COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY POWER COMPANY FOR: (1) APPROVAL TO EXPAND ITS TARGETED ENERGY EFFICIENCY PROGRAM; (2) APPROVAL OF A HOME ENERGY IMPROVEMENT PROGRAM AND A COMMERCIAL ENERGY SOLUTIONS PROGRAM; (3) AUTHORITY TO RECOVER COSTS AND NET LOST REVENUES, AND TO RECEIVE INCENTIVES ASSOCIATED WITH THE IMPLEMENTATION OF ITS DEMANDSIDE MANAGEMENT/ENERGY EFFICIENCY PROGRAMS; (4) APPROVAL OF REVISED TARIFF D.S.M.C.; (5) ACCEPTANCE OF ITS ANNUAL DSM STATUS REPORT; AND (6) ALL OTHER REQUIRED APPROVALS AND RELIEF	)	CASE NO. 2024-00115

POST-HEARING BRIEF OF JOINT INTERVENORS MOUNTAIN ASSOCIATION, KENTUCKIANS FOR THE COMMONWEALTH, APPALACHIAN CITIZENS' LAW CENTER, AND KENTUCKY SOLAR ENERGY SOCIETY

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1 INTRODUCTION

Without a doubt, Kentucky Power needs to get back to supporting customers' energy savings through cost-effective and useful demand-side management ("DSM") programs. The least-cost, least-risk kilowatt hour is the one that does not need to be generated. Stated differently, given the choice between paying to generate, transmit, and distribute energy to customers, it would be more cost-effective to avoid needing to do any of that because Kentucky Power's DSM Plan helped some customers reduce their energy usage when they may not, would not, or could not have otherwise done so. The only thing in doubt here is whether Kentucky Power's proposed DSM Plan reasonably contributes to meeting customers' energy needs, as part of an overall energy resources portfolio.

Kentucky Power's proposed Demand-Side Management and Energy Efficiency Plan ("DSM Plan") is a welcome first step towards reviving the Company's market-rate DSM programs after many years. However, Joint Intervenors see much room for improvement, and urge the Commission to approve the program but with several key modifications. As proposed, the DSM Plan unreasonably leaves cost-effective savings potential untapped. By pursuing only a fraction of the reasonably achievable savings potential identified in its market potential study, too few customers will have the opportunity to participate, and too few savings will be realized.

Kentucky Power rightly notes that there will be challenges in reintroducing DSM programs, and it is a near certainty that adjustments will be needed as customers are served (or not) and lessons are learned. At the same time, there is such a thing as setting yourself up for success, and Kentucky Power missed some bright, low-hanging fruit in that regard. By missing opportunities for more thoughtful and strategic program offerings and designs, the DSM Plan will not be accessible or useful to a great many customers, particularly low- to moderate-income customers and small businesses. Incorporating tiered incentives for low- to moderate-income customers and small businesses, pursuing inclusive utility investments and financing partnerships, and looking ahead to ensure future demand-response program potential would not be difficult or burdensome changes, and each change would meaningfully address real shortcomings in the proposed plan. Joint Intervenors urge that the programs be expanded and modified now to better ensure success at the implementation stage.

There is also ample record evidence that the Company could make program expansions and modifications while still offering a cost-effective portfolio and avoiding the surcharge spikes that Kentucky Power customers saw in the past. The reforms to the surcharge calculation that were implemented in 2017 to reduce surcharge volatility remain in effect. In addition, Joint Intervenors have identified some key modifications that the Commission can make to the surcharge mechanism to ensure that ratepayers are only paying for and incentivizing actual energy savings resulting from the Company's investments, as would be just and reasonable.

As the Company takes these "first steps" to reintroduce a portfolio of DSM programs, the framework for adequate collaboration with stakeholders and reporting to this Commission must be clearly and reasonably defined. As with program design, getting these details right at the outset will give the Company a greater chance of success. Collaboration with community members working across Kentucky Power's territory will provide invaluable insights, helping to identify problems and opportunities, and making it possible for the Company to improve practices quickly. Consistent reporting will ease burdens on the Company, Commission, and stakeholders, as all parties build familiarity with the same set of common metrics and easily draw comparisons across reports.

We know these are the keys to success because, while Kentucky Power is taking its "first steps" here, peer utilities have been successfully implementing efficiency programs for decades. Kentucky Power does not need to reinvent any wheels. Kentucky Power needs to learn from and adopt best practices in DSM program design and implementation, and leverage every ounce of the territory-specific Market Potential Study customers paid for to make this DSM Plan a success. Anything less would be unreasonable.

2 LEGAL STANDARD

Review of Kentucky Power's DSM Plan is governed by KRS 278.285. Principally, the Commission must determine the reasonableness of a proposed plan, informed by consideration of a non-exhaustive list of eight factors:

> (a) The specific changes in customers' consumption patterns which a utility is attempting to influence;
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> (b) The cost and benefit analysis and other justification for specific demand-side management programs and measures included in a utility's proposed plan;
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> (c) A utility's proposal to recover in rates the full costs of demand-side management programs, any net revenues lost due to reduced sales resulting from demand-side management programs, and incentives designed to provide positive financial rewards to a utility to encourage implementation of cost-effective demand-side management programs;
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> (d) Whether a utility's proposed demand-side management programs are consistent with its most recent long-range integrated resource plan;
>
> (e) Whether the plan results in any unreasonable prejudice or disadvantage to any class of customers;
>
> (f) The extent to which customer representatives and the Office of the Attorney General have been involved in developing the plan, including program design, cost recovery mechanisms, and financial incentives, and if involved, the amount of support for the plan by each participant, provided however, that unanimity among the participants developing the plan shall not be required for the commission to approve the plan;
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> (g) The extent to which the plan provides programs which are available, affordable, and useful to all customers; and

> (h) Next-generation residential utility meters that can provide residents with amount of current utility usage, its cost, and can be capable of being read by the utility either remotely or from the exterior of the home.

If after consideration of these statutory factors, along with any other factors deemed informative by this Commission, it determines the plan to be reasonable, the plan should be approved. Apart from those factors, the demand-side management plan statute is not prescriptive with respect to timelines, savings targets, programs, or budget—so long as the plan is reasonable.

As in all matters before the Commission, reasonableness must be determined in light of the Commission's constitutional and statutory obligations to advance the public interest through effective regulation of monopoly utility companies' rates and services.[1] These obligations include ensuring rates that are fair, just, and reasonable, and service that is adequate, efficient and reasonable.[2]

Commission Orders routinely encourage exploration of all cost-effective demand-side management programs. As noted in the Commission's February 17, 2011, Final Order in Case No. 2010-00222:

> The Commission believes that conservation, energy efficiency and DSM, generally, will become more important and cost-effective as there will likely be more constraints placed upon utilities whose main source of supply is coal-based generation . . . . [T]he Commission believes that it is appropriate to strongly encourage Meade, and all other electric energy providers, to make greater effort to offer cost-effective DSM and other energy efficiency programs.[3]

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[1] KRS 278.030(1); KRS 278.040. *See also* Order*, Application of Duke Energy Kentucky, Inc. to Amend Its Demand Side Management Programs*, Case No. 2019-00277, at 11 (Apr. 27, 2020) (observing statutory obligation to ensure rates are fair, just, and reasonable at the outset of discussion of proposed DSM/EE plan).
[2] KRS 278.030(1), (2).
[3] Order, *In the Matter of Application of Meade County Rural Electric Cooperative Corporation to Adjust Electric Rates*, Case No. 2010-00222, at 15–16 (Feb. 17, 2011). *See also* Order, *In the Matter of Consideration of the New Federal Standards of the Energy Independence and Security Act of 2007*, Case No. 2008-00408*,* at 22 (Oct. 6, 2011); Order*, In the Matter of Joint Application of PPL Corporation. E.ON AG., E.ON US Investments Corp., E.ON U.S. LLC. Louisville Gas and Electric Company and Kentucky Utilities Company for Approval of an Acquisition of Ownership and Control of Utilities*, Case No. 2010-00204, at 14 (Sept. 30, 2010)("DSM, energy efficiency, and conservation are important now

More narrowly, since 2017, the Commission has consistently directed Kentucky Power Company to pursue cost-effective DSM and other energy efficiency programs to answer known energy and capacity needs.

In either a rate case proceeding initiated pursuant to KRS 278.190, or a proceeding limited to DSM Plan issues and related rate-recovery, the Commission may also review a proposed demand-side management mechanism.[4] A demand-side management mechanism can include (a) recovery of the full costs of implementing an approved DSM Plan and related lost revenues; or (b) incentives to provide financial rewards for implementing a cost-effective DSM Plan; or (c) both.[5] As in all instances concerning proposed rate or tariff changes, the regulated utility bears the burden of proof to show that DSM-related rates and tariff changes are just and reasonable.[6]

3 BACKGROUND

Since 2017, the only DSM program that Kentucky Power has offered has been its low-income program, the TEE Program. When the Company's market-rate DSM programs were sunset in 2017, the Commission directed Kentucky Power to next look to expand its DSM program offerings when there is "a change in Kentucky Power's capacity position that indicates a need for additional generation to serve its load."[7] By at least early 2021, Kentucky Power

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and will become more important and cost-effective in the future as more constraints are likely to be placed on utilities that rely significantly on coal-fired generation.").

[4] KRS 278.285(2).

[5] *Id.*

[6] KRS 278.190(3).

[7] Order, *In the Matter of Electronic Investigation of the Reasonableness of the Demand Side Management Programs and Rates of Kentucky Power Company*, Case No. 2017-00097, at 13 (Jan. 18, 2018); *also quoted in* Application, *In the Matter of the Electronic Application of Kentucky Power Company for: (1) Approval of Continuation of Its Targeted Energy Efficiency Program (2) Authority to Recover Costs and Net Lost Revenues, and to Receive Incentives Associated with the Implementation of Its Demand-Side Management Programs; (3) Acceptance of Its Annual DSM Status Report; (4) Authorization to Conduct a Market Potential Study; and (5) All Other Required Approvals and Relief*, Case No. 2021-00420, at 7 (Nov. 15, 2021).

recognized a near-term capacity need after electing not to renew the Rockport Unit Power agreement.[8] Since then, Kentucky Power's need for new capacity has only grown, with the anticipated exit from the Mitchell coal plant in 2028.[9] Thus, the time for Kentucky Power to expand its DSM programs in order to meet this demonstrated capacity need is now—or, more accurately, it was yesterday.

Kentucky Power customers have also long struggled to pay their bills. Kentucky Power has the highest residential bills in the Commonwealth,[10] and the highest residential rates of any investor-owned utility.[11] The Company's residential customers have among the highest energy burdens, or the percentage of household income spent on energy. In most of Kentucky Power service territory, a majority of households report both incomes below 200% of the poverty level *and* energy burdens greater than 6%, with some as high as 18%.[12] The Company's low-income customers also have significantly higher energy usage on average than the residential customer class as a whole; customers enrolled in the federal Low-Income Heating Energy Assistance Program ("LIHEAP") had more than double the average monthly energy use compared to

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[8]Application, *In the Matter of Electronic Application of Kentucky Power Company for Approval of a Certificate of Public Convenience and Necessity for Environmental Project Construction at the Mitchell Generating Station, an Amended Environmental Compliance Plan, and Revised Environmental Surcharge Tariff Sheets*, Case No. 2021-00004, at 2-3 (Feb. 8, 2021); *see also* Case No. 2021-00004, July 15, 2021 Order at 6, n.17.

[9] Kentucky Power Integrated Resource Planning Report to the Kentucky Public Service Commission, Vol. A, *In the Matter of Electronic 2022 Integrated Resource Planning Report of Kentucky Power* Company, Case No. 2023-00092, at 13-14 (Mar. 20, 2023).

[10] Evan Moser, *Kentucky Energy Profile,* Ky. Energy & Env't Cabinet, at 11–12, 30 (8th ed. 2023) ("2023 Kentucky Energy Profile"), https://eec.ky.gov/Energy/KY%20Energy%20Profile/Kentucky%20Energy%20Profile%202023.pdf ("Average Residential Bill" column). Note that the more recent version of this report lacks a corresponding "average," column, so the cite is to the prior version of the report. *See* Evan Moser, *Kentucky Energy Profile*, Ky. Energy & Env't Cabinet, at 20-21 (9th ed. 2024) ("2024 Kentucky Energy Profile"), https://eec.ky.gov/Energy/KY%20Energy%20Profile/Kentucky%20Energy%20Profile%202024.pdf .

[11] 2024 Kentucky Energy Profile at 20-21 (Kentucky Power has the second highest residential rates after Grayson Rural Electric Coop.).

[12] Direct Testimony of Stacy L. Sherwood, at 27-29, & fig.5 (filed Aug. 21, 2024, corrected Dec. 20, 2024) ("Sherwood Direct").

residential customers as a whole in 2023 and 2024.[13] For this reason, too, the Company needs robust DSM programs to assist its customers in reducing their energy usage and lowering their bills.

A. The Company's Proposed Plan

After Kentucky Power identified its near-term capacity need in 2021, the Company sought and received Commission approval to conduct a market potential study "to determine a suite of DSM and EE programs that are cost-effective and avoid more expensive supply-side resources."[14] GDS Associates, a third party consultant, completed Kentucky Power's Market Potential Study ("MPS") in June 2023.[15] After conducting market research and evaluating cost-effectiveness of potential energy efficiency measures, the MPS report identified over 20,000 MWh of "realistically achievable potential" cost-effective energy savings annually beginning in 2025.[16] GDS then recommended a portfolio of DSM programs designed to achieve only roughly 29% of the realistically achievable potential savings.[17]

Kentucky Power Company then initiated this proceeding on May 1, 2024, proposing a three-year DSM Plan, associated increases in the DSM surcharge factor, and other related relief. The Company initially offered testimony and exhibits in support of its proposal from two witnesses, Barrett L. Nolen and Scott E. Bishop.[18]

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[13] Kentucky Power Company's Response to Commission Staff's Post-Hearing Data Requests, Question 6, Attach. 1 (Jan. 17, 2025) ("KPC Response to Staff PH Q6") (average monthly usage for all residential customers was 1,149 kWh, while average monthly usage for customers in LIHEAP was 2,602 kWh).
[14] Case No. 2021-00420, Dec. 27, 2021 Order at 7.
[15] Direct Testimony of Barrett L. Nolen on Behalf of Kentucky Power Company, at 9 (May 1, 2024) ("Nolen Direct"). The MPS is provided as Exhibit BLN-1 to Mr. Nolen's testimony.
[16] Nolen Direct, Ex. BLN-1 at 10 of 123 tbl.1-7. Per the MPS, "achievable potential attempts to estimate what savings can be realistically achieved through market interventions, when it can be captured, and how much it would cost to do so." *Id.* at 27 of 123.
[17] *Id.* at 10 of 123.
[18] Nolen Direct; Direct Testimony of Scott E. Bishop on Behalf of Kentucky Power Company (May 1, 2024) ("Bishop Direct"). Witness Bishop's testimony was subsequently adopted by Tanner S. Wolffram. Verified Notice of Adoption of Testimony (July 8, 2024). Witness Nolen's testimony was

Kentucky Power's DSM Plan includes three programs. It proposes a continuation of the Targeted Energy Efficiency ("TEE") Program, the Company's only current DSM program, which provides supplemental funding to the DOE Weatherization Assistance Program ("WAP") for low-income residential customers. The Company proposes expanding the program by providing supplemental funding for the DOE's weatherization readiness funds. The DSM Plan also includes two of the four new programs recommended by GDS: the Home Energy Improvement Program ("HEIP"), which offers an in-home energy audit, some direct install efficiency and weatherization measures, and rebates to partially cover the cost of additional measures installed at the customer's own cost;[19] and the Commercial Energy Solutions Program ("CESP"), which offers an energy audit to commercial customers and incentive rebates for certain efficiency measures related to lighting (year one), HVAC systems (starting in year two), and food service equipment (starting in year three).[20]

The total proposed budget for Kentucky Power's proposed three-year DSM plan is $5,119,466, with annual estimated savings of 3,183 MWh for year one, building up to 4,407 MWh in year three.[21]

As in the past several years, the Company seeks recovery of the full cost of the DSM programs, up to three years of net lost revenues resulting from DSM programs, and an efficiency shared savings incentive calculated as 15% of the "estimated net savings associated with the

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subsequently adopted by Tanner S. Wolffram (Sections IV, VI, and XII), Stevi N. Cobern (Sections V, VII-X, and XIII), and Warren Hirons (Section XI). Verified Notice of Adoption of Testimony and Responses to Data Requests (Nov. 22, 2024). Although both Mr. Nolen and Mr. Bishop have left Kentucky Power Company and their testimony was subsequently adopted by other witnesses, this brief refers to the testimony using the original witness's name for clarity.

[19] *See* Nolen Direct, Ex. BLN-2 (HEIP Quick Reference Guide).

[20] *See* Nolen Direct, Ex. BLN-3 (CESP Quick Reference Guide).

[21] Nolen Direct at 25-26.

programs."[22] The Company filed an updated rate for its DSM surcharge for 2025, applying the same methodology it has used since 2017 to calculate the surcharge rate.[23] The 2025 surcharge rate associated with the Company's proposal is $0.000587 per kWh for residential customers,[24] or $0.67 per month for a residential customer with average usage.[25]

B. Joint Intervenor Testimony

In response to the Company's case-in-chief, Joint Intervenors filed testimony from witnesses Stacy L. Sherwood and Bradley G. Harris addressing the reasonableness of the Company's proposed DSM plan and associated cost recovery, and explaining the untapped potential of implementing an inclusive utility investment ("IUI") program, respectively.[26]

Stacy Sherwood is a Principal at Energy Futures Group, a consulting firm that provides specialized expertise in energy efficiency and other energy topics.[27] She has over 15 years of experience reviewing and developing energy efficiency and demand response programs and policies, as a consultant to state public service commissions and other parties, and in-house as a staff member at the Maryland Public Service Commission.[28]

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[22] Bishop Direct at 6. The one minor change to the cost recovery in this case is the proposed inclusion of the costs of customer notice for the DSM case filing in the costs of the DSM program. *Id.* It should also be noted that the Company's recent base rate case reset the net lost revenues for the programs at zero. Response of Kentucky Power Company to Joint Intervenors' Supplemental Discovery Requests, Question 29(a) (Aug. 5, 2024) ("KPC Response to JI Q2.29(a)").
[23] *See* Joint Stipulation of Facts 1 (Dec. 18, 2024). The DSM surcharge rate "is calculated by adding any under-recovery or over recovery from the prior program year, plus estimated expenses for the upcoming program year, and dividing that sum by forecasted sales for the upcoming program year." *Id.* ¶ 5. The most recent DSM surcharge rate calculation is provided in Supplemental Exhibit SEB-2. Kentucky Power Supp. Ex. SEB-2 (Dec. 10, 2024) ("KPC Supp. Ex. SEB-2").
[24] KPC Supp. Ex. SEB-2. The rate for commercial customers would be $0.000573 per kWh.
[25] Kentucky Power's average residential customer uses 1140 kWh per month. Bishop Direct at 8. 1140 kWh per month multiplied $0.000587 per kWh equals $ 0.67 per month. Note that this rate is still an estimate and will be updated based on calendar year 2024 data and approved program budgets if the Commission approves the Company's plan.
[26] Sherwood Direct; Direct Testimony of Bradley G. Harris on behalf of Joint Intervenors (Aug. 21, 2024) ("Harris Direct").
[27] Sherwood Direct at 1.
[28] *Id.* at 1-2.

Ms. Sherwood reviewed Kentucky Power's proposal and supported expanding the Company's DSM plan to offer new programs beyond the TEE program. However, she determined that the "the proposed program investments are so modest that I am concerned the DSM plan is unlikely to deliver the system benefits that come from pursuing reasonable, achievable, and cost-effective savings potential . . . ."[29] She explained:

> Overall, I recommend that the programs be expanded to allow for reasonable levels of participation, closer to that proposed in the Company's Market Potential Study ("MPS"). An expanded portfolio, as provided in my recommendations throughout this testimony, will increase the opportunity for all ratepayers paying into the DSM surcharge to participate, even despite barriers and extensive wait lists. Furthermore, these recommendations will increase the benefits recognized by non-participants and further the efforts to achieve the Company's goal to defer supply-side investments and increase reliability.[30]

Ms. Sherwood recommended that the Commission approve the DSM plan but with several revisions to allow greater numbers of customers to participate and increase system benefits. These revisions include expanding program budgets, addressing financial barriers to participation, and expanding program offerings to include a new manufactured housing program and smart thermostat demand response program. She also recommended revising the DSM cost recovery mechanism to restrict recovery to verified savings attributable to the Company's programs and to ensure its performance mechanism rewards cost-effective achievement of performance benchmarks. Lastly, Ms. Sherwood recommended that the Commission set minimum guidelines for transparency and stakeholder engagement moving forward. Ms. Sherwood's recommendations are described in greater detail in Table A below.

Bradley Harris filed testimony on behalf of Joint Intervenors concerning the potential for IUI programs to stretch DSM program investments further and help customers overcome the

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[29] *Id.* at 4-5. Notably, in post-hearing data responses, the Company concedes that the proposed DSM Plan is "relatively modest as compared [to] other IOUs, even within the Commonwealth. KPC Response to Staff PH Q5.
[30] Sherwood Direct at 5.

barrier of upfront costs to participate. Now an independent expert on IUI programs and other rate design issues, Mr. Harris led the development of Duke Energy Carolinas' IUI programs and co-led the stakeholder group when he was an employee at Duke Energy.[31]

Witness Harris's testimony described three potential program uses for IUI: to enable weatherization and efficiency measures in existing buildings, to drive enhanced efficiency measures in new construction, and to provide funding that addresses health and safety barriers to weatherization.[32] Mr. Harris also discussed the particular opportunity of developing such a program now, with the potential to combine with new state-level efficiency programs and federal tax rebates for home efficiency measures.[33] Mr. Harris recommended that the Commission direct Kentucky Power Company to convene a working group that would develop a proposal for an IUI program.[34] The full details of Mr. Harris's proposal are also provided in Table A below.[35]

Table A-Joint Intervenors' Recommendations

Category	**Recommendations**	**Testimony Reference**
Overarching Recommendations	The Company should undertake to, and the Commission should require, the following general adjustments: 1. Develop a three-year plan that ramps up to achieve 0.2% energy efficiency savings as a percent of 2022 sales. 2. Explore financing opportunities and identify financing partners to support energy efficiency projects for both residential and commercial customers. 3. Develop a new manufactured housing pilot during the three-year plan. 4. Provide a transparent and clear reporting process, based upon feedback from stakeholders.	Sherwood Direct at 12-23, 36-39

[31] Harris Direct at 1-2.
[32] *Id.* at 6-7.
[33] *Id.* at 8, 15-18, 34.
[34] *Id.* at 3.
[35] Table A. restates recommendations as summarized in Sherwood Direct at 6-7 and Harris Direct at 3.

	5. Develop guidelines related to collaborative process for discussing the DSM Plans.	
TEE Program Recommendations	Regarding the TEE Program, the Commission should require the Company to: 1. Work with the Community Action Agencies ("CAAs") to determine health and safety remediation cost estimates and reassess the sufficiency of Kentucky Power's funding contribution. 2. Reassess whether budget levels afford reasonable opportunities for income eligible customers to participate in a residential energy efficiency program, and evaluate ways to expand participation. 3. Target and prioritize customers with baseboard heating to receive high winter efficiency heat pumps as a way to reduce a customer's overall energy usage, as well as the electric system's winter demand.	Sherwood Direct at 24-31
HEIP Recommendations	Regarding the Home Energy Improvement Program, the Commission should require the Company to: 1. Expand measure offering to include non-centralized equipment such as window air conditioners and dehumidifiers, as a way to limit cost barriers to participate in the program and to allow for participation by barriered homes. 2. Provide enhanced rebates for low-to-moderate income customers to broaden accessibility. 3. Require all smart thermostats rebated under the program to be demand response capable.	Sherwood Direct at 31-33, 40
CESP Recommendations	Regarding the CESP, the Commission should require the Company to: 1. Provide enhanced rebates for small business customers under the CESP to eliminate cost barriers for participation. 2. Provide additional documentation to support the proposed program budget.	Sherwood Direct at 33-36

Cost Recovery Recommendations	The Commission should approve a cost recovery model that allows for: 1. Cost recovery for prudently incurred DSM Plan implementation costs; 2. Recovery of net lost revenues based on verified savings from measures funded by the DSM Plan; and 3. Shared-savings incentives should be based on percentage achievement of goals related to the program and not simply on offering of DSM programs.	Sherwood Direct at 41-56
Stakeholder Collaboration	I recommend that the Company continue collaborating with the stakeholders, including Joint Intervenors and other customer representatives, on the development and implementation of its DSM programs. Specifically, I recommend the Commission direct the Company to: 1. Begin stakeholder collaboration with an in-person workshop earlier in the process of developing its next DSM Plan, in order to allow input from stakeholders to meaningfully shape the plan. 2. Hold stakeholder meetings at least quarterly, with co-created agendas that (i) setting shared goals, (ii) sharing inputs and assumptions for analyses, and (iii) establishing timelines that allow for incorporation of feedback.	Sherwood Direct at 58-61
IUI Program Recommendations	I recommend that the Kentucky Public Service Commission require Kentucky Power to convene an IUI working group to develop and file for approval of an IUI program by no later than twelve months following the conclusion of this proceeding. If the working group cannot reach a consensus, then Kentucky Power Company must file a report describing, at minimum, the following: 1. Points of agreement among participating groups in the working group; 2. Remaining points of contention among participating groups in the working group; 3. Pro-forma financials of proposed IUI programs specific to Kentucky Power Company's service territory discussed by the working group; and	Harris Direct

	4. Any alternative proposed programs that may serve to solve similar challenges that IUI programs attempt to address.	

C. The Company's Rebuttal Testimony

On September 18, 2024, Kentucky Power Witness Tanner S. Wolffram submitted written rebuttal testimony, in which Mr. Wolffram rejected all of the recommendations to modify the Company's DSM plan that were proposed by Joint Intervenor witnesses Sherwood and Harris.[36] The Company reiterated its request that the Commission approve its programs without modification.

At the evidentiary hearing for this proceeding on December 19, 2024, Mr. Wolffram offered an update to his pre-filed testimony: he shared that the American Electric Power Foundation had committed to donating $1 million over five years to three Community Action Agencies that implement the TEE Program to support weatherization in Kentucky Power service territory.[37]

4 DISCUSSION

I. THE PROPOSED DSM PLAN SHOULD BE APPROVED, WITH MODIFICATIONS TO MAXIMIZE SAVINGS, USEFULNESS, AND PARTICIPATION NOW AND IN THE COMING YEARS.

A. Joint Intervenors Support Kentucky Power's Immediate Efforts to Help Customers Control Energy Usage Through an Expanded DSM Plan.

Joint Intervenors support the prompt expansion of cost-effective DSM programs in Kentucky Power's service territory. Energy efficiency savings are among the least expensive energy resources that a utility could invest in, and savings provide quantifiable benefits for the

[36] Rebuttal Testimony of Tanner S. Wolffram on behalf of Kentucky Power Company (Sept. 18, 2024) ("Wolffram Rebuttal").
[37] Dec. 19, 2024 Hearing Video Transcript ("HVT") 9:15am (Wolffram). Citations refer to the approximate time of day as depicted on the video recording, rather than the run-time of the recording.

utility and all customers.[38] Stated differently, the cheapest kilowatt hour is the one that does not need to be produced. To capture these least-cost savings and benefits, Kentucky Power needs to expand DSM program offerings and savings goals now.

Cost-effective energy efficiency programs can defer, reduce, and avoid generation, transmission, and distribution investments, limiting system-wide costs and cost risk.[39] By reducing overall load and energy demand, program savings and demand reductions can also improve reliability.[40] Benefits extend to the community through job creation in the trades, including heating, ventilation, and air conditioning.[41] Additionally, customers that are able to participate in energy efficiency programs realize benefits directly, as their energy usage declines. In short, serving customers through cost-effective energy and demand saving programs is a critical component of maintaining reliable, least-cost service—the core obligation of all Kentucky utilities.

Kentucky Power's customers need help dealing with the highest bills in the Commonwealth,[42] and energy efficiency programs can mitigate further increases necessitated by the costs of generation, transmission, and distribution infrastructure. Customer bills are simply the product of approved rates and a customer's monthly energy usage, and without a doubt, the Company's rates will be increasing over the coming decade.[43] For all customers—and most critically those with limited, sporadic, or fixed incomes—reduced usage is the only avenue to a lower bill.

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[38] *E.g.*, Sherwood Direct at 3.
[39] *Id.* at 4.
[40] *Id.*
[41] *Id.*
[42] 2023 Kentucky Energy Profile at 11-12.
[43] Dec. 19, 2024 HVT 9:32-9:37am (Wolffram).

B. The Commission Should Direct Kentucky Power to Pursue More of the Reasonably Achievable Savings Potential Determined by the Market Potential Study.

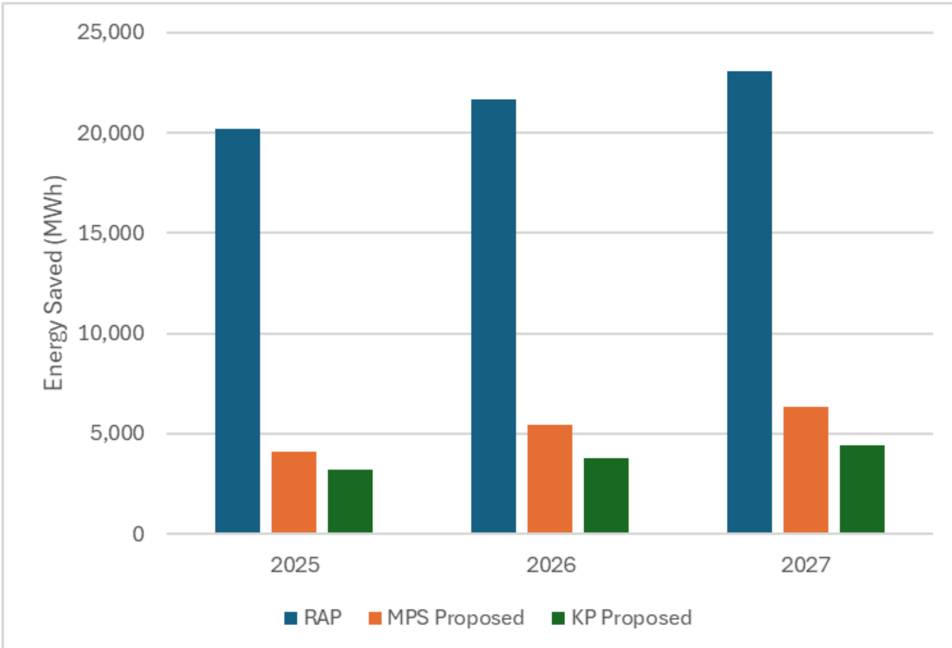
While Joint Intervenors agree that Kentucky Power needs to take a "first step"[44] toward restoring cost-effective DSM programs, the Company's DSM Plan proposal unreasonably leaves cost-effective savings on the table. The Market Potential Study and peer performance demonstrate that greater savings are reasonably achievable, and particularly in light of the potential to braid together federal and state funds, Kentucky Power needs to more aggressively expand cost-effective programs.

While the Company's rebuttal casts greater savings goals as unsupported and premature, the record shows the opposite. First and foremost, the Market Potential Study provides compelling, territory-specific evidence of reasonably achievable savings potential far beyond what Kentucky Power proposes to pursue. As shown in Figure 1 below, the Market Potential Study found *five to six times* as much reasonably achievable potential savings as the proposed DSM Plan.[45]

[44] Wolffram Rebuttal at 2.

[45] *Compare* Nolen Direct, Ex. BLN-1 at 10 of 123 tbl.1-7 (showing reasonably achievable savings of 20,221 to 23,089 kWh in years 2025–2027) *and* Nolen Direct at 25 (showing proposed plan savings of 3,183 to 4,407 kWh over same three-year period).

Figure 1. Comparison of Energy Savings (MWh) from RAP, MPS Programs and Kentucky Power DSM Plan



Critically, that is five to six times more *reasonably achievable* savings, which in the MPS refers to territory-specific, cost-effective savings potential *after* adjusting for real-world barriers to customer adoption of efficiency measures (e.g., financial barriers, lack of awareness, customer willingness to participate), non-measure costs of delivering programs (e.g., administration, marketing, analysis, and the evaluation, measurement and verification ("EM&V") process), and the ability of program administrators to boost program activity over time.[46]

As if unfamiliar with the results of the Company's own Market Potential Study, Witness Wolffram insists that the MPS does not support the recommendation that the Company could achieve savings of 0.2% as a percent of sales.[47] In a sense, Mr. Wolffram is right: the Market Potential Study supports *much higher* savings goals, finding reasonably achievable residential potential alone reflects roughly 1.1% of forecasted sales annually over a three-year period.[48] But

[46] Nolen Direct, Ex. BLN-1 at 29-30 of 123.
[47] Wolffram Rebuttal at 7.
[48] Nolen Direct, Ex. BLN-1, at 5-6 of 123.

the Company's proposed DSM Plan only pursues a fraction of that savings potential, aiming to achieve average annual savings of 0.07% of 2023 retail sales.[49] That low level of savings unreasonably departs from the Market Potential Study findings. The Commission has previously directed utilities to pursue the recommendations made by third-party DSM program development and evaluation specialists,[50] and it should do so here.

Reflecting the arbitrary and unsupported nature of the Company's proposed savings goals, no Company witness could explain their source beyond some resemblance to the MPS "Program Potential." Ordinarily, a GDS Potential Study evaluates four standard types of potential, routinely illustrated by Figure 4-1 of the MPS, reproduced below.[51]

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[49] Sherwood Direct at 14:5-8.

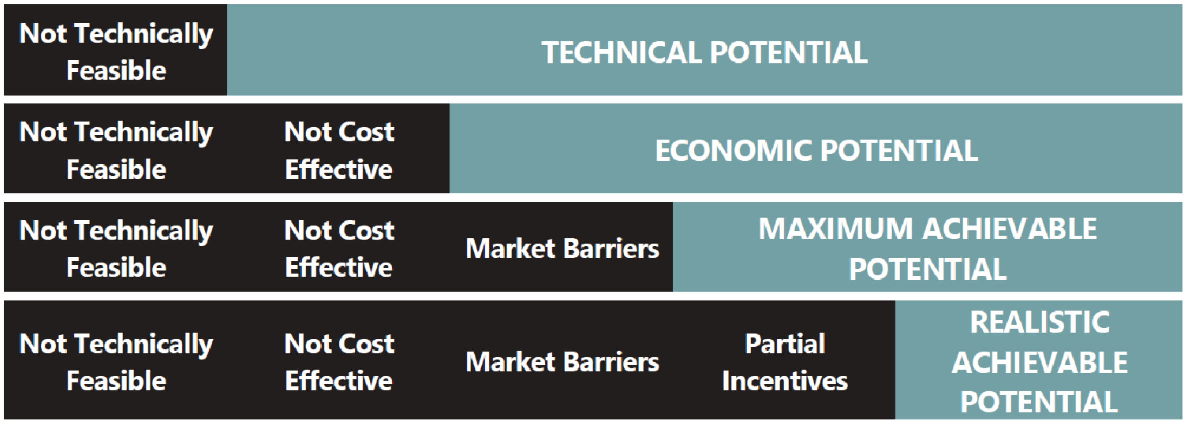
[50] *E.g.*, Order, *In the Matter of: Joint Application of Louisville Gas And Electric Company And Kentucky Utilities Company for a Certificate of Public Convenience and Necessity and Site Compatibility Certificate for the Construction of a Combined Cycle Combustion Turbine at the Cane Run Generating Station and the Purchase of Existing Simple Cycle Combustion Turbine Facilities from Bluegrass Generation Company, LLC in Lagrange, Kentucky*, Case No. 2011-00375, at 17-18 (May 3, 2012) (agreeing with the Environmental Intervenors Sierra Club & Natural Resources Defense Council that Louisville Gas & Electric Company and Kentucky Utilities Company did not adequately address recommendations related to commercial DSM program development, explaining:

> In particular, the ICF Report recommended that the Joint Applicants commission a potential study or market characterization study to be used to help plan programs that capture savings where potential is greatest and/or most cost-effective. Based on the market characterization study of the commercial sector, ICF also recommended that the Joint Applicants should develop additional DSM programs targeting the commercial sector. Although the ICF Report noted that the Joint Applicants continued to offer cost-effective programs, their DSM portfolio could improve its cost-effectiveness through additional commercial programs. Accordingly, the Commission will direct the Joint Applicants to commission a potential or market characterization study as recommended in the ICF Report.

(citations omitted)).

[51] *E.g.*, GDS Associates, Inc., *Indiana Michigan Power Company 2021 Market Potential Study*, at 31 fig.4-2 (Sept. 2021), https://www.indianamichiganpower.com/lib/docs/community/projects/IMMPS_Indiana_FINAL_v3_wAppendices.pdf (providing identical figure and no evaluation of "program potential").

FIGURE 4-1 TYPE OF ENERGY EFFICIENCY POTENTIAL[9]



The Company tasked GDS with developing an additional category, "Program Potential," and "based on general portfolio budget constraints."[52] Neither Witness Wolffram nor Witness Hirons could explain, however, what those budget constraints were, how they were developed, or where they came from.[53] Knowing that cost-effective energy savings are by definition less costly than supply-side alternatives,[54] this arbitrary constraint was unreasonable and tips the scale toward relatively costly supply-side investments.

Even though the Market Potential Study convincingly demonstrates much greater reasonably achievable savings potential in the Company's service territory, the Company faults Joint Intervenors for not producing an independent Market Potential Study.[55] This critique has no merit. For one, record evidence belongs to no party, and Joint Intervenors are equally entitled to rely on the Market Potential Study customers already paid for. Further, it is exceedingly rare, if

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[52] Nolen Direct, Ex. BLN-1 at 40 of 123.
[53] Dec. 19, 2024 HVT 10:03-10:06am (Wolffram), 3:38–3:41pm (Hirons).
[54] Nolen Direct, Ex. BLN-1 at 29 of 123 (reasonable achievable potential is a subset of economic potential, which includes only savings potential that would be "cost-effective (based on screening with the TRC Test) as compared to conventional supply-side energy resources"); *see also* , Case No. 2023-00362, Dec. 15, 2023 Order at 7 (noting that market potential study "will assist Kentucky Power in identifying DSM and energy efficiency (EE) programs for residential, commercial, and industrial customers that are cost-effective and avoid more expensive supply-side resources."); Case No. 2021-00420, Dec. 27, 2021 Order at 7 (same).
[55] Wolffram Rebuttal at 7.

not impossible, for an intervenor to perform an independent Market Potential Study in the course of a DSM Plan proceeding.[56] The Company and GDS spent a quarter of a million dollars[57] and the better part of a year developing the MPS.[58] It is impractical and unnecessary for parties to duplicate that effort in a fraction of the time. Customers paid for a robust Market Potential Study, intended to guide development of a cost-effective DSM Plan capable of mitigating supply-side investments,[59] and the Company should be required to pursue a greater proportion of the reasonably achievable savings potential that study identified.[60]

While the Market Potential Study alone would be sufficient evidence to show that greater savings are reasonably achievable, the achievements of peer utilities further indicate that the Company should be able to achieve higher levels of savings.[61] Among 53 utilities evaluated by the American Council for an Energy Efficient Economy ("ACEEE") in the 2023 Utility Scorecard, 20 utilities achieved more than 1% savings as a percent of sales, with some reaching 3% savings; and 13 utilities achieved 0.5% to 1% savings.[62] Joint Intervenors maintain that Kentucky Power can be at least as effective as an average utility in implementing demand-side

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[56] *See, e.g.*, KPC Response to JI PH Q1, Attach. 1 at 2 (summarizing Mr. Hirons's DSM potential assessment experience and exclusively listing utility, governmental, and institutional clients); KPC Response to JI PH Q2, Attach. 1 (listing market potential studies performed by Mr. Hirons over the last ten years, all of which appear to have been conducted on behalf of utility, governmental, or institutional clients).
[57] Sherwood Direct at 12 (citing Case No. 2023-00362, Dec. 15, 2023 Order at 5-6). At hearing, Mr. Hirons of GDS explained that Market Potential Study costs can vary significantly, between $150,000 to $1,000,000. Dec. 19, 2024 HVT 3:30–3:32pm (Hirons).
[58] Dec. 19, 2024 HVT 3:29pm (Hirons) (explaining process here took roughly nine months).
[59] Nolen Direct at 7-8 (twice noting Kentucky Power proposal to pursue a market potential study in order to identify cost-effective demand-side savings "and avoid more expensive supply-side resources" and Commission approval on the same basis).
[60] Order, *In the Matter of: Joint Application of Louisville Gas And Electric Company And Kentucky Utilities Company for a Certificate of Public Convenience and Necessity and Site Compatibility Certificate for the Construction of a Combined Cycle Combustion Turbine at the Cane Run Generating Station and the Purchase of Existing Simple Cycle Combustion Turbine Facilities from Bluegrass Generation Company, LLC in Lagrange, Kentucky*, Case No. 2011-00375, at 17-18 (May 3, 2012).
[61] Sherwood Direct at 14-16.
[62] *Id.* at 14-15.

management programs, and should be aiming to achieve a greater proportion of the reasonably achievable potential in the service territory over the next three years, starting with the still-modest target of achieving 0.2% savings as a percent of sales.[63]

Finally, in light of currently available federal and state support for efficiency, beneficial electrification, and flood recovery projects, Kentucky Power can maximize already cost-effective DSM Plan investments by braiding with those additional funding streams. But time is of the essence. These funding streams will not last forever, and Kentucky Power's energy and capacity shortfall is fast approaching.

C. Increasing Savings Goals and Program Budgets Should Not Cause Unreasonable Spikes or Volatility in the DSM Surcharge.

Without dispute, sensitivity to rate increases—whether via DSM surcharge or routine base rate increases—is important for all customers. The record also makes plain that, relative to the supply-side investments that Kentucky Power must make in the coming years, demand-side management savings are a bargain, and increasing the savings goals and program budgets can be done without unreasonable or volatile surcharge impacts. Knowing first-hand that affordability is a real challenge for Kentucky Power customers, Joint Intervenors closely examined Kentucky Power's surcharge history and proposed surcharges before recommending higher savings goals. The modifications to the surcharge calculation methodology made in late 2017 were designed to correct the surcharge volatility the Company previously exposed customers to, and they can be expected to continue to do exactly that.

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[63] *Id.* at 23, 61. Notably, in post-hearing data responses, the Company concedes that the proposed DSM Plan is "relatively modest as compared [to] other IOUs, even within the Commonwealth." KPC Response to Staff PH Q5.

Although Kentucky Power's initial filing regrettably did not address historical surcharge volatility or offer any clear assurances that its past mismanagement would not recur, [64] the record now clearly demonstrates that changes have been made to protect against recurrence of a spike in the surcharge through a joint stipulation of facts.[65] In the Commission's 2017 investigation proceeding, Kentucky Power and Intervenors agreed that the primary driver of a surcharge spike that hit customers' January 2017 bills was past under-collection.[66] At the time, the past under-collection exceeded the Company's annual program budget, and when the Company adjusted the surcharge to recover that entire under-collection in a single year, rates jumped up. To correct that volatility, Kentucky Power made two key changes to the surcharge calculation:

(1) Departing from the outdated practice of using the midpoint between the under-collection from the prior year ("floor") and estimated expenses for the next program year ("ceiling"), which drove under-recoveries by not closely aligning the surcharge rate to the amount to be collected for current costs.

(2) Using a full calendar year of forecasted sales to calculate the surcharge rate, more closely aligning the rate to the expected program expenses during the period the surcharge rate would be in effect.[67]

These changes have been carried forward by Kentucky Power since 2017 and are reflected in the proposed surcharge rates.[68]

Along with the corrected calculation methodology, the projected surcharge impacts here are orders of magnitude below the 2017 surcharge rate, as reflected in Table B below.

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[64] Ms. Sherwood's testimony, on the other hand, did explain the historical surcharge volatility, and explain how the issue would not recur, even if the Company increased its DSM plan spending from current amounts. *See* Sherwood Direct at 43-50 (providing summary of records from earlier proceedings investigating DSM surcharge volatility and data responses in this proceeding).

[65] *See* Joint Stipulation of Facts (Dec. 18, 2024).

[66] Sherwood Direct at 46 (citing Case No. 2017-00097, Direct Testimony of Jim Grevatt on Behalf of Beverly May, Jim Webb, and Sierra Club at 12 (Nov. 22, 2017) and Kentucky Power Company's Status Report, Motion for Leave to Make the Company's November 15, 2017 D.S.M. Filing in this Case, and Motion for Leave to File Proposed Tariffs Following Approval of 2018 D.S.M. Factors at 3–4 (Nov. 15, 2017)).

[67] Case No. 2017-00097, Rebuttal Testimony of Ranie K. Wohnhas on behalf of Kentucky Power Company at 12 (Dec. 13, 2017).

[68] Joint Stipulation of Facts ¶¶ 4-9.

Table B. Residential Surcharge Factor and Average Bill Impact: Past (2013-2017) and As Proposed[69]

Case No.	Effective From	Until	Residential Surcharge Factor	Monthly Charge with Avg. Usage
2012-00367	July 2013	June 2014	$ 0.002145	$ 2.64
2013-00487	July 2014	Feb. 2015	$ 0.001447	$ 1.78
2014-00271	March 2015	March 2016	$ 0.000383	$ 0.47
2015-00271	April 2016	Dec. 2016	$ 0.003159	$ 3.89
2016-00281	Jan. 2017		$ 0.008013	$ 9.86
2024-00115	Estimated / Proposed 2025 Rate[70]		$ 0.000587	$ 0.67

To put the estimated surcharge increase into context, the estimated average monthly bill impact of $0.67 for residential customers would represent roughly 0.38% of an assumed average monthly residential bill of $187.56. That is a 0.36% bill increase to serve customers through energy savings; while the remaining 99.62% of customer bills are attributed to Kentucky Power's cost to operate and to serve customers through energy generation, transmission, and distribution. The latter category of costs has been and will continue to be the principal driver of rate increases.[71]

In sum, pursuing a greater portion of the known reasonably achievable cost-effective demand-side savings available to Kentucky Power will come with some cost to customers, but these are least-cost investments that mitigate system-wide base rate increases and deliver

[69] Sherwood Direct at 49 tbl.5 (citing Case No. 2017-00097, Kentucky Power Company's Responses to Sierra Club's April 14, 2017 Data Requests, Question 13, Attach. 1 (May 5, 2017)). Note that the table reproduces values as stated in the Company's 2017 data response, with calculations in the first five rows relying on the average monthly residential usage from 2017, or 1,230 kWh. The average residential customer monthly usage reported in the current case is 1,140 kWh. Bishop Direct at 8.
[70] KPC Supp. Ex. SEB-2.
[71] *E.g.*, Direct Testimony of Cynthia G. Wiseman on Behalf of Kentucky Power Company, *In the Matter of Electronic Application of Kentucky Power Company for (1) a General Adjustment of Its Rates for Electric Service; (2) Approval of Tariffs and Riders; (3) Approval of Accounting Practices to Establish Regulatory Assets and Liabilities; (4) a Securitization Financing Order; and (5) All Other Required Approvals and Relief*, Case No. 2023-00159, at 0018 (June 29, 2023) (explaining that, as proposed, Kentucky Power's 2023 rate increase request would have caused an estimated 18.3% increase in an average residential customer bill); Dec. 19, 2024 HVT 9:37am (Wolffram) (base rates will likely be increasing further in the future).

additional bill savings for participants. All customers will benefit from expanding the DSM Plan goals to achieve greater savings, with more customers able to participate and experience the relief of lower monthly bills and increased comfort and safety in their homes.

D. The Company Should Modify the DSM Plan to Better Address Known Financial Barriers that Will Prevent Eligible Customers from Being Able to Participate in the Programs.

Although the Company's DSM programs will bring down the costs of energy efficiency measures, the proposed programs still have financial barriers to participation that are likely to prevent eligible customers from accessing the program. Witness Sherwood identified these financial barriers as one of the key reasons why the programs as proposed fall short of being available, affordable, and useful to all customers: "The program budgets do not provide the proper level of incentives and lack financing opportunities or connections for participants to overcome the cost barrier of investing in energy efficiency . . . ."[72]

Ms. Sherwood recommended modifications to the design of the Company's DSM programs to help customers overcome these financial barriers: (1) providing enhanced rebates in the HEIP for low- and moderate-income customers and in the CESP for small businesses, (2) offering financing options to help customers, especially commercial customers, with the upfront costs of implementing efficiency measures, and (3) investigating options to expand participation in the TEE Program.

Enhanced rebates. The HEIP and the CESP share a similar design; they both involve an initial energy audit in which the auditor will identify efficiency measures for which the participating customer will be eligible to receive a financial incentive in the form of a rebate.[73] Some measures in the residential HEIP program will be available to customers at no cost, but

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[72] Sherwood Direct at 11.
[73] Nolen Direct, Exs. BLN-2, BLN3; Dec. 19, 2024 HVT 2:15-2:30pm (Cobern).

most measures in the HEIP and all measures in the CESP would be eligible for incentives that cover only part of the cost of the measure, and the customer must cover the upfront cost of the installation.[74] Then the customer would apply for the associated rebates, which would be sent to customers by mail four to six weeks after all documentation is in to Kentucky Power and the rebates have been approved.[75]

Thus, to participate in these programs customers must have the financial means to pay for the entirety of the efficiency measures up front, to wait a matter of weeks or months to receive the financial incentives, and to be able to ultimately shoulder the cost of whatever portion of the measure cost is not covered by the incentive. Note that some of these measures, such as insulation and HVAC measures, can be very costly. It is not difficult to see how this could prevent many customers from participating.

Ms. Sherwood notes that, although the HEIP is intended to be open to all residential customers, as the program as currently designed may not be accessible to low-income or even moderate-income customers.[76] This upfront barrier may indeed keep low-income customers from accessing DSM programs entirely, unless they are lucky enough to be one of the fewer than 100 customers per year who are able to participate in the TEE program, for which there is a wait list.[77] The HEIP could step in to fill the gap and assist low-income customers with lowering their energy usage (and bills), but only if those customers can afford to participate.[78] Thus, Ms.

[74] *Id.*
[75] *Id.*
[76] Sherwood Direct at 32.
[77] *Id.*; Nolen Direct at 6; Response of Kentucky Power Company to Joint Intervenors' Initial Request for Information, Question 20 (July 8, 2024) ("KPC Response to JI Q1.20"); *see also* KPC Response to JI Q2.16(c) ("According to the community action agencies, there are approximately 137 eligible customers on the Department of Energy's program waitlist.").
[78] The Company's witnesses seem to equivocate regarding whether they intend the HEIP program to be accessible to all of its residential customers. On the one hand, Mr. Wolffram states that the HEIP "will be available to *all* residential tariff customers . . . regardless of renter/owner status, housing type, or location of the home inside the Company's territory." Wolffram Rebuttal at 4 (citing KPC Response to JI Q1.35) (emphasis added). On the other hand, Mr. Wolffram states that the HEIP need not provide enhanced

Sherwood recommends offering enhanced rebates to income-eligible customers, or adding certain measures such as air sealing and insulation to the list of direct install measures such customers could receive at no cost.[79]

Similarly, small businesses are likely to find the upfront costs of participating in the CESP prohibitive because they face many competing demands for their attention and budgets.[80] Ms. Sherwood recommended that the Company design its incentives for small businesses so that they cover up to 80% of the total project cost – a common program design among utility energy efficiency programs.[81] She noted that Kentucky Utilities/Louisville Gas & Electric and Duke Energy Kentucky's small business programs offer increased financial incentives and/or additional measures directly installed at no cost.[82]

Mr. Wolffram, in his rebuttal, stated that Ms. Sherwood's recommendations for enhanced rebates were "without any evidentiary support."[83] This statement is simply false. The Company's own Market Potential Study studied the cost effectiveness of 154 residential efficiency measures with incentives ranging from 50% to 100%;[84] and 123 commercial efficiency measures with incentives of 40%.[85] That screening identified many measures with TRC scores at or above 1.0 even at these higher incentive levels; some of these measures are listed in Tables C and D,

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rebates for low-income customers "because the TEE program currently assists income-qualified customers." Wolffram Rebuttal at 10. At the present rate, serving less than 100 customers in 2024, and nearly 24,000 households in Kentucky Power service territory with both high energy burdens and incomes below 200 percent of the federal poverty line, it would take 240 years to serve all TEE Program-eligible customers. That is not a reasonable opportunity to participate, and the HEIP will need to be designed so that it can serve even low-income customers. The only way to do that is by offering some measure of additional support to overcome the financial barriers to participate.

[79] Sherwood Direct at 32-33.
[80] *Id.* at 34.
[81] *Id.*
[82] *Id.*
[83] Wolffram Rebuttal at 11.
[84] Nolen Direct, Ex. BLN-1 at 25 of 123 (tbl.4-2, "# of Measures" column); *id.* at 29 of 123 (Sec. 4.1.6.1. explaining incentives by programs in economic potential screening).
[85] *Id.*

below.[86] The high TRC scores in Table C indicate that these residential measures would be cost-effective for the Company to cover at 100% for its customers, while the scores in Table D illustrate that some commercial measures would likely be cost-effective at higher incentive levels for small businesses, as recommended by Ms. Sherwood.

Table C. Selected Residential Measures with TRC Above 1.0 at 100% Incentive

Residential Measures	Baseline	TRC Score (or range if permutations vary significantly)
Air Source Heat Pump	Furnace	10.2
Ductless Heat Pump	Heat Pump	2.2
	Electric Resistance Heating	4.2
Central A/C	Unspecified	1.4
Smart Thermostat	Heat Pump	2.1
	Furnace	4.1
	Gas/CAC	2.2
Room A/C	Unspecified	2.2
Duct Sealing	Inadequate or Poor Sealing & Electric Furnace	1.4 to 9.7
	Inadequate or Poor Sealing & Heat Pump	1.9 to 5.0
Floor Insulation Above Crawl Space	Heat Pump	2.4
	Electric Furnace	3.7
Pipe Wrap	Unspecified	6.6

Table D. Selected Commercial Measures with TRC Score Above 1.0 at 40% Incentive

Commercial Measure	TRC Score
Dishwasher Low Temp Door	18.3
Dishwasher High Temp Door	6.0

[86] *Compare* Nolen Direct, Ex. BLN-1, Apps. D&E (measure assumptions) *with* Kentucky Power Company's Response to Commission Staff's First Set of Data Requests Dated June 21, 2024, Questions 5 and 6 (July 8, 2024) ("KPC Responses to Staff Q1.5 and Q1.6") (providing incentives for HEIP and CESP); KPC Response to JI PH Q3 (confirming that HEIP and CESP measure incentives "will not vary" and are fixed at particular dollar amounts reflected in Staff Q1.5 and Q1.6). Although cost-effectiveness on a program level also factors in program costs, there's no evidence that incorporating enhanced rebates for some customers would increase HEIP and CESP administrative costs significantly, as compared to the current program design.

LED High Bay Fixture	2.4
LED Refrigerated Display Case Lighting Average 6W/LF	3.4
High Volume Low Speed Fan	2.7 to 3.2

The Commission can also look to the cited examples of cost-effective small business programs at Kentucky Power's peer utilities to infer that such programs would also likely be cost-effective enhancements to the Company's programs, even without a costly additional market potential study to evaluate this specific program recommendation. Kentucky Power would not be traversing new territory here.

Financing option. In addition to increasing incentives, Ms. Sherwood recommends offering a financing option as part of the new DSM Plan, particularly for small business customers who again may have limited financial resources available to cover upfront costs. Ms. Sherwood notes that financing options for small businesses often take the form of a "financing offer, though on-bill financing or another program, that offers zero percent financing over the payback period, which is limited to a few years."[87] As an example, Baltimore Gas & Electric offers such a program, which covers 85% of the project cost for small businesses and offers the option to finance the remaining 15% over 12 months with no interest.[88] Offering financing options and enhanced rebates "allow[s] for more equitable participation between the small and larger commercial businesses that pay in to the surcharge."[89]

Although the Company could choose to use its own capital for an on-bill financing option with its CESP, Ms. Sherwood suggests that the Company could also explore partnership with other institutions such as community development financial institutions or local banks, to make

[87] Sherwood Direct at 34-35.
[88] *Id.* at 35.
[89] *Id.*

financing available for their customers.[90] In addition to offering assistance to small businesses, the Company could also consider exploring financing avenues for customers considering large capital projects through those same partnerships.[91]

Weatherization Readiness. The upfront cost of fixing health and safety issues in otherwise eligible homes is a frequent barrier to participation in the TEE program, with the community action agencies reporting approximately half of households deferred due to health and safety issues.[92] Ms. Sherwood noted that the "cost to address health and safety barriers . . . can be high,"[93] and a comment from three non-profit affordable housing agencies noted that the costs can sometimes be as high as $25,000 for a single home.[94] The funds used to address these health and safety issues are referred to as "Weatherization Readiness Funds."

Kentucky Power's proposed plan includes a new addition to the TEE program intended to address this issue: the Company will provide $1000 to supplement Weatherization Readiness Funds for up to 15 houses in the first year, increasing by an additional five houses each year of

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[90] *Id*. Kentucky Power witness Wolffram's chief objection to this recommendation seems to be that Ms. Sherwood did not identify any specific partners or provide any cost-estimates for financing. Wolffram Rebuttal at 8. It is not the role of Joint Intervenors or their witnesses to identify and build partnerships on behalf of Kentucky Power, who is surely much better positioned to identify local financial institutions with which they are willing to partner. That being said, one of the Joint Intervenors, Mountain Association, is a Community Development Financial Institution with deep roots in the community, and extensive experience assisting businesses, organizations, and public agencies with energy efficiency investments. *What We Do,* Mountain Assoc'n, https://mtassociation.org/about/what-we-do/ (last visited Jan. 21, 2025); *see also* Joint Intervenors' Motion to Intervene, at 4-5 (May 16, 2024). Mountain Association may be interested in exploring potential partnership with Kentucky Power on financing and otherwise helping ensure that customers are able to access the Company's DSM programs and reduce their energy consumption. Given the variety of ways to structure a potential financing option, an estimate of the cost of such an option is premature, and at any rate, may not add much to the overall program cost, particularly if the option is provided by partner institutions.

[91] Sherwood Direct at 35.

[92] *Id.* at 25; Nolen Direct at 14.

[93] Sherwood Direct at 25.

[94] Fahe et al, Public Comment Letter (dated Sept. 18, 2024), https://psc.ky.gov/pscscf/2024%20cases/2024-00115/Public%20Comments//20240924_PSC%20Response%20E-Mail%20to%20FAHE,%20HDA,%20and%20Homes,%20Inc..pdf .

the plan.[95] Ms. Sherwood supported the addition of these supplemental weatherization readiness funds noting that they would likely "help avoid some deferrals," but she also questioned whether an additional $1000 was sufficient under the circumstances.[96] Ms. Sherwood recommended that the Company work with the Community Action Agencies implementing the TEE Program to track the number of deferrals and the type and cost of repairs necessary to allow the home to receive weatherization services[97].

At the December evidentiary hearing for this case, Kentucky Power witness Wolffram announced that the American Electric Power Foundation would award a grant to three Community Action Agencies that implement the TEE Program, and stated that some of the grant funding would further add to the pool of Weatherization Readiness Funds.[98] This shareholder-funded grant will hopefully alleviate additional health and safety related financial barriers to participating in the TEE Program. Even so, Ms. Sherwood's recommendation to track the number, type, and repair costs of health- and safety-related deferrals remains relevant and can help inform program design in future years, including assessing whether the $1000 weatherization readiness contribution funded through the TEE Program should be adjusted.[99]

E. The Company Should Be Required to Seriously Evaluate Potential for an Inclusive Utility Investment Program.

Inclusive Utility Investment (IUI) programs are another avenue to reduce upfront costs for customers, and to stretch energy efficiency funding further. Testimony from Joint Intervenor Witness Bradley Harris describes how these programs work, and the distinct opportunity now to

[95] Nolen Direct at 15.
[96] Sherwood Direct at 26.
[97] *Id.*
[98] Dec. 19, 2024 HVT 9:15am (Wolffram).
[99] *See* Sherwood Direct at 26.

develop a program that can take advantage of state efficiency programs and federal funds flowing toward energy efficiency measures.

The basic principles of an IUI program are as follows:

> An IUI program allows for cost recovery of behind-the-meter improvements through on-bill charges that are tied to a specific service location. Such a program can unlock energy savings for participating customers, while providing benefits to the larger system through increasing participation in a utility's cost-effective DSM offerings. The terms of the investment are such that the bill payer is expected to experience bill savings that are larger than the on-bill charge. The savings are typically required to be 20% larger, but some programs have a 10% savings limit instead. The on-bill charge is treated like any other regulated charge, with identical terms of service, including rules regarding disconnection for non-payment.[100]

IUI reduces upfront costs for customers to participate in DSM programs and install efficiency measures, but only for customers whose potential energy savings have been verified through an audit and determined to save more money per month than the on-bill charge to pay back the initial investment—in other words, customers who will experience net savings on their energy bills.[101] And the customers' net savings will only grow as rates increase over time.

Mr. Harris outlines three potential applications for IUI programs: (1) an energy efficiency retrofit program, where IUIs would reduce the upfront cost of investing in energy efficiency improvements in existing structures, operated in conjunction with energy audit programs and utility or government energy efficiency rebate programs; (2) a new construction program, where IUIs would be made to incentivize efficiency measures above the building code in coordination with a builder or developer, and with future occupants receiving the energy savings and paying the on-bill charge; and (3) a weatherization readiness program, where IUI investments could pay

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[100] Harris Direct at 4.

[101] *Id.* at 8. In addition, IUI programs have the potential to solve the landlord-renter split incentive problem. In an IUI program, the utility (or other capital provider) pays the upfront cost of energy saving investments, and the renter both benefits from the energy savings on the bill and pays back the cost of the initial investment over time through an on-bill charge. *Id.* at 14.

the (remaining) upfront costs of addressing health and safety barriers and enable homes to be weatherized.[102] Again, for all three programs, the key is that there is a net savings component, with energy savings from the investment greater than the on-bill charge, and the programs will work best for those customers with the potential for large bill savings.[103]

Mr. Harris also explained why the present moment is a particularly opportune time to develop an IUI program for home energy efficiency retrofits. One common challenge for these programs is that there often remains some upfront cost to the customer, referred to as a "co-pay," which is necessary to ensure that the bill savings exceed the on-bill charge over the payback period. But these copays can be reduced significantly if IUI is used in conjunction with available rebate programs. In addition to utility rebate programs, such as the Company's proposed HEIP and CESP, forthcoming federal efficiency rebate programs like the Home Energy Performance-Based Whole House Rebates program and the High Efficiency, Electric Home rebate program will make up to $4,000 and $1,600 per single family home available in rebates, respectively, with rebates scaling up for income-qualified customers.[104] According to the Kentucky Home Energy Rebate program website, the target date to begin funding rebate requests under this program is spring of this year.[105] In addition, federal tax credits can be utilized where customers' tax status allows.[106]

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[102] *Id.* at 6-7.
[103] *Id.* at 12.
[104] *Id.* at 17.
[105] *Kentucky Home Energy Rebates Program*, Kentucky Energy and Environment Cabinet (EEC) Office of Energy Policy (OEP), https://energyrebates.ky.gov/ (last visited Jan. 21, 2025). We do note President Trump signed an Executive Order this week, pausing the disbursement of funds for programs authorized by the Inflation Reduction Act and Infrastructure Investment and Jobs Act temporarily. *See* Exec. Order, *Unleashing American Energy*, § 7 (Jan. 20, 2025), https://www.whitehouse.gov/presidential-actions/2025/01/unleashing-american-energy/. Any prediction regarding the impact of this Executive Order on the timeline for developing these state programs would be speculative at this point.
[106] Harris Direct at 18.

Seeing the opportunity to use IUI programs to spur cost-effective energy efficiency investments, investor-owned utilities across the country have launched or applied for IUI programs or pilots in recent years. These include Duke Energy North Carolina, where Mr. Harris helped to develop approved IUI programs for efficiency retrofits and new construction, as well as Ameren Missouri, Duke Energy's South Carolina utilities, Evergy Missouri, Georgia Power, ComEd, and Liberty Utilities Missouri.[107] And, although no investor-owned utility in Kentucky has yet offered an IUI program, multiple energy cooperatives have participated in How$martKY, an IUI program operated by Mountain Association.[108]

From the perspective of the utility providing the capital, the investments are treated with an equivalent risk profile to other capital investments made by the utility because they can expect to recover their weighted average cost of capital through the on-bill charge.[109] This is why the Company's repeated position that "the Company is not in a position financially to outlay the capital to support individual customers' behind-the-meter energy efficiency measures"[110] is at best, meritless, and at worst, deeply concerning. If the Company's Commission-approved weighted average cost of capital is not sufficient to allow the Company to make investments to serve its customers, then there are much deeper concerns for the franchise.

Moreover, Wolffram's objection that the Joint Intervenors "[a]sking the Company to outlay capital and requiring customers to pay a return on and of that capital without proven cost-effectiveness"[111] is also misplaced; what matters most here is the cost-effectiveness of the

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[107] *Id.* at 33.
[108] *Id.* at 14.
[109] *Id.* at 8. In addition, where (as here) there is a performance incentive element to the DSM program recovery, the utility can benefit through additional participation in their DSM programs. *Id.*
[110] Wolffram Rebuttal at 12 (apparently referring to Case No. 2023-00159, Rebuttal Testimony of Brian K. West on Behalf of Kentucky Power Company at R21–R22 (Nov. 6, 2023)); *see also* Dec. 19, 2024 HVT at 11:25-11:40am (Wolffram).
[111] Wolffram Rebuttal at 12.

efficiency measures, for which there is ample evidence such as from the Market Potential Study. The IUI program is a way for the customer to pay for measures that have proven cost-effective.[112] Even so, other utilities have found IUI programs to be cost-effective. Ameren, for example, predicts that its PAYS IUI program will achieve cost effectiveness in 2025 and that its cost effectiveness will continue to improve over the next three years.[113]

Lastly, Joint Intervenors' consistent advocacy in favor of an IUI or PAYS type program for Kentucky Power should demonstrate to the Company that some of its customers want these programs and are eager to participate.[114] As such, it is worth convening a working group to develop such a program, as Mr. Harris recommended, and Joint Intervenors would be willing partners in co-developing an IUI program that meets the needs of Kentucky Power customers.

F. The Company Should Develop a New Manufactured Housing Program and Smart Thermostat Program to Maximize Benefits Now and Over Time.

In addition, Ms. Sherwood identified two programs that should be considered in order to maximize usefulness of the Company's DSM Plan and meet the needs of its customers in this moment: a new manufactured housing program, and a smart thermostat demand response ("DR") program.

New manufactured housing program. Kentucky Power's territory has a high prevalence of manufactured homes, which have the highest energy consumption per square foot

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[112] Note that some utilities, such as Duke Energy Carolinas, do not even consider their IUI programs to be a DSM program, but a stand-alone cost recovery mechanism that is available for DSM investments. They are designed to be complementary to the utility's DSM programs, but for regulatory purposes they are separate. Harris Direct at 9, 24.

[113] *Id.* at 35; Harris Direct, Ex. BGH-5 at 11 (Ameren Missouri Rev'd App. A Program Summary, MEEIA 2025-27 Plan). Splitting the smallest of hairs, Mr. Wolffram characterizes Ameren's program as not cost effective because the TRC score is 0.98, where a program with a score greater than 1 is cost effective. Wolffram Rebuttal at 11-12. Reasonable minds can agree that 0.98 is essentially 1, especially when considering that cost-effectiveness testing is not an exact science.

[114] *See, e.g.*, Case No. 2023-00159, Direct Testimony of Joshua Bills on behalf of Joint Intervenors at 14-24 (filed Oct. 2, 2023, corrected Nov. 6, 2023).

of any housing type.[115] While 11% of Kentucky's housing stock as a whole consists of manufactured homes, manufactured housing makes up more than 40% of the housing stock in many areas of Kentucky Power service territory[116] and accounts for more than 30% of the reasonably achievable savings potential for residential customers in the Company's Market Potential Study.[117]

Energy efficiency standards for manufactured homes were updated in 2022 for the first time in decades to require increased insulation and air sealing, but the standards only apply to new units.[118] Ms. Sherwood recommends that the Company explore a dedicated pilot program "that offers rebates for the purchase of new energy-efficient manufactured housing, particularly for those looking to upgrade their current homes and in situations where the existing manufactured home has barriers to receive energy efficiency upgrades." Such a program could be conducted in partnership with home manufacturers and local dealers, and dovetail with the Kentucky Office of Energy Policy's participation in the Manufactured Housing and Energy Efficiency Affordability Initiative.[119]

Mr. Wolffram rejected this proposal on the basis that customers in manufactured homes can participate in the residential HEIP program and that there was no evaluation of the cost-effectiveness of costs of a manufactured housing program. The first objection largely misses the point: the HEIP provides no rebates for purchasing an entirely new manufactured home, which is what Ms. Sherwood recommended. Moreover, many older manufactured homes are

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[115] Sherwood Direct at 39.
[116] *Id.* at 37-38.
[117] Nolen Direct, Ex. BLN-1 at 34 of 123 fig.4-5.
[118] Sherwood Direct at 37 (citing *DOE Updates Mobile Home Efficiency Standards to Lower Household Energy Bills,* U.S. Dep't of Energy (May 18, 2022), https://www.energy.gov/articles/doe-updates-mobile-home-efficiency-standards-lower-household-energy-bills).
[119] *Id.* at 39.

very difficult to weatherize cost-effectively, and the best solution for both the resident and the system may be to incentivize replacement with a more efficient model.[120]

As to Mr. Wolffram's second objection, Ms. Sherwood's recommendation is to "explore offering" a manufactured housing program, not to stand one up without further analysis.[121] And Kentucky Power bears some responsibility for the lack of data regarding cost-effectiveness of such a program, as GDS and the Company decided not to evaluate any programs related to new construction (residential or otherwise).[122] This means that the parties remain in the dark regarding the cost-effectiveness of any programs related to new construction, at a time when much of the area is rebuilding after a historic flood.[123]

Thus, it is prudent to gather more information and explore adopting a manufactured housing program. Given the prevalence of manufactured housing in the service territory, and the potential to both save energy and lower bills through replacement of those older mobile homes, it is unreasonable *not* to give such a program due consideration.

Smart thermostat DR program. Ms. Sherwood also recommended that Kentucky Power explore adding a smart thermostat demand response program to its DSM Plan offerings, a recommendation to which Mr. Wolffram offered no rebuttal.

Because the Company is planning to provide smart thermostats as part of the HEIP, it would be unreasonable not to explore the potential demand response benefits of the technology it is subsidizing. Ms. Sherwood noted that smart thermostat DR programs typically "do very well in cost-effectiveness tests," citing Duke Energy Kentucky's PowerManager program as a

[120] *See* Fahe et al., Public Comment, *supra* note 94, at PDF pp. 4, 7.
[121] Sherwood Direct at 37.
[122] KPC Responses to JI Q1.65 & Q1.66.
[123] Dec. 19, 2024 HVT at 3:55pm (Hirons).

successful example.[124] These programs allow customers' HVAC units to participate in demand response programs, which can "provide reliability[] and capacity savings for both participants and non-participants year-round, depending on the program structure."[125] At a minimum, Ms. Sherwood recommends that the Company ensure that the smart thermostats covered by the HEIP are demand response-capable, so the Company can utilize technology it has already deployed if it decides to add a smart thermostat DR program in the future.[126]

GDS did not study potential energy savings or cost-effectiveness of any new demand response programs as part of its Market Potential Study.[127] GDS did ask residential customers about their interest in smart thermostat DR programs in its market research phase, and results were on roughly equal footing with the types of measures that were ultimately included in the Company's proposed DSM programs.[128] Despite apparent customer interest, the subsequent phases of the study did not evaluate the potential for a smart thermostat DR program.[129] Nevertheless, this type of program is quite common, and the Company and the Commission need not conduct a whole new market potential study to determine that a smart thermostat DR program, especially one that builds off investments already made in the HEIP, is likely to be cost

[124] Sherwood Direct at 40.
[125] *Id.*
[126] *Id.* at 7. Mr. Wolffram did object to Ms. Sherwood's recommendation that all smart thermostats provided under the HEIP be demand response capable on the basis that there was "no specific recommendation on the amount of the rebates, how much those additional measures will cost customers, or whether such rebates would be cost-effective." Wolffram Rebuttal at 10. However, the HEIP will provide a flat rebate for a smart thermostat regardless of its demand response capability, *see* KPC Response to Staff Q1.5 (incentive set at $50 per thermostat); KPC Response to JI PH Q 3 ("The incentive level will not vary.") Thus, requiring that all covered thermostats be demand response-capable now will not increase program costs at all. Moreover, it is simply common sense to use ratepayer-funded rebates to equip customers with DR capable technology now, so that they do not have to pay for replacement thermostats when Kentucky Power gets around to giving demand response programs due consideration.
[127] KPC Response to JI Q1.24.
[128] Nolen Direct, Ex. BLN-1 at 18 of 123, tbl.2-9.
[129] *Id.* at 17 of 123, n.5.

effective. It can look instead to the performance of similar programs by peer utilities, such as Duke Energy Kentucky.

Kentucky Power should explore this option to maximize the benefits of providing smart thermostats through the HEIP, and potentially to defer the need for future supply-side resources. Again, it is unreasonable not to do so.

II. THE PROPOSED DSM COST RECOVERY MECHANISM SHOULD BE REVISED TO ENSURE CUSTOMERS PAY A JUST AND REASONABLE SURCHARGE RATE AND THE COMPANY IS REWARDED FOR SUCCESSFUL IMPLEMENTATION OF THE DSM PLAN.

With respect to cost recovery, the Commission should require Kentucky Power to make certain adjustments to the proposed DSM Recovery Mechanism to ensure that surcharge rates are just and reasonable, with incentives awarded only for effective implementation of the DSM Plan.

A. The Company Should Only Be Allowed to Recover Net Lost Revenues for Verified Savings Attributable to DSM Plan Investments.

The DSM statute allows a utility to propose a DSM mechanism that recovers DSM Plan costs *and* "revenues lost by implementing these programs."[130] The Company's proposed DSM recovery mechanism, while consistent with past practice, does more than that; it also collects revenues lost through other programs, funded by other entities, and it does so without verifying savings actually achieved. That is unjust and unreasonable, risking overcollection from all customers.[131] The Commission should correct this aspect of the proposed DSM mechanism now, as Kentucky Power is on the ground floor of re-establishing and building useful DSM programs.

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[130] KRS 278.285(2)(a).

[131] Given the historic practice of recovering net lost revenues for estimated savings from third-party funding sources, the Company's proposed approach to net lost revenue recovery is more likely to result in overcollection. However, as a matter of principle, to the extent that savings are not verified, it is also possible that the net lost revenue portion of the DSM mechanism may undervalue the Company's actual lost revenues.

Recovery of revenues lost as a result of DSM Plan investments is one way to make sure that the Company has an ability to recover its fixed costs, despite unrealized energy sales as a result of energy efficiency program savings.[132] Net lost revenues are simply the product of savings attributable to the Company's DSM Plan activities and a rate per kilowatt hour saved that reflects Kentucky Power's approved fixed costs.[133]

With respect to the savings factor, accurately calculating net lost revenues requires verification and attribution of savings from DSM Plan activities. Verification of savings is necessary to quantify the reduction in sales directly caused by the Company's DSM Plan activities, which may be higher or lower than originally estimated. To the extent that multiple funding sources contributed to realizing savings for a participating customer, for purposes of net lost revenue recovery, savings should be apportioned according to the Company's funding contribution.

Here, the net lost revenue component of the proposed DSM Mechanism relies on forecasted average savings, regardless of the measures implemented, and regardless of whether they are funded through the DSM Plan or some other non-utility source.[134] Over the last decade, the Company has not verified energy savings from the TEE Program, and instead uses a 2015 estimate of average household savings to calculate savings from TEE Program weatherization projects.[135] Although the Company's records indicate that its TEE Program funding contributes

[132] Sherwood Direct at 50. While lost revenues may be recoverable through a DSM Mechanism, they are not actually a cost of DSM, and the Company's fixed costs do not change as a result of DSM program savings. *Id.* at 51.
[133] Notably, because base energy rates include fixed and variable cost components, the net lost revenue rate should always be lower than customers' energy charge. While the calculation of an appropriate net lost revenue rate that accounts only for authorized fixed cost recovery was not disputed in this proceeding, careful review of such calculations continues to be critical to just and reasonable surcharge rates in future DSM proceedings.
[134] Sherwood Direct at 52.
[135] *Id.* at 52; KPC Response to JI Q1.10 (confirming that energy savings estimates for TEE program are based on 2015 Kentucky Power Company Demand Side Management Program Plan, filed in Case No. 2015-00271).

an average of 38% of the total costs per weatherization project, the Company proposes to continue collecting net lost revenues for all savings attributable to federal WAP activities in the service territory.[136] For new programs—HEIP and CESP—the Company uses estimated savings. The Company anticipates pursuing an EM&V process in the coming years,[137] but has not committed to true-up net lost revenue collection based on savings verified through that process.[138] That is unreasonable and warrants modification.

To ensure just and reasonable rates, the Commission should limit net lost revenue recovery to only verified savings that are attributable to the Company's own DSM Plan spending. Reasonable estimates of savings attributable to a forward-looking program year are necessary to mitigate surcharge volatility but must be coupled with a true-up adjustment to account for differences between those estimates and the actual achieved savings. Without verifying achieved savings after-the-fact, based on actual program participation and installed measures, the Company risks overcharging customers (if claimed savings are exaggerated), or losing its ability to recover fixed costs (if claimed savings are underestimated). Either result would be unjust and unreasonable.

Additionally, lost revenue recovery must be limited to the savings that are attributable to the Company's programs, without asking customers to compensate Kentucky Power for the efficiency efforts and investments of third parties. Using data that Community Action Agencies already maintain for purposes of federal reporting, Kentucky Power can readily determine the portion of TEE Program funding used for each individual weatherization project, as well as the

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[136] Sherwood Direct at 53.
[137] Nolen Direct at 28.
[138] *See* Bishop Direct, Ex. SEB-1 at 1 (providing for over-/under-recovery accounting of calculated net lost revenues versus amounts recovered through DSM adjustment clause, but not specifying adjustments from calculated lost revenues to actual lost revenues); Wolffram Rebuttal at 13-14 (addressing only net lost revenue recovery period and offering no clarification or confirmation that net lost revenues will be trued-up based on actual program performance).

achieved savings from each project.[139] Rather than charging customers as though the TEE Program alone funded weatherization gains, the Commission should require Kentucky Power to apportion claimed savings for purposes of lost revenue recovery, based on the percentage of funding contributed by Kentucky Power. Based on evidence in the record of this case, TEE Program lost revenues should be adjusted downward from 100% to 38% of the estimated energy savings per household, subject to true-up based on actual savings.

B. Incentives Should Be Restructured to Reward Kentucky Power for Cost-Effectively Reaching Performance-Based Goals.

The Commission should amend or deny Kentucky Power's proposed "shared-savings" incentive because of two fundamental problems. First, as proposed, the incentive would have customers pay the Company for estimated savings from the DSM Plan irrespective of whether the Company in fact achieves those savings. Second, the Company's proposed tariff sheet does not adequately describe calculation of the incentive, and elsewhere the Company's description of the incentive contradicts the tariff language.

The Company's only defense of the unreasonable incentive design and inadequate incentive description is that its approach was historically approved and is not out-of-line with incentives paid to other utilities in the Commonwealth. History is no comfort, particularly for a utility that previously struggled to employ reasonable cost-recovery methods. Cost-recovery methods and norms continually improve—Kentucky Power's methods should, too.[140] The Commission should amend the proposed incentive to reward the Company for achieving specific goals or deny the Company's request to require customers to pay an incentive beyond net lost revenue recovery.

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[139] *E.g.*, Sherwood Direct at 53 (citing KPC Response to Staff Q1.1, Attach. 1).
[140] *Id.* at 43.

1. Any incentive in addition to net lost revenue recovery should be tied to achieving performance-related goals through cost-effective implementation of the DSM Plan.

As proposed, the Company would have customers pay both net lost revenues *and* a premium amounting to 15% of the estimated net savings for the DSM Plan.[141] This means that whether the Company actually achieves 10% or 110% of the estimated net savings, customers will pay the Company the exact same incentive amount. In the alternative, the Company's tariff describes a "maximizing incentive" that would be 5% of actual program expenditures, also without any connection to whether that spending delivers real savings to customers. Both approaches are unreasonable and ineffective. A reasonably designed incentive must be based on savings that are actually achieved through efficient implementation of the approved DSM Plan and should be structured to provide greater rewards for greater performance.

As detailed in Witness Sherwood's testimony, any incentive should reward the utility for achieving various performance-related goals that are set based upon the approved program budget.[142] Achieved energy savings—as opposed to estimated—can provide a reasonable primary performance-based metric, and the Commission could consider secondary goals as well.[143] For example, Connecticut utilities must achieve at least 75% of projected savings in order to receive any incentive payment, and satisfy certain secondary metrics (e.g., number of homes insulated).[144] Then, the incentive payment is tiered, with increasing rewards for meeting and surpassing projected savings and other goals.[145] The result is an incentive structure that does not reward a utility for merely having an approved DSM Plan; but instead encourages the utility to achieve and exceed projected goals.

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[141] Bishop Direct at 6.
[142] Sherwood Direct at 54.
[143] *Id.*
[144] *Id.*
[145] *Id.*

The Company prefers to avoid performance-based incentives, arguing on rebuttal that its approach should be approved because it was approved in the past, then bizarrely detailing how it would wantonly disregard approved budgets or effective implementation in pursuit of getting an incentive payment.[146] Neither argument holds water. First, as a matter of law, the Commission must decide each case based on the facts and arguments presented. While utilities may rely on past jurisdictional precedent to inform business decisions,[147] with reasoned justification, the Commission retains authority to depart from past decisions.[148] When maintaining just and reasonable rates requires such a departure, the Commission is duty bound to do so.[149]

Such is the case here. Best practices in demand-side management ratemaking have improved, and so, too, has the understanding of reasonable incentives.[150] Following its plain meaning, an "incentive" should motivate or encourage a specific action,[151] but if approved as proposed, nothing in the cost recovery structure will motivate or encourage the Company to achieve or exceed its energy savings goals within the approved budget.[152] To the contrary, as proposed, the Company will be incentivized to exaggerate estimated savings in its initial

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[146] Wolffram Rebuttal at 14-16.
[147] Order, *In the Matter of Johnson v. Peoples Gas Ky., LLC*, Case No. 2018-00263, at 16-17 (Mar. 27, 2020).
[148] *E.g.*, *In the matter of Electronic App. of Duke Energy Kentucky, Inc. for an Adjustment to Rider NM Rates and For Tariff Approval*, Case No. 2023-00413(Nov. 20, 2024).
[149] *Nat'l-Southwire Aluminum Co. v. Big Rivers Elec. Corp.*, 785 S.W.2d 503, 513 (Ky. Ct. App. 1990) (explaining that under the statutory standard of just and reasonable, "the real goal for the PSC is to establish fair, just and reasonable rates. There is no litmus test for this and there is no single prescribed method to accomplish the goal."); *see also Fed. Power Comm'n v. Hope Nat. Gas Co.*, 320 U.S. 591, 602(1944).
[150] Sherwood Direct at 54.
[151] *See Dayton Power & Light Co. v. FERC*, --- F.4th ---, No. 21-4072, 2025 WL 227515, at *10 (6th Cir. Jan. 17, 2025) ("In the context of utilities, that term—"incentive-based" rate treatment—refers specifically to regulations offering an award to a utility that *voluntarily* takes some future action. . . . [O]ne type of "incentive-based" rate treatment is a "performance-based" rate treatment. For a performance-based rate treatment, utilities get specified awards if they meet specific performance metrics. That is, they are encouraged to perform in a particular way by the contingent award." (citations omitted)).
[152] Sherwood Direct at 53-54.

program filings, then spend the approved budget without regard for whether it actually achieves 10% or 110% of that estimate.

Second, the Company's bizarre hypothetical explaining that it would ineffectively spend money beyond approved budgets if earning an incentive required actually achieving savings goals is predicated on a misunderstanding and reflects disregard of basic obligations under the law to provide adequate least-cost service. Witness Wolffram misunderstood that nothing in Witness Sherwood's performance incentive recommendations is designed to encourage ineffective program implementation or profligate spending. To the contrary, Witness Sherwood's testimony states that performance should be achieved, and incentives paid, based on the *approved budget*. Thus, if the Company increased its spending above the approved budget to hit savings targets, then then the Company would only reduce its effective performance incentive rate. It is regrettable that the Company did not pose a single data request to Joint Intervenors so that it might fully understand the recommendation before attempting to respond.

Moreover, by imagining that a performance incentive would turn an approved DSM budget into a blank check, the Company forgets that the law protects customers from such abuses by a monopoly utility. In all instances, a monopoly utility must efficiently and reasonably deploy customers' money in furtherance of adequate, reliable, and least-cost service. Concerningly, the Company's pre-filed rebuttal testimony reflects a lack of fidelity to that fundamental obligation.

To encourage the cost-effective and efficient implementation of the DSM Plan, the incentive mechanism must be earned based on actual program achievements.

2. If an incentive beyond net lost revenue recovery is approved, the tariff must be amended to adequately describe calculation of that incentive.

The Company's proposed tariff sheets, annual DSM Reports, and testimony do not consistently or sufficiently describe the incentive structure. The tariff sheet describes two alternative incentives, neither tied to savings actually achieved through DSM Plan implementation:

> Incentives are a shared-savings incentive plan consisting of one of the following elements: The **efficiency incentive**, which is defined as 15 percent of the **estimated net savings** associated with the programs. Estimated net savings are calculated based on the California Standard Practice Manual's definition of the Total Resources Cost (TRC) test, **or the maximizing incentive** which is defined as 5 percent of **actual program expenditures** if program savings cannot be measured.[153]

This description of the "efficiency incentive" falls short of explaining how estimated net savings are calculated and does not provide adequate information on how estimated kilowatt hour savings will be translated into a dollar amount. The California Standard Practice Manual's definition of the Total Resource Cost test is no help, as it similarly does not explain how estimated net savings are calculated:

> The Total Resource Cost Test measures the net cost of a demand-side management program as a resource option based on the total costs of the program, including both the participants' and the utility's costs.[154]

These ambiguities are not resolved by the DSM Status Reports, which describe the "efficiency incentive" as "the product of the number of participants for the month and the efficiency rate ($/participant)."[155] Finally, the Company's testimony describes only the "efficiency incentive," saying it is "15% of the net savings associated with the programs"[156] without further elaboration. The result, as summarized in the following Table, is confusion over whether an efficiency incentive is calculated based on estimated or actual net savings, and no description of how the kilowatt hour savings number is converted into a dollar amount.

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[153] Bishop Direct, Ex. SEB-1 at 1 (emphasis added).
[154] Cal. Pub. Utils. Comm'n & Cal. Energy Comm'n, *California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects*, at 18 (Oct. 2001), https://www.cpuc.ca.gov/-/media/cpuc-website/files/uploadedfiles/cpuc_public_website/content/utilities_and_industries/energy_-_electricity_and_natural_gas/cpuc-standard-practice-manual.pdf.
[155] Bishop Direct, Ex. SEB-6 at 2 of 37.
[156] Wolffram Rebuttal at 3, 14.

Table E. Collecting Efficiency Incentive Descriptions and Commentary

Source	Incentive Description	Commentary
Proposed Tariff	"The **efficiency incentive**, which is defined as 15 percent of the **estimated net savings** associated with the programs. Estimated net savings are calculated based on the California Standard Practice Manual's definition of the Total Resources Cost (TRC) test[.]"[157]	Estimated savings. No description of calculation; benefit cost test definition does not include guidance on calculating estimated net savings.
DSM Status Report	"The efficiency incentive is the product of the number of participants for the month and the efficiency rate ($/participant)."[158]	Does not specify actual or estimated savings. Does not describe calculation of efficiency rate.
Bishop and Wolffram Witness Testimony	Describing efficiency incentive as "15% of the net savings associated with the programs"[159]	Does not specify actual or estimated savings. No description of calculation.

The lack of clarity and specificity in the proposed tariff language was squarely raised by Witness Sherwood's direct testimony, but the Company witness offered nothing to clarify these ambiguities and inconsistencies on rebuttal. Instead, the rebuttal testimony merely restates that the incentive is based on 15% of estimated net savings.[160] That is an inadequate response to a straightforward issue.

At a minimum, if the Commission continues to allow an incentive in addition to net lost revenue recovery, the Company must be required to provide tariff language that adequately describes the calculation of the efficiency incentive. An adequate description must identify

[157] Bishop Direct, Ex. SEB-1 at 1 (emphasis added).
[158] Bishop Direct, Ex. SEB-6, at 2 of 137.
[159] Bishop Direct at 6; Wolffram Rebuttal at 3, 14.
[160] Wolffram Rebuttal at 14.

contributions to the net savings (e.g., avoided transmission and distribution costs), and detail the calculation use to derive a dollar incentive amount from net kilowatt hour savings.[161]

III. THE COMMISSION SHOULD ESTABLISH REPORTING REQUIREMENTS AND GUIDELINES FOR STAKEHOLDER ENGAGEMENT TO IMPROVE TRANSPARENCY AND LIKELIHOOD OF SUCCESSFUL IMPLEMENTATION.

Finally, the Commission should set minimum standards for the reporting requirements and stakeholder engagement. Improving the Company's reporting on its DSM programs will enable the Commission and the public to better evaluate the performance of the programs, identify and address problems in implementation, and allow for more effective stakeholder engagement. And establishing guidelines for stakeholder participation ensures that consumer advocates and other members of the public can play a role in ensuring successful implementation of the DSM programs, and have a voice in developing the next iteration of the Company's DSM plan—a factor that the legislature deemed so important to the success of DSM programs that it is among the factors that the Commission must consider in determining the reasonableness of the plan.[162]

A. Standardized Reporting Requirements Foster Transparency, Effective Regulatory Oversight, and Accountability.

Although the Company has provided annual DSM reports as part of its surcharge update filings,[163] Ms. Sherwood found, based on years of experience reviewing utility programs across the country, that the Company's reports are insufficient.[164] Ms. Sherwood noted:

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[161] Sherwood Direct at 42-43.
[162] KRS 278.285(1)(f) (one of the factors for evaluating the reasonableness of a DSM plan is "[t]he extent to which customer representatives and the Office of the Attorney General have been involved in developing the plan, including program design, cost recovery mechanisms, and financial incentives, and if involved, the amount of support for the plan by each participant . . . .").
[163] *See*, e.g. Bishop Direct, Ex. SEB-6 (Kentucky Power Company Demand Side Management Status Report as of Dec. 31, 2023). Note that most of the report relates to programs that no longer exist, and that the Company is not proposing to reinstate.
[164] Sherwood Direct at 57.

> [R]eporting should provide the Commission, stakeholders, and the public with a clear picture of the performance of the programs and how they compare to forecasts, identify any challenges and successes, and summarize any potential changes. The reports should be transparent, easy to understand, and formatted in a way to provide comparisons between reports.[165]

The report also should include a detailed narrative on the programs' progress – which Kentucky Power's current annual report format lacks.[166]

Ms. Sherwood recommended that the Company work with stakeholders to develop a standard reporting template that can be used to compare progress year-over-year, to include the following items at a minimum:

- Summary of overall savings and spending;
- Breakdown of total spending by cost category and individual program spending;
- Breakdown of program participation by zip code or census tract;
- Cost-effectiveness on plan and program level; and
- Reporting on program progress, achievements, successes, issues, and forecasted changes.[167]

In addition to a written report, quantitative data should be provided in workbook format for ease of data access and analysis.[168]

More specifically, Ms. Sherwood noted that the Company should explore improving data collection and reporting for the TEE Program. Kentucky Power currently does not track any information related to the number of applicants to the TEE Program, the number of deferrals, nor the reasons and measures needed to address such deferrals and allow eligible customers to participate in the program, citing the fact that the program is implemented by the Community Action Agencies, not the Company.[169]

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[165] *Id.*
[166] *Id.*
[167] *Id.*
[168] *Id.*at 58.
[169] *Id.*at 26; KPC Response to JI Q2.3; Dec. 19, 2024 HVT 2:05-2:10pm (Cobern) (Kentucky Power Company does not track the number of qualified applicants to TEE Program or health and safety deferrals).

Community Action Agencies are already required to maintain extensive information,[170] and there is no reason that information cannot be shared with the Company. For example, under the state WAP grant, Agencies must report participant demographics and pre-weatherization energy burden, as well as track deferrals.[171] For each "Weatherization Ready" project, the Agencies must report the type of housing unit, year built, nature of repairs (e.g., asbestos), expenditure per unit, and leveraged fund expenditures (e.g., TEE Program funds).[172] Agencies must report baseline data and measure-level detail for work performed at each weatherized home, and each project is submitted to a final inspection to measure building envelope performance and guarantee work quality.[173] These reporting requirements are critical for effective implementation and oversight of weatherization projects, and at a minimum, Kentucky Power should be requesting this information so it may do the same with respect to the use of TEE Program funds.

To the extent that additional metrics are needed to monitor deployment of TEE Program dollars, Kentucky Power should work with the Community Action Agencies to develop appropriate metrics and put them into practice. These are reasonable and necessary reporting expectations in order to gain better insight into the demand for these programs and whether the TEE Program is adequately meeting customers' needs.

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[170] 10 C.F.R. § 440.24 (WAP Recordkeeping requirements). *See also* 10 C.F.R. 440.23 (WAP Oversight, training, and technical assistance requirements); *Weatherization Assistance Program (WAP) State Plan / Master File Worksheet*: *Kentucky Housing Organization*, U.S. Dep't of Energy (2024), https://www.kyhousing.org/Partners/Developers/Single-Family/Weatherization-Assistance/Documents/Attachment%205,%20Master%20File%20(1).pdf ("2024 Kentucky Master Plan").
[171] 2024 Kentucky Master Plan.
[172] *Weatherization Program Notice 23-4*, U.S. Dept. of Energy (Jan. 27, 2023), https://www.energy.gov/sites/default/files/2023-01/WPN_23-4_Weatherization_Readiness_Funds_Expansion_of_Scope.pdf.
[173] *E.g.*, KPC Response to Staff PH Q9, Attach. 1 (providing example of standard Community Action Agency weatherization reporting, including federally required Form WX-710).

B. Guidelines for Stakeholder Participation Will Formalize Means for Stakeholders to Help Ensure Successful Program Implementation.

In the settlement agreement in Company's most recent base rate case, the Company committed to work collaboratively with Joint Intervenors and other interested stakeholders for their input on developing a cost-effective series of proposed DSM/EE Programs prior to their submission of their DSM case on May 1, 2024.[174] And indeed, prior to the filing of this case, Joint Intervenors and other stakeholders had two substantive meetings related to DSM: (1) a meeting in February 2024 in which GDS presented the results of the MPS and the proposed DSM Plan, and Mountain Association's Chris Woolery presented on best practices for community engagement; and (2) a full-day collaborative workshop in March 2024 featuring speakers from Kentucky Power, Joint Intervenors, and several guests.[175] Both Kentucky Power and Joint Intervenors viewed the collaboration prior to this case filing as constructive,[176] and Joint Intervenors appreciated the opportunity to co-create agendas for these sessions, moving the collaboration from "tokenization" to something more meaningful.[177]

Yet in many ways, this collaboration occurred too late.[178] The bulk of the collaborative effort occurred after the rate case, in early 2024, which simply did not give enough time for the

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[174] Case No. 2023-00159, Testimony of Brian K. West on Behalf of Kentucky Power Company in Support of Settlement Agreement at S22 & Ex. BKW-1 9.A (Nov. 20, 2023).

[175] Sherwood Direct at 58. Slides from Mr. Woolery's presentation are attached to Ms. Sherwood's testimony as Ex. SLS-4. Mr. Nolen also cites a meeting in March 2023, prior to the rate case settlement commitment, "to review and discuss the findings of the Market Potential Study before it was finalized." Nolen Direct at 10.

[176] Sherwood Direct at 59; Nolen Direct at 11.

[177] Sherwood Direct at 59. The Movement Strategy Center characterizes "tokenization" as merely consulting the community, "usually in the form of semi-interactive meetings in which members of the community have the chance to offer input into pre-baked plans." Sherwood Direct, Ex. SLS-4, slide 10 (titled "Understanding the Spectrum within Local Contexts").

[178] Nolen Direct at 27-28.

Company to make meaningful adjustments to its May 2024 DSM filing, particularly in response to the ideas and topics raised in the March workshop.[179]

The DSM statute speaks to much deeper involvement by stakeholders in shaping the most essential elements of a proposed DSM plan. The Commission is directed to assess the reasonableness based on "[t]he extent to which customer representatives . . . have been involved in developing the plan, including program design, cost recovery mechanisms, and financial incentives,"[180] not the extent to which intervenors were informed of the Company's plan and given the opportunity to provide feedback around the margins. Joint Intervenors' recommended guidelines for stakeholder engagement are intended to set a floor that enables Joint Intervenors and other stakeholders to participate in the *development* of the next DSM plan, and to allow for collaboration on implementation of the current programs and development of future pilots.

Ms. Sherwood recommended that the Commission set guidelines to set the stage for successful collaboration going forward. These guidelines include:

1. Begin stakeholder collaboration with an in-person workshop earlier in the process of developing its next DSM Plan, in order to allow input from stakeholders to meaningfully shape the plan.

2. Hold stakeholder meetings at least quarterly, (i) co-creating agendas that set shared goals, (ii) sharing inputs and assumptions for analyses, and (iii) establishing timelines that allow for incorporation of feedback.

These minimum guidelines will ensure that stakeholders are actually able to engage in the development of the next plan, and to keep the parties accountable for prioritizing continued collaboration on DSM programs.

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[179] Sherwood Direct at 59. The Company did make some minor changes to their proposal in response to feedback at the February 2024 meeting, including increasing the amount of proposed Weatherization Readiness funds by $15,000 total ($5,000 in year two and $10,000 in year three), and offering home energy audits in year one of the HEIP rather than waiting until year two, Nolen Direct at 10-11, and Joint Intervenors are appreciative that the Company made these improvements to the proposed DSM Plan prior to filing.
[180] KRS 278.285(1)(f).

The Company's witnesses claim that the Company "plans to continue these meetings going forward" once or twice per year immediately prior to the Company's filing of their annual DSM plan update, [181] but believe that there "does not need to be a formal process set by the Commission for [future] collaboration to occur" and urge the Commission to reject Ms. Sherwood's relevant recommendations.[182]

Respectfully, Joint Intervenors represent that the Company's witnesses' testimony on stakeholder collaboration illustrates exactly why minimum standards set by the Commission are necessary; it is impossible for stakeholders to assist in the development of the next three-year DSM plan if meetings occur only once or twice a year between now and the next plan filing. Mr. Wolffram's claim that the late timing of the collaboration prior to this filing was driven by the 2023 base rate case settlement provides further evidence of the need for these minimum standards.[183] On its own initiative, the Company did not provide for earlier stakeholder engagement, and so long as there are no explicit Commission-approved collaboration standards, there is no reason to expect the Company to act differently going forward. Stakeholders should not be left in the position of having to negotiate statutorily recognized collaboration opportunities.

Finally, Mr. Wolffram submits that future "collaboration should be focused on how to make the proposed programs as successful as possible so the Company will have a basis to expand its offerings in the future."[184] Joint Intervenors certainly agree that stakeholders can help identify and proactively solve implementation problems with the Company's DSM programs, and do hope to play such a role in helping to ensure the programs' success. But Mr. Wolffram's

[181] Nolen Direct at 10, 11.
[182] Wolffram Rebuttal at 18.
[183] *Id*. at 17-18.
[184] *Id.* at 18.

suggestion simply misunderstands the role of stakeholders like Joint Intervenors envisioned by the DSM statute, which self-evidently contemplates forward-looking development of DSM program portfolios, cost recovery mechanisms, and incentives.[185] Standards for collaboration set by the Commission will raise the baseline for collaboration so that stakeholders can play this pivotal role in future DSM plan development.

5 CONCLUSION

For the foregoing reasons, the Company's DSM Plan should be approved, but with an expanded scope and key program modifications to maximize savings and the usefulness and accessibility of the programs; a revised surcharge mechanism to better ensure customers pay a just and reasonable rate for the programs; and minimum standards for reporting and stakeholder engagement to allow greater transparency and robust collaboration going forward.

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[185] *See* KRS 278.285(1)(f).

Respectfully submitted,

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CERTIFICATE OF SERVICE

In accordance with the Commission's July 22, 2021 Order in Case No. 2020-00085, *Electronic Emergency Docket Related to the Novel Coronavirus COVID*-19, this is to certify that the electronic filing was submitted to the Commission on January 22, 2025, that the documents in this electronic filing are true representations of the materials prepared for the filing; and that the Commission has not excused any party from electronic filing procedures for this case at this time.

Byron Gary