

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY-AMERICAN	)	
WATER COMPANY FOR A CERTIFICATE OF PUBLIC	)	CASE No.
CONVENIENCE AND NECESSITY FOR INSTALLATION OF	)	2025-00240
ADVANCED METERING INFRASTRUCTURE	)	

**ATTORNEY GENERAL’S INITIAL DATA REQUESTS**

The intervenor, the Attorney General of the Commonwealth of Kentucky, by and through his Office of Rate Intervention [“OAG”], hereby submits the following Initial Data Requests to Kentucky-American Water Co. [“KAW” or “the Company”], to be answered by the date specified in the Commission’s Orders of Procedure, and in accord with the following:

- (1) In each case where a request seeks data provided in response to a staff request, reference to the appropriate request item will be deemed a satisfactory response.
- (2) Identify the witness who will be prepared to answer questions concerning each request.
- (3) Repeat the question to which each response is intended to refer. The OAG can provide counsel for KAW with an electronic version of these questions, upon request.
- (4) These requests shall be deemed continuing so as to require further and supplemental responses if the Companies receive or generate additional information within the scope of these requests between the time of the response and the time of any hearing conducted hereon.
- (5) Each response shall be answered under oath or, for representatives of a public or private corporation or a partnership or association, be accompanied by a signed certification of the preparer or person supervising the preparation of the response on behalf of the entity that the response is true and accurate to the best of that person’s knowledge, information, and belief formed after a reasonable inquiry.

(6) If you believe any request appears confusing, request clarification directly from Counsel for OAG.

(7) To the extent that the specific document, workpaper or information as requested does not exist, but a similar document, workpaper or information does exist, provide the similar document, workpaper, or information.

(8) To the extent that any request may be answered by way of a computer printout, identify each variable contained in the printout which would not be self-evident to a person not familiar with the printout.

(9) If the Companies have objections to any request on the grounds that the requested information is proprietary in nature, or for any other reason, notify Counsel for OAG as soon as possible.

(10) As used herein, the words “document” or “documents” are to be construed broadly and shall mean the original of the same (and all non-identical copies or drafts thereof) and if the original is not available, the best copy available. These terms shall include all information recorded in any written, graphic or other tangible form and shall include, without limiting the generality of the foregoing, all reports; memoranda; books or notebooks; written or recorded statements, interviews, affidavits and depositions; all letters or correspondence; telegrams, cables and telex messages; contracts, leases, insurance policies or other agreements; warnings and caution/hazard notices or labels; mechanical and electronic recordings and all information so stored, or transcripts of such recordings; calendars, appointment books, schedules, agendas and diary entries; notes or memoranda of conversations (telephonic or otherwise), meetings or conferences; legal pleadings and transcripts of legal proceedings; maps, models, charts, diagrams, graphs and other demonstrative materials; financial

statements, annual reports, balance sheets and other accounting records; quotations or offers; bulletins, newsletters, pamphlets, brochures and all other similar publications; summaries or compilations of data; deeds, titles, or other instruments of ownership; blueprints and specifications; manuals, guidelines, regulations, procedures, policies and instructional materials of any type; photographs or pictures, film, microfilm and microfiche; videotapes; articles; announcements and notices of any type; surveys, studies, evaluations, tests and all research and development (R&D) materials; newspaper clippings and press releases; time cards, employee schedules or rosters, and other payroll records; cancelled checks, invoices, bills and receipts; and writings of any kind and all other tangible things upon which any handwriting, typing, printing, drawings, representations, graphic matter, magnetic or electrical impulses, or other forms of communication are recorded or produced, including audio and video recordings, computer stored information (whether or not in printout form), computer-readable media or other electronically maintained or transmitted information regardless of the media or format in which they are stored, and all other rough drafts, revised drafts (including all handwritten notes or other marks on the same) and copies of documents as hereinbefore defined by whatever means made.

(11) For any document withheld on the basis of privilege, state the following: date; author; addressee; indicated or blind copies; all persons to whom distributed, shown, or explained; and, the nature and legal basis for the privilege asserted.

(12) In the event any document called for has been destroyed or transferred beyond the control of the Companies, state: the identity of the person by whom it was destroyed or transferred, and the person authorizing the destruction or transfer; the time, place, and

method of destruction or transfer; and, the reason(s) for its destruction or transfer. If destroyed or disposed of by operation of a retention policy, state the retention policy.

(13) Provide written responses, together with any and all exhibits pertaining thereto, in one or more bound volumes, separately indexed and tabbed by each response, in compliance with Kentucky Public Service Commission Regulations.

(14) “And” and “or” should be considered to be both conjunctive and disjunctive, unless specifically stated otherwise.

(15) “Each” and “any” should be considered to be both singular and plural, unless specifically stated otherwise.

Respectfully submitted,

RUSSELL COLEMAN  
ATTORNEY GENERAL



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*Certificate of Service*

Pursuant to the Commission's Orders in Case No. 2020-00085, and in accord with all other applicable law, Counsel certifies that an electronic copy of the forgoing was served and filed by e-mail to the parties of record.

This 20<sup>th</sup> day of August, 2025



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Assistant Attorney General

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of Advanced Metering Infrastructure  
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1. Provide a narrative discussion regarding all measures the Company would employ to ensure that cost savings from the use of advanced metering infrastructure (AMI), including but not limited to meter reading and field service expense reductions, would be passed on to ratepayers.
  - a. Explain whether the Company intends to use AFUDC for the proposed project. If not, why not?
  - b. Explain also whether the Company proposes to request regulatory liabilities and/or regulatory assets to capture all such savings and costs associated with the AMI deployment. If so, provide all details including but not limited to the following:
    - i. For any regulatory asset amortization, include the deferred operating expenses, net book value of water meters replaced, and any AFUDC; and
    - ii. For any regulatory liability amortization, include meter reading, field services, ADIT for retired & replaced meters, and any ADIT for AMI placed in service for income tax purposes.
  - c. Please describe any commitments the Company is willing to make regarding the level of expense reductions reflected as rate reductions after the deployment period, for example, through test-year adjustments in the Company's next base rate case used to recover AMI investment costs. If the Company is not willing to make such commitments, please explain why not.
2. If the proposed project is approved, explain how many years following full deployment that net benefits will exceed net costs.
3. Provide the number of staff currently assigned to meter reading positions with KAW. If the Commission grants the requested CPCN, explain how many of those personnel will remain in the same capacity.
4. Provide all financial analyses the Company may have conducted regarding cost projections to install and operate its own fixed-network communications network, compared with the cost to install the AMI cellular system such as the one KAW chose. If the Company completed no such analysis, please explain why not.
5. Provide a list and quantification of all capital cost items required to provide AMI functionality, including but not limited to: design, hardware, installation, and testing of the communications network; meters (excluding any remote service switch); meter remote service switches; any other optional meter features and capabilities such as network communications chips); meter testing, handling, and installation; and all meter software applications.
6. Does the Company agree that millions of water, gas and electric meters in the U.S. are still read via AMR technology?

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7. Does the Company agree that AMI technology is also subject to the risk of obsolescence? If not, explain fully why not. Describe all measures the Company has taken to address AMI obsolescence risk during the AMI plan development, and identify any such evidence in the materials included in the application for the instant docket.
8. Provide all cost-benefit analyses (“CBAs”) and related data the Company conducted not already included in the application.
9. Does KAW believe that AMI benefits will also include: reduced usage on inactive meters, bad-debt write offs, and theft? If not, why not?
  - a. Does the Company agree that none of these benefits will result in rate savings for customers until they are both: (i) implemented to their maximum benefit potential; and (ii) included in a rate case test year, test year adjustment, bad debt accrual rate reduction, or sales volume forecast.
10. Describe all commitments KAW is willing to make to:
  - a. maximize the revenue improvement potential of the AMI meters;
  - b. measuring the actual revenue improvements delivered from the AMI meters;
  - c. ensure all revenue improvements from AMI meters are represented in the test year, test year adjustments, sales volume forecasts, or bad debt accrual rates of the rate case in which the Company seeks to secure AMI cost recovery.
11. Explain whether customers would have any capability of accessing their meter’s data, and if so, how.
12. What does the company intend to do with data it collects from its customers?
13. For purposes of these questions and their subparts, the term “customer data” refers to any and all data regarding or pertaining to KAW’s customers, their family members or other persons residing in the same residential household or unit, and includes but is not limited to: (i) customers’ identity; (ii) personal information, including but not limited to street address, e-mail address, telephone number(s), credit history, checking account(s), credit and/or debit card data; and (iii) water consumption, usage, and usage patterns.
  - a. For how long will the company retain customer data?
  - b. Does KAW believe that customer data belongs to its customers, or to the company? Explain the reasons for KAW’s beliefs.
  - c. What will the company do with customer data when the retention period which the company selects has expired?

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- d. How will KAW allow its customers to decide whether to allow KAW to sell or otherwise disclose customer data? Will it be via affirmative “opt-in,” or by an affirmative “opt-out” which customers will have to select in order to not allow KAW to disclose their data?
    - (i) provide copies of the “opt-in” or “opt-out” choices regarding the disclosure/sale of customer data which KAW plans to provide to its customers.
  - e. Will the company sell customer data regarding those customers who opt to allow the company to disclose such information to third parties?
  - f. If your response to subpart (e), above is yes:
    - (i) state what protections, if any, the company plans to employ to protect confidentiality of customer data;
    - (ii) state what the company intends to do with the proceeds of the customer information which it sells; and
    - (iii) state whether those customers who opt to allow disclosure of their customer data will receive any monetary benefit, and if so, how much and in what form.
  - g. If KAW does not intend to sell customer data, but will otherwise disclose customer data pertaining to customers who authorize KAW to do so, state what protections, if any, the company plans to employ to protect confidentiality of data that can identify customers, including but not limited to information such as account numbers, credit card numbers, etc.
14. If the Commission approves the CPCN, explain whether KAW will develop any policies governing the ability of third parties to gain access to the data generated by the AMI meters. If so, provide copies of same.
15. If the Company will disclose any such data to third parties, explain whether it will commit to protecting customers’ privacy, and if so, how.
16. Does the company look upon customer data as a revenue enhancement measure?
17. Explain to what extent the proposed AMI meters and infrastructure will be interoperable with KAW’s other systems, including but not limited to: IT office systems, metering systems, SCADA, outage management systems, analytic systems, billing systems, and external partners and services. For purposes of this question, the term “interoperable” means the ability of different information technology systems and software applications to communicate, exchange data, and use the information that has been exchanged.
18. If the Commission approves the CPCN, explain whether KAW will accrue carrying costs, including interest expense, return on equity, depreciation expense during the implementation phase.



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19. Explain whether KAW is willing to offer an AMI opt-out option. If so, provide all details.
20. Provide KAW's business case for the AMI program.
21. Have any of KAW's affiliated utilities executed a system-wide conversion to AMI meters? If so, state when the conversions occurred, and provide the style of the case and jurisdiction in which any such affiliates obtained approval from their regulatory authorities.
22. Explain whether KAW anticipates any aggregate water savings from the AMI upgrade, and if so, provide estimates.
23. Provide the warranty period for: (i) the AMI meters proposes to install; (ii) the battery module that will be attached to the meters; and (iii) communication devices utilized by the AMI meters.
24. Provide the expected lifespan of: (i) the AMI meters KAW proposes to install; and (ii) the battery module that will be attached to the meters.
25. Does KAW agree that the more frequently an AMI meter is "pinged" (i.e., accessed by the utility for data communication), the more the battery's lifespan will be diminished. If KAW does not agree, provide a complete answer regarding why not.
26. Reference the Advanced Meter Infrastructure Plan ("AMI Plan")<sup>1</sup> at 3. Assuming that the meters' expected lifespan is not 20 years, explain why the benefit period does not match the meters' expected lifespan.
27. Provide all reasons why KAW chose not to pursue replacement of all meters at one time, rather than replacing the meters in their existing scheduled replacement plan.
28. Reference the AMI Plan at 21. Confirm that performing meter replacements in a given geographical area would present cost savings as opposed to performing them on based on length of service.
29. Reference the AMI Plan at 22. Confirm that KAW has identified at least two vendors who still manufacture the AMR components necessary to replace the existing AMR components.
30. Explain whether the proposed AMI meters will allow for remote disconnects and re-connects.

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<sup>1</sup> See Exhibit A of the Application Filed in this proceeding.

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31. The AMI Plan states in paragraph 4, page 3, of the Executive Summary that “American Water Works Service Company, Inc. (“Service Company”) completed both a metering request for information (“RFI”) and a request for proposals (“RFP”) process to evaluate metering options enterprise-wide, including for the benefit of KAW and its customers.” Please provide the following:
- a. All communications and agreements between KAW and the Service Company regarding the RFI, including the actual RFI and all related reports, responses, studies, presentations, and work product associated with the RFI.
  - b. All communications and agreements between KAW and the Service Company regarding the RFP, including: (i) the actual RFP and all related reports, responses, studies, presentations, and work product associated with the RFP; and (ii) all electronic spreadsheets, etc., with formulas intact.
  - c. Documentation, including all workpapers, reports, summaries, comparisons, spreadsheets (in electronic form with formulas intact), and presentations of all alternatives and options evaluated in both the RFI and RFP, including vendor pricing and information.
  - d. All Service Company costs passed to KAW regarding these two activities.
32. The AMI Plan, paragraph 5, page 3, of the Executive Summary discusses the CBA completed to evaluate the AMI proposal. Please provide the following:
- a. All workpapers and documentation used to develop the CBA, including vendor pricing, basis of material, installation, maintenance, and operations costs, equipment vendor information and communications, and internal communications and electronic data and documentation including spreadsheets, etc., with all formulas intact.
33. The AMI Plan overview, page 5, discusses AMI meters. Please provide the following:
- a. Regarding the actual measurement technology, how do AMI meters differ from AMR meters?
  - b. Do AMR meters provide indication of backflow, tampering and no flow when read? Please elaborate.
  - c. If AMR meters do not provide indication of backflow and the metering device is the same, please discuss in detail how AMI meters provide this indication.
  - d. Other than the meter register is there a difference between the actual water flow measurement between AMI and AMR meters?
  - e. What is the difference in meter registers between AMI and AMR meters?
  - f. How do meter registers translate to meter data that is electronically read by AMI and AMR meters?
  - g. Is meter data available on the meter register even if data transmitters or transmission fails for AMI and AMR meters?

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34. The AMI Plan overview, page 5, discusses Endpoints (or Communication Modules). Please provide the following:
- a. Why would an endpoint be specific to marketing literature?
  - b. Explain in detail how communication to the meter would affect the meter register or the meter itself.
  - c. Will the deployed meters have any ability to regulate or stop the flow of water upon request?
  - d. Vendor information for all endpoint technology selected if deployment of AMI is approved.
  - e. Does the endpoint provide alarms for high flows or backflow independent of scheduled or requested data transmission?
35. The AMI Plan overview, page 6, discusses Cellular AMI as the preferred technology. Please provide the following:
- a. Information regarding the cellular networks 5g coverage in the KAW service territory.
  - b. For each of the cellular networks being considered the projected phase out of 4g coverage.
  - c. The capability of the preferred endpoint to use 4g or 5g coverage.
  - d. The monthly cost for each endpoint to receive cellular service and how that service is provided and charged.
  - e. Please explain in detail what is meant by “limited ongoing maintenance related to security reviews, hardware refreshers and changes in technology” in terms of a benefit for the use of cellular AMI.
  - f. Are all endpoint technologies compatible with all cellular networks? Please explain in detail.
  - g. Are endpoints able to be upgraded to easily switch cellular networks? Does that require changes in hardware at each endpoint? Please explain in detail.
  - h. How would cellular provider address gaps in coverage? Who would pay for any upgrades needed?
  - i. Provide all documentation and discussions related to cellular network service agreements reviewed and costs reviewed while evaluating the likely cellular networks KAW would use.
  - j. What would be the typical length of cellular network service agreements and pricing? What would be the recourse of dramatic price increases for cellular service?
36. The AMI Plan overview, page 6, discusses Benefits of AMI technology as the preferred technology. Please explain how AMI information would be used on an actual basis, with examples, to detect system leaks or theft, or improve water system operations and management.

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37. Reference the AMI plan. Please provide a legible and electronic version of figure 4 on page 11.
38. Reference the AMI plan, page 19, figure 12. Please provide the 2025 combined price of the meter and the endpoint for each meter size.
39. Reference the AMI plan, page 21. Please provide vendor information, including specifications, sizes, design, and typical pricing for composite lids.
  - a. Would these composite lids also work for existing AMR meters? Please explain.
40. Reference the AMI plan, page 21 discussion on geographic diversity. Please explain if the KAWC territory and 4g or 5g cellular coverage will require utilizing more than one cellular provider and if so, the difference in plan pricing per meter.
41. Reference the AMI plan, page 22 discussion on technological considerations. Please explain how often AMI endpoints are updated by the preferred vendor, when the last major hardware update was issued and the expected technical life of the hardware, including firmware and software update support.
42. Reference the AMI plan, page 23 discussion on technological considerations. Please explain on how often AMR endpoints are updated by the preferred vendor, when the last major hardware update was issued and the expected technical life of the hardware, including firmware and software update support.
43. Reference the AMI plan, page 23 discussion on the meter selection process. Please provide the following:
  - a. Provide American Water's minimum established criteria used to compare RFI results.
  - b. Explain the statement "current cellular solution" and "back-up cellular solution." Are some vendor systems only compatible with specific cellular networks?
  - c. Provide a "modernized contract" model being utilized or any contracts that have been entered into with the RFP vendors.
44. Reference the AMI plan, and the discussion on the CBA beginning on page 23. Please provide the following:
  - a. All assumptions used in the analysis, including any assumptions used on technological obsolescence.
  - b. All calculations, including electronic copies of spreadsheets, etc., with formulas intact, that were used to calculate the net present value and cost per customer per year for both AMI and AMR.

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- c. All calculations, including electronic copies of spreadsheets, etc., with formulas intact, that were used to calculate the average cost of AMI and AMR for both brands.
  - d. 4g and 5g coverage maps on KAWC territory for all cellular providers considered.
45. Reference the AMI plan, Appendix A, p.37-38. Please explain the difference between figure 27 and figure 28.
46. Reference the AMI plan, Appendix A, Orion Cellular Water Endpoint. Please provide the following:
- a. Is this the endpoint being deployed for both vendors (p.23 of AMI Plan implies that two vendors have been selected)?
  - b. Is cellular communication over a private cellular VPN? If not, explain how communications are secured.
  - c. Vendor data states the battery may not be replaced. Does this mean if endpoint battery runs down the entire endpoint must be replaced?
  - d. Please provide additional vendor information, including battery duration curves vs data transmission. Vendor information states “up to 4 reads a day” are the design criteria.
  - e. Can the endpoint actually be programmed to send an alarm? Please discuss how this works in detail if the endpoint actually sends an alarm or if the data must be analyzed after it is received for flow or backflow alerts.
  - f. What actual communication instructions can the endpoint receive, process and act upon?
  - g. What configuration of the ORION endpoint is being considered? Please provide a discussion of why this configuration was chosen, including reasoning and considerations.
47. Reference the AMI Plan, Appendix A, vendor information for several types of meters and one endpoint are provided. However, p.23 of the AMI Plan implies that 2 vendors have qualified under the RFP. Is the vendor information provided in Appendix A inclusive of all types of equipment the two vendors will provide? If not, please provide all equipment information reviewed for the vendors with qualified RFP responses, identifying the equipment associated with each vendor.
48. Reference the AMI Plan. Please provide the electronic spreadsheets, databases, etc., with all formulas intact, used to produce figures 9, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, and 25.
49. Reference the AMI Plan, Appendix A, please provide electronic versions of figures 26-28 with enough detail that they are more legible when inspected at magnification.

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50. Reference the Direct Testimony of Krista E. Citron (“Citron Direct”).<sup>2</sup> Please provide the spreadsheet or data base used to generate the graph on page 5 in electronic format with the formulas intact.
51. Reference Citron Direct on page 5. Please provide vendor data on the composite lids used for the cost benefit analysis and background data verifying basis of composite lid costs.
52. Reference the Direct Testimony of Justin Sensabaugh (“Sensabaugh Direct”).<sup>3</sup> On page 8, lines 7-8, it is stated that an average of 8% of the 5/8-inch meters fail at 8 years. Please explain the following:
  - a. If the plan is to upgrade and replace meters on a 10-year basis, won’t these early failed meters require manual reading?
  - b. How will the registers of failed meters be read if there are no meter readers left? Please explain how this will be handled with full AMI deployment.
53. Reference the AMI plan, pages 8 and 9. Please explain how advanced customer portal information will be deployed to coincide with the customer’s meter being upgraded to AMI under the proposed plan for deploying AMI.

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<sup>2</sup> Filed on July 11, 2025, in this proceeding.

<sup>3</sup> Filed on July 11, 2025, in this proceeding.