



Takoma Park City Council Meeting – September 5, 2018 Agenda Item 2

Presentation

Update on Citywide Streetlight Fixture Conversion to LED

Recommended Council Action

Receive presentation from Pepco representatives and City staff

Context with Key Issues

Staff has discussed the benefits of streetlight conversion for many years including Council presentations in April, 2015, March, 2016 and October, 2016. At the October meeting, the 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 dark sky compliant, 3,000 Kelvin, and address areas that may be over lit or under lit throughout the City.

By way of background, the streetlights on wooden poles throughout the City are owned and maintained by Pepco. The City pays Pepco for operation and maintenance of the lights and procures electricity through a third party via a cooperative purchase agreement with Montgomery County. Annual payments to Pepco for street lighting are approximately \$180,000. Annual electricity charges for street lighting are \$53,000. Streetlights represent the largest single cost for a utility charge paid by the City.

Following the Council's Resolution, Pepco initiated a full inventory of existing streetlights to identify the light levels, type, and location of each streetlight for which the City was billed. Based on that inventory, the streetlights in the City are currently 80% high pressure sodium, 9% incandescent, 6% mercury vapor and 5% LED.

Based on information provided by Pepco, the cost to convert the existing fixtures will be just over \$370,000. This cost is much lower than initial estimates of \$2 million. The initial assessment was based on per light costs the City paid for prior street light conversions to LED. Additionally, the City has learned that we are eligible for an Empower Maryland rebate of approximately \$260,000. This will reduce the conversion cost to about \$112,000. Given the significant reduction in project costs from earlier estimates, the Council may want to consider funding the expense through a direct payment out of the general fund, rather than consider financing through Pepco, which had been originally recommended by staff.

The conversion of existing streetlight fixtures to LED is expected to reduce the electricity used from 850,000 kWh to 340,000 kWh annually, a reduction of over 500,000 kWh.

Pepco installed several of the proposed fixtures so the City could see how they look and function. The new street lights were installed on Erie Avenue, Oswego Avenue and Hickory Avenue.

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 dark sky compliant and meet requirements for eliminating light pollution above the fixture and focusing the light on the areas below. The longevity of LED technology will greatly exceed current fixtures as they have a 20 year life expectancy. Additionally, the lighting fixtures will have the capacity to be adjusted electronically, once the software function has been activated by Pepco, which may provide the ability to remotely increase or decrease lighting levels.

Fiscal Considerations

The City currently pays approximately \$233,000 annually for street light electricity and fixture maintenance. Based on Pepco's calculations, the reduction in energy use and maintenance costs will result in a savings of approximately \$50,000 to \$60,000 annually. 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 should "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 the light fixture 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. This is seen as a more equitable and consistent manner to provide necessary street lighting throughout the City.

Attachments and Links

N/A