LAS LED Streetlight Service: Rationale and Selection Processes

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Why is LAS offering a streetlight service?

Rationale = service fits core mandate, provide valuable service for interested municipalities

LAS is AMO's not-for-profit service arm and as such LAS aims to help its customers "**save money, make money**, and **build capacity**".

Reputation	Save Money	Build Capacity	Make Money
Publically visible project	Reduce Energy and Maintenance Costs	Economy of Scale and Top Quality	Obtain Incentive Dollars
			

Why is LAS offering a streetlight service?

Background

- LAS has third party look at technology in 2008—solid but too expensive.
- Throughout the fall of 2012 a significant number of municipalities asked for LAS' assistance in selecting a provider for LED street lights.
- The LED streetlight marketplace was and is still crowded and confusing to the average municipal staff.
- Municipal staff told us they wanted LAS to develop a complete turn-key service that provided product, project management, design, finance and all other required services in one single offering.
- LAS conducted competitive process for service and bi-annual process for supply (may be annual in future)

Supply Procurement Process

Goal = ensure members get top-quality technology at best price available

2014 RFP guided by Committee of Municipal Staff and Independent Experts

Request for Proposal
LED Streetlight Luminaire Supply

5.0 Technical Specifications

(Adapted from the US DOE MSSLC Model Specification for LED Roadway Luminaires, Version 1.0, and Model Technical Specifications of LED Luminaires, Version 1.0, Lightsavers Canada, CUI)

Proponents must ensure that the mandatory requirements described below and otherwise contained in this Request for Proposal have been satisfied in their proposal. Failure to comply with these requirements may result in rejection of your proposal. Any manufacturer offering products that comply with the required product performance and operation criteria may be considered.

5.1 General Standards

Equipment provided in RFP must conform, at a minimum, to applicable standards and regulations of one of the following organizations unless noted otherwise:

i. Canadian Standards Association (CSA)
ii. Underwriters' Laboratories of Canada (UL_C)
iii. Electrical Safety Authority (ESA)

Luminaires shall have the appropriate governing mark and certification as listed above.

The publications listed below form a part of this specification to the extent referenced. Publications are referenced within the text by their basic designation only. Versions listed shall be superseded by updated versions as they become available.

A. American National Standards Institute (ANSI)
1. C78.377-2011 (or latest), American National Standard for the Chromaticity of Solid State Lighting Products
2. C82.77-2002 (or latest), American National Standard for Harmonic Emission Limits - Related Power Quality Requirements for Lighting Equipment
3. C136.2-2014 (or latest), American National Standard for Roadway and Area Lighting Equipment – Dielectric Withstand and Electrical Immunity Requirements
4. C136.10-2010 (or latest), American National Standard for Roadway and Area Lighting Equipment – Locking-Type Photo control Devices and Mating Receptacles— Physical and Electrical Interchangeability and Testing
5. C136.15-2011 (or latest), American National Standard for Roadway and Area Lighting Equipment – Luminaire Field Identification
6. C136.22-2004 R2009 (or latest), American National Standard for Roadway and Area Lighting Equipment – Internal Labeling of Luminaires
7. C136.25-2013 (or latest), American National Standard for Roadway and Area Lighting Equipment-Ingress Protection (Resistance to Dust, Solid Objects and Moisture) for Luminaire Enclosures
8. C136.28-2006 R2011 (or latest), American National Standard for Roadway and Area Lighting Equipment-Glass Lenses Used in Luminaires
9. C136.31-2010 (or latest), American National Standard for Roadway Lighting Equipment – Luminaire Vibration

LAS Streetlight RFP Bid Analysis Summary Sheet

To the user: Fill in pink cells	Bidder #1	Bidder #2	Bidder #3	Bidder #4	Bidder #5	Bidder #6
						N/A
Mandatory Requirements:						
(Use pull down menu. Must all be "Yes" to pass)	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
Received by Sept 12, 2014 at 4:00pm EST	Yes	Yes	Yes	Yes	Yes	
Type written in English	Yes	Yes	Yes	Yes	Yes	
Changes made in ink	Yes	Yes	Yes	Yes	Yes	
Appendix A Checklist Complete	Yes	Yes	Yes	Yes	Yes	
Appendix B Form of Proposal signed original	Yes	Yes	Yes	Yes	Yes	
Appendix B Form of Proposal sealed	Yes	Yes	Yes	Yes	Yes	
Addenda acknowledged (Total for RFP: 1)	Yes	Yes	Yes	Yes	Yes	
Proof of Insurance	Yes	Yes	Yes	Yes	Yes	
Point rated requirements included	Yes	Yes	Yes	Yes	Yes	
Mandatory Requirements Met?	Pass	Pass	Pass	Pass	Pass	Fail
Notes:						
(If pass, continue to next tab. If Fail, Stop evaluation.)						
Point Rated Submission:						
Part I (Min 75% required in each category/overall)						
Company Profile	0.00 /5	0.00 /5	0.00 /5	0.00 /5	0.00 /5	0.00 /5
Experience/Qualifications/References	0.00 /15	0.00 /15	0.00 /15	0.00 /15	0.00 /15	0.00 /15
Financial Background	0.00 /15	0.00 /15	0.00 /15	0.00 /15	0.00 /15	0.00 /15
Luminaire Performance	0.00 /30	0.00 /30	0.00 /30	0.00 /30	0.00 /30	0.00 /30
Quality/Longevity	0.00 /25	0.00 /25	0.00 /25	0.00 /25	0.00 /25	0.00 /25
Value Added Components	0.00 /5	0.00 /5	0.00 /5	0.00 /5	0.00 /5	0.00 /5
Overall Proposal Quality	0.00 /5	0.00 /5	0.00 /5	0.00 /5	0.00 /5	0.00 /5
Subtotal Part I (minimum 75 required)	0.00 /100	0.00 /100	0.00 /100	0.00 /100	0.00 /100	0.00 /100
(If all cells are green, continue to Part 2 for bidder)						
Part II						
Cost Breakdown	#N/A /30	#N/A /30	#N/A /30	#N/A /30	#N/A /30	#N/A /30
TOTAL POINTS	#N/A /130	#N/A /130	#N/A /130	#N/A /130	#N/A /130	#N/A /130

Supply Procurement Process

Committee of Municipal Staff and Independent Experts

- Alan Korell, Managing Director, Engineering, Environmental & Works , City of North Bay
- Saleh Daei, Energy Management Project Coordinator, City of Brampton
- Bernard Gabriel Program Manager, Street & Community Lighting, City of Ottawa
- Isabelle Lessard, Streetlighting Engineer, City of Montreal
- Michelle Hjort, Associate Director, Business Development, RealTerm Energy
- Kerry Wilson Managing Director, of Business Solutions, RealTerm Energy
- Jeff Barten, LAS Municipal Energy Specialist
- Scott Vokey, LAS Energy Services Manager

Financial Analysis

Kathy Steffan , Partner , Welch LLP

Photometric Analysis

Peer Eric Moldvar, Principal, Éclairage TECHNO

Initial Guidance

Ed Ebrahimian, Director of the Bureau of Street Lighting, City of Los Angeles

Supply Procurement Process

Large number of specification Guides, pilot studies, protocols, standards, and tender documents were referenced including the following:

- Lightsavers Model Technical Specifications
- MSSLC Model National Specification
- U.S Department of Energy (DOE)
- Design Lights Consortium's Product Qualified Products List (DLC QPL)
- Canadian Standards Association (CSA)
- Electrical Safety Authority (ESA)
- Illuminating Engineering Society of North America (IESNA)
- International Dark-Sky Association (IDSA)
- Public Works & Government Services Canada
- The City of Markham
- The City of Hamilton
- BC Shared Services
- The City of Calgary
- The City of Edmonton
- The City of Detroit
- The City of Los Angeles
- The City of New York
- Municipality of the District of Digby (NS)
- The Town of Hantsport (NS)
- IOWA Association of Municipal Utilities

Supply Procurement Evaluation Criteria

Company Experience & Qualifications	Reference checks to verify experience and performance of the company on past similar projects Experience and longevity of the company
Financial Background	Comparison of company financial rations to industry average over 5 years Projections for the upcoming fiscal year
Fixture Quality	Life expectancy ratings Quality Control processes Packaging and shipping processes Warranties
Fixture Performance	Ability to meet 22 key specifications and standards from ANSI/IESNA/NEMA/FCC/etc. Independent third party photometric comparisons
Value added components	Extended warranties Fixture innovation & product selections Ability to combine with future adaptive controls
Overall Proposal Completeness, Clarity and Organization	

Service Procurement Process

Committee of Three LAS Staff

- A number of government agencies and institutions had small installations or pilot projects by the end of 2012.
- Many of these agencies and institutions had engaged electrical and lighting experts, either independently or through their local utilities, to assist in evaluating product.
- The LAS Selection Committee examined all available pilot studies, protocols and standards, and tender documents from across North America

RP-8-00 American National Standard Practice for Roadway Lighting

Lessons Learned:

Vital to independently confirm the manufacturer's specifications

Product selection only small part of the overall project

Independent photometric design crucial, should be as granular as possible

LAS wanted complete turn-key

Provide a complete turn-key that offered the best lifecycle costing to municipalities:

1. Lighting design solutions that includes Photometric Lighting Layouts, 2D Line Drawings, 3D Full Image Drawings, Material Specifications, Virtual Streetscapes, and Budget Analysis. All of which must show design data at 50,000 hours or greater and focus on Downward Delivered Lumens using acceptable colour temperature range in accordance with IES testing standards.
2. Design work should be a complete street by street offering and not simply a representative sample of roadway types
3. Complete GIS/GPS mapping of existing streetlight inventory for municipal asset management purposes
4. Ready access to contractor/installer base throughout the province
5. Complete recycling and disposal of removed products to meet or exceed requirements under the saveONenergy incentive program
6. An optional financing component to interested municipalities
7. Robust project management and quality management processes backed by delivery guarantees

Service Procurement Process

How did LAS select Real-Term Energy

A Interviews of Existing Projects

Canadian Urban Institute
City of Edmonton
City of Greater Sudbury
City of Hamilton
City of Mississauga
City of North Bay
Solid State Lighting Network
Toronto Atmospheric Fund
Town of Fort Frances
Town of Penetanguishene
Kingston Hydro

B Interviews of Potential Service Providers

Subsidiaries of Local Distribution Companies (LDC) involved in streetlight installations (2)
Lighting Distributors (3)
Finance Firms (3)
Lighting Agents (3)
Energy Service Companies (ESCOs) that could provide streetlight installations (4)
Project Management and Finance Firms (2)

C Competitive Process

Very clear that only one firm was able to provide the full suite of services that we were seeking

Direct negotiations with two firms to ensure we offered the best value.

LAS selected RTE as our service partner in March 2013.