

From: [PSC Public Comment](#)
To: [REDACTED]
Subject: RE: Public Comment Case # 2024-00115
Date: Tuesday, September 24, 2024 8:40:00 AM
Attachments: [image001.png](#)

Case No. 2024-00115

Thank you for your comments on the application of Kentucky Power Company. Your comments in the above-referenced matter have been received and will be placed into the case file for the Commission's consideration. Please cite the case number in this matter, 2024-00115, in any further correspondence. The documents in this case are available at [View Case Filings for: 2024-00115 \(ky.gov\)](#).

Thank you for your interest in this matter.

From: Andrew Bates [REDACTED]
Sent: Wednesday, September 18, 2024 1:10 PM
To: PSC Public Comment <PSC.Comment@ky.gov>
Subject: Public Comment Case # 2024-00115



To whom it may concern:

Please accept the attached public comment letter addressed to the PSC pursuant to Case # 2024-00115 (Kentucky Power Company Demand-Side Management).

The signatories to the letter (each on behalf of his organization) include:

Andrew Bates, State Advocacy Coordinator

Fahe

[REDACTED]
Berea, KY 40403

Note: Fahe is a membership organization to which many Eastern KY nonprofit housing providers, including the two other signatories, belong.

Scott McReynolds, Executive Director

Housing Development Alliance

[REDACTED]
Hazard, KY 41701

Seth Long, Executive Director

HOMES, Inc.

[REDACTED]
Whitesburg, KY 41858

Sincerely,

Andrew Bates
Fahe
State Advocacy Coordinator



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September 18, 2024

To the Public Service Commission:

Fahe, Housing Development Alliance, and HOMES, Inc. thank the Commission for the opportunity to provide comments on Kentucky Power Company's Demand-Side Management proposal.

Based in Berea, Kentucky, **Fahe** is a Community Development Financial Institution and Network of over 50 nonprofit organizations delivering affordable housing solutions in Central and Southern Appalachia. The Fahe Kentucky Caucus is comprised of 15 Member organizations, including HDA and HOMES Inc., primarily serving the Eastern part of the state, including much of Kentucky Power's service area.

Housing Development Alliance (HDA) is a nonprofit affordable housing developer based in Hazard and working in communities across four counties in rural southeastern Kentucky. HDA's programs include home construction, home repair, affordable rental housing, housing counseling, and home energy efficiency improvements.

Housing Oriented Ministries Established for Service, Inc. (HOMES, Inc.) has been providing affordable housing solutions to Letcher and surrounding counties for forty years. These housing solutions are in the form of energy efficient (net-zero) new home development, critical home repairs, and development of affordable rental housing.

Our comments are based on our expertise in affordable housing construction, rehabilitation, and financing, and will primarily concern the quality of the housing stock in KPC's Eastern Kentucky service area and the resulting limitations of KPC's proposal for residential energy efficiency programming.

Role of Kentucky Power Company

As the largest electric utility in the historically impoverished and undercapitalized region of far Eastern Kentucky, Kentucky Power has a clear duty to its customers to help them limit their energy usage – not only for cost savings at the household level but also in order to reduce the overall energy production needs of the region. In drafting this DSM proposal, KPC is taking this obligation seriously. However, as we will show, the extent of the need is far greater than what this proposal can meaningfully address.

Housing Stock Assessment

Accurately measuring housing quality is a difficult task, especially in an irregular geographic area like KPC's service area, which includes most or all of several counties but also small slices of others. Short of an on-the-ground, door-to-door survey – which is well beyond even the Census Bureau's capabilities – we must rely on statistical proxies and firsthand experience. One such proxy is the use of Kentucky's 5th Congressional District (KY-05) as an approximation of KPC's Eastern Kentucky service area. The former covers a larger area than the latter, but the geographies, economies, and demographics of counties within KY-05 are broadly similar.

Mobile homes. A fairly useful indicator of the quality of housing stock is the prevalence of mobile homes. In KY-05, mobile homes make up more than a quarter of all housing units (26%), compared to 10% statewide and 5% nationwide.¹ Mobile homes tend to carry higher energy burdens than traditional site-built homes: a national study of household energy burdens found that residents of manufactured (mobile) homes have a median cost burden of 5.3% of their income, more than two-thirds higher than the overall median of 3.1%. Nearly half (45%) of mobile home residents nationally are highly burdened by energy costs, meaning they pay 6% or more of their income for home energy expenses. Furthermore, despite the typically small size of a mobile home, these households spend *twice as much per square foot* on energy costs than those who own traditional single-family homes, negating much if not all of the energy savings from owning a small home.²

The prevalence of mobile homes in Eastern Kentucky thus poses a major challenge to any effort to improve residential energy efficiency, given that mobile homes are difficult to weatherize. Experience tells us that mobile homes in our region also tend to be relatively old, meaning not likely subject to rigorous (1994 or later) federal energy efficiency standards, and likely to have damage from typical wear and tear.

Low quality and dilapidation also characterize the traditional site-built housing stock in Eastern Kentucky. Here we must also rely on certain data proxies, including home values, age of structure, and the presence or absence of certain features.

Home values. In KY-05, nearly half (48%) of owner-occupied homes are valued below \$100,000. At least 66% of homes are valued at less than \$150,000, and 80% are valued below \$200,000. For comparison, the same figures for Kentucky as a whole are 24%, 40%, and 57% respectively.³ These low home values hint at endemic low quality, while also making it more difficult for residents to borrow money to repair their homes when damaged, given their minimal home equity.

¹ US Census Bureau, American Community Survey 5-Year Estimates, 2022.

² Drehobl, Ross, and Ayala, "How High Are Household Energy Burdens? An Assessment of National and Metropolitan Energy Burdens across the United States." American Council for an Energy-Efficient Economy, 2020.

³ US Census Bureau, American Community Survey 5-Year Estimates, 2022.

Age of structure. About 44% of homes in KY-05 were built before 1980, meaning not subject to modern building codes and likely to contain lead, asbestos, mold and other hazards that can forestall attempts at weatherization. Notably, only about 1 in 5 was built since 2000 (22%).

Features. A more conservative method of estimating housing quality by proxy is to examine the prevalence of units lacking critical features such as full kitchens.⁴ In KY-05, about 0.7% of housing units lack a complete kitchen, and the same percentage lack complete plumbing. Meanwhile, about 2% lack telephone service, and more than 7% use alternative sources of heat like kerosene, coal, or wood, either in addition to or in place of heat pumps – usually due to very high energy burdens resulting from dilapidation and poor insulation.⁵ It is difficult to translate these percentages into absolute counts for KPC's service area, but we feel fairly confident that the correct number of "incomplete" units is at least in the low four figures.

Photographic examples (see appendix). In our work, we frequently encounter homes that are too damaged or dilapidated to be weatherized – due to a variety of issues such as holes in roofs, damaged walls or windows, broken seals, and more. In the appendix below, Housing Development Alliance has provided some photos of typical dilapidated properties in and around Perry County, to demonstrate the extent of the dilapidation they often face. HDA estimates an average expense of around \$25,000 to make homes "weatherization ready," and these photos demonstrate why the costs can be so high. Note that some of the images are of structures not intended as human dwellings, including sheds and chicken coops.

KPC customers living in homes like those photographed are the most salient cases of high energy usage in KPC's service area, both in terms of high energy bills for the customer and strain on the electrical grid for the company. Any attempt to reduce demand should prioritize those homes with the most glaring energy efficiency needs.

Analysis of KPC DSM Proposal: Targeted Energy Efficiency Program

While we are certainly not experts in utility regulation, we do have decades of experience in home repair, weatherization, and construction and are thus qualified to make some general observations about KPC's proposed DSM plan:

Weatherization readiness needed at scale. We support KPC's approach of focusing on weatherization, and specifically weatherization readiness, to reduce energy demand. However, the clearest deficiency of the proposal is that the total levels of funding, as

⁴ Bowen National Research, "Housing Supply Gap Analysis: Commonwealth of Kentucky," 2024, p. 71. Commissioned by Kentucky Housing Corporation.

⁵ US Census Bureau, American Community Survey 5-Year Estimates, 2022. Note that this may be an undercount.

well as the stated funding caps per home, are unlikely to have a significant impact on overall energy demand. As KPC's proposal indicates, as many as 50% of Weatherization Assistance Program applicants are denied or deferred due to a health, safety, or structural issue with the home. As mentioned above, Housing Development Alliance estimates its typical expenses for a weatherization readiness project at about \$25,000. Simply put, KPC's proposed \$1000 per home is drastically insufficient: the *entire* proposed annual budget (between \$15,000 and \$25,000) for weatherization readiness could be spent on a single home. There appears to be potential to significantly expand the budget for this program, given the total funding levels identified in the proposal (nearly \$3 million total for residential). There is clear demand for a significantly expanded weatherization readiness budget, as evidenced by the 25 critical home repairs completed by HOMES, Inc. in FY 2024 alone, with an average cost of \$30,500 per home.

Identification of customers in need of intervention. There is no obvious "best" way to identify the customers standing to benefit most from interventions. KPC's stated method – identifying customers with annual usage of over 700 kWh per month – makes sense given that monthly usage is information that is readily available to KPC. However, we would caution that this method stands to miss customers with even greater energy burdens who employ alternative fuel sources during the winter months – which as stated above is about 7% of Eastern Kentuckians (this actually might be an undercount, as many of the residents who use supplemental heat sources still report to the Census Bureau that they use electric heat). In our experience, many if not most of these people turn to alternatives in avoidance of what would otherwise be enormous monthly electrical bills, despite increased fire risk and low home air quality associated with burning wood, coal or kerosene. It also bears mentioning that the households who turn to alternative heat sources tend to be some of KPC's poorest customers, i.e. those most in need of intervention.

Programs not designed for new construction. Absent from the KPC proposal is any effort to augment the energy efficiency improvements made possible through new construction. Though we face a depressed housing market in which the cost of construction can exceed the sale price (thus driving private developers out of the market), we are currently experiencing a boom in new construction in our region driven largely by state and federal flood recovery funding. The new high-ground communities sponsored by the state are a great opportunity to build efficiency into the next generation of Eastern Kentucky homes. Nonprofit builders like HDA and HOMES, Inc. are adept at blending a wide range of funding sources into a project in order to produce high-quality, affordable, economical, and energy-efficient homes – even at or near net-zero emissions. KPC should consider extending eligibility for TEE improvements to newly constructed homes, as it is a more straightforward task to build efficiently on the front end than to patch up a dilapidated, leaky house. KPC could even opt to directly subsidize developers of energy-efficient housing in the region.

Ownership. Two common pitfalls for weatherization programs relate to ownership of the home. First, Eastern Kentucky contains a large number of heir's properties, meaning properties passed down through generations without a clear title. Estimates of the prevalence of heir's property in Eastern Kentucky counties range from 1% to 15% of parcels.⁶ Eligibility for the Weatherization Assistance Program requires establishing proof of ownership, which can be difficult and costly for families living on heir's properties, which in our experience are more likely to need repairs and/or energy efficiency improvements.

The other pitfall relating to ownership is that rental housing can only be weatherized with the written approval of the landlord, and participation by a landlord precludes any rent increases or lease alterations for an 18-month period following the inspection of a weatherized unit – a major disincentive to participation in the WAP. Thus, Eastern KY renters with high energy burdens are much less likely to be able to receive assistance under the WAP than are homeowners with similar burdens. These challenges are endemic to KPC's strategy of supplementing existing Department of Energy weatherization programming.

Specific program for mobile homes. As noted above, mobile homes are incredibly common in KPC's service area, and they tend to be old and highly inefficient – thus a reasonable target for efficiency improvements. However, mobile homes are by nature difficult to retrofit. A program subsidizing the replacement of mobile homes with newer, more efficient models or with site-built homes could have a massive impact on overall energy usage in KPC's footprint.

Analysis of KPC DSM Proposal: Home Energy Improvement Program

Difficulty of rebates and incentives. Our housing work focuses primarily on low- and moderate-income residents. In a region with a median household income of just over \$43,000, and in which nearly one in five households lives on less than \$15,000 per year,⁷ a program relying on rebates and incentives is unlikely to be financially accessible for the customers who stand to benefit most from HEIP intervention. Low- and moderate-income customers, who are disproportionately likely to have high energy burdens, will struggle to afford the up-front costs for home efficiency improvements, including new appliances and weatherization measures, regardless of back-end reimbursements. Additionally, a level of financial literacy is required to effectively navigate a rebate/incentive system, making it less accessible to low-income residents. If it decides to maintain the rebate/incentive basis of the HEIP, KPC could consider adding a financial counseling component.

⁶ Cassandra Johnson Gaither, "Appalachia's 'Big White Ghettos': Exploring the role of heirs' property in the reproduction of housing vulnerability in eastern Kentucky." U.S. Forest Service, 2019.

⁷ US Census Bureau, American Community Survey 5-Year Estimates, 2022.

Lack of access to fair and equitable capital. Given the up-front costs associated with a rebate system, most lower-income households would need to borrow money to make rebate-eligible upgrades. This is clearly a challenge for residents with low credit scores, who may be driven toward predatory, payday-style lenders to access the required funds. Even residents with passable credit scores, however, may still face challenges obtaining the necessary funds due to the overall shortage of financial institutions and the systemic high cost of capital seen in our region. Taking on significant credit card debt may be the only option for some families to afford the up-front costs for home energy improvements.

Pay as you save. An alternative basis for financing home energy efficiency improvements is the “pay as you save” (PAYS) model. Rather than requiring an up-front investment on the part of the customer, under this model the company would provide for the installation of requisite improvements, and then allow the customer to pay the company back over a period of several years, with the customer’s energy savings offsetting the cost. In this way, the company can reduce demand without imposing the sticker shock that often accompanies a rebate structure.

Conclusion

We again thank the Commission for receiving our comments on the Kentucky Power DSM proposal. As leaders in the housing and community development spaces in Eastern Kentucky, we are committed to securing the best possible results for our residents. We appreciate the careful attention that KPC has given to its obligations to promote energy efficiency and cost savings for its customers, and we hope that these comments will help move those efforts forward and contribute to a highly successful DSM program.

Sincerely,

Andrew Bates
State Advocacy Coordinator
Fahe

Scott McReynolds
Executive Director
Housing Development Alliance

Seth Long
Executive Director
HOMES Incorporated

APPENDIX: Photos of Dilapidated Housing Units











Storage shed being used as a home for mother and children. Building is not connected to water, sewer or electricity (using and extension cord).



This house was originally built as a chicken coop. When the family had to move in, they added some rooms.



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