

STATUS UPDATE: ENERGY INITIATIVES

Environmental Quality & Public Works Committee

February 19, 2019



LEXINGTON



Presentation Outline

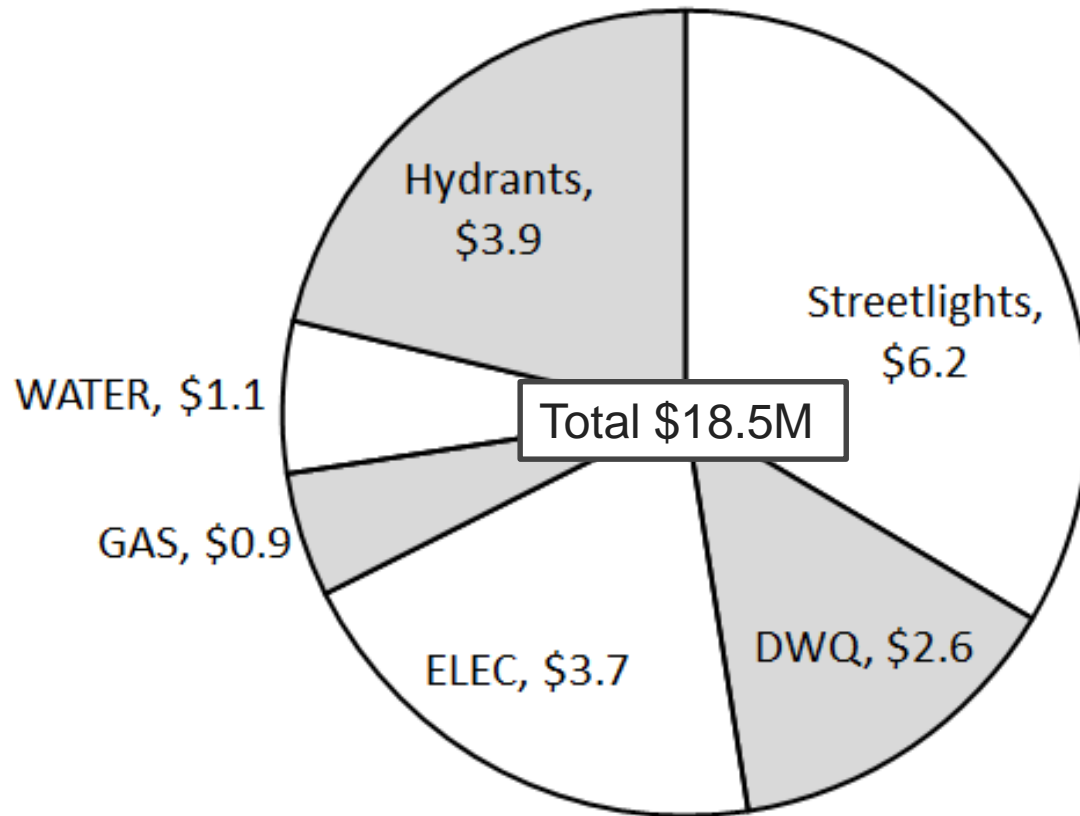
- Introduction
- Utility Overview
- Energy Improvement Fund
 - FY18 Projects
 - Solar Pilot & Outlook
 - EIF Financials
- Program Comments
- For Consideration



Environmental Services - Energy Section

- Administer LFUCG Energy Team
- Areas of Responsibility
 - Utility Management
 - Project Management
 - Design / Equipment Consultation
 - Building Automation Controls
 - Energy Improvement Fund

FY18 Utility Expenditures



Gas / Water / Elec

Potential Rate Increases:	
KU	\$1.1M (9.3%)
KAW	\$1.2M (24%)



FY18 Projects

Lighting retrofits

- Family Care Center
- Fire Stations (99%)
- Phoenix*
- Carver*
- Gov Center*
- Kearney Hills Clubhouse
- West Hickman Roadway

EIF Investment:

\$305,421

Estimated Cost Avoidance:

\$51,277 /yr

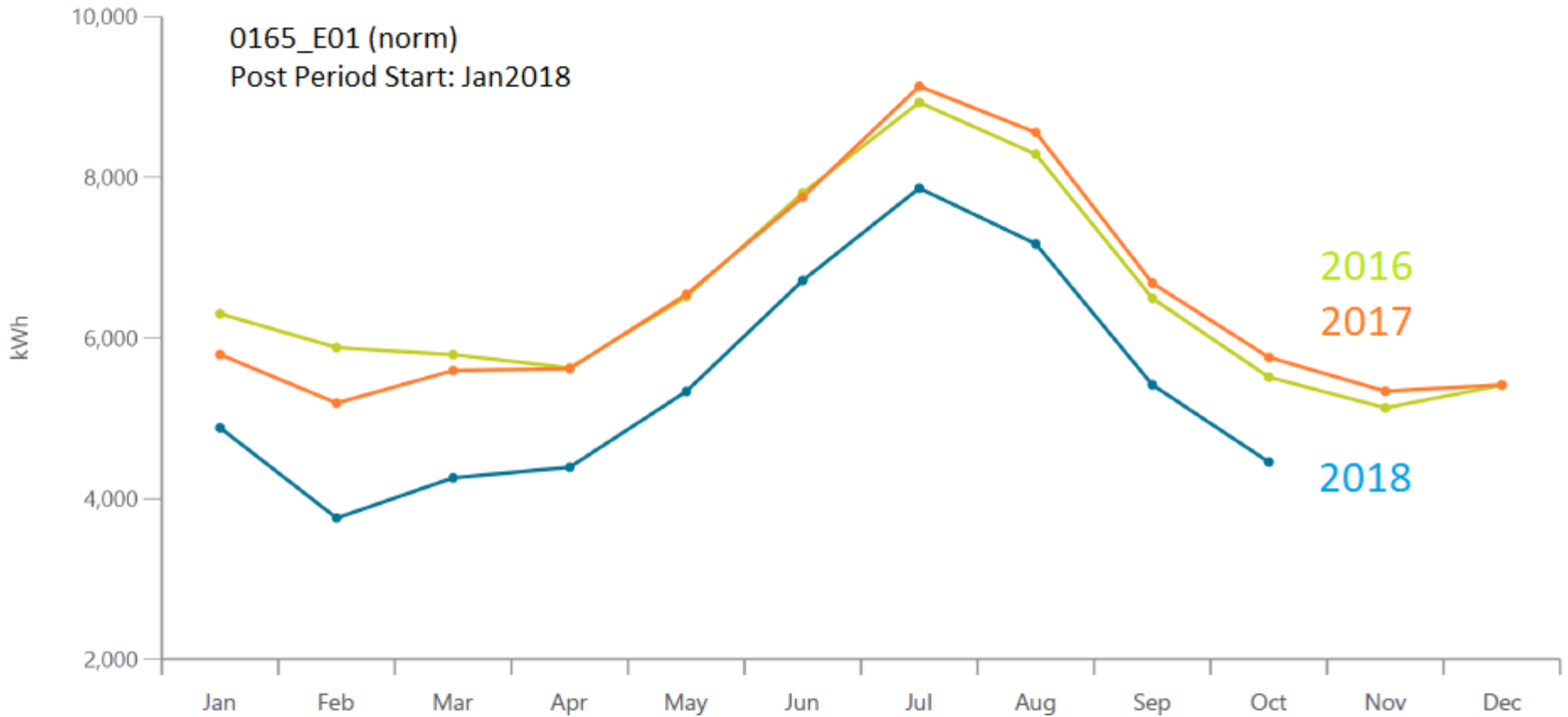
Estimated Energy Avoidance:

612,825 kWh/yr

* Partial retrofits (not 100% LED)

Fire Station 21 Mapleleaf Drive

Monthly Use by Year



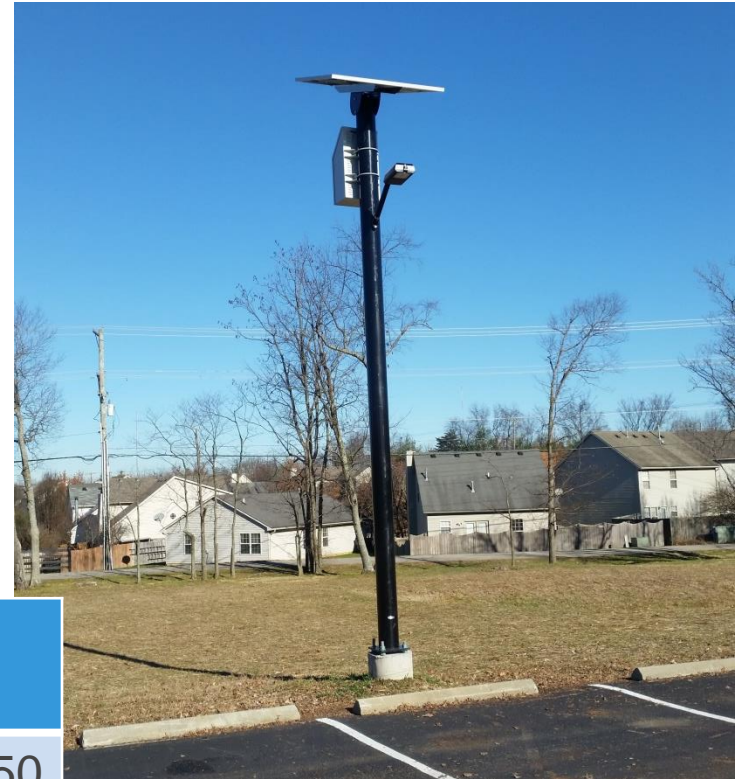
FY18 Pilot Project

Solar @ Pleasant Ridge Park

- 3 Poles, 4 Fixtures

Lighting Options

- 25-year life-cycle costing

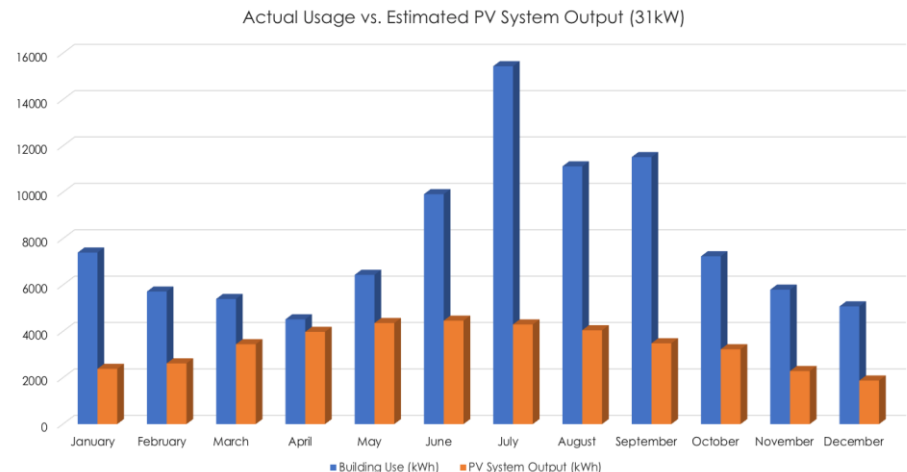
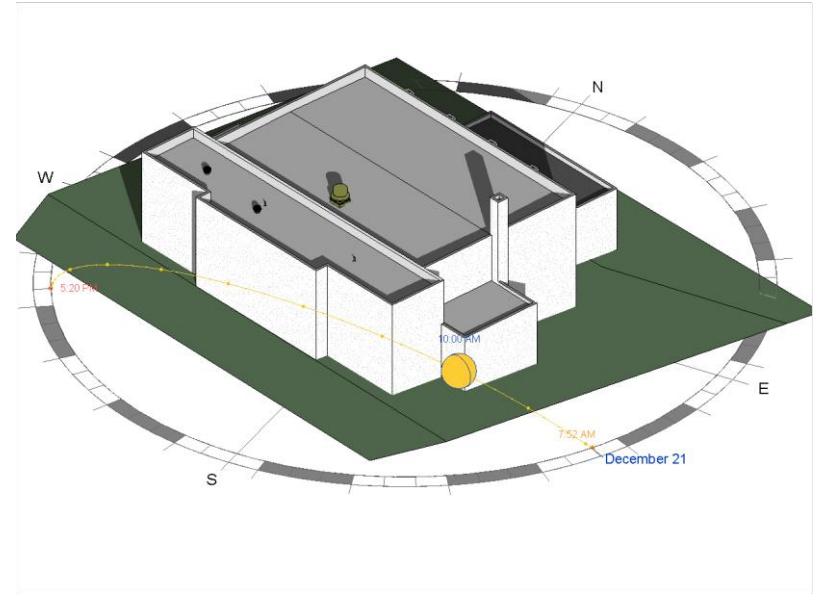


	KU Lease Lighting	Solar Pilot
Site Work	~\$6,850	~\$1,250
Upfront Purchase	\$0	\$18,750
Annual Costs	\$1,229	\$322
Per Year (PV)	\$1,622	\$1,471

Under Consideration

Grid-Tie Solar PV

- Net positive financially in parts of the country
- LFUCG hypothetical:
Cost neutral @ year 11
ROI @ year 21
- Project specific (site, load, rate, etc.)
- Scalable systems & budget





Energy Improvement Fund Balance (as of 1/31/2019)

General Services (1101, 1105)	\$307,670
Urban Services (1115, 1116)	\$2,930
Sanitary Sewer (4002, 4003)	\$651,008

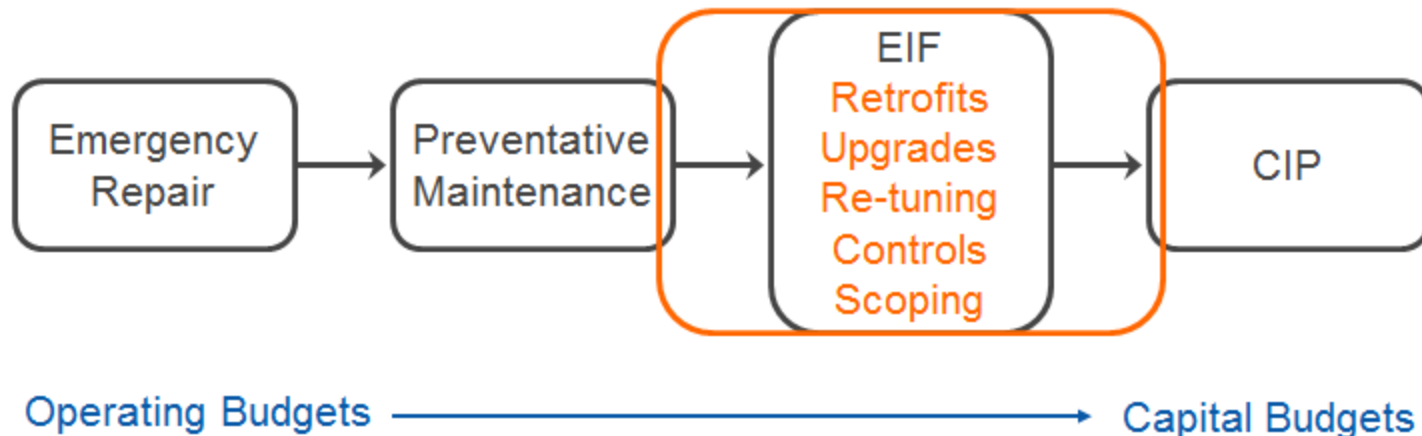
Looking Ahead...

- LED lighting retrofits
 - Waste Management, MRF, DAC Theater, Picadome
- Building Automation / Advanced Metering
 - Family Care + new boilers
 - Phoenix + new cooling tower
- Compliments to Sanitary Sewer Master Plan
- Solar PV demonstrations



Comments

- EIF has been successful
 - Designed to optimize operations
 - Addressing deferred maintenance & CIP
 - Requires project mix to achieve 10-year return
- General & Urban Fund allocation fully utilized
- Resources align with current EIF structure





For Consideration

- EIF Guidance
 - Project Types
 - Project Savings Period
- LFUCG Energy Goals
 - Building Efficiency Policies
 - 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?

