

LG&E 2021 Energy External Stakeholder Survey

September 13, 2021

B1 - What organization do you represent as a member of LG&E/KU's DSM Advisory Group?

Copper Labs

First Unitarian Seventh Principle Team

Jefferson Community & Tech College

Kentucky interfaith power and light

Louisville Energy Alliance

Louisville Metro Government

Louisville Metro Government

Louisville Metro Government

Metropolitan Housing Coalition

Mountain Association

Mountain Association

NAACP Louisville KY Chapter

Oracle Utilities

Oracle/Opower

SEEL

KY Solar Energy Society and Greater Louisville Sierra Club; REAL

B2 - Please describe your role within your organization:

Assistant VP of Administration - Facilities and Operations

Chair; Conservation Chair; member

Director of Sales & Business Development

Energy Manager - I oversee efforts to reduce our utility costs and improve the energy efficiency of our facilities and operations.

Energy Specialist

Executive Director

Executive Director

I am an Account Executive for Opower

Member

Member and on the housing committee

Program Coordinator

Regulatory Affairs

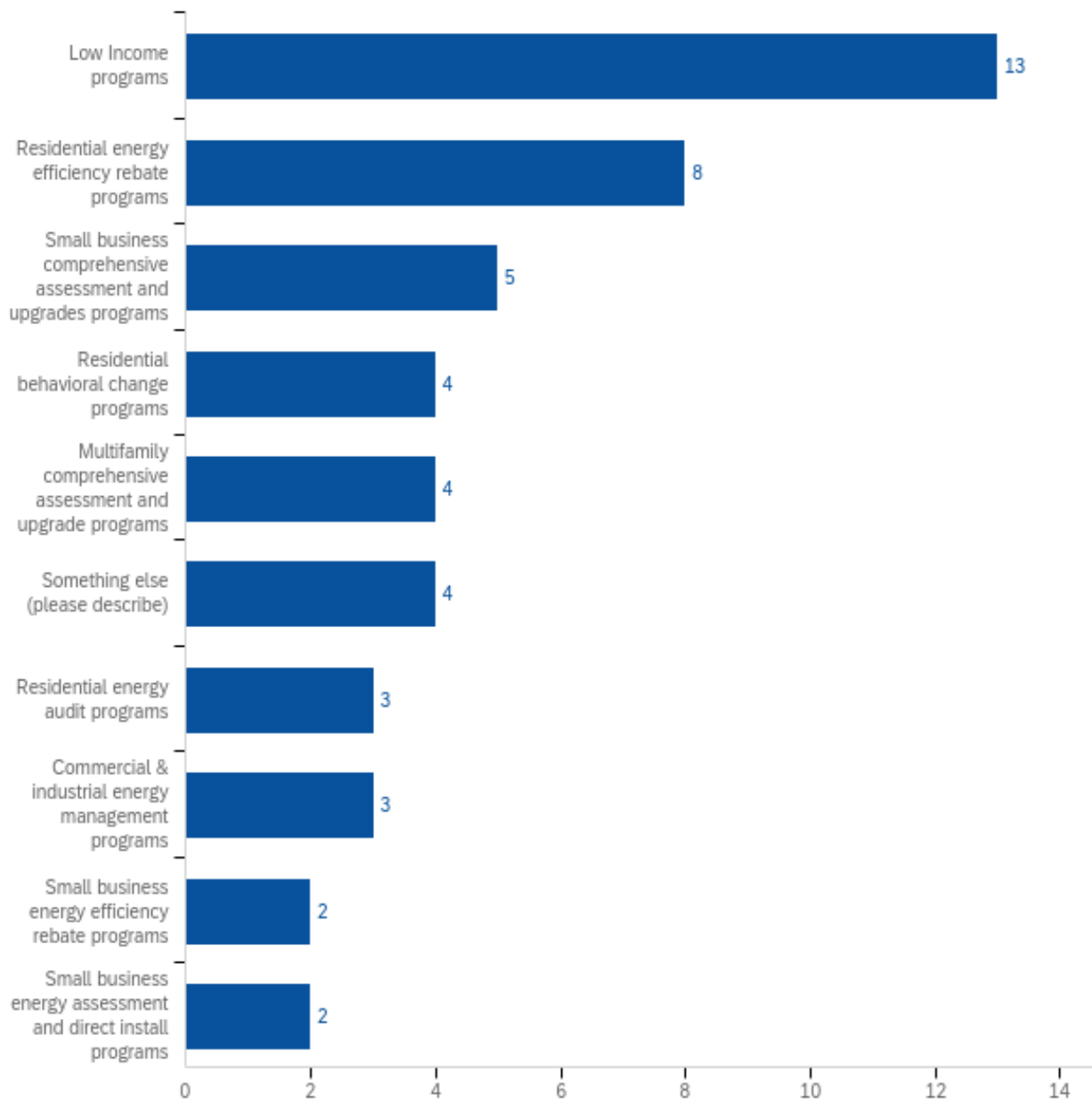
Strategy Manager

Sustainability Coordinator

Sustainability Specialist

Vice Chair

B3 - As a stakeholder, what types of programs are you most interested in seeing in LG&E/KU's DSM Plan? (Select the 3 most important)



#	Answer	%	Count
4	Low Income programs	81%	13
1	Residential energy efficiency rebate programs	50%	8
7	Small business comprehensive assessment and upgrades programs	31%	5
3	Residential behavioral change programs	25%	4
5	Multifamily comprehensive assessment and upgrade programs	25%	4
10	Something else (please describe)	25%	4
2	Residential energy audit programs	19%	3
9	Commercial & industrial energy management programs	19%	3
6	Small business energy efficiency rebate programs	13%	2
8	Small business energy assessment and direct install programs	13%	2
	Total	100%	16

B3_10_TEXT - Something else (please describe)

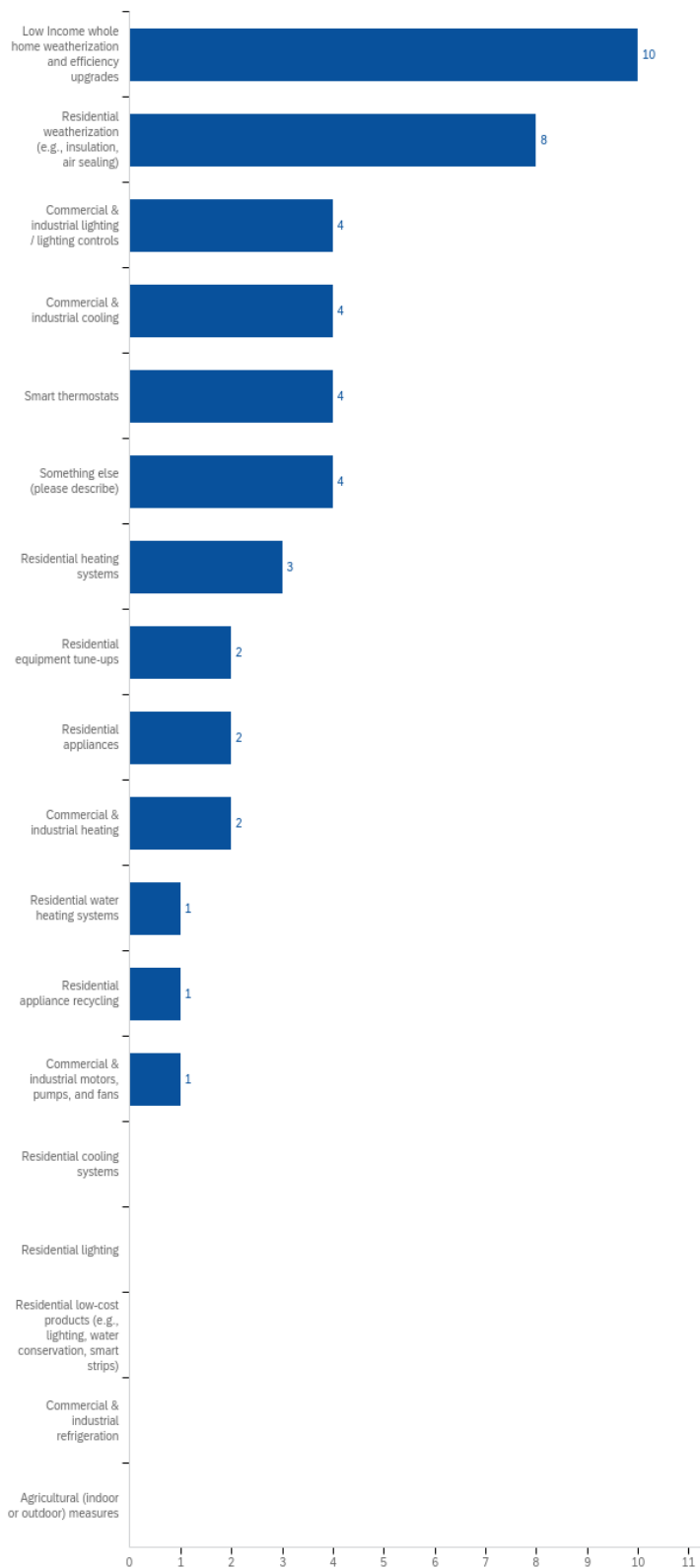
Equity and environmental justice- and Non-energy benefits being used to assess programs

Residential on bill financing program

Understanding that the regulations might not perfectly align...residential demand response

peak management

B4 - As a stakeholder, what measures are you most interested in seeing in LG&E/KU's DSM Plan? (Select the 3 most important)



#	Answer	%	Count
10	Low Income whole home weatherization and efficiency upgrades	63%	10
4	Residential weatherization (e.g., insulation, air sealing)	50%	8
16	Smart thermostats	25%	4
13	Commercial & industrial cooling	25%	4
11	Commercial & industrial lighting / lighting controls	25%	4
18	Something else (please describe)	25%	4
1	Residential heating systems	19%	3
12	Commercial & industrial heating	13%	2
6	Residential appliances	13%	2
5	Residential equipment tune-ups	13%	2
8	Residential appliance recycling	6%	1
14	Commercial & industrial motors, pumps, and fans	6%	1
3	Residential water heating systems	6%	1
2	Residential cooling systems	0%	0
9	Residential low-cost products (e.g., lighting, water conservation, smart strips)	0%	0
15	Commercial & industrial refrigeration	0%	0
17	Agricultural (indoor or outdoor) measures	0%	0
7	Residential lighting	0%	0
	Total	100%	16

B4_18_TEXT - Something else (please describe)

Environmental justice (e.g. urban heat islands, non-energy benefits being used to assess programs and equity

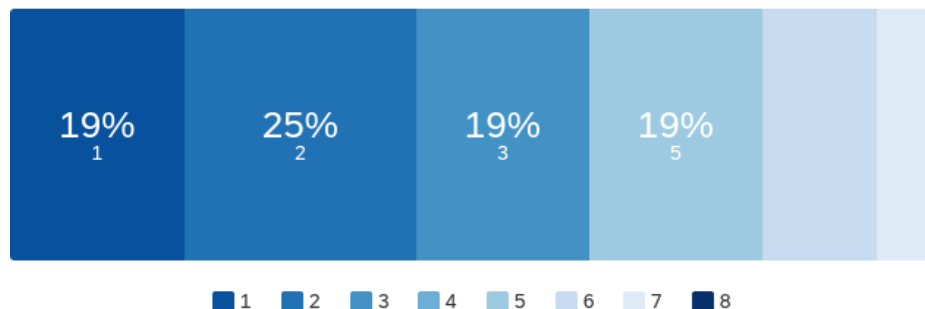
Not sure why this doesn't give the option to say all of the above on both questions. Do all you can to help customers reduce their energy use.

Peak time rebates, Smart home energy management, Energy monitoring

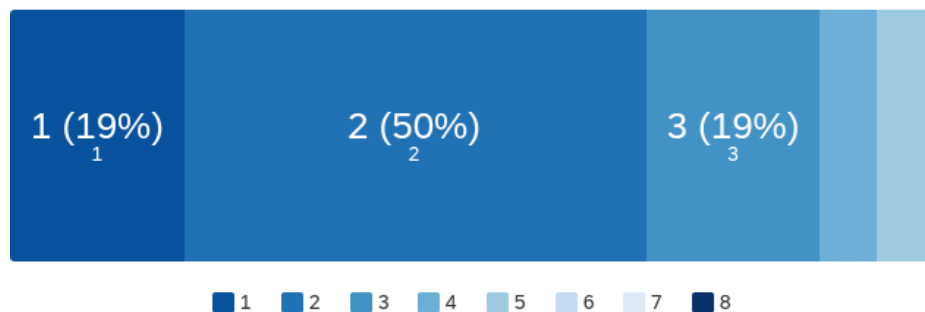
residential behavior change savings

B5 - In your opinion, what program selection criteria should LG&E/KU prioritize? Please rank program criteria with #1 as most important to least important. You can drag each program criteria to change the ranking.

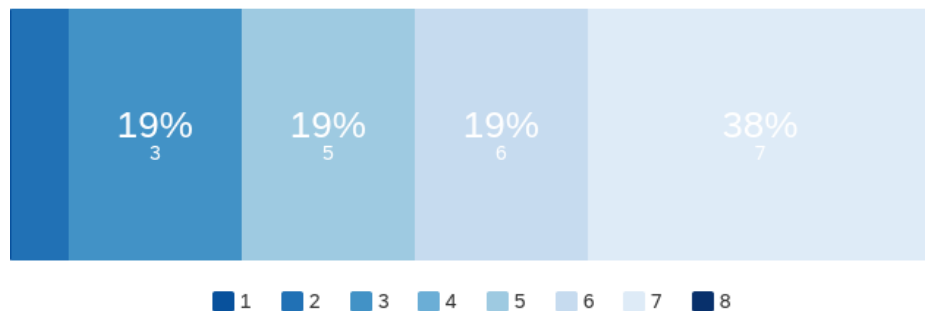
B5_1 - Breadth of participation (equity across eligible customer segments)



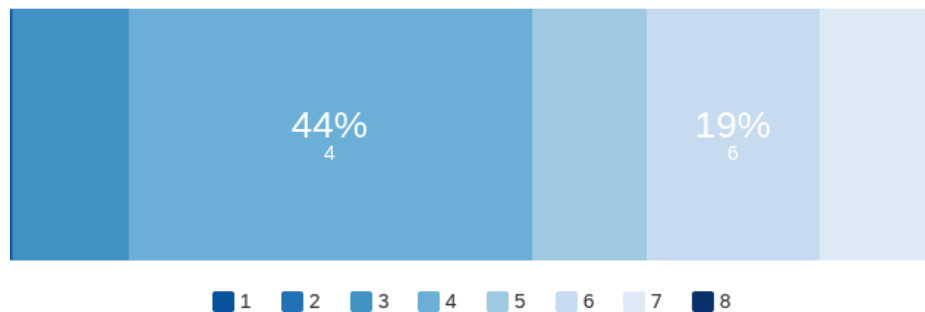
B5_2 - Energy savings / demand reduction



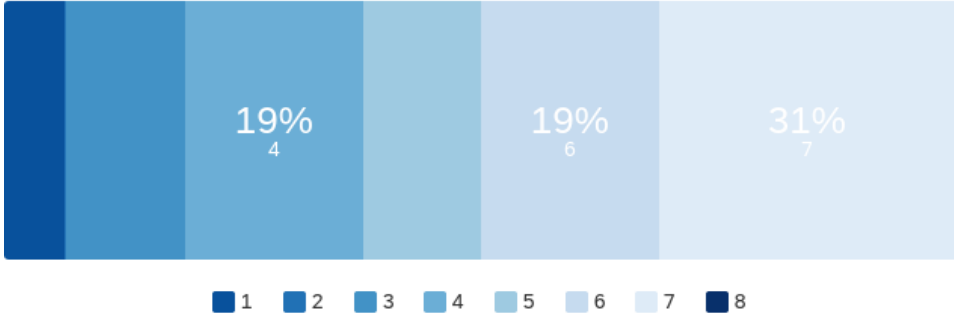
B5_3 - Program cost-effectiveness



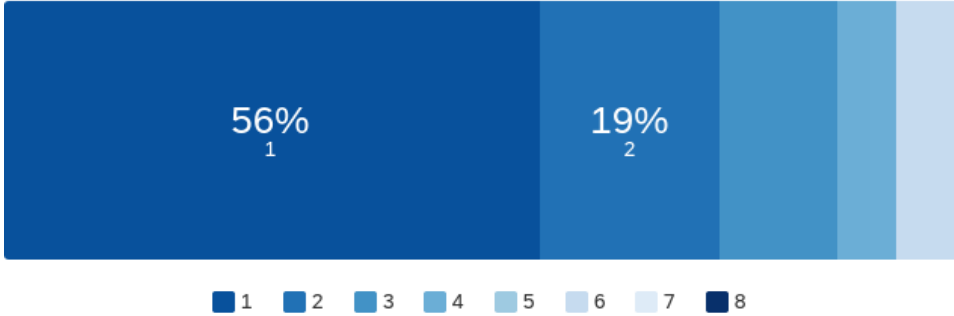
B5_4 - Customer value and satisfaction



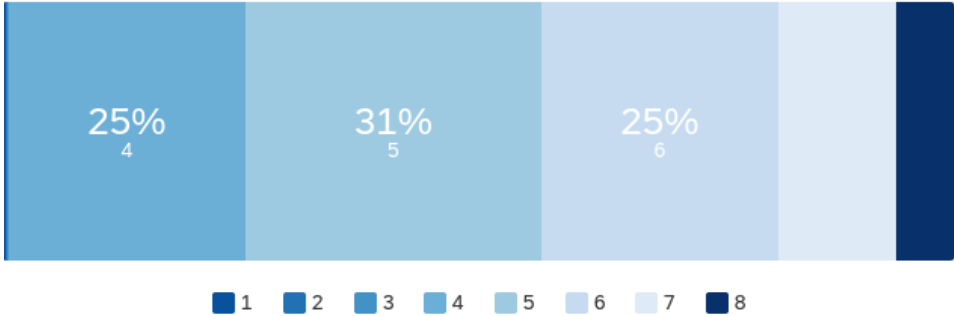
B5_5 - Market transformation potential



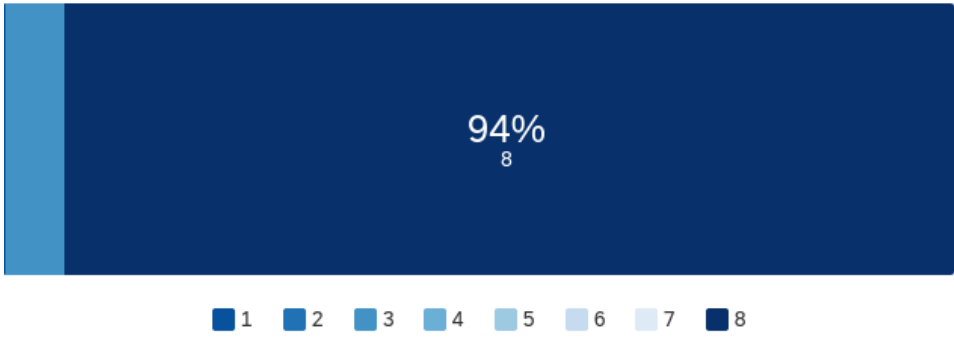
B5_6 - Energy burden reduction for low-income and underserved populations



B5_7 - Equipment or technology innovation



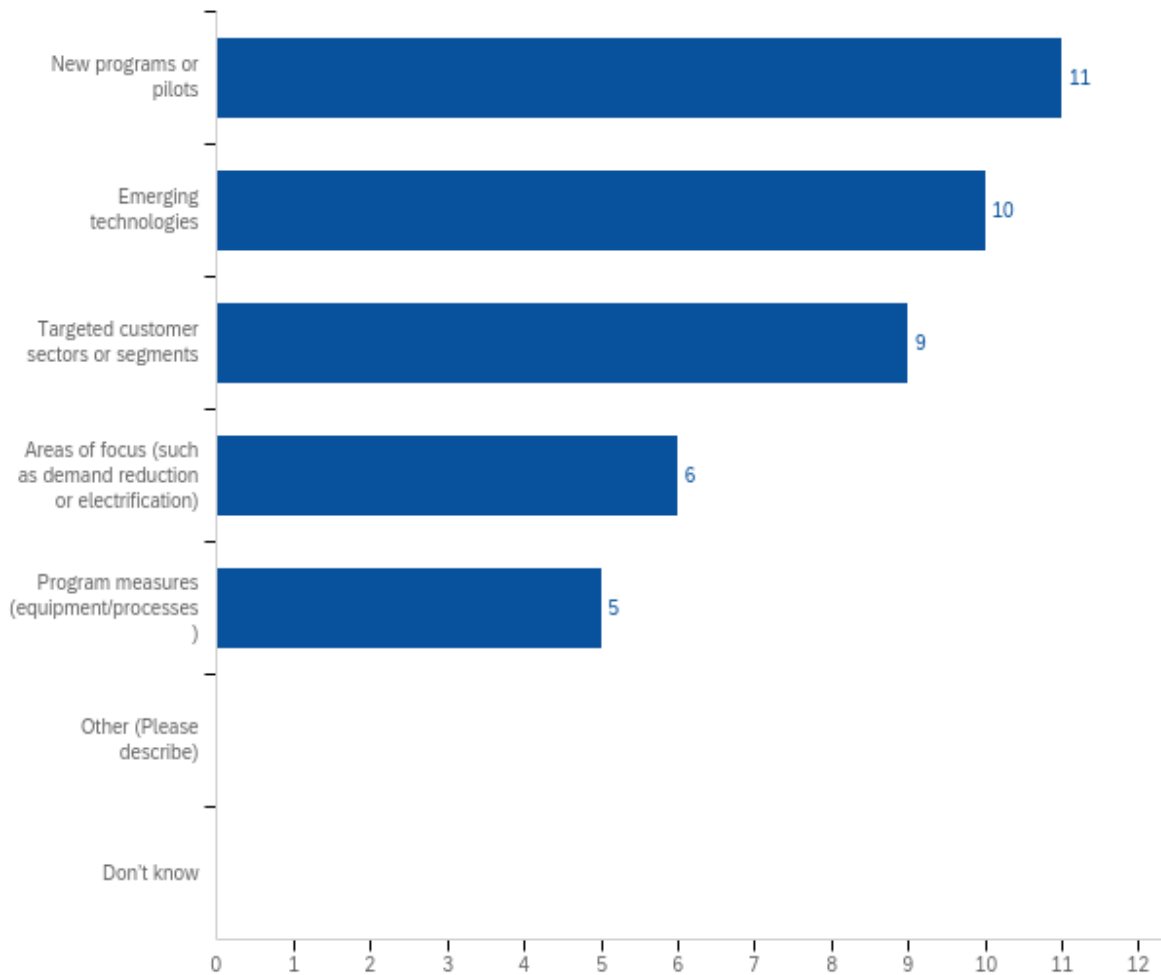
B5_8 - Other (please describe)



#	Question	1	2	3	4	5	6	7	8	Total								
1	Breadth of participation (equity across eligible customer segments)	19%	3	25%	4	19%	3	0%	0	19%	3	13%	2	6%	1	0%	0	16
2	Energy savings / demand reduction	19%	3	50%	8	19%	3	6%	1	6%	1	0%	0	0%	0	0%	0	16
3	Program cost-effectiveness	0%	0	6%	1	19%	3	0%	0	19%	3	19%	3	38%	6	0%	0	16
4	Customer value and satisfaction	0%	0	0%	0	13%	2	44%	7	13%	2	19%	3	13%	2	0%	0	16
5	Market transformation potential	6%	1	0%	0	13%	2	19%	3	13%	2	19%	3	31%	5	0%	0	16
6	Energy burden reduction for low-income and underserved populations	56%	9	19%	3	13%	2	6%	1	0%	0	6%	1	0%	0	0%	0	16
7	Equipment or technology innovation	0%	0	0%	0	0%	0	25%	4	31%	5	25%	4	13%	2	6%	1	16
8	Other (please describe)	0%	0	0%	0	6%	1	0%	0	0%	0	0%	0	0%	0	94%	15	16

#	Field	Minimum	Maximum	Mean	Std Deviation	Variance	Count
1	Breadth of participation (equity across eligible customer segments)	1	7	3	2	4	16
2	Energy savings / demand reduction	1	5	2	1	1	16
3	Program cost-effectiveness	2	7	5	2	3	16
4	Customer value and satisfaction	3	7	5	1	2	16
5	Market transformation potential	1	7	5	2	3	16
6	Energy burden reduction for low-income and underserved populations	1	6	2	1	2	16
7	Equipment or technology innovation	4	8	5	1	1	16
8	Other (please describe)	3	8	8	1	1	16

C1 - In the next 3-5 years, what types of offerings are most critical for LG&E/KU to develop (beyond current offerings)? (Select all that apply)



#	Answer	%	Count
1	New programs or pilots	85%	11
3	Emerging technologies	77%	10
4	Targeted customer sectors or segments	69%	9
5	Areas of focus (such as demand reduction or electrification)	46%	6
2	Program measures (equipment/processes)	38%	5
6	Other (Please describe)	0%	0
7	Don't know	0%	0
	Total	100%	13

C1_1 - Please describe what new programs or pilots would be most critical in your opinion.

(no responses)

C1_2 - Please describe what program measures would be most critical in your opinion.

(no responses)

C1_3 - Please describe what emerging technologies would be most critical in your opinion.

(no responses)

C1_4 - Please describe what targeted customer sectors or segments would be most critical in your opinion.

(no responses)

C1_5 - Please describe what areas of focus would be most critical in your opinion.

(no responses)

C2 - What outcomes would the above offerings help to achieve?

Better air quality for all, less polluting energy, redundancy in energy production for homeland security, more security for low income households to be able to afford energy

DSM programs should ideally ensure that all large customers are incentivized to implement standard energy management principles through BAS systems, as well as making capital efficiency upgrades, to have the largest impact in our electric demand. They should also connect homeowners to energy audits and educational resources to assist in community efficiency efforts. Households with high energy burdens would hopefully have resources to lower their energy demand.

Demand reduction and flexible load is needed to adapt to an increasingly dynamic grid. Additionally, there are technologies that can help LG&E/KU test for AMI use cases first hand today, while also preparing for a time when DSM programs include efficiency/conservation measures as well as measures that support bulk supply and targeted distribution demand reduction when and where it matters most. Total kWh or therms reduction is good. But, the time and location in which energy is use is increasingly important to keep rates low through things like distribution deferral and NWA, integrate clean energy, and provide customers with personalized services.

Equity and resilience

Help achieve Louisville Metro's goal of 100% clean energy community-wide by 2040 by targeting DSM programs on largest GHG emitting sectors and programs directly benefitting LMI residents as a priority.

More equitable energy across the system portfolio.

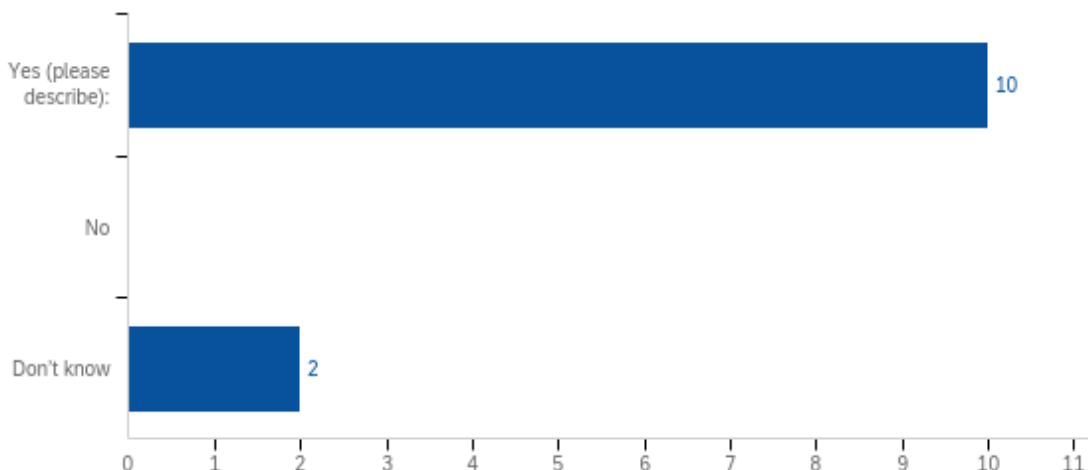
Reduced energy burden on lower-income neighborhoods and reduced use of fossil fuelj.

Reducing emissions, lowering customer bills, grid resiliency

This would allow for better access to lower energy bills and better equipment via financing options, and renewable energy would provide overall environmental sustainability as well as better health outcomes for the entire population.

With more funding for the WeCare program, it can reduce the cost of low-income utility bills.

C3 - Are there specific market barriers that limit adoption of energy efficiency and demand response programs in Kentucky?



#	Answer	%	Count
1	Yes (please describe):	83%	10
2	No	0%	0
3	Don't know	17%	2
	Total	100%	12

C3_1_TEXT - Yes (please describe):

Currently, cost-recovery for EE and DR programs is very limited

Customer resources in time and money.

Failure of LG&E to use census tract and blocks instead of zip codes- really bad data collection practice.
Intransigence of LG&E to allow individually installed energy production Overcharging low income black neighborhoods with density who use least electricity but have the savings of dense numbers of meters- reduce the daily service charge Proven inability of low-income neighborhoods to access technology (NTI of schools showed that) and to have savings as those neighborhoods have the lowest electric usage already (LG&E testimony in a rate case)
If the cost of electricity doesn't include externalities, it is harder to see ROIs on EE projects, which discourages EE investors and lenders.

Likely that limited income housing stock needs health and safety improvements before EE improvements.

Solar

The state has not increased energy code requirements for new development in many years, setting a low bar for developers. Many customers don't implement BAS control systems properly due to a lack of training or education in energy management methods, or don't fund the capital costs for controls systems due to unclear information regarding the financial returns. Customers should be able to consider solar and battery storage projects a viable option in reducing peak demand charges.

There seems to be a lot of disagreement on this, but to me it seems that the investment in coal appears to hold some back from sunseting coal plants and investing in the future. I think we need to find ways to have productive conversations about what progress looks like, and not let past investments stand in our way.

Up front cost for residential efficiency/weatherization in moderate income households that don't qualify for low income programs

the high mandatory 'basic service' charges the companies impose on residential customers for gas and electricity.

C4 - What are solutions that can help overcome the barriers/challenges you mentioned?

Allow utilities to spend on health and safety improvements, coordinate with local service providers

Cost reductions for lower energy usage

More effective outreach and appropriate incentive levels to meaningfully engage those that are being left behind.

On bill financing

Revising electricity rates to include externalities, which will automatically make EE ROIs more attractive.

Setting legal limits to the amount of greenhouse gases that can be released into our air.

The state should prioritize modernizing their energy policy to include strong energy codes, along with renewable portfolio standards. More education and incentives regarding proper BAS management and preventative maintenance routines would translate into leadership understanding the full value of these investments.

Use census tracts and blocks. Encourage individually installed energy production in policies. Lessen the percent of the bill that is collected through the daily service charge, use non-energy benefits to calculate the return on investment of DSM programs- change the statute if necessary.

reducing the mandatory charges

D1 - Do you have any other comments you would like to share?

If you need the proof of my statements, I have the testimony, charts and maps to show impact on low-income black neighborhoods.

Not at this time. Thanks!

The cost of DSM for the average rate payer is roughly the cost of dinner for two a year. Other than low-income, most can afford to pay double or triple that. This seems a small price to pay to keep someone from losing their home or going without food.