



CITY OF DUNWOODY

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MEMORANDUM

To: Mayor and City Council

From: Sustainability Commission

Date: April 12, 2010

Subject: **LED Traffic Signal Policy**

ITEM DESCRIPTION

The Sustainability Commission recommends the City of Dunwoody adopt a LED Traffic Signal Policy.

BACKGROUND

As part of their pursuit of the Atlanta Regional Commission's Green Communities certification, the Sustainability Commission has been researching LED, or light emitting diode, traffic signal policies. The Sustainability Commission and staff have reviewed and researched LED traffic policies. Cobb County provided a procedural example, however most jurisdictions function on a less formal basis.

The attached policy has been drafted to meet the requirements of the ARC Green Communities Measure 10: Government LED Traffic Lights.

In summary, the policy would establish guidelines to eliminate the use of incandescent halogen bulbs in traffic signals and to primarily utilize LED lamps. LED signal light bulbs typically consume between 15 or 20 watts of power compared to over 100 watts for an incandescent halogen light bulbs. Studies by other agencies have demonstrated an 80 to 90 percent reduction in power consumption when using LED light bulbs. Although initial costs for LED bulbs are significantly higher, the overall lifecycle costs are reduced significantly through lower energy costs and due to a service life that is 4 to 5 times longer than incandescent bulbs.

This policy would affect all future maintenance and construction activities in relation to traffic signals. As this does not amend any current ordinance, but functions as an operating policy, this policy would be read and voted on by Mayor and Council.

RECOMMENDATION

The Sustainability Commission recommends adopting the attached LED Traffic Signal Policy for the City of Dunwoody.



CITY OF DUNWOODY

LED TRAFFIC SIGNALS

Article

Version 2010.03.31



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LED TRAFFIC SIGNALS

I. Purpose

The purpose of this policy is to establish guidelines to eliminate the use of incandescent halogen light bulbs in traffic signals and to primarily use LED lamps or equivalent energy efficient technology. This document will clarify our policy to reduce power consumption and maintenance expenses associated with traffic signals.

LED signal light bulbs typically consume between 15 or 20 watts of power compared to over 100 watts for an incandescent halogen light bulbs. Previous studies by other agencies have demonstrated an 80 to 90 percent reduction in power consumption when using LED light bulbs. Although initial costs for LED bulbs are significantly higher, the overall lifecycle costs are reduced significantly through lower energy costs due to a service life that is 4 to 5 times longer than incandescent bulbs.

II. Definitions

When used in this policy, the following words, terms and phrases, and their derivations, shall be the meaning ascribed to them in this section, except where the context clearly indicates a different meaning,

A. CITY DIRECTOR OF SUSTAINABILITY means the Director of Sustainability or other employee or agent as designated in writing by the City Manager.

B. EMPLOYEE means an individual drawing a salary or wage from the City whether on a full-time, part-time, or contractual third-party basis. The term shall encompass all members of the Governing Authority without regard to whether or not such individual is compensated.

C. LED means a light emitting diode light bulb.

D. OFFICIAL means any elected or appointed person who holds office or serves in a position of public capacity.

III. Scope

All new City-owned traffic signals will be installed in compliance with this LED Traffic Signals Policy. However, there are many traffic signals throughout the City that were installed prior to



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the development of this LED Traffic Signals Policy. In order to bring older traffic signals into compliance with this LED Traffic Signals Policy, the Public Works Department will develop a Traffic Signals Transition Plan that will include an inventory of known traffic signals and a schedule for achieving compliance with this policy within four years of the adoption date. Conversion of existing incandescent signals to LED signals will be prioritized in the Traffic Signals Transition Plan to coincide with other related capital projects. When major intersection improvements or traffic signal modifications are conducted, the traffic signals will be brought into compliance with this LED Traffic Signals Policy.

IV. Responsibility

A. Public Works Director

DUTIES: The Public Works Director shall have the following duties and powers in regards to the LED Traffic Signals Policy:

1. Create a Traffic Signals Transition Plan
2. Budget to replace and install LED lamps in all existing traffic signals within four years of the adoption date of the LED Traffic Signals Policy.
3. Work with the Director of Sustainability to make certain that employees are aware and educated about this LED Traffic Signals Policy.
4. Work with all Public Works Department employees to make certain that this practice, installing LED lamps in new traffic signals and replacing LED lamps in existing traffic signals, is monitored.