



Takoma Park City Council Meeting – October 17, 2018 Agenda Item 2

Work Session

Discussion of Resolution and Ordinance Regarding LED Streetlights

Recommended Council Action

Discuss draft Resolution and Ordinance and give direction regarding proposed action on the items for the October 24 Council Meeting.

Context with Key Issues

The City Council authorized staff to pursue the conversion of existing streetlights to LED technology via Resolution 2016-41. The Council Resolution directed the staff and Pepco to ensure that the replacement fixtures be International Dark Sky Association (IDA) Certified, and have a color temperature of 3000 Kelvin. A Council and community tour to look at test fixtures installed on three City streets was held on Monday, October 8. Those test fixtures are in compliance with Resolution 2016-41.

Council Priority

Environmentally Sustainable Community; Fiscally Responsible Government

Environmental Considerations

The conversion of the overhead streetlights will result in significant reduction in electricity use for this purpose; estimates at this time are 30 to 50% less energy. Additionally, the ground level lighting will be improved as the fixtures are International Dark Sky Association Certified and meet requirements for eliminating light pollution above the fixture and focusing the light on the areas below.

Fiscal Considerations

The City currently pays approximately \$180,000 annually to Pepco for streetlight operation and maintenance, taxes, and fees; and pays another \$53,000 for electricity to WGL (for 100% Wind) resulting in a total annual cost of \$233,000 for streetlights. Based on Pepco's calculations, the reduction in energy use and maintenance costs will result in a savings of at least \$50,000 to \$60,000 annually and may be as much as \$100,000. The overall cost of the program is expected to be \$372,000 and the City anticipates a \$260,000 rebate from the Empower Maryland Program, leaving a balance of \$112,000. Based on the projected annual savings, the program will pay for itself in less than two years and those savings from reduced energy use and maintenance costs will carry through for the life of the fixtures.

Racial Equity Considerations

The conversion of existing street lighting will impact the entire city and affect all streets. The selected fixture will provide a uniform appearance of light fixtures throughout the city. Currently, there are numerous different styles of fixtures and wide variation in lighting levels. This will provide a more uniform street light regardless of area or neighborhood, resulting in a more equitable and consistent manner to provide necessary street lighting throughout the city. Some areas of the city

have fewer street lights per block, which can result in areas that feel unsafe to pedestrians and can limit the visibility of tripping hazards. The draft resolution calls for identifying, after the lighting conversion takes place, those areas of the community that are underlit and a process and funding to install additional street lights to ensure adequate lighting across the city.

Attachments and Links

- Draft Resolution
- Draft Ordinance
- [Street Light Project Page](#)

Introduced by:

-DRAFT-

CITY OF TAKOMA PARK, MARYLAND

Resolution No. 2018-

Resolution Approving Conversion to LED Street Lighting

WHEREAS, the City of Takoma Park has pursued more efficient, attractive and consistent street lighting for many years to reduce energy use, provide adequate lighting for safer and more attractive neighborhoods, and save money; and

WHEREAS, the United Nations Intergovernmental Panel on Climate Change released a report on October 8, stating climate change is occurring at a faster rate than previously expected and requires urgent, ambitious actions to cut emissions in half by 2030 and reach net zero emissions by 2050; and

WHEREAS, the City of Takoma Park has long been concerned about climate change and has been committed to undertaking significant environmental sustainability; and

WHEREAS, streetlights represent the single largest use of electricity by the City; and

WHEREAS, after extensive investigation into options and costs, and a presentation to the City Council on September 21, 2016, staff was directed to pursue converting the streetlights on wooden poles in the city to LED lights through the PEPCO conversion program; and

WHEREAS, Resolution 2016-41 "Providing Direction on Conversion to LED Street Lighting" was passed October 19, 2016; and

WHEREAS, since that time, Pepco and city staff have worked diligently to implement the terms of the Resolution, completing a citywide streetlight inventory, procuring fixtures to meet the Resolution requirements of color temperature and International Dark Sky Certification (IDA), and identifying areas that are currently over lit and under lit; and

WHEREAS, test fixtures were installed on May 30, 2018 and were 3000 Kelvin, IDA Certified and 35 Watt on three streets: Oswego Avenue, Erie Avenue and Hickory Avenue; and

WHEREAS, On September 5, 2018, Pepco presented an update to the Council regarding the test fixtures and, based on feedback received, investigated options for testing a 2700 Kelvin fixture and lower wattage fixtures; and

WHEREAS, On October 1, Pepco replaced the test fixtures on Hickory Avenue with lower wattage options of 24 and 19 watts and included two 2700 Kelvin fixtures for comparison, and

WHEREAS, the selected streetlight fixtures will reduce the City's annual electricity use from 850,000 kWh to 340,000 kWh and will reduce annual expenditures by approximately \$100,000.

NOW, THEREFORE BE IT RESOLVED that the Takoma Park City Council supports replacing streetlights on wooden poles in Takoma Park with LED fixtures through the PEPCO conversion program and directs staff to work with Pepco to finalize the project using the fixtures selected by Pepco, displayed in the testing phase, and consistent with the specifications of Resolution 2016-41; and

AND BE IT FURTHER RESOLVED that the selected street lighting will be 3000 Kelvin and at wattage levels that provide for adequate lighting based on the type of street, taking into consideration the Illumination Engineering Society of North American (IES) guidelines for illumination levels, and providing a comparable light level with the current fixtures on the streets in areas that are adequately lit and, for the majority of residential streets, replicating the light level provided by the 24 Watt LED test fixture; and

AND BE IT FURTHER RESOLVED that the City staff will work with Pepco to select the wattage level for streetlight fixtures located within or adjacent to commercial areas or along State Highway routes that will be the lowest wattage level that will provide adequate lighting based on the same parameters listed above; and

AND BE IT FURTHER RESOLVED that Pepco will provide for a field installable shield in the event that the light from the streetlight fixture is visible through the windows of adjacent properties; the City will facilitate taking residents' requests for additional shielding, will visit areas with multifamily buildings to assess possible locations of first level units that may have light trespass from the street lights, and will work with Pepco to install shields where needed; and

AND BE IT THEREFORE RESOLVED that in areas where the existing streetlight fixtures have a higher wattage than necessary to provide adequate lighting levels, they will be replaced with fixtures that provide the appropriate lower level of illumination, consistent with similar type streets in other parts of the city; and

AND BE IT THEREFORE RESOLVED that once the project is completed, City staff will identify areas that do not have sufficient street lighting after the conversion due to fewer numbers of streetlight fixtures on the street and, once identified, will notify the affected property owners, residents and Council of the locations and the recommended additions and will request funding to enable the installation of additional fixtures in those locations.

Adopted this _____ day of October, 2018.

Introduced by:

First Reading:

Second Reading:

Effective Date:

**-DRAFT-
ORDINANCE NO. 2018-XX**

**AUTHORIZING THE CONVERSION OF ALL CITY STREETLIGHTS
ON WOODEN POLES TO LED FIXTURES**

WHEREAS, The City has pursued more efficient, attractive and consistent street lighting for many years; and

WHEREAS, Pepco owns street lights on wooden poles in the City and is the only provider that can upgrade or change these street lights; and

WHEREAS, the City Manager has determined that Pepco is a sole source provider; and

WHEREAS, the City Council authorized staff to work with Pepco to develop the program via Resolution 2016-41; and

WHEREAS, in May, 2018 Pepco installed the recommended LED replacement fixture type on three City streets to gather feedback and provided additional alternative sample fixtures in October; and

WHEREAS, the anticipated cost of replacing all existing streetlight fixtures in the City is \$372,000, to be paid to Pepco; and

WHEREAS, the City has applied for and received approval for a grant from the Empower Maryland program for up to \$260,000 to be used for the streetlight conversion project; and

WHEREAS, the remaining funds required for the project total \$112,000; and

WHEREAS, funds for the installation project will be offset by significant savings in maintenance and electricity costs of approximately \$100,000 per year; and

WHEREAS, funds to cover the cost of the project will be in a Prepaid Account titled Pepco Street Light Conversion Project, funded by future savings.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF TAKOMA PARK, MARYLAND, THAT:

SECTION 1. The City Manager is authorized to expend \$112,000 to replace the existing streetlights citywide with the selected LED fixture; such funds to be offset by future maintenance and energy savings.

SECTION 2. This Ordinance shall become effective upon adoption.

ADOPTED this _____ day of _____, 2018 by roll-call vote as follows:

AYE:

NAY:

ABSTAIN:

ABSENT: