L. Sheehan, Chair
H. LeGris, Vice-Chair
D. Wu
T. Fogle
S. Lynch
B. Monarrez
D. Gray
P. Worley
F. Brown
D. Sevigny

AGENDA
Environmental Quality & Public Works Committee
May 23, 2023
1:00 P.M.

I.	**Approval of the April 18, 2023 Committee Summary**		**(1-2)**
II.	**Home Compost Program Update**	(LeGris/Poe)	**(3-10)**
III.	**Explore Lexington's Sustainability Options**	(Sheehan/Griggs)	**(11-18)**
IV.	**Kentucky Utilities: Process and Considerations for Burying Electrical Lines**	(Sheehan/Mayes)	**(19-33)**
			(34)
V.	**Items Referred to Committee**		

"Environmental Quality and Public Works committee to which shall be referred matters relating to the department of Environmental Quality and Public Works and its divisions, including capital improvement projects and any related partner agencies."- Council Rules & Procedures, Section 2.102 (3). Effective January 1, 2023. Adopted by Urban County Council September 22, 2022.

2023 Meeting Schedule

February 7	September 12
April 18	October 24
May 23	December 5
July 11	

Environmental Quality & Public Works Committee

April 18, 2023

Summary and Motions

Chair Sheehan called the meeting to order at 1:14 p.m. Committee Members LeGris, Wu, Fogle, Lynch, Monarrez, Gray, Worley, F. Brown, and Sevigny were present. Council Member Plomin was present as a non-voting member.

I. Approval of February 7, 2023 Committee Summary

Motion by Gray to approve the February 7, 2023 Environmental Quality & Public Works Committee Summary. Seconded by Wu. Motion passed without dissent.

II. Capacity Assurance Program (CAP) Audit Update

CM Sheehan spoke about the Capacity Assurance Program Draft Ordinance that was included in the committee packet. The ordinance changes the time period between audits from two years to five years.

Motion by Sevigny to Approve the Draft Ordinance for the Capacity Assurance Program (changing the time period between audits). Seconded by Gray. Motion passed without dissent.

III. Pavement Management Plan

Nancy Albright, Commissioner of Environmental Quality & Public Works, provided the presentation beginning with history of Pavement Management. She spoke about the resolutions in place to include funding in the budget for paving and for acceptance of the pavement management plan. She reviewed expenditures for FY16-23 and said in 2021 paving projects were pre-funded so ATS could begin work. She reviewed the paving season which begins in April and closes mid-December and she pointed out this is dependent on the weather. She provided a pavement plan overview explaining road types, road classes, and Overall Condition Index (OCI) and said the plan divides total paving allocation based on road class. She highlighted FY24 paving plan updates that came out of the 2022 paving plan subcommittee. She spoke about the way in which projects are selected and she reviewed the timeline which centers on the funding process. She highlighted the budget request and mentioned they use $15M as a starting point.

When asked if Cost-of-Living Adjustment (COLA) was considered in the estimate in 2018 when $15M was approved, Albright explained it is buried in the quality of the estimates. Speaking about the decision made on collector roads, Albright clarified it is more of a conversation and they look at this city-wide to ensure money is put where it is most needed. There was a question if a methodology exists for rebuilding of streets in older neighborhoods to support a longer life. While they continue to discover a variety of materials in older neighborhoods, Albright said it would require going through an engineering process to get on a rebuild. When projecting out and whether they look at cost increases, increase in the number of projects, or frequency of paving related to climate change, Albright said the most she hears about is frequency because pavement does not last as long as it used to. There was some discussion on the importance of funding the pavement management plan and having innovative cost saving and environmentally sustainable practices and new technologies that are meant to help pavement last longer. Speaking about the relationship of paving to curbs, Albright said they tend to follow sidewalks in the interpretation of responsibility which means they are still the responsibility of the homeowner. Speaking

about examples of preventative maintenance used by the department, Albright said this would include crack sealing and rejuvenation which helps extend the life of the pavement.

Motion by F. Brown to approve a Resolution, directing the Administration to include Fifteen (15) Million Dollars in the Budget for the Pavement Management Plan annually beginning in FY2024. Seconded by Gray. Motion passed without dissent.

Motion by F. Brown to approve a Resolution, authorizing Council acceptance of the Pavement Management Plan. Seconded by Lynch. Motion passed without dissent.

IV. Items Referred to Committee

Motion by F. Brown to remove *Pavement Management Plan Subcommittee* from the list of committee referral items. Seconded by Lynch. Motion passed without dissent.

Motion by Gray to remove Item *Solid Waste Trash Compactors* from the list of committee referral items. Seconded by Wu. Motion passed without dissent.

Motion by Fogle to adjourn at 2:09 p.m. Seconded by Sevigny. Motion passed without dissent.

HOME COMPOST PROGRAM UPDATE

Environmental Quality and Public Works Committee

Angela Poe, Public Information and Engagement Section Manager

May 23, 2023

LEXINGTON

Goals

- Provide alternative organic material disposal option for households in the Urban Services Tax District
  - Landfill
  - (Yard waste) mulching
- Encourage at-home food composting

Program Overview

- Three workshops @ McConnell Springs
  - February & March
  - Facilitated by Seedleaf
- Demonstration site installed at McConnell Springs (last FY)
- 100 households max, 30-35 per workshop
- $60 credit toward a composter
  - Worm
  - Stationary
  - Tumbling

LEXINGTON

Results: By the Numbers

- Number of households (HH): 95
- Number of participants: 135
- Number of no shows: 10
- % of HH already composting: 32%
- Composters ordered*: 44
  - Worm bins: 2
  - Stationary composter: 17
  - Tumbling composter: 21
  - From participating nursery: 1
  - None/Doing their own thing: 3

*as of 5/11; have until end of May to redeem voucher

LEXINGTON

Successes

- McConnell Springs and Seedleaf were both amazing partners (again!)
- There is significant demand; workshops filled up before the promotion cycle was complete
- 95 households are better equipped to compost at home for a total cost of around $12,000 (ongoing benefit)

LEXINGTON

Challenges

- Workshops filled up quickly
- Partnership with local nurseries to sell composters didn't play out as hoped
  - Only one nursery came through, at a high price point
  - Ended up doing the order and pickup system like last year
    - Time consuming!
    - Logistically complicated – not set up to take money; limited storage space for composters; Government Center/Phoenix Building not ideal locations for pickup

LEXINGTON

Looking Ahead

- Keep number of workshops and numbers in the workshop the same
- Continue to hold workshops in late winter
- Continue to partner with Seedleaf and McConnell Springs
- Install compost signage at McConnell Springs
- Explore online partner who will sell direct to participants using our vouchers

Questions?

LEXINGTON

EXPLORE LEXINGTON'S SUSTAINABILITY OPTIONS

Environmental Quality and Public Works Committee

Jada Griggs, Sustainability Section Manager

May 23, 2023

LEXINGTON

Empower Lexington: A Plan for a Resilient Community

- Stakeholders developed over a 3 year period (2009-2012) – facilitated by LFUCG; supported by Council in 2012
- Focus was on energy efficiency in 5 sectors:
  1) *Residential*
  2) *Industrial, Commercial, Institutional*
  3) *Land Use, Food, and Agriculture*
  4) *Transportation*
  5) *Waste*
- Plan was flexible / voluntary, with goal to reduce energy use by at least 1% year

Empower Lexington Plan Update 2023

- New Sectors: Over 50 members; aligns with LEED for Cities
- Core Team (members from previous plan efforts)
- Sectors:
  1) *Natural Systems and Ecology*
  2) *Transportation and Land Use*
  3) *Water Efficiency*
  4) *Energy and Greenhouse Gas Emissions*
  5) *Materials and Resources*
  6) *Quality of Life (Justice, Equity, Diversity and Inclusion)*

Greenhouse Gas Emissions Inventory

- Reactivate our community-wide greenhouse gas (GHG) emissions inventory
- Track community-wide & LFUCG GHG emissions
  - RFP & Consultant selection completed in May
  - Establish baseline using 2021 emissions
  - Recommend GHG reduction targets
- Set GHG emissions reduction targets
  - Programs, policies, projects, and initiatives to help us reach our targets
- Re-calculate GHG emissions every 2 years going forward

LEED for Cities

- Lexington was selected as 1 of 13 cities to participate in the Leadership Cohort Program sponsored by the U.S. Green Building Council (USGBC) (Colorado Springs, CO; Des Moines, IA; Grand Junction, CO; Lantana, FL; Largo, FL; Lawrence, KS; North Miami, FL; Palm Coast, FL; Plano, TX; San Diego, CA; Scottsdale, AZ; South Bend, IN)
- Program Objective: Obtain LEED* for Cities Certification
- Program provides peer-to-peer networking opportunities, technical assistance, and access to educational resources; and covers fees for USGBC membership, registration, and certification review

*LEED = Leadership in Energy and Environmental Design

Solarize Lexington Program

- Partnered with KY Solar Energy Society to provide a vetted process for residents
- Group buying program designed to promote and encourage the use of solar
- Open only to Lexington-Fayette County residents, small businesses, non-profits, and places of worship
- Since launch on March 13th:
  - 400 Interest Forms Submitted
  - 51 Grant-eligible (18 waitlisted / on-hold)

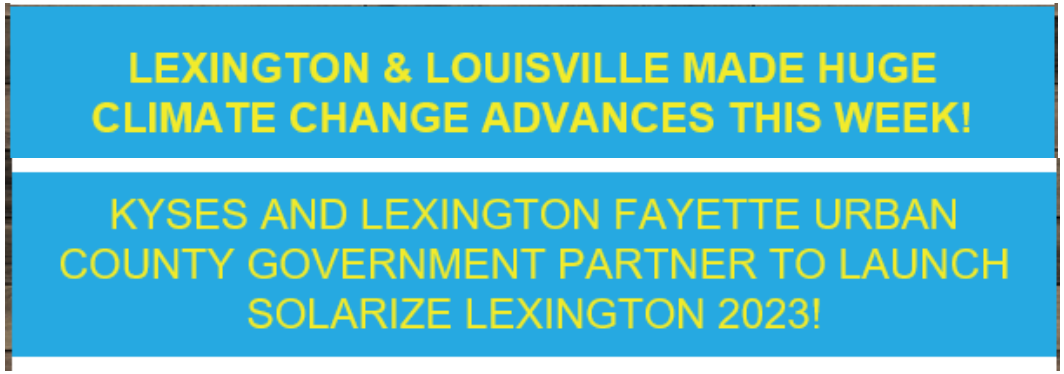
SOLARIZE LEXINGTON

Solarize Lexington Program

- Council approved $1 Million from FY22 Fund Balance to offer grants to low-to-moderate income homeowners
- 28 grant-approved contracts signed (average cost per home = $21,948)*
- 9 installations complete*
- $385,435.80 balance*

*as of May 11th

"THANK YOU - THANK YOU - THANK YOU. My system is up and running. Wow it is really fantastic. What a wonderful over all experience from beginning to end." - Solarize Lexington Grant Recipient



Questions?

LEXINGTON

The Challenges of Undergrounding Existing Electric Facilities

Chris Mayes
Kentucky Utilities Company
Lexington Operations Manager

LG&E KU
PPL companies

2008 Ike Windstorm Damage

2009 Ice Storm – Central KY

July 2018 Storm

Versailles Road Transmission Poles Down

March 2023 Windstorm

Replacing Existing OH Facilities with UG

- Strategic undergrounding of electric lines can reduce weather-related outages caused by thunderstorms, tornadoes, windstorms and ice storms.
- However, UG electric systems serving a neighborhood may still have OH distribution or transmission lines coming to the area and those facilities are still subject to the elements.
- UG electric systems can still fail, and those outages can potentially last longer than typical OH power outages.
- Performing maintenance and repairing UG power lines can be much more difficult and time-consuming.

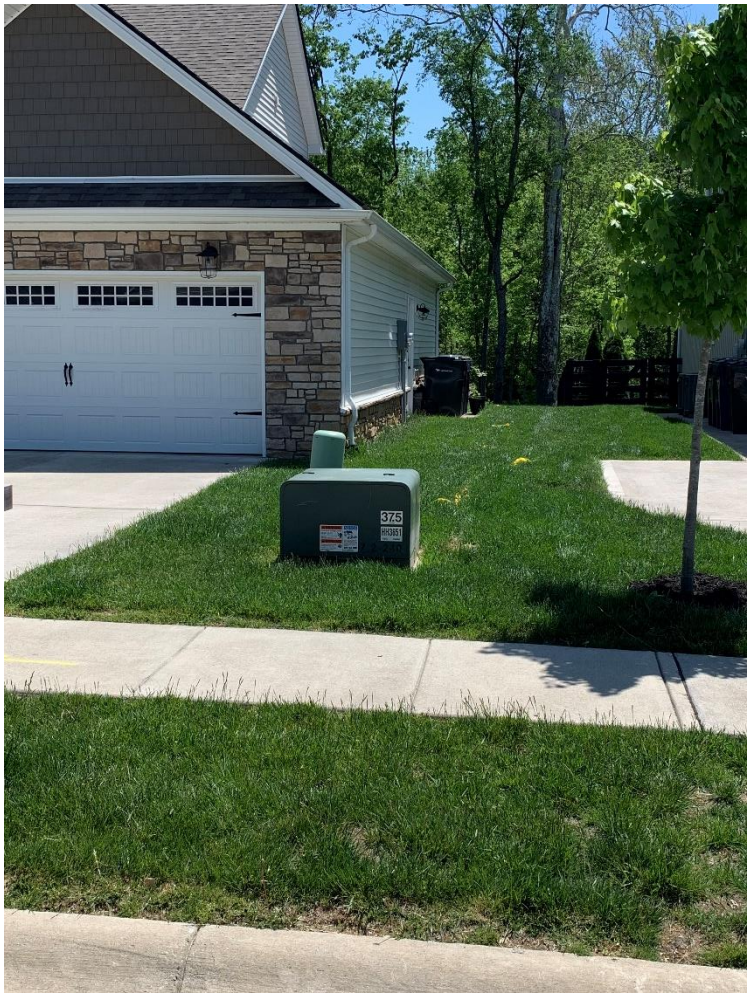
How Disruptive is the Process

- Work can be very disruptive to streets, sidewalks, yards and trees.
- Tree roots are often damaged during boring or open trenching work, which can harm the health of the tree or cause premature failure
- Individual OH services would need to be replaced with UG and may involve work on customer meter base/electrical entrance and could require an electrical inspection.
- Padmount transformers (green boxes) would need to be placed above ground in yards or utility strips between sidewalk and street.

Underground Boring

Open Trenching

Padmount Transformer Installation



Costs for Undergrounding

- After the historic ice storm in 2009, LG&E and KU analyzed the costs of undergrounding all of its transmission and distribution lines and found it would cost $40 billion to underground existing transmission lines and $24 billion for existing distribution lines.
- General rule of $1 million per mile for distribution still applies today. The general rule of thumb to underground transmission is $10-15 million per mile. And those costs do not include cable, internet or phone lines.
- In cases where a specific city or neighborhood would want to underground existing lines, those costs would be borne by those requesting entities.

Process to Bury Lines in a Neighborhood

- Neighborhood HOA or representative makes request to KU to investigate feasibility and costs.
- KU engineering team would review KU facilities in the area and choose possible routing for new UG electric feeds.
- KU engineering team would provide plans and estimates for neighborhood to review and provide feedback.
- If agreement is reached and payment made, KU would order materials needed and schedule construction.
- Existing poles may need to remain to support telecom companies; Spectrum, Windstream, Metronet, etc unless separate agreements made with those companies.

Current OH vs UG Procedures

- Most new residential and commercial developments in Lexington are UG (driven by the developer).
- Current mix of existing electric facilities for Lexington Operations is approximately 67% OH vs 33% UG.
- KU is evaluating some select areas where strategic undergrounding may make sense due to the reduced tree-trimming costs and potential reliability improvement.
- KU has completed some downtown revitalization-type projects that replaced existing OH facilities with UG.

Pros and Cons of Strategic Undergrounding

- **PROS**
- Reduced weather-related outages
- Reduced tree-trimming costs
- Improved aesthetics

- **CONS**
- Very expensive
- UG lines still fail; causing outages
- Outages potentially last longer
- Rest of system still exposed to elements
- Disruptive to customers yards
- Disruptive to streets and sidewalks
- Damage to trees

Conclusions

- Undergrounding is one tool in the resiliency tool box, but rarely the best one.
- Better vegetation management, overhead hardening initiatives, and distribution automation deliver similar reliability results at a fraction of the cost.
- With a few unique exceptions, no utilities are doing this on a large-scale basis.

ITEMS REFERRED TO COMMITTEE

Environmental Quality & Public Works

	Referral Item	Current Sponsor	Date Referred	Last Presentation	Status	Legistar File ID
1	Process for Road Closures	D. Sevigny	August 16, 2022			
2	Sevierville Waste Digesters	L. Sheehan/Sevigny	March 29, 2022	May 3, 2022		0445-22
3	Explore Lexington's Sustainability Options	L. Sheehan	February 20, 2018	May 18, 2021	May 23, 2023	0499-21
4	KU presentation on process of burying electrical lines	L. Sheehan	April 18, 2023		May 23, 2023	0548-23
5	Ways we use recycled pavement / environmental best practices in our paving process	Worley	April 18, 2023			
	Annual / Periodic Updates					
6	Recycling General Practices * Note several recycling items were combined into this one item on March 9, 2021	P. Worley	March 9, 2021	January 19, 2021		0292-19
7	Backyard Composting - Home Compost Pilot Program	H. LeGris	February 2, 2021	February 1, 2022	May 23, 2023	0500-21
8	Urban Forestry / Street Trees Update	H. LeGris	September 17, 2019	July 5, 2022		0501-21
9	Capacity Assurance Program (CAP) Audit Update	L. Sheehan	August 30, 2018	April 18, 2023		0964-20
10	Annual Energy Improvement Fund Update	L. Sheehan	January 10, 2017	June 7, 2022		0572-22
11	Annual Snow/Ice Removal Plan	L. Sheehan	February 15, 2014	October 11, 2022		1034-22
12	Annual Pavement Management Plan / Curbs Assessment	L. Sheehan	May 26, 2020	April 18, 2023		0440-22
13	Annual Stormwater Priority List Update	L. Sheehan	February 20, 2018	September 13, 2022		0922-22
14	Annual Municipal Separate Storm Sewer System (MS4) Program Update	L. Sheehan	February 20, 2018	November 1, 2022		1122-22
15	Annual Consent Decree and Remedial Measures Plan Update	L. Sheehan	January 22, 2019	March 1, 2022		0222-22
16	Annual Division and Program Review (Pilot Program)	L. Sheehan	November 30, 2021	November 1, 2022		0127-22

Updated 04.18.23, KJT