

STATUS UPDATE: ENERGY INITIATIVES

Environmental Quality & Public Works Committee

January 19, 2021



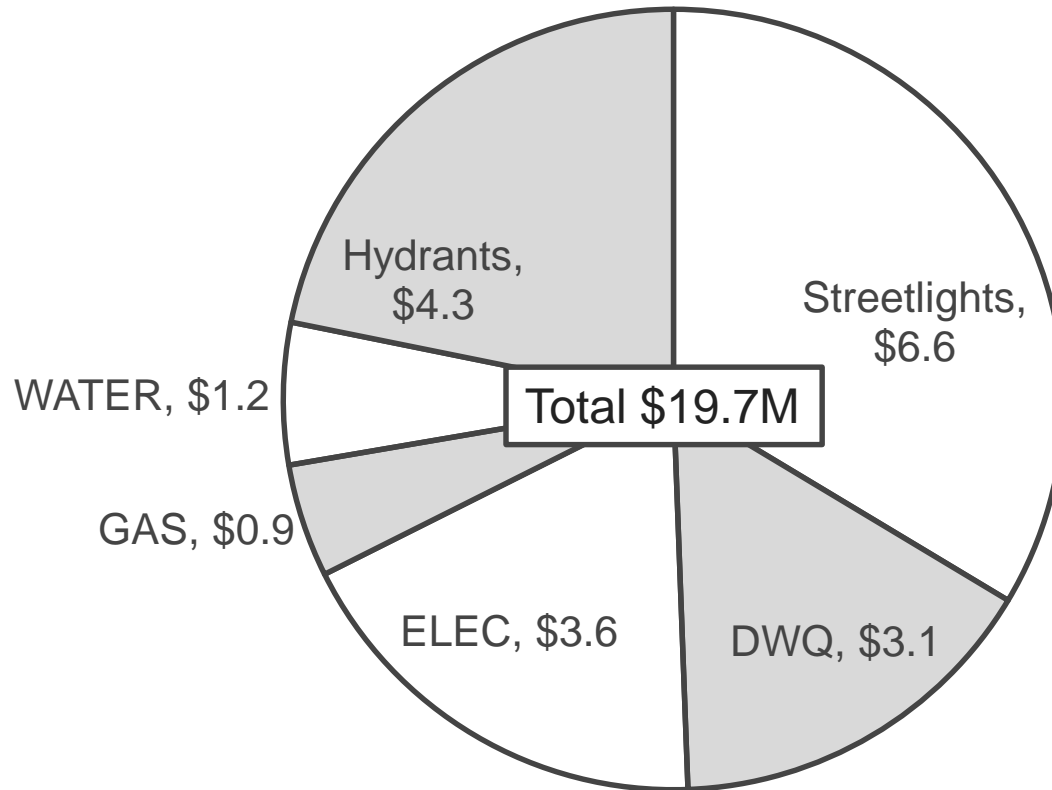
LEXINGTON



Presentation Outline

- Utility Overview
- Energy Improvement Fund
 - FY20 Projects
 - EIF Financials
- Active Projects
- Program Outlook
- Recommendations

FY20 Utility Expenses (millions)



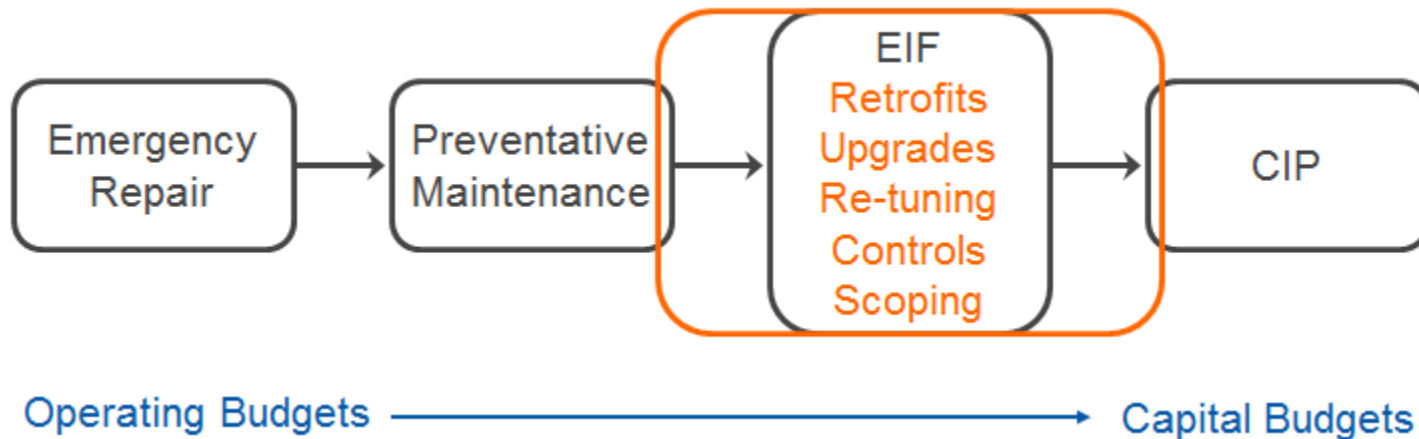
Gas / Water / Elec

Prior Years	
FY17	\$17.8M
FY18	\$18.5M
FY19	\$17.8M
FY20	\$19.7M
FY21*	\$19.2M

*trending estimate

Energy Improvement Fund (EIF)

- Internal revolving loan (Res. 219-2010)
- Savings from energy management activities fund the next project
- Fills gap between general repair/maintenance and CIP
- Focus: proactive initiatives and improvements





FY20 Lighting Retrofits

- Police HQ Building
- Police West Roll Call
- Versailles Rd Office Bldg
- Town Branch Solids Bldg
- Police Technical (Phase 2)
- North Base Campus
- Audrey Grevious (100% LED)
- Harry Sykes / Cisco Rd Outdoor Lighting
- Safety City
- Tates Creek Golf Maint. Shop
- Kearney Hills Golf Maint. Shop

EIF Investment:

\$157,876

Estimated Cost Avoidance:

\$42,322 /yr

Estimated Energy Avoidance:

522,185 kWh/yr



FY20 Non-Lighting Activities

- Utility Management
 - Initiated new gas tariff for CNG fueling station
 - Lowered electric contract capacities (7 facilities)
 - Simplified water billing at dual meter applications
- Facilities / Operations
 - Moved leased outdoor lighting “behind the meter” (Partial re-use of Granvilles from Vine St)
 - Optimized building schedules & fan control
- Efficiency Rebates
 - Received \$7,900 in utility rebates (11 projects)



Energy Improvement Fund Balance (as of 12/28/2020)

General Services (1101, 1105)	\$109,543
Urban Services (1115, 1116)	\$5,860
Sanitary Sewer (4002, 4003)	\$220,055

- EIF-1101 balance is too low
- FY20 funds encumbered. No allocation in FY21
- FY21 spend lighter than normal
 - Downward trend in replacing materials/equipment
 - Upward trend in automation & remote capabilities
- FY22 allocation needed for continuity of program
 - Projects at risk of competing with one another
 - Project development tracks funding availability

Energy Improvement Fund Balance (as of 12/28/2020)

General Services (1101, 1105)	\$109,543
Urban Services (1115, 1116)	\$5,860
Sanitary Sewer (4002, 4003)	\$220,055

- EIF-1115
 - Financial resources will improve with CNG project
 - Researching options within Urban Services

Energy Improvement Fund Balance (as of 12/28/2020)

General Services (1101, 1105)	\$109,543
Urban Services (1115, 1116)	\$5,860
Sanitary Sewer (4002, 4003)	\$220,055

- EIF-4002
 - Town Branch aeration blower replacement (85% of all expenses to date)
 - Target completion NOV2021
 - Evaluate long term use of EIF within 4002 capital planning



Active Projects

- LED lighting (smaller scale)
- Solar PV Station #7
- Solar PV Station #15
- Building Automation Versailles Rd
- Town Branch Aeration Blowers



Program Outlook

- Cost reduction opportunities from utility rate structures and LED retrofits are decreasing
- Efficiency projects are transitioning to larger equipment, sensors and building automation
- Opportunities for power production (renewables) are similarly cost competitive
- Energy metrics are generally at or below average. Building stock and space utilization are limiting factors



Recommendations

- EIF Guidelines
 - Project Types
 - Project Savings Period
- LFUCG Energy Goals
 - Building Efficiency Policies
 - Renewable Energy Goals
 - Design / Performance Energy Targets
- Basis for Procurement
 - Capital vs Operational
 - Long Term Opportunities
 - New Options in Leased Services
i.e. monthly fee for lighting, chillers, etc.

Questions?

