

**KENTUCKY-AMERICAN WATER COMPANY  
CASE NO. 2023-00191  
COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

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**Witness: Melissa Schwarzell and David Hill**

17. Refer to the Application, Exhibit A, Advanced Metering Infrastructure Development Plan, page 19.
- a. Explain why Kentucky-American used a 20-year net present value (NPV) for the AMI system if the useful life of AMI meters is 10 years.
  - b. Provide the depreciable life Kentucky-American is using for the AMI meters.
  - c. Provide a cost-benefit analysis with a ten-year NPV and ten-year useful life.

**Response:**

- a) A twenty-year NPV was used for two reasons. First, the lids that must be purchased during the first replacement cycle are not planned for routine replacement within the measured period, meaning that they are expected to produce benefits throughout the 20-year period.

Additionally, neither field service labor benefits, meter reading benefits, or vehicle benefits are fully reflected by year 10 for investments made in the first 10 years. In fact, meter reading benefits are not expected to fully begin until year 11, so ignoring these later years would materially understate the benefit to cost relationship. For example, meters replaced in years 2-10 would still be creating benefits in year 11, meters replaced in years 3-10 would still be creating benefits in year 12, and meters replaced in years 4-10 would still be creating benefits in year 13, etc.

Due to both of these factors, twenty years was the minimum amount of time that seemed reasonable for the cost benefit analysis and associated NPVs in order to create a reasonable match between costs and benefits.

- b) The depreciable life in the cost benefit analysis is ten years. Please see the Company's response to PSC 2-13 for further discussion of the depreciation rate used in the study.
- c) A ten-year useful life is already reflected in the cost benefit analysis. A ten-year cost net of benefit NPV, which considerably understates benefits, is:

AMI Badger	\$	19.2
Existing Tech Badger	\$	15.5
AMI-Neptune	\$	24.8
Existing Tech-Neptune	\$	18.4
AMI Hybrid-Neptune	\$	26.4