

STATUS UPDATE: ENERGY INITIATIVES

Environmental Quality & Public Works Committee

June 7, 2022



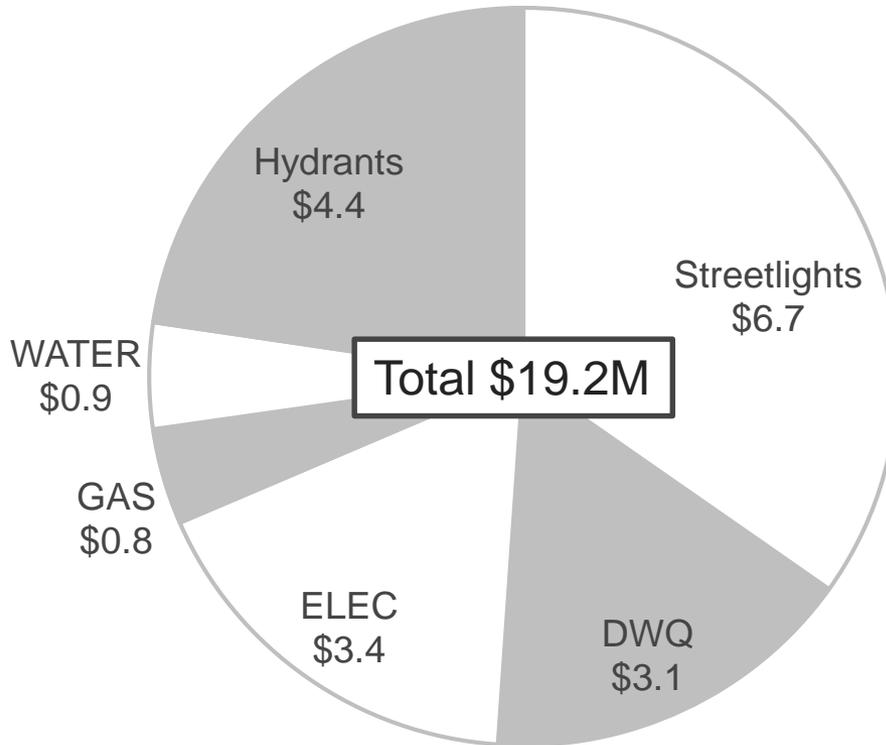
LEXINGTON



Presentation Outline

- Utility Snapshot
- EIF Background
- EIF Projects - FY2021 & 2022
- EIF Fund Balance
- Outlook for FY2023
- Recommendations

FY2021 Utility Expenses (millions)



Gas / Water / Elec

Prior Years	
FY18	\$18.5M
FY19	\$17.8M
FY20	\$19.7M
FY21	\$19.2M
FY22*	\$20.6M

*trending estimate



Energy Improvement Fund (EIF)

- Designated fund whereby savings from energy management activities provide funding for the next project (R#219-2010)
- Brings (future) operating costs to present decisions
- Results in *proactive* initiatives, improvements and alternates
- Examples:
 - Regular review of accounts and rates
 - LED lighting, occupancy sensors
 - Off-grid and behind-the-meter area lighting
 - Building automation, remote metering
 - Solar power production



FY2021 & 2022 Lighting Projects

- Black & Williams
- Pam Miller DAC
- Carver CC
- Town Branch (non-office)
- Police West Gym
- Shillito Babe Ruth Parking
- County Clerk Storage
- Lyric CFL-to-LED
- Streets & Roads
- Douglas Park CC
- Whitney Young NC

EIF Investment:

\$101,098

Estimated Cost Avoidance:

\$21,249 /yr

Estimated Energy Avoidance:

199,519 kWh/yr

- Versailles Rd Bldg#3
- Fleet Bay Upgrade
- Castlewood Walkway-BTM
- Cardinal Run Walkway-Solar



FY2021 & 2022 Solar Projects

- Solar Station#7
- Solar Station#15
- Solar Station#21
In process
- SolarShare Station#2
KU program

EIF Investment:

\$132,711

Estimated Cost Avoidance:

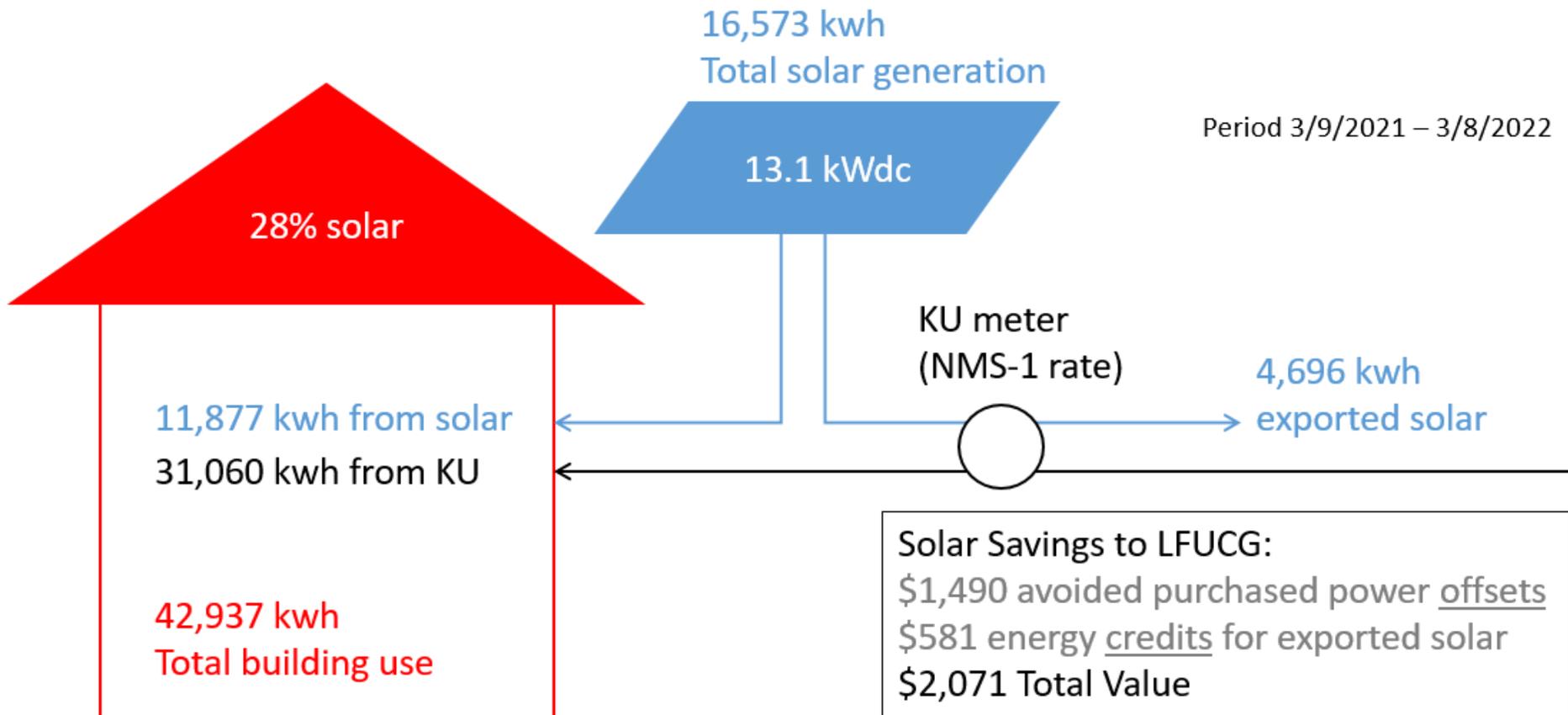
\$8,076 /yr

Estimated Energy Avoidance:

66,323 kWh/yr



Solar PV – Fire Station #7 (Tates Creek)



Similar results at Station #15 (identical system)



FY2021 & FY2022 Other Activities

- **Building Automation / Sensors (\$41,634)**
 - BAS Versailles Rd
 - CNG Daily Gas Meter
 - Occupancy Sensors (ReThink LEX)
 - Town Branch Boiler Gas Meters
- **Town Branch Aeration Blowers (\$669,807)**
 - Supplemental funding to large, efficiency project
 - New system operational; monitoring results
- **Utility Management**
 - CNG rate change proving favorable
 - Closed accounts representing \$24,998 /yr
 - Received utility rebates for 31 projects, totaling \$39,512

Energy Improvement Fund Balance (as of 5/12/2022)

General Services (1101, 1105)	\$101,108
Urban Services (1115, 1116)	\$50,860
Sanitary Sewer (4002, 4003)	\$262,302

- EIF-1101 shifting toward solar, automation, metering
- EIF-1115 evaluating options
- EIF-4002 improving energy metrics



FY2023 Outlook

- LED lighting (as requested)
- Solar PV Station #21
 - 21.8 kWdc, savings estimate \$2890 /yr
- Solar PV +40kW
 - Multiple locations/sizes
- Building Automation
 - PSOC, VRB, Police West
- Water Quality Energy Audit



Comments & Considerations

- Energy initiatives are making an impact
 - Have not offset energy growth in absolute terms
 - Annual investment <1% of utility costs
- Comprehensive approach would be needed to flatten or reduce trend
 - Policies for design / procurement,
 - Performance-based contracts,
 - Purchase power agreements, and/or
 - Goals / targets for LFUCG
- Components: costs, energy, type of energy
 - Current bias toward up-front costs

Questions?

