

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY)	
POWER COMPANY FOR (1) A CERTIFICATE OF)	
PUBLIC CONVENIENCE AND NECESSITY)	
AUTHORIZING THE DEPLOYMENT OF)	CASE NO.
ADVANCED METERING INFRASTRUCTURE; (2))	2024-00344
REQUEST FOR ACCOUNTING TREATMENT;)	
AND (3) ALL OTHER NECESSARY WAIVERS,)	
APPROVALS, AND RELIEF)	

ORDER

On November 8, 2024, Kentucky Power Company (Kentucky Power) filed an application, pursuant to KRS 278.020 and 807 KAR 5:001, Section 15, for a Certificate of Public Convenience and Necessity (CPCN) for the deployment of Advanced Metering Infrastructure (AMI); approval of accounting treatment to establish a regulatory asset to accumulate and defer for later review and recovery the costs for AMI deployment; and a waiver of the testing requirements in 807 KAR 5:006, Section 14(3); 807 KAR 5:006, Sections 26(4)(e) and 26(5)(a)(2); and 807 KAR 5:041, Sections 15(3) and 16.¹ In its application, Kentucky Power requested a deviation, if the Commission deemed necessary, from the requirements set out in 807 KAR 5:001 Section 15(2)(d)(1) and Section 15(2)(d)(2), and KRS 322.340.²

¹ Application at 1.

² Application at 9.

On November 21, 2024, Kentucky Power filed a motion for an informal conference. On November 22, 2024, the Commission issued an Order granting deviations to 807 KAR Section 15(2)(d)(1) and Section 15(2)(d)(2).³ By Order issued on November 27, 2024, the Commission established a procedural schedule for the orderly processing of this matter, set a date for the informal conference, and provided a deadline to request intervention. Kentucky Power responded to two requests for information from Commission Staff.⁴

An informal conference was held on December 17, 2024.⁵ On January 10, 2025, Kentucky Power filed a motion to submit this matter for a decision based upon the written record. There are no intervenors. However, one public comment was filed.⁶ The record is complete, and the matter stands ready for a decision.

³ Order (Ky. PSC Nov. 22, 2024).

⁴ Kentucky Power's Response to Commission Staff's First Request for Information (Staff's First Request) (filed Dec. 20, 2024); Kentucky Power's Response to Commission Staff's Second Request for Information (Staff's Second Request) (filed Jan. 10, 2025).

⁵ The IC, conducted at Kentucky Power's request and approved by the Commission, discussed the expected speed of the AMI rollout, the impact of a then still-to-occur depreciation study on the depreciation expense affected by the costs of AMI and rollout, Kentucky Power's request for a regulatory asset related to the AMI and previous Commission approved indebtedness, and Kentucky Power's hope regarding the effect that AMI installation will have on customer experiences. Kentucky Power's Motion for an Informal Conference (filed Nov. 21, 2024); Public Service Commission Letter Filing Memo into the Record (filed Dec. 20, 2024).

⁶ On February 14, 2025, a public comment was filed on behalf of Appalachian Citizens' Law Center, Kentucky Resources Council, Kentucky Solar Energy Society, and Mountain Association. The comment did not take a position with regard to whether the Commission should grant or deny the application but did request the following be addressed in any Order issued: (1) Deployment of AMI should be used to eliminate disconnection and reconnection fees; (2) Deployment of AMI should not be used to add any additional fees or direct cost impacts to small businesses or residential ratepayers; (3) Approved meters should be capable of supporting demand response and conservation voltage reduction; and (4) Any cost recovery for deployment should only be allowed once it is demonstrated that the advanced features of AMI are being used by Kentucky Power to the benefit of customers.

BACKGROUND

Kentucky Power is a corporation organized on July 21, 1919, pursuant to the laws of the Commonwealth of Kentucky.⁷ Kentucky Power is a utility as defined in KRS 278.010.⁸ Kentucky Power is engaged in the generation, purchase, transmission, distribution, and sale of electric power.⁹ Kentucky Power serves approximately 163,000 customers in the following 20 counties in eastern Kentucky: Boyd, Breathitt, Carter, Clay, Elliott, Floyd, Greenup, Johnson, Knott, Lawrence, Leslie, Letcher, Lewis, Magoffin, Martin, Morgan, Owsley, Perry, Pike, and Rowan.¹⁰ Kentucky Power also supplies electric power at wholesale to other utilities and municipalities in Kentucky for resale.¹¹

THE PROPOSED PROJECT

Kentucky Power proposed to replace its automated read meters (AMR) with AMI throughout its service territory.¹² Broadly speaking, AMI utilizes two-way communications between a customer's meter and the utility.¹³ By contrast, AMR communication only occurs from the meter to the utility owned receiver.¹⁴ Kentucky Power solicited bids for AMI technology and received two bids. Kentucky Power selected Landis+Gyr AMI meters that have two internal processors that offer traditional electric usage readings as well as

⁷ Application at 2.

⁸ Application at 2.

⁹ Application at 2.

¹⁰ Application at 2.

¹¹ Application at 2.

¹² Application at 5.

¹³ Direct Testimony of Lerah Kahn (Kahn Direct Testimony) (filed Nov. 8, 2024) at 4.

¹⁴ Kahn Direct Testimony at 4.

interval data for usage and meter voltage.¹⁵ Kentucky Power stated that it planned to proactively install AMI over four years beginning in 2026 by focusing on its most densely populated areas first¹⁶ and otherwise relying on “circuit and billing cycle information” to develop its full “deployment plan.”¹⁷ Kentucky Power stated that full deployment is expected by the end of 2029.¹⁸

Additionally, according to the application, the meters feature an integrated remote connect/disconnect switch, which allows for the interrupting and closing capability of the meter class’s amperage.¹⁹ Kentucky Power also stated that the AMI technology supports back-office information technology (IT) system event recordings such as power up/down events for the identification of power outages, remote over-the-air programming for account or tariff assignments, and remote firmware upgrades in support of cybersecurity and operational efficiency.²⁰ Kentucky Power also noted the second processor allows for more reliable interval data, communications flexibility, the enhanced collection of interval data (near-live usage updates), and enhanced system anomaly detection.²¹ Kentucky Power stated these features would help customers identify times of low demand enabling

¹⁵ Direct Testimony at Stephen Blankenship (Blankenship Direct Testimony) (filed Nov. 8, 2024) at 5, 15.

¹⁶ Throughout its testimony, Kentucky Power refers to this prioritization as utilizing “economies of scale.” See e.g., Kahn Direct Testimony at 5; Blankenship Direct Testimony at 6

¹⁷ Kahn Direct Testimony at 5.

¹⁸ Kahn Direct Testimony at 5.

¹⁹ Blankenship Direct Testimony at 5.

²⁰ Blankenship Direct Testimony at 5.

²¹ Blankenship Direct Testimony at 6.

them to make more energy efficient choices. In addition, the new system will assist operators in identifying distribution malfunctions before they result in an outage.²²

Kentucky Power claimed that it would need to replace “at minimum, roughly 3,000 meters a year to replace completely failed units.”²³ Based on its replacement criteria, Kentucky Power provided the following proposed schedule in its application.

Order Meters	Q3 2025	9-12-mos from order to receipt
IT Infrastructure-Billing	Q1-Q2 2026	12-mos
IT Infrastructure-Backhaul	Q1-Q2 2026	9-12-mos
2026 Deployment (Ashland)	Q2-Q4 2026	.5-year
2027 Deployment (Pikeville -75%)	2027	1-year
2027 Deployment (Hazard)	2028	1-year
2029 Deployment (Pikeville-Remaining 25%)	2029	1-year

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Alternatives Considered. According to Kentucky Power, continuing to rely on the current AMR system is cost-prohibitive and operationally unsustainable.²⁵ Kentucky Power stated that more than 84 percent of Kentucky Power’s AMR meters are between 10 and 20 years old with an expected useful life of approximately 15 years when accounting for the expected industry standard failure rate of less than 5 percent.²⁶ In the past three years, Kentucky Power’s failure rate of tested 10 to 15-year-old AMR meters was

²² Blankenship Direct Testimony at 6.

²³ Blankenship Direct Testimony at 7.

²⁴ Kahn Direct Testimony at 6; Figure LMK–1 (select portion).

²⁵ Blankenship Direct Testimony at 16.

²⁶ Blankenship Direct Testimony at 16-17.

25 percent and the failure rate of its oldest meters was 50 percent.²⁷ Additionally, Kentucky Power alleged that there are no longer any vendors manufacturing its current AMR meters and that only one vendor in the United States refurbishes the type of AMR meters used by Kentucky Power.²⁸

Absent the transition to AMI, Kentucky Power stated that its other option would be to move to the Standard Consumption Messaging (SCM)+ AMR platform which is still not compatible with its current meter system.²⁹ Kentucky Power stated that it cannot simply buy new AMR meters because the new AMR meters only run on the SCM+ technology.³⁰ Consequently, Kentucky Power argued, all of the existing AMR meter reading system equipment would need to be replaced with SCM+ technology, and further enhancements would be required to Kentucky Power's back-office IT systems due to the differences in the meter data structure between the SCM and SCM+ platforms.³¹ The difference in cost is shown in the figure below, as provided for in the application.

²⁷ Blankenship Direct Testimony at 16-17. The meters were installed in 2002 and 2003 originally so the oldest meters should be approximately 23-25 years old.

²⁸ Kahn Direct Testimony at 10.

²⁹ Blankenship Direct Testimony at 17.

³⁰ Application at 5.

³¹ Blankenship Direct Testimony at 17.

Figure LMK-2

	1 AMI Proactive Deployment	2 AMI Reactive Deployment	3 SCM+ Proactive Deployment	4 SCM+ Reactive Deployment
Costs	\$22.1	\$23.8	\$57.0	\$52.4
Quantifiable Savings	\$61.4	\$52.5	\$0.0	\$0.0
Customer Impact (Costs less Savings)	\$(39.3)	\$(28.7)	\$57.0	\$52.4
TRC Test (Savings divided by Costs)	2.78	2.21	0	0

Costs, Savings and Customer Impact are provided on a net present value basis and in millions.

In addition to testimony, Kentucky Power provided a cost benefit analysis as ordered in Case No. 2020-00174 as well as specific information about the alternatives considered.³² The analyses compared the net present value to customers versus the net present cost of both reactive and proactive meter replacement involving AMI and SCM+. ³³ Included in the analyses were the following criteria: customer benefit, avoided capital costs, avoided operating and maintenance expense and revenue protection benefits.³⁴ The net present value for the SCM+ was negative in both scenarios.³⁵ After evaluating all of the scenarios, Kentucky Power chose Alternative 1, Proactive AMI Deployment, as the solution that is reasonable, financially justified, and valuable for both Kentucky Power and its customers.³⁶

³² Case No. 2020-00174, *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) Approval of a Certificate of Public Convenience And Necessity; and (5) All Other Required Approvals And Relief* (Ky. PSC Jan. 13, 2021), Order at 79-80.

³³ Kahn Direct Testimony, Exhibit LMK-1 and Exhibit LMK-2.

³⁴ Kahn Direct Testimony at 17.

³⁵ Kahn Direct Testimony, Exhibit LMK-1 and Exhibit LMK-2.

³⁶ Kahn Direct Testimony at 20.

Financial Considerations. Kentucky Power proposed to finance the project through normal operating funds.³⁷ However, it is also proposing to defer the costs of AMI deployment until the costs can be included in its rate base request in a subsequent base rate proceeding.³⁸ Kentucky Power addressed the undepreciated value of the meters, a value included in the cost benefit analysis.³⁹ Kentucky Power explained the AMR meters are being depreciated in the Distribution Plant function which has an annual depreciation rate of 3.52 percent.⁴⁰ Kentucky Power has not updated the 3.52 percent for distribution plant since the depreciation study filed in Case No. 1991-00066⁴¹ and was calculated using plant in service balances on December 31, 1989.⁴² This depreciation rate resulted in an undepreciated balance of \$13.8 million as of August 2024, and an expected undepreciated balance of \$11.7 million that is expected to be on the books at the time AMI installation begins in June 2026.⁴³ According to Kentucky Power, the cost of the AMI deployment represents an increase of approximately 1.73 percent of its assets.⁴⁴ Kentucky Power averred the deployment will not require the issuance of debt and will not affect the completion of any other current capital project.⁴⁵

³⁷ Kahn Direct Testimony at 20.

³⁸ Kahn Direct Testimony at 21.

³⁹ Kahn Direct Testimony at 12.

⁴⁰ Kahn Direct Testimony at 12.

⁴¹ Case No. 1991-00066, *In the Matter of the Notice of Intent to File Rates* (Ky. PSC Dec. 31, 1991).

⁴² Kahn Direct Testimony at 12.

⁴³ Kahn Direct Testimony at 12.

⁴⁴ Kahn Direct Testimony at 20.

⁴⁵ Kahn Direct Testimony at 20.

Deviations. As part of its application to purchase the AMI meters, Kentucky Power requested several deviations from Commission regulations. Kentucky Power stated that the inspections required by 807 KAR 5:006, Section 14(3) would not be necessary as the new AMI meters would have alarms to alert the utility to issues.⁴⁶ According to Kentucky Power, administrative regulation 807 KAR 5:006, Sections 26(4)(e) and 26(5)(a)(2) require meters to be inspected every two years and the new AMI meter capabilities would render this requirement satisfied as Kentucky Power would know on a daily basis the meter status.⁴⁷ Administrative regulation 807 KAR 5:041, Sections 15(3) and 16 require that single-phase electric meters must be tested every eight years or in accordance with a Commission approved sample-meter test plan, but since Kentucky Power intends to replace the meters, the utility requested to not have to test meters in the meantime or when the meter is replaced.⁴⁸

LEGAL STANDARD

The Commission's standard of review regarding a CPCN is well settled. Under KRS 278.020(1), no utility may construct or acquire any facility to be used in providing utility service to the public until it has obtained a CPCN from this Commission. To obtain a CPCN, the utility must demonstrate a need for such facilities and an absence of wasteful duplication.⁴⁹ "Need" requires:

[A] showing of a substantial inadequacy of existing service, involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be

⁴⁶ Kahn Direct Testimony at 21.

⁴⁷ Kahn Direct Testimony at 22.

⁴⁸ Kahn Direct Testimony at 22.

⁴⁹ *Kentucky Utilities Co. v. Pub. Serv. Comm'n*, 252 S.W.2d 885, 890 (Ky. 1952).

constructed or operated. [T]he inadequacy must be due either to a substantial deficiency of service facilities, beyond what could be supplied by normal improvements in the ordinary course of business; or to indifference, poor management or disregard of the rights of consumers, persisting over such a period of time as to establish an inability or unwillingness to render adequate service.⁵⁰

“Wasteful duplication” is defined as “an excess of capacity over need” and “an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties.”⁵¹ To demonstrate that a proposed facility does not result in wasteful duplication, the Commission has held that the applicant must demonstrate that a thorough review of all reasonable alternatives has been performed.⁵² The fundamental principle of reasonable, least-cost alternative is embedded in such an analysis. Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication.⁵³ All relevant factors must be balanced.⁵⁴

DISCUSSION AND FINDINGS

Having reviewed the application and relevant filings, the Commission finds that Kentucky Power’s request for a CPCN should be granted for AMI subject to certain terms in the subsequent discussion. The Commission finds that Kentucky Power has established sufficient evidence to demonstrate that the proposed AMI project is needed

⁵⁰ *Kentucky Utilities Co.* at 890.

⁵¹ *Kentucky Utilities Co.* at 890.

⁵² Case No. 2005-00142, *Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for the Construction of Transmission Facilities in Jefferson, Bullitt, Meade, and Hardin Counties, Kentucky* (Ky. PSC Sept. 8, 2005).

⁵³ See *Kentucky Utilities Co. v. Pub. Serv. Comm’n*, 390 S.W.2d 168, 175 (Ky. 1965). See also Case No. 2005-00089, *Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity for the Construction of a 138 kV Electric Transmission Line in Rowan County, Kentucky* (Ky. PSC Aug. 19, 2005).

⁵⁴ Case No. 2005-00089, Aug. 19, 2005 Order at 6.

to provide adequate, efficient, and reasonable service for the reasons discussed below. In addition, in this matter, Kentucky Power provided sufficient evidence that it did evaluate alternatives and analyzed the cost and benefits of the options to determine that installation of AMI was not wasteful duplication.

The Commission notes that Kentucky Power is addressing aging infrastructure within its system. Kentucky Power presented evidence that most of its meters are either nearing or had reached the end of their useful lives.⁵⁵ For current replacement of the failing meters, Kentucky Power stated that currently it is largely reliant on refurbished meters that have been removed from other affiliates of American Energy Power (AEP).⁵⁶ The Commission recognizes both that this is not an ideal situation and the need to address it in a most reasonable, least cost manner.

Kentucky Power has an obligation to provide adequate, efficient and reasonable service.⁵⁷ AMI allows for utilities to more accurately measure a customer's energy usage. As noted in the application, AMI allows for real-time transfer of information to both the company and its customers.⁵⁸ In addition, accurate meters benefit both the company and the customer. The company is permitted to recover fair, just and reasonable rates for providing service; however, malfunctioning or aging meters may result in inaccurate billing

⁵⁵ According to Kentucky Power, AMR has a useful life of 15 years and Kentucky Power began installing AMR, total deployment of two years, in 2005. Kentucky Power averred that as the meters age, they are experiencing a high rate of failure. According to the application, if installation of AMI begins in 2026, some meters will have been in use 5 years past their useful service life. See Kahn Direct Testimony at 10-11.

⁵⁶ Kentucky Power's Response to Staff's First Request, Item 4.

⁵⁷ KRS 278.030(2).

⁵⁸ Blankenship Direct Testimony at 6.

harming both Kentucky Power and its customers. Kentucky Power has established a need for the infrastructure.

The Commission ordered Kentucky Power to engage in a cost benefit analysis to ensure that AMI was the least cost, most reasonable option for the utility.⁵⁹ Kentucky Power provided the analysis in this application, and the Commission finds that Kentucky Power has presented sufficient evidence that AMI is the least cost, most reasonable option. The analysis included both capital costs as well as ongoing O&M expenses.⁶⁰ The Commission notes that the costs and benefits of the AMI were analyzed using the bid from the chosen vendor for the meters instead of the average of the responses; however, this does more accurately reflect the costs of the AMI installation selected by Kentucky Power. However, going forward, Kentucky Power should be mindful of limiting the analysis inputs as it may affect the accuracy of the results. The results of the analysis showed that AMI was \$1.7 million less expensive than the closest cost alternative (Alternative 2: Reactive AMI Deployment) while the most expensive alternative (Alternative 3: Proactive SCM+ Deployment) was \$34.9 million more than the AMI installation.⁶¹ In addition, there are several benefits to AMI meters that are harder to quantify such as expanded demand side management programs, labor efficiencies and new customer classes more tailored to encourage lower demand.⁶² The Commission finds that the replacement of refurbished meters that are either at or beyond their useful

⁵⁹ Case No. 2020-00174, Jan. 13, 2021 Order at 79-80.

⁶⁰ Kahn Direct Testimony at 16.

⁶¹ Kahn Direct Testimony at 17 and Exhibit LMK-1.

⁶² Kahn Direct Testimony at 18-19.

service life by the end of the proposed deployment program does not result in wasteful duplication. The Commission further recognizes the efficiency of the replacement program as the vast majority of meters to be replaced will be at or beyond their useful service life by the end of the proposed deployment program. The project as proposed does not result in wasteful duplication and will result in efficiencies in recording energy usage and service generally.

Having reviewed the application, the Commission finds that Kentucky Power's request to establish a regulatory asset for the installation of the AMI meters should be granted. The Commission will review all capital expenditures related to this project for reasonableness in a future rate case proceeding ensuring that Kentucky Power expended funding in the most reasonable manner including such practices as competitive bidding for labor and materials outside of the meters. The Commission will require, as it did Louisville Gas and Electric Company and Kentucky Utilities Company's rate cases,⁶³ reporting of expenses and project progress.

Kentucky Power should file quarterly reports providing a status of the implementation and deployment of the project, adherence to budgets, adherence to timeliness, any significant change orders, number of AMI implemented, and the number of non-AMI meters removed and retired. For each meter removed and tested, Kentucky Power should include the failure rate of the meter(s), including the significance of the

⁶³ Case No. 2020-00349, *Electronic Application Of Kentucky Utilities Company for an Adjustment of Its Electric Rates, a Certificate of Public Convenience and Necessity to Deploy Advanced Metering Infrastructure, Approval of Certain Regulatory and Accounting Treatments, and Establishment of a One-Year Surcredit* (Ky. PSC June 30, 2021), Order at 62-68. Case No. 2020-00350, *Electronic Application of Louisville Gas and Electric Company for an Adjustment of Its Electric and Gas Rates, a Certificate of Public Convenience and Necessity to Deploy Advanced Metering Infrastructure, Approval of Certain Regulatory and Accounting Treatments, and Establishment of a One-Year Surcredit* (Ky. PSC June 30, 2021), Order at 62-68.

failure.⁶⁴ The first of these reports should be filed January 31, 2026. Kentucky Power should develop DSM programs, including those that specifically target low-income customers, to maximize the abilities of the AMI. The Commission also finds that Kentucky Power should recover the remaining net book value of electric meters replaced and retired to Account No. 108 as part of this project through future depreciation rates. Depreciation for AMI meters will begin in the month following the initial placement of the AMI meters into service. The Commission accepts a 20-year depreciable life for the AMI meters as reasonable, and a 15-year depreciable life for other required infrastructure to support AMI meters as reasonable. In the next base rate adjustment, Kentucky Power should be prepared to provide evidence to support its current depreciation rates and the Commission encourages Kentucky Power to consider a full depreciation study.

Kentucky Power may seek AMI cost recovery in the first base rate case proceedings following AMI implementation if necessary; otherwise, if no base rate adjustment is required, Kentucky Power shall make a separate filing to address the AMI revenue requirement impact and set the amortization periods for associated regulatory assets following AMI implementation. Kentucky Power should maintain current data use and customer service disconnection policies, and should address possible changes to such policies, if any, in its first base rate case proceedings following AMI implementation or other proceedings to address the AMI revenue requirement following the implementation of the AMI project.

Having an AMI system represents a fundamental change for the utility. The Commission expects Kentucky Power to not merely make this investment but maximize

⁶⁴ See Appendix.

the value of all the potential offerings this change presents. The Commission expects that, given the many potential benefits AMI enabled DSM-EE programs represent for customer savings, that Kentucky Power will pursue all reasonable and cost effective programs even though those savings could result in lower future revenue. Merely installing the AMI when additional customer benefits from the system could be available would not result in rates that are fair, just and reasonable, nor service that is adequate, efficient and reasonable. With AMI meters, programs such as Time of Use rates and prepay programs can be easily added as a rate option. Such rate options may contribute to lower peak demand and help avoid costly capital investments or free up power to be sold on the market for additional revenue. The Commission encourages Kentucky Power to learn from the new detailed, usage information and possibly creating time of use rate classes as well as DSM programs to maximize the AMI benefits. The Commission further urges Kentucky Power to study incentives or rebates as options to encourage meaningful consumption behavioral changes.

Kentucky Power provided lengthy testimony on its customer engagement related to AMI installation.⁶⁵ The Commission recognizes the struggles in helping customers understand the benefits of new technology. Although described to some degree in the testimony, Kentucky Power should create a detailed plan for customer engagement of its AMI systems. This should include Kentucky Power's planned customer engagement before, during and after AMI deployment, including through the system's end of useful life. This plan should be filed with the Commission by December 31, 2025, and updated

⁶⁵ See Cobern Direct Testimony, generally.

to include progress made and any changes made to the plan and submitted annually thereafter.

Kentucky Power should begin to develop detailed plans on AMI obsolescence and replacement strategies. These plans should identify, at a minimum, risks and solutions to early obsolescence, opportunities for greater cross-system compatibility, and successor technologies, including hardware and software, in order to extend the life of as many portions of the proposed AMI systems as reasonably practical. The initial plan on AMI obsolescence and replacement strategies should be filed with Kentucky Power's next base rate case. The Commission should not be forced to make a decision related to replacing infrastructure already past its useful life but instead be able to evaluate options before an emergent need exists. Kentucky Power should be more proactive and thorough in its planning both financially and practically.

In addition, Kentucky Power should create detailed plans on identifying outages and how the AMI systems will facilitate notification and communication of information with customers regarding outages. This should include estimated times of repair. The initial plan should be filed with Kentucky Power's next base rate application and updated each base rate filing up to and including the filing in which Kentucky Power requests approval of the regulatory asset. Kentucky Power should create a detailed plan for reducing the frequency and amounts of its tariffed nonrecurring charges resulting from its proposed AMI systems. That plan should also be included in Kentucky Power's next base rate application.

Kentucky Power recently received an extension to file its next Integrated Resource Plan (IRP).⁶⁶ As such, Kentucky Power should include detailed discussions in each iteration of its IRP going forward that explain how it is using the information created by the AMI systems to create additional data and how that data is being used to model and plan the utility's system. The Commission expects Kentucky Power to study, at the least, how the information created by the AMI systems can be used to benefit: voltage regulation; power quality; asset management; distribution system investment and utilization; load forecasting (at least at the circuit level, if not more granular); peak reduction (generation, transmission and distribution peaks, both coincident and noncoincident); transmission investment and utilization; and important in this matter, the calculation of all avoided cost categories. The Commission notes that the IRP does include at least generally a discussion of DSM programs and Kentucky Power should include the effects of AMI on the current and proposed DSM offerings.

Kentucky Power also requested several deviations from regulations contained in 807 KAR 5. Each request will be discussed individually. Kentucky Power requested a deviation from 807 KAR 5:006 Section 14(3).⁶⁷ The Commission having considered the request finds that Kentucky Power has not provided sufficient evidence to support

⁶⁶ Case No. 2023-00092, *Electronic 2022 Integrated Resource Planning Report of Kentucky Power Company* (Ky. PSC May 27, 2025), Order.

⁶⁷ 807 KAR 5:006 Section 14(3) "Utility inspections of service conditions prior to providing service. Each electric, gas, water, and sewer utility shall inspect the condition of its meter and service connections before making service connections to a new customer so that prior or fraudulent use of the facilities shall not be attributed to the new customer.

(a) The new customer shall be afforded the opportunity to be present at the inspections.

(b) The utility shall not be required to render service to a customer until all defects in the customer-owned portion of the service facilities have been corrected."

granting the request. Kentucky Power's plan for deployment is related to population density. It is not related to new service, complaints, or inspection plans or cycles. Kentucky Power also did not explain why meter replacement should result in a deviation from the requirement to inspect the service connections or should there be issues, having the issues remedied. The Commission emphasizes that the electric service installation and inspection regulations protect the customer and the utility and should only be waived when good cause exists.

Kentucky Power also requested a waiver from 807 KAR 5:006 Section 26(4)(e).⁶⁸ Kentucky Power has one of the most difficult areas to maintain reliable service. In addition to including part of the Appalachian Mountains in its territory, Kentucky Power has some of the oldest infrastructure with some items dating back to World War 2 era.⁶⁹ Kentucky Power's territory is generally rural, so the utility proposed the installation of the AMI based on the density of the population. However, the Commission cannot grant a universal deviation to cease infrastructure inspections including insulators, conductors and supporting facilities. The Commission was not presented with evidence that an all-encompassing deviation was necessary. In Kentucky Power's most recent filing in Case No. 2011-00450, 2024 Annual Reliability Report, its reported System Average Interruption Duration Index (SAIDI) was at 405.9 minutes excluding major event days (MEDs), and

⁶⁸ 807 KAR 5:006 Section 26(4)(e) "At intervals not to exceed two (2) years, the utility shall inspect all electric facilities operating at voltages of less than sixty-nine (69) KV, to the point of service including insulators, conductors, meters, and supporting facilities from the ground for damage, deterioration, and vegetation management consistent with the utility's vegetation management practices."

⁶⁹ Case No. 2021-00346, *Electronic Application of Kentucky Power Company for a Certificate of Public Convenience and Necessity to Construct A 138 Kv Transmission Line and Associated Facilities In Breathitt, Floyd And Knott Counties, Kentucky (Garrett Area Improvements 138 Kv Transmission Project)* (Ky. PSC Mar. 8, 2022), Order at 13-14. For example, the Commission granted a CPCN, but Kentucky Power is still in property acquisition phase. The average age of the majority of this circuit, wood structures, dated back to 1929 and 1949.

the System Average Interruption Frequency Index (SAIFI) per customer was 2.17, excluding MEDs.⁷⁰ The most recent SAIFI and SAIDI information available was for 2023⁷¹ and Kentucky Power's rate for SAIFI exceeded the average for 2023.⁷² Kentucky Power has a duty to provide adequate, reliable and efficient service,⁷³ and the Commission expects Kentucky Power's continued inspections to assist in ensuring this occurs.

Kentucky Power also requested a deviation for 807 KAR 5:006 Section 26(5)(a)(2).⁷⁴ The Commission denies the request for a deviation of this regulation. Kentucky Power does not report any gas meters it services. Additionally, the Commission was not presented sufficient evidence that, because this regulation applied to a subset of meters, Kentucky Power should be granted a waiver.

Kentucky Power asked for a deviation from 807 KAR 5:041 Section 15(3) and Section 16.⁷⁵ As noted several times above, Kentucky Power choose to begin implementing this project in areas of greater customer density. Kentucky Power did not

⁷⁰ Kentucky Power's 2024 Annual Reliability Report (filed May 1, 2025) at 4 as part of Case No. 2011-00450, *Electronic Investigation of the Reliability Measures of Kentucky's Jurisdictional Electric Distribution Utilities*.

⁷¹ [SAS Output](#) (last checked July 13, 2025).

⁷² Kentucky Power's SAIFI rate in 2023 was 1.848, excluding MEDs. 2023 Annual Reliability Report (filed May 1, 2024) as part of Case No. 2011-00450 *Electronic Investigation of the Reliability Measures of Kentucky's Jurisdictional Electric Distribution Utilities*. The average national rate for SAIFI excluding MEDs in 2023 was 1.167.

⁷³ KRS 278.030(2).

⁷⁴ 807 KAR 5:006 Section 26(5)(a)(2) "At intervals not to exceed three (3) years, gas meters shall be manually inspected and visually examined for proper working condition."

⁷⁵ 807 KAR 5:041 Section 15(3) "Metering equipment, including instrument transformers and demand meters, shall be tested for accuracy prior to being placed in service, periodically in accordance with the schedule below, upon complaint, when suspected of being in error, or when removed from service for any cause."

provide sufficient evidence that this plan would comply with, or take into consideration, Kentucky Power's current meter testing plan.

The Commission finds that, once Kentucky Power has an actual plan of implementation, it may apply for a deviation from certain meter testing requirements based on both the current testing plan and need, but a blanket deviation is not appropriate. There would be no guarantee that other meters will be tested at the appropriate intervals. Commission Orders addressing deviations related to these two regulations have generally denied a deviation for testing meters removed from service.⁷⁶ The Commission notes that testing ensures accurate meters which is an element of fair, just and reasonable rates. Additionally, requiring the testing may provide information to Kentucky Power on how to more effectively implement the replacement meters based on the results from the meter testing upon removal as the project progresses. The Commission has ordered reporting on meter failure in the quarterly update and may assist in informing the Commission on other subsequent applications related to deviations, should Kentucky Power decide to file any.

⁷⁶ Case No. 2022-00350, *Electronic Application of Inter-County Energy Cooperative Corporation for a Certificate of Public Convenience and Necessity Authorizing the Installation of a New Advanced Metering Infrastructure (Ami) System* (Ky. PSC Mar. 8, 2024), Order at 2 (Deviation granted subject to the requirement in 807 KAR 5:041, Section 15(3), requiring meters be tested upon removal so that customers are assured that their prior usage has been accurate.) Case No. 2010-00291, *Application of South Kentucky Rural Electric Cooperative Corporation For Deviation From Its Testing of Meters Occasioned By Implementation of Its Advanced Metering Infrastructure System* (Ky. PSC Feb. 11, 2011), Order at 5 ("South Kentucky's request for deviation from 807 KAR 5:041, Section 15(3), in order to avoid testing meters which it is removing from service and replacing with AMI meters is denied."). Case No. 2018-00056, *Application Of Cumberland Valley Electric, Inc. For Commission Approval For A Certificate Of Public Convenience And Necessity to Install An Advanced Metering Infrastructure (Ami) System Pursuant To KRS 807 Kar 5:001 and KRS 278.020* (Ky. PSC July 9, 2018), Order at 13 ("The Commission finds that all meters removed from service as a result of this project should be tested in accordance with 807 KAR 5:041, Section 15(3), and that any meters found to be inaccurate should be handled as prescribed by 807 KAR 5:041, Section 17." However, the Commission did grant a deviation as to one testing requirement). The Commission notes that Case No. 2022-00349 and Case No. 2022-00350, two rate applications including a request for an AMI CPCN, resulted in a Settlement which included a deviation, and the Commission accepted the Settlement with Modifications that included the deviation. A settlement is not at issue in this matter.

In conclusion, the Commission approves Kentucky Power's application for a CPCN for AMI. Kentucky Power provided sufficient evidence that the utility has a need, and that the project will not result in wasteful duplication. The Commission denies all of the requested deviations. Kentucky Power may establish a regulatory asset related to implementation of the project. The grant of the CPCN and the regulatory asset are subject to the conditions set forth in the Order.

IT IS THEREFORE ORDERED:

1. Kentucky Power's request for a CPCN is granted.
2. Kentucky Power's request for a regulatory asset is granted.
3. Kentucky Power's requests for deviations are denied.
4. Kentucky Power shall use a 20-year depreciable life for the AMI.
5. Beginning on January 31, 2026, and continuing through the deployment of AMI as set forth in the application, Kentucky Power shall file quarterly status reports, including the status of the implementation and deployment of the project, adherence to budgets, and all other items set forth in this Order.
6. Kentucky Power shall file by December 31, 2025, and continuing annually, a detailed plan for customer engagement of its AMI systems before, during and after AMI deployment, and including through the system's end of useful life.
7. Kentucky Power shall develop and file with its next base rate application, and continue in rate base applications until such time a base rate application requests to address the regulatory asset related to AMI installation is addressed, detailed plans on AMI obsolescence and replacement strategies that identify, at a minimum, risks and solutions to early obsolescence, opportunities for greater cross-system compatibility, and

successor technologies, including hardware and software, in order to extend the life of as many portions of the proposed AMI systems as reasonably practical.

8. Kentucky Power shall develop and file with its next base rate application, and continue in rate base applications until such time a base rate application requests to address the regulatory asset related to AMI installation is addressed, detailed plans regarding how Kentucky Power identifies outages, how the AMI systems will facilitate notification and communication of information with customers regarding outages, the estimated times of repair.

9. Kentucky Power shall develop and file with its next base rate application a detailed plan for reducing the frequency and amounts of its tariffed nonrecurring charges resulting from its proposed AMI systems.

10. Kentucky Power may seek AMI cost recovery in the first base rate case proceedings following AMI implementation if necessary; otherwise, if no base rate adjustment is required, Kentucky Power shall make a separate filing to address the AMI revenue requirement impact and set the amortization periods for associated regulatory assets following AMI implementation.


11. Kentucky Power shall include detailed discussions in each iteration of its IRP going forward that explain how it is using the information created by the AMI systems to create additional data or study the remainder of the utility's system as set forth in the Order.

12. The case is closed and removed from the Commission's docket.

PUBLIC SERVICE COMMISSION


Chairman


Commissioner


Commissioner

ATTEST:

 
Executive Director



Case No. 2024-00344

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