

# Fairfax County Streetlights

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# Fairfax County Streetlights: Overview

- Fairfax County has largest municipal streetlight inventory in Virginia:
  - ~ 59,515 lights
- Electric utility companies are the providers of streetlight equipment in FFX County public roadways:
  1. **Dominion Energy Virginia (DE)** - 96%

DE owns, operate, and maintain streetlight inventory as established by VEPGA (VA Energy Purchasing Governmental Association) multi year contract with the County
  2. **Northern Virginia Electrical Cooperative (NOVEC)** - 4%

NOVEC owns, operate, and maintain streetlight inventory as established by NOVEC & CG (Northern Virginia Electric Cooperative Local Government Customer Group) multi year contract with County
- Streetlights are procured and provided by Dominion or NOVEC
- The Virginia Department of Transportation (VDOT) issues permits for lighting along ROW
- VDOT owns and operates the streetlights along interstates and at major interchanges.

# Streetlight Programs & Services

- **LED Conversion Streetlight Program (LCSP):** 5-year program to convert 56,600 light fixtures to LED on existing poles
- **Citizen Streetlight Program:** Manages streetlight requests from citizens and the BOS district offices.
- **Outage Reporting Support and Services:** Oversees the Streetlight Outage Reporting Map to ensure streetlights are operational.
- **Developer Streetlight Program:** Development Plans & Conditions per PFM requirements. Supports LDS on all developer streetlight plans
- **FCDOT/VDOT Transportation Projects services:** Supports streetlight plan review of CIP projects and provide the administration support similar to the Developer program.

*-FCDOT/VDOT Transportation projects, County Street projects, trails & Metro lighting*

# Streetlights Requirements and Standards

- Public Facilities Manual, Section 7-0800: Includes the requirements & guidance for streetlights on public roads
- ANSI/IESNA, RP-8 Roadway lighting standards
- Zoning Ordinance Article 5, Section 5109, provides standards on Outdoor Lighting
- International Dark-Sky Association (IDA) guidelines
- Developer plans include proffers and development conditions related to lighting
- Urban Design Guidelines recommend preferred fixtures to promote consistency and placemaking in certain Activity Centers



# LED Conversion Program

- In 2019, the new LED Conversion Streetlight Program (LCSP) was implemented to convert all antiquated MV, HPSV and MH streetlights to LED.
- Program was funded from the Fairfax County Operational Energy Strategy Initiative.
- The intent of the LED Conversion Program is to not only convert antiquated light fixtures to LED, but to ensure lighting levels to the roadway meet current lighting level standards.
- Staff is currently implementing the LED Conversion Program since May of 2019.
- 33,000 LED conversions are currently engineered and processed to date, which includes photometric updates to current standards
- 27,000 streetlights are converted to date on site.
- This program was projected to be completed in five (5) years and is currently on track.

# LED Conversion Program

## Benefits of LED Streetlight Fixtures

- LED conversion program: Reduces CO2 gas emissions by 32.4 million lbs/year (equiv. to emissions of 3,200 cars)
- LEDs reduce long-term maintenance & operations costs.
- We expected to see close to \$1 Million decrease in energy savings at the end of the program (based on 2019 projections)
- Dark sky approved fixtures - limits nighttime light pollution and glow
- White LED enhance safety through enhanced color rendition and better visibility for drivers and pedestrians
- Studies show high color temperatures are detrimental to human health & animals – For this reason 3000K-type fixtures (“warm white LED”) is adopted and being used

# Citizen Streetlight Program

- Manages citizens complains related to public streetlighting.
- Manages streetlight requests from citizens and the BOS district offices.
- Request for the installation of streetlights are contingent upon availability of funds of the petitioner at the time of the request.
- Evaluates and determine the locations, quantity and size of the requested streetlights required to properly light a given area to meet adopted illumination standards and PFM.
- All petitions associated with an LED conversion are coordinated with the scheduling of the 5-year LED Conversion Streetlight Program
- Assist on streetlight outage resolution conflicts with the responsible utility company.
- Fairfax County provides a mechanism through a citizen petition process for the upgrading of deficient streetlights. The upgrading of existing streetlights shall conform to the Policy and Procedures Governing Requests to Upgrade Existing Streetlights. Requests to upgrade existing streetlights will be implemented, contingent upon the availability of funds.

# Streetlight Outages Reporting

1. Direct call to the Utility Company's calling center:

**Dominion Energy:** 1-866-DOM-HELP (1-866-366-4357), TTY 711

**NOVEC:** 1-888-335-0500, TTY 711

2. Streetlight outage Form through the website of the Utility Company:

**Dominion Energy:** [Streetlight Outages | Virginia | Dominion Energy](#)

**NOVEC:** [Streetlight Repair Form \(novec.com\)](#)

3. DPWES application created a streetlight reporting map to report a streetlight outage from a mobile device or desktop. The Streetlight Reporting Map shows streetlight service areas and individual streetlight locations and pole numbers in Fairfax County.

- <https://www.fairfaxcounty.gov/publicworks/capital-projects/report-streetlight-outage>

4. Streetlight Outage at Major Interchanges or a Traffic Light Problem are reported to VDOT.

**VDOT:** 1-800-FOR-ROAD (1-800-367-7623), TTY 711

5. If a streetlight is located on a private road, it is the responsibility of the light's owner (the homeowner's association, for instance) to relay the report to the power supplier.



# Streetlights Outages Reporting

## Steps when using the County streetlight reporting map

The FFX County Streetlight Reporting Map shows streetlight service areas and individual streetlight locations and pole numbers. Steps to follow:

1. Enter address or intersection near the streetlight, then click search. If you are on your mobile device, you can click the "Find My Location" button to go to your phone's GPS location.
2. Use the map to find the malfunctioning streetlight. You may need to zoom in or out to see the nearby streetlight and pole Id number.
3. Move your mouse over the streetlight circle and click the circle (not the pole #)
4. Select the ["Click here to report a problem with this street light"](#) link in the pop up
5. Complete and submit the form to report the issue.

# Maintenance of Existing Streetlights

- Provisions about streetlight maintenance are contained in the multi-year contract with the Utility Company of the area serviced (Dominion or NOVEC)
- Dominion Energy has developed HID to LED Luminaire Crossover charts (from antiquated bulb to LED fixture), as a guideline for replacing HID lighting with the appropriate LED fixture during maintenance.
- The LED replacement fixture chart was developed in coordination with DPWES to ensure that LED fixture meets County Standards (PFM)

# Developer Streetlight Program

- Provides for the installation of new streetlights and the upgrading of existing streetlights by developers as part of the land development process.
- Since July 1988, new land developments in the county are required to install streetlights as a condition for plan approval.
- The program supports Land Development Services (LDS) on all developer streetlight plans. Staff provides technical review of development plans to meet Public Facilities Manual (PFM) and Zoning requirements.
- Administers all processes with the Electric Utility Company (DE and NOVEC) to include cost estimate requests, installation and construction coordination, bill payment and posting to the GIS streetlight inventory layer.
- After installation, DPWES/CAP pays the monthly invoices from the utility company (DE or NOVEC) to operate and maintain streetlights installed on the public road.

# Fairfax County Streetlights

## Primary DPWES-CAP Streetlight Role

- Technical Review of Design Submissions
- Reconciliation & processing of Dominion Energy & NOVEC invoices
- Streetlight Outage Reporting Support

# Questions?

