. Will the bill account numbers be available for each pole with a unique identifier and are the bills searchable such that the data can be imported automatically?**

The City has only a few PECO accounts for streetlighting that are mostly defined by the typical applications in this RFP. The City will work with the ESCO to correctly identify PECO account numbers for luminaire locations in the LSDB.

- 44. Attachment A-1: Is it the intent of the RFP to have only one option for each Luminaire context listed in columns C- P?**

Yes. Starting with row 59 in the Luminaire Solutions Pricing tab in Attachment A.1, the ESCO should be providing a unique manufacturer solution for each typical application.

- 45. If the electrical subcontractor is a non-WMBE and they hire a WMBE to perform work under their subcontract, will the ESCO be able to claim credit toward the WMBE goal for that portion of the project?**

See response to question 5.

46. May we assume the City does not have any 480 volt streetlighting infrastructure? May we provide pricing for 120-277v equipment?

For the purposes of the RFP, assume that the City does not have any 480 volt streetlighting infrastructure.

47. Regarding the removal and recycling of the existing streetlights, will the City accept a “net” cost for removal and recycling? Or does the City wish to have any residual value of recycled materials broken out as a possible credit against the actual cost to remove and recycle the existing streetlights?

For the purposes of the RFP, we are seeking a net cost. We welcome innovations in waste management and leave it to the Responders to determine whether there is additional information to provide in the narrative. The selected Proposer will be required to submit plans for Streets Department approval. The Streets Department is a zero-waste department.

48. The submittal requirements call out for a single-file PDF, with additional excel files as requested. Is it acceptable to attach multiple files to a single email to the City? Does the primary proposal need to be 10MB or less, or should the entire email (including all attachments) be 10MB or less?

The entire email (including all attachments) must be 10MB or less. We recommend providing a link for additional materials.

49. Will the recording of the Pre-Bid meeting be posted to the City website for further review?

The presentation from the Pre-bid Meeting on April 1, 2021 is available on the RFP website.

https://philaenergy.org/public_bids/pea-and-the-city-of-philadelphia-request-for-proposals-rfp-for-led-streetlighting-controls-and-networking/. The recording of the meeting will not be made available.

50. May we assume all City permitting costs will be waived?

See response to question 32.

51. Is there a limit of how many City streets (contiguous or non-contiguous) may be closed during streetlight installation?

The Streets Department will need to approve the street closure work plan.

52. If City employees are needed for traffic control, may we assume those costs will be waived?

See response to question 22.

53. Will City PM and City Consultant costs be provided to the winning firm for inclusion in final financing? Or will these costs be needed for the RFP submission?

Yes, those costs will be provided to the winning proposer for inclusion in final financing. They are not to be included in the RFP ESCO Service Costs in the RFP response.

54. In reference to Attachment A.1 LMS Solutions and Pricing Rows 141-163: Should it be assumed that this unitary pricing is for the hardware and installation only and the integration, use case and back haul needs will further be defined (and priced) at a later date? Additional scope clarification will ensure the City receives comparable, comprehensive, and competitive pricing.

For the purposes of the RFP, these costs should include component hardware, installation, and any known annual fees associated with this solution. If the solution has both an upfront cost and annual fees, please enter as "\$xx.xx Purchase + \$xx.xx Annually." As indicated in previous answers, we expect the LMS solutions provided to have the bandwidth to support the list of Smart City applications and Adaptive Lighting solutions so we would not expect additional backhaul needs. The requested price should include the unit costs associated with integration.

55. In reference to Attachment A Section 6: Please provide further definition around the term "real-time" as it relates to end-to-end latency of the LMS system. RF systems described in Options 1 and 2 in the pricing form in attachment A.1 typically have latencies that may not be considered "real-time."

It is understood that all systems have some standard latencies depending on the technology employed. When we refer to "real-time," it indicates the need for communication of critical information generated to be initiated immediately, understanding that latency may impact how quickly that information may be received. For example, if a pole is knocked down we would expect the NLC tilt sensor to immediately generate an alarm and initiate communication to identified parties via a pre-defined process. We would expect latency in this example to be seconds or a few minutes and not hours.

56. In reference to Attachment A Section 6: LMS Alarms and Reports: Please define 'in minutes' time requirements to meet LMS alarm 'immediate' expectations.

See response to question 55. At this time it should be assumed that alarms can be generated immediately and communicated within a few minutes to the appropriate parties.

57. Please clarify what lights should be included in the proforma. Section 2.1 of the RFP indicates "installation of new pedestrian-scale lighting in certain commercial corridors, the retrofitting or replacement of decorative lighting luminaires to LEDs and/or the

retrofit of alley lighting” may all be additive to the project but the pricing form is not clear on this delineation.

Section 7.4 of Attachment A explains the requirements associated with the Initial Feasibility Assessment, which we assume is what the question is referring to with the mention of pro-forma.

- 58. In reference to Attachment A.2 Typical Application Photometric Layout Samples: Photometric Software such as AGI32 will show the luminaire isolines in FC or lux but there is no option for cd/m2. Should we assume Philadelphia wants Isoplots for the illuminance calculation points and would like those in Foot-candles as noted in .10 increments? Please confirm the Iso illuminance lines should be from the luminaires and not the light levels on the application?**

Do not provide isolines with photometrics analysis.

- 59. In reference to Attachment A.2 Typical Application Photometric Layout Samples: Due to all of the calculation points required (cdm2 on the roadway and lux on the sidewalk) can you confirm the isolines from the luminaire are to show luminaire distribution performance and not light trespass which can only be shown in FC or lux point by point results (Combination of multiple luminaires).**

Do not provide isolines with photometrics analysis.

- 60. In reference to Attachment A.2 Typical Application Photometric Layout Samples: The application spec requirement is for vertical calculations and a horizontal calculation on a sidewalk, printed results will illustrate the individual calculation points and will be almost on top of each other. Should AGI files be submitted for review or just summary results?**

For sidewalks the vertical point tag/label can be left off the point-by-point analysis, but the minimum vertical illuminance metric should be reflected in the required summary statistics table. AGI files are not required with the RFP response. A PDF document with the requirements defined in Attachment A.2 must be provided.

- 61. What does the City currently spend annually to maintain the street lighting system? (including the existing LMS and the lamp/ballast/luminaire maintenance and replacements) What portion of that annual spend is subcontracted vs performed in-house? How many trucks does the streets department own and manage? How many maintenance individuals are employed? Are there any dedicated facilities for the maintenance of Street Lights?**

Current subcontractor maintenance contract is \$2.5MM per year. This does not include the Streets Department budget, which should not be assumed to be affected by a reduction in streetlighting maintenance.

62. Is there a requirement for the City of Philadelphia or ESCO to have an emergency 24x7 service line to call for support regarding the LMS?

Yes, it should be assumed that all proposed LMS solutions have a 24/7 manufacturer supported technical service or support center.

63. Lighting Asset Inventory Management mentions: “Install and maintain a LMS that shall be capable of acting as the primary lighting asset inventory management system or provide data that supports a separate City lighting asset inventory management system that also includes data migration into the cities DataBridge warehouse.” What is the role of the proposer? Should the proposer assume they need to provide the data and API’s to the city and that the city and it’s 3rd party partners will be responsible for the integration coding and data ingestion into the DataBridge system?

The ESCO has lead responsibility for implementing all solutions associated with the project, including all work by their team partners. The final selected LMS solution must include data migration services to the City DataBridge system.

64. Which high-bandwidth applications is the City interested in utilizing 5G cellular networking?

The reference to 5G cellular service is not in reference to the LMS backhaul network for any functions. It is listed as a Smart City application to provide internet service to identified City neighborhoods.

65. Are there any rapid deployment or emergency service requirements for other city departments or organizations who are partners to the City of Philadelphia who may be in need of lighting controls?

In Section 6.2 of Attachment A, the RFP indicates its interest in LMS data/information to be utilized and integrated with the City’s CityWorks maintenance system, City GIS and inventory management systems and 911, 311 and Traffic Management system. For the purposes of the RFP it should be assumed that integration with the City DataBridge system is the primary ESCO requirement. The City expects the LMS to communicate defined useful real-time data (e.g. faults, alarms) as well as regularly scheduled status, performance, and asset reporting information to the City DataBridge.

66. Will the City consider solutions that are not fully integrated with the LMS as the applications identified may have various market brand leaders who may facilitate the business initiative in a much more comprehensive and economical level than that of a single LMS manufacturer?

For the purposes of this RFP, the City is looking for Smart City application and Adaptive Lighting solutions that can utilize the LMS network for communication (excluding high speed video streaming).

67. In reference to Attachment A.4: Current Decorative LED Luminaire Specification Sheets:

- a. **Ben Franklin Parkway LED Luminaire – can you please specify where the NEMA receptacle will be located as it is not clear in the specification sheet.**
- b. **Franklin Gooseneck LED Luminaire – can you please specify where the NEMA receptacle will be located as it is not clear in the specification sheet.**

The drawings show the new redesign with the receptacles on top. The City reconfigured the lights for previous pilots. All fixtures will need to be replaced in order for new NEMA receptacles to work.

68. Please provide typical PECO utility bills for each tariff rate encountered for Philadelphia Street lights.

We will not be providing any additional information on utility bills beyond what is already in the RFP.

69. Please clarify the difference in responsibility between source “Field Audit (Observed)” and “ESCO Provided”

Field Audit (Observed) will be attributes observed and recorded during the investment grade audit. ESCO Provided attributes will be developed as part of the ESCO project development and implementation process including but not limited to Preliminary Design, Final Design, and As-Built luminaire and LMS specifications, as well as M&V attributes.

70. Please provide details around common data integration models the city is using/prefers to connect the LMS into the City’s Data Bridge integration platform. Is there an existing API?

The standard for the City is that the vendor provide an API that adheres to the attached standards.

71. Attachment A, Section 6.1 says that the LMS must be capable of supporting 175,000 Control Points. Are the additional ~50,000 control points for the smart cities applications, or there is there potential for the City to expand to 175,000 lighting control points plus some number of smart cities devices?

The reference to the 175,000 control points is to ensure the LMS capability to include additional luminaires connected to the LMS beyond the 124,000+ indicated for the RFP.

72. Cells B18 and C18 of the submittal worksheet predefine the Gateway to CMS Network protocol as “Cellular.” May a different network protocol, e.g., fiber optic and/or WiMax, be substituted in Options 1 and 2, or should approaches using a non-cellular network protocol be listed in the Optional columns?

Yes. The optional solutions in columns E-G can contain any solutions that still meet the LMS requirements defined in the RFP.

73. The bandwidth needs of various smart cities applications vary by orders of magnitude, and the pricing for some applications may be impacted by volume. If available, please provide a forecast of the expected frequency of communication and number of endpoints for each smart cities application.

This information is not available at this time. See response to question 54 discussing bandwidth and scope of Smart City applications and Adaptive Lighting solutions.

74. Section 6.2, LMS integration to City Systems.

a. We assume that GIS is ESRI ArcGIS. What existing software solution is being used for the Lighting inventory/asset management system (e.g. SAP, Maximo, Asset Suite)?

The ESCO and their GIS partner should propose the GIS platform proposed for the Webmap Portal and underlying LSDB data. The City uses CityWorks for their maintenance work system.

b. Section 3.1.2 references MS Excel for the data collection, but what's system is this based on to meet the integration requirements.

This section and any references to MS Excel indicate the format in which the City provided information for specific items. Integration with City systems will be through the City Databridge system, discussed previously.

c. What software solution is being used for the 311 and Traffic Management system?

The requirement is for all City data integration to be via the City Databridge system, discussed previously.

75. Per Section 6.2, "Provide a mobile-friendly application that will enable City staff to work remotely helping to streamline and the management and maintenance of streetlights."

a. What mobile devices does the city plan on using/adoption (e.g. iOS, Android, Window).

b. Is the city looking for a native mobile application or browser based solution?

c. is the mobile solution for field crews performing outage maintenance? Are there additional users for the mobile app (e.g. Park&Rec, law enforcement, emergency responders)

The City is utilizing the Cityworks work order management system and it supports all mobile devices. The City is considering how the new LMS will be accessed by other departments and will work with the selected Proposer to finalize selection.

76. Attachment A, Section 6.1 says that the LMS must be capable of supporting 175,000 Control Points. Are the additional ~50,000 control points for the smart cities applications, or is there potential for the City to expand to 175,000 lighting control points plus some number of smart cities devices?

See response to question 71.

- 77. Row 89 of the submittal worksheet asks for pricing for an internal “In-Fixture” NLC version. If available, please provide manufacturer model numbers and associated quantities of luminaires that will require an internal NLC.**

For the purposes of the RFP the City wants to only know if an “In-Fixture” NLC is available and is not looking for a specific specification at this point.

- 78. Cells B18 and C18 of the submittal worksheet predefine the Gateway to CMS Network protocol as “Cellular.” May a different network protocol, e.g., fiber optic and/or WiMax, be substituted in Options 1 and 2, or should approaches using a non-cellular network protocol be listed in the Optional columns?**

See response to question 72.

- 79. The submittal worksheet asks for pricing on smart cities applications for which a scope of work is not included in the RFP. Please provide guidance on the City’s expectation for that pricing. E.g., is it directional/budgetary pricing for future planning, or should the ESCO independently define a scope and then provide firm pricing for that scope as defined?**

The ESCO should submit pricing only for the Smart City applications defined in the LMS Solutions and Pricing tab of Attachment A.1.

- 80. The bandwidth needs of various smart cities applications vary by orders of magnitude, and the pricing for some applications may be impacted by volume. If available, please provide a forecast of the expected frequency of communication and number of endpoints for each smart cities application.**

This information is not available at this time. See response to question 54 discussing bandwidth and scope of Smart City applications and Adaptive Lighting solutions.

- 81. How will smart cities capabilities and pricing be weighted in the RFP scoring?**

Selection criteria are provided in Section 4.4 of the RFP.

- 82. What is the purpose of the pre-proposal vendor information session on April 15th? Are prospective Project Team Members to the pre-qualified ESCOs eligible to attend?**

The subcontractor and vendor information session provided information about the RFP for firms interested in contracting with the pre-qualified bidders, as well as providing contact information for the pre-qualified bidders. The slide deck from the event is posted to the RFP page. The contact information for Proposers was provided to attendees and attendees contact information was provided to Proposers.

https://philaenergy.org/public_bids/pea-and-the-city-of-philadelphia-request-for-proposals-rfp-for-led-streetlighting-controls-and-networking/

- 83. In Attachment A - ESCO Services & Technical Requirements (page 27; 6.3): "The ESCO shall provide LMS forecasts ... of data usage ... planning for appropriate data plans".**
- a. **QUESTION: Does this mean the cellular costs for backhaul of data should not be included within the pricing in Attachment A.1 LMS tab of the spreadsheet? Please confirm the City will be responsible for the backhaul costs, not the LMS solution provider.**

For the purposes of the RFP, in rows 96 and 97 of the LMS Solutions and Pricing tab in Attachment A, the ESCO should provide the anticipated LMS gateway and node per unit cellular SIM M2M data plan communication costs.

- 84. In Attachment A - the LMS scope requires the LMS to be capable of handling up to 175k points. Pricing asks for 112,540 nodes for new luminaries plus an additional 11,692 existing fixtures (=~125,000).**
- a. **QUESTION: In trying to price this, is the City requesting 125,000 points at the beginning of the project with enough headroom to expand to 175,000 in years 2-20? Please provide some sort of breakdown/timeline of those additional 50,000 nodes? Should we assume roughly 2,600 per year for 19 years?**

For the purposes of the RFP, the ESCO should indicate if the system has the ability to support up to 175,000 NLCs. Other than that indication of LMS growth capacity, there are no other responses that would reference 175,000 connection points. All pricing will be based on the typical application quantities that are associated with the referenced 124,000+ luminaires.

85. Attachment A-1 LMS Solutions Tab, Smart City Support Applications

- a. **QUESTION: Please provide minimum and maximum anticipated quantities for smart city sensors. What is the time frame for implementation (and at what scale)? Are the smart city sensors also expected to be warrantied for 20 years?**

That is not available. All pricing should be based on unit pricing but appropriately adjusted for the strategic importance and potential of the City as a customer.

- 86. The LMS Spec says " ESCO LMS partner....shall provide ... system documents that describe all software in technical and functional detail sufficient so that this information may be used by City personnel to maintain the system and to resolve identified problems."**

- a. **QUESTION: Please confirm that the responsibility for the LMS software and maintenance lies with the LMS solution provider, not the City.**

While licensing provides the City with full ownership and administrative control of the LMS, it is also expected that the LMS manufacturer provides hosting services and consistent maintenance and standard updates to the LMS.

87. With the pricing tab, the following 2 lines are listed in the LMS Solution and Pricing tab (line 88): NLC - Unit D/N Cost (\$); then Line 89 - NLC - Unit Cost adder for Internal "In-Fixture" NLC Version (\$).

- a. Question: Please indicate (estimate, if necessary) how many of line item 88 will be required and how many of line 89 are required.**

For the purposes of the RFP the "In-Fixture" pricing is for reference only to understand the availability and price "adder" relative to the standard 7-pin NLC. When calculating total material costs in row 105, the RFP assumes use of only use of the standard 7-pin NLC pricing.

88. In the pricing sheet, tab LMS Solution & Pricing, Option 2, line item 107 adds the total annual fees and multiplies them by 20 years. One of the components that gets included is line item 97 which is "Communication Costs/Gateway/Year (assume cellular SIM M2M costs)". There appears to be an inconsistency between the formulas for Option 1 and Option 2 - but we believe they should be the same.

- a. Option 1**

$$=((B103+B104)*B95*20)+(((B103+B104)/B35)*B96*20)+((B103+B104)*B97*20)+((B92*20) \text{ Option 2}$$

$$=((C103+C104)*C95*20)+((C103+C104)*C96*20)+((C103+C104)*C97*20)+(W92*20) - \text{(which makes Option 2 the same as Option 3).}$$

- b. QUESTION: Please confirm that Option 2 should be the same as Option 1.**

An update was made in response to this question. ESCOs should focus on providing accurate information in the requested fields.