HOUSE OF REPRESENTATIVES
TWENTY-SIXTH LEGISLATURE, 2011
STATE OF HAWAII

H.R. NO. 106

HOUSE RESOLUTION

REQUESTING THE DEPARTMENT OF TRANSPORTATION TO ISSUE A REQUEST FOR PROPOSALS TO REPLACE THE EXISTING HIGHWAY LIGHTING SYSTEMS ON STATE ROADS WITH LIGHT-EMITTING DIODE (LED) LIGHTING SYSTEMS.

WHEREAS, the State must continue to pursue every appropriate opportunity to decrease the use of electricity and to reduce the costs of purchasing and maintaining critical systems; and

WHEREAS, one of the most basic means of energy conservation is updating existing lighting systems with more energy efficient lighting devices; and

WHEREAS, a light-emitting diode, or LED, is a device that converts energy to light; and

WHEREAS, compared to incandescent bulbs and compact fluorescent lights, the LED is more energy efficient, lasts longer, is more durable, and contains no mercury; and

WHEREAS, in addition to being good for the environment, switching to energy efficient lighting in public lighting systems may result in significant savings in electricity costs; and

WHEREAS, the costs and reliability associated with light emitting diode lighting systems have progressed to the point that such lighting systems should be implemented on public streets and highways; now, therefore,

BE IT RESOLVED by the House of Representatives of the Twenty-sixth Legislature of the State of Hawaii, Regular Session of 2011, that the Department of Transportation is requested to issue a request for proposals to replace the existing highway lighting systems on state highways with light emitting diode lighting systems; provided that the new systems are installed

and maintained at no additional initial or annual costs to the State or counties; and

BE IT FURTHER RESOLVED that the Department of Transportation is requested to include key technical requirements in its request for proposals, including but not limited to the following:

(1) Longevity: using the ENERGY STAR® Manufacturer's Guide for Qualifying Solid State Lighting Luminaires - Version 2.0, the chip manufacturer's LM-80 data, and the luminaire in-situ temperature measurement point (ISTMP) test, an industry-accredited third party test lab should determine the lumen maintenance at six thousand hours for the proposed fixture; provided that lumen maintenance is equal to or greater than ninety-six per cent;

(2) Reliability: published, third party laboratory audited reliability data on all solid state lighting fixtures manufactured for at least the past three calendar years should show not less than ninety-eight per cent of the solid state lighting fixtures are still in operation from the first commercial solid state lighting fixture shipped, or for the past three years, whichever period is longer;

(3) Efficiency: efficiency performance should exceed sixty L/W;

(4) Surge protection: the luminaires should be designed to meet the surge immunity up to ten kVA, per requirements specified in IEEE Standard C62.41.2 category B3 and C1;

(5) Harmonic Distortion: the fixtures should be designed for less than ten per cent total harmonic distortion, per Federal Communications Commission Part 15 Subpart B, Class B;

(6) UL listed: all fixtures shipped by the manufacturer should be UL listed;

(7) Lighting Facts: fixtures submitted should be listed on United States Department of Energy's Lighting Facts website and have a Lighting Facts Label;

(8) Field serviceable: the internal components of the fixtures should be able to be replaced in the field;

(9) Warranty: minimum five year warranty to cover one hundred per cent of all luminaire components and the individual LED chips;

(10) Made in America: fixtures shipped to this specification should be American Recovery and Reenactment Act compliant and contain no more than five per cent non-United States sourced components;

(11) Wireless Monitoring and Management: all wireless control should be designed to be managed on the secondary side of the fixture circuitry, to protect from surges and spikes; and

(12) Full monitoring and Control Capabilities: fixtures should include an Internet Protocol-addressable chip that allows individual remote monitoring and full dimming capabilities; and

BE IT FURTHER RESOLVED that, in order to ensure that the new lighting systems are installed at no expense to the State, will not increase annual maintenance and operating costs to the State, and will encourage job growth; the Department of Transportation is requested to include the following non-technical requirements in its request for proposals:

(1) Requiring the bidder to offer, at a minimum, a cost neutral program for the State to replace existing street lights with LED street lights, with the intent of creating a net positive cash flow each fiscal year;

(2) Requiring the bidder to provide a guarantee to the State that the LED lights will perform to the manufacturer's specification for the entire length of the term of the project;

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(3) Requiring the bidder to use residents of the State to handle all logistics for the implementation of the project, and throughout the guaranteed period; and

(4) Requiring the bidder to maintain, for the duration of the project, a local source for any and all components of the fixtures in the event of any failures; and

BE IT FURTHER RESOLVED that a certified copy of this Resolution be transmitted to the Director of Transportation.

OFFERED BY: _____

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