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Title: AN ORDINANCE relating to energy efficient lighting and the reduction of outdoor light pollution; and adding a new section to K.C.C. chapter 2.95.

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Attachments: 1. 16769.pdf, 2. 2010-0001 Staff Report - Lighting, 3. 2010-0001 Striker, 4. 2010-0001 - Lighting Efficiencies (02-23-10), 5. 2010-0001 - Efficient Lighting (2-23-10), 6. 2010-0001 revised sr Lighting

Date	Ver.	Action By	Action	Result
3/8/2010	2	Metropolitan King County Council	Passed	Pass
2/23/2010	1	Environment and Transportation Committee	Recommended Do Pass Substitute Consent	Pass
1/4/2010	1	Metropolitan King County Council	Introduced and Referred	

Clerk 02/25/2010

AN ORDINANCE relating to energy efficient lighting and the reduction of outdoor light pollution; and adding a new section to K.C.C. chapter 2.95.

STATEMENT OF FACTS:

1. Energy-efficient lighting can result in a significant conservation of energy thus reducing the quantity of greenhouse gases released into the environment.
2. Energy used for lighting accounts for about seventeen percent of all United States electricity use.
3. K.C.C. chapter 10.16 reflects a long-term commitment to the purchase of "environmentally preferable" materials.
4. There are several different types of lighting that offer substantial energy savings compared to standard incandescent bulbs.

5. Federal regulations, 10 CFR Sec. 430.32 (2009), establish new higher efficiency standards for the manufacture of light bulbs due to take effect in 2012.
6. The United States Department of Energy reports that the newly established federal energy efficient standards for lighting will result in financial benefits for residential and commercial consumers..
7. There are many financial incentives available to consumers to encourage the purchase of energy efficient lighting.
8. Improperly directed outdoor lighting generates unnecessary light pollution and wasteful energy consumption.
9. Outdoor night lighting can have damaging effects on the natural nocturnal environment and has been linked to various human physiological issues.
10. Light pollution can be greatly reduced by using properly designed light fixtures that direct light downward, are properly installed and avoid glare and light trespass.
11. Properly designed exterior light fixtures can deliver the same amount of light to the ground as older wasteful designs, but use less power.

BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

NEW SECTION. SECTION 1. There is hereby added to K.C.C. chapter 2.95 a new section to read as follows:

A. King County shall purchase the most cost-effective and energy-efficient lighting feasible and seek available financial incentives from appropriate entities, including but not limited to utilities.

B. All lighting purchases for the county for which there is a federal efficiency standard established in 10 CFR Sec. 430.32 (2009) shall meet or exceed those energy efficiency standards to the maximum extent feasible. The department director or designee shall make the determination as to whether it is feasible to meet these standards. In making a determination concerning the feasibility of installing lighting that complies with the federal efficiency standards, the department director or designee shall consider:

1. The life-cycle cost effectiveness of the lighting
2. The compatibility of the lighting with existing equipment;
3. Whether use of the lighting could result in interference with productivity or safety, and
4. The aesthetics relating to the use of the lighting.

C. Any new outdoor lighting installed on a county facility, that has output greater than one thousand eight hundred lumens must be fully shielded, except as exempted in subsection E. of this section. For the purposes of this section, "fully shielded" means the outdoor lighting fixture is one in which all light rays are projected below a horizontal plane running through the lowest point on the fixture where light is emitted.

D. Beginning July 1, 2015, all replacement lighting with output greater than one thousand eight hundred lumens on county facilities must be fully shielded, except as exempted in subsection E. of this section.

E. An action for reducing light pollution shall not be implemented if it is determined by the department director or designee that the action will reduce lighting deemed necessary for public safety. Further, the following lighting categories are exempted from this section:

1. Temporary lighting for construction projects;
2. Temporary emergency lighting used by police, fire departments or other emergency services;
3. Hazard warning lights required by federal law and regulatory agencies;
4. Seasonal and decorative lighting displays that use multiple low wattage bulbs
5. Navigation lights used for marine and aviation safety;
6. Historical buildings that meet the requirements of RCW 19.27.120
7. Road lighting if shielded lighting is in conflict with state or federal requirements;
8. Ball field lights, but only if the department of natural resources and parks has taken steps to

minimize glare and light trespass; and

9. Exit signs, lighting for stairs and ramps.

SECTION 2. A. The executive shall develop a lighting plan to reduce King County's use of inefficient

lighting and the occurrence of evening light pollution from county operations. The plan shall be incorporated into an update of the King County Energy Plan, required by Motion 12362. The lighting plan shall include at a minimum the following components:

1. An implementation plan for the cost effective replacement of lighting in county facilities that do not meet federal energy efficiency standards established in 10 CFR Part 430 (2009). The implementation plan shall include guidelines for when noncompliant lighting should be replaced and address the proper disposal of spent lighting;

2. New procurement standards requiring the procurement of lighting, which at a minimum meet the new federal energy efficiency standards established in 10 CFR Sec.430.32 (2009);

3. A summary of the current and planned activities of the solid waste division related to educating citizens on the proper disposal of spent compact fluorescent light bulbs and linear tubes;

4. An analysis of a policy to establish mercury and lead content standards for all new lighting products purchased by King County; including a recommended content standard and a financial analysis of the costs to the county of such a standard;

5. A summary of activities related to working with the state to solicit vendors for the state lamp and ballast contract who will take back spent lamps, preferably at no additional cost; and

6. An implementation plan to reduce the light pollution from outdoor lighting on county facilities that is that is misdirected, excessive or unnecessary, while maintaining the lighting essential for public safety.

B. The plan shall be transmitted to the council by July 1, 2010, in the form of a paper original and an electronic copy filed with the clerk of the council, who shall retain the original and provide an electronic copy to all councilmembers and to the committee coordinator for the environment and transportation committee or its successor.