



Legislation Text

File #: 11-0219, **Version:** 1

Resolution to Authorize the Purchase of LED Cobra Head Streetlight Fixtures from Lumecon (\$315,968.00) ITB-4132

The attached resolution will authorize the purchase of 500 LED cobra head streetlight fixtures from Lumecon. The purchased fixtures will be installed on the arterial roads in the City, which is Phase III, the final phase, of the LED conversion process for City- owned streetlights.

In order to achieve energy and maintenance savings, the Public Services Area Field Operations Unit began the process of converting all the City-owned streetlights to LED fixtures in 2007. Crews began the project with the conversion of 1,000 downtown streetlights through a grant from the Downtown Development Authority.

On June 21, 2010, City Council authorized the necessary purchase to move on to Phase II of the LED conversion process for the remaining 800 City-owned streetlights. With this authorization, the Field Operations Unit was able to purchase 250 LED cobra head fixtures. These bulbs are in the process of being installed in the City-owned residential streetlights.

With this Phase III purchase, City staff from the Public Service Area, Field Operations Unit will install the 500 cobra head fixtures on the City's Arterials. This installation process is expected to take six to eight months. We anticipate 50-70% in energy and maintenance savings after installation.

Staff from the Field Operations Unit of the Public Service Area solicited bids (ITB-4132) for the fixtures for Phase III of the LED conversion process. The bid had specific specifications for our lighting requirements that would ensure that the City receives a quality product. We received eleven responses to the bid. The eleven bidders were all evaluated for the photometric requirement of the bid. Only three of the bidders met the photometric specification portion of the bid.

The three bidders meeting photometric specifications were evaluated for the remaining requirements and specifications of the bid. Of the three remaining bidders, Lumecon was the only vendor to respond to all bid requirements. One of the most important requirements of the bid was an in-situ report. Because LEDs rarely fail catastrophically like light bulbs, an industry standard was designed to define and estimate the useful life of LEDs. This standard, known as L70, sets 30% degradation of light output as the end-of-life. In-situ LED temperature measurement and LED manufacturers' LM-80 test data are used with a regression and linear modeling to yield curves to predict L70 performance at given drive currents and junction temperatures. The bid specification required a maximum rise of 55.3 degrees C in-situ temperature, with testing to be performed by an independent energy star qualified laboratory. Without this report there is no way to confirm the L70 lifetime of the fixture. Lumecon was the only vendor to meet this bid requirement.

The City has received a U. S. Department of Energy for Energy Efficiency and Conservation Block Grant in the amount of \$1,243,400.00. Council accepted the grant and appropriated the monies to fund LED streetlight conversions with resolution R-09-501. The project includes LED streetlight

upgrades for the approximately 800 City-owned streetlights within the City of Ann Arbor. Miscellaneous small quantity purchases and retrofits were completed with other projects throughout the city accounting for the remaining city streetlight conversions.

Lumecon received Human Rights approval on May 3, 2010.

Grant funds remain available for the life of the project regardless of fiscal year. The Energy Office will provide grant manager services and Field Operations will serve as project manager for the effort.

Prepared By: Chuck Fojtik, Field Operations Supervisor, Craig Hupy, Acting Field Operations Manger, Andrew Brix, Energy Programs Manager

Reviewed By: Sue F. McCormick, Public Services Administrator

Approved By: Roger W. Fraser, City Administrator

Whereas, The City of Ann Arbor is in support of new energy technology and energy savings;

Whereas, Lumecon was the only respondent to meet all bid specifications and requirements of ITB-4132 for the purchase of 500 LED cobra head streetlight fixtures;

Whereas, Lumecon received Human Rights Approval on May 3, 2010;

Whereas, The City of Ann Arbor was a recipient of a U. S. Department of Energy for Energy Efficiency and Conservation Block Grant in the amount of \$1,243,400.00;

Whereas, LED Streetlight upgrades are a component of this grant; and

Whereas, The City anticipates a 50-70% savings in energy and maintenance costs after installation of the LED streetlights;

RESOLVED, That a purchase order in the amount of \$315,968.00 be authorized to Lumecon for the purchase of 500 LED cobra head streetlight fixtures; and

RESOLVED, That the City Administrator be authorized to take the necessary administrative actions to implement this resolution.