#### Witness: William A. Lewis

1. Refer to Kentucky-American's response to Commission Staff's Post-Hearing Request for Information (Staff's Post-Hearing Request), Item 1. Also refer to Kentucky-American's response to Staff's Post-Hearing Request, Item 3. Explain if the 1,227 customer-read meters in the response to Item 1 are the same as the 1,227 inside meters in the response to Item 3.

#### **Response:**

In reference to PSCPH1DR1 and PSCPH1DR3, KAWC's intent was to confirm that 1,227 meters are located inside a premise. However, even though they are inside a premise, they are <u>not</u> customer-read meters. KAWC has no customer-read meters in its system (with the exception of hydrant meters explained below and in response to PSCPH2DR2), and, thus, the statement indicating otherwise in response to PSCPH1DR1 was inadvertently incorrect.

All meters are read by AMR, AMI, or are manually read by KAWC employees regardless of whether the meters are located inside a premise or in an exterior pit or vault with the exception of fire hydrant meters used to meter temporary water used by third parties. Please see KAWC's response to PSCPH2DR2 for a detailed explanation of water metering of third-party usage with fire hydrant meters.

#### Witness: William A. Lewis

2. Provide an explanation of Kentucky-American's customer read meters, including manufacturer and model. Provide the procedure on how the customer reports usage information to Kentucky-American.

#### **Response:**

KAWC only uses customer read meters when temporary water usage, through a fire hydrant, is requested by a third party for construction, street washing, pool filling, and similar situations. In these cases, the third party is issued a Company approved fire hydrant meter in accordance with Classification of Service, Service Classification No. 5 at Sheet 35 of KAWC's tariff. In accordance with the Hydrant Meter Agreement, the third party is required to provide KAWC a monthly meter reading. Meter reading must be phoned in or emailed monthly on the 23rd day of each month to the Customer Advocacy Office. If the reading is not reported by the 23rd of the month, a courtesy call will be given by KAWC and if the reading cannot be obtained by the due date, the customer is required to bring the meter in for inspection and reading. KAWC is in the process of converting fire hydrant meters from manual read meters to AMI capable meters to improve tracking and reporting of water usage on these devices. Currently, KAWC has 66 hydrant meters in inventory. Of those, 4 still require manual reading by the third-party who has been assigned the meter. All other hydrant meters have either an AMR or AMI endpoint. As soon as the 4 remaining meters are returned to KAWC, they too will be converted to AMI endpoints, but the goal is to complete this by the end of 2024. At this time, KAWC uses Badger M25 Recordall 5/8", Badger M25 Recordall 1", and Sensus H2 OMNI 3" meters for hydrant meters. All other KAWC owned meters are read by AMR, AMI, or manually read by KAWC employees. Please refer to KAWC's response to PSCPH2DR1.

# Witness: William A. Lewis

3. Provide the address of the 1,227 customer-read meters.

# **Response:**

Please refer to KAWC's response to PSCPH2DR1.

### Witness: William A. Lewis

4. Explain if Kentucky-American has plans to phase out the customer-read meters, include any expected phase out dates.

### **Response:**

Please reference KAWC's response to PSCPH2DR1 and PSCPH2DR2. KAWC is actively replacing third party customer read hydrant meters with AMI capable meters. All other customer meters are read by AMR, AMI or are manually read by KAWC employees regardless of whether the meter is located inside a premise or in an exterior meter pit or vault.

### Witness: William A. Lewis

5. Provide the current Kentucky-American tariff that permits self-read meters.

### **Response:**

Please reference KAWC's response to PSCPH2DR1. KAWC has no customer-read meters with the exception of third-party temporary water customers using fire hydrant meters for construction, street washing, pool filling, and similar situations. Please see Sheet 35 of KAWC's tariff for a description of the circumstances for use of a fire hydrant meter for temporary water customers using fire hydrant meters for construction, street washing, pool filling, and y 4 of those hydrant meters are customer-read meters and they are being phased out. Please also see the response to PSCPH2DR2.

### Witness: William A. Lewis

- 6. Refer to Kentucky-American's response to Staff's Post-Hearing Request, Item 2. For the 705 meters that have a minimum of 12 months of estimated reads, provide:
  - a. The exact number of estimated reads each meter has received.
  - b. The last estimated read.
  - c. A narrative explanation, not merely skip codes, of why the meter has received more than three estimated reads.

### **Response:**

- A. For the past 5 years, there have been 705 customer accounts with a minimum of 12 months of estimated reads. There are 718 meters associated with the 705 accounts at the 703 installation locations. The relationship between the number of estimated meters, estimated accounts, and installation locations is explained in detail in KAWC's response to Staff's Second Post-Hearing Request, Item 8. Please see the attached Excel file KAW\_R\_PSCPHDR\_NUM006\_103023 Attachment 1 for the list of meters, estimated reads each meter has received as requested in this request. It also provides the number of consecutive estimated reads for each meter not read quarterly. Additionally, of the 718 meters with estimated meter reads identified in the attachment, 26 of those meters were associated with inactive accounts during the 5-year time-period noted.
- B. Please see attached Excel file KAW\_R\_PSCPHDR\_NUM006\_103023 Attachment 1 for the list of meters, estimate counts, and last estimated read.
- C. Please see attached Excel file KAW\_R\_PSCPHDR\_NUM006\_103023 Attachment 1 for narrative explanation of why each meter received more than three estimates.

#### Witness: David Hill

7. Provide the number of meters that have received more than three consecutive estimated reads since 2019.

# **Response:**

There have been a total of 7,784 meters that received more than 3 consecutive estimated reads since 2019:

As of 10/25/2023

Account Status	<b>Count of Meters</b>
Inactive	944
Active	6840
Sales for Resale	2
Residential	5542
Public Fire Service	2
Private Fire Service- Non Residential	469
OPA	76
Miscellaneous	34
Industrial	9
Company Account	13
Commercial	693
Grand Total	7784

### Witness: William A. Lewis

8. Refer to Kentucky-American's response to Staff's Post-Hearing Request, Item 7. Reconcile the statement, "The Company recognizes that multi-month periodic read order failures are a concern, and wants to note that as of May 2023, there were only 7 active accounts (out of approximately 140,000) which had been estimating for an extended period of time (11 months or more)" with Kentucky-American's response to Staff's Post-Hearing Request, Item 2 that states 705 meter have received at least 12 months of consecutive estimates.

#### **Response:**

In Staff's Post-Hearing Request, Item 2, KAWC was asked how many "accounts" received at least 12-months of consecutive estimates over the past 5 years up to the date of that response. That number was 705 accounts over that 5-year period. KAWC's response to Item 7 of Staff's Post-Hearing Request reported the number of meters with 11 or more consecutive estimates as of May 2023. There were only 7.

KAWC has noticed different terms (e.g., accounts or meters) used in prior requests for information. It may be helpful to explain this relationship to better understand why there can be differences between total number counts. There are three related, but different attributes tracked by KAWC regarding the meter reading program. They are listed and defined below:

- 1. Installation This is the physical location of the meter. For example, a meter is located in an exterior meter pit/vault or in an interior space of a facility. The installation rarely, if ever, changes.
- 2. Account This reflects the owner of the water service agreement and related account information. Every new owner will receive a new account, therefore one installation may have many different accounts over time as new tenants come and go.
- 3. Meter This is the actual meter, for an Installation and assigned to the Account. As with accounts, an installation may have multiple meters over time due to LOS meter changes and other events that require the meter to be changed.

For example, the following table reflects the relationship between these attributes as it pertains to the 705 accounts over the 5-year period of time. In this example, 703 installations had 705 account owners with 718 meters, meaning, in the past 5 years, there were at least 2 changes in account ownership and 15 meter changes associated with the 703 installation locations over the 5-year period.

Accounts	705
Installation	703
Meters	718

As stated above, in Staff's Post-Hearing Request, Item 7, KAWC was asked to provide an update to AG1DR2, Attachment 1. In that response, KAWC provided a current status/number of meters with 11 or more consecutive estimates that remained as of May 2023. At that time, there were 7 meters that met the criteria.

### Witness: William A. Lewis

9. Refer to Kentucky-American's response to Staff's Post-Hearing Request, Item 7. Provide the date each meter in the response was repaired. If not yet repaired, explain why not.

# **Response:**

Each of the seven meters described in that response was replaced instead of being repaired. Please see the table below with details for the requested update.

Installation (Premise)	Meter	# Months Estimated	New Meter Install Date	Current Status
9120028990	50776010	23	06/22/23	<b>Fire Service Meter</b> – No estimates since meter was replaced
5000099822	56022695	19	06/12/23	<b>Hydrant Meter</b> – No estimates since meter was replaced
5000022105	51610529	18	07/01/23	<b>Hydrant Meter</b> – No estimates since meter was replaced
9120029346	50583621	15	6/22/23	<b>Fire Service Meter</b> – No estimates since meter was replaced
9120029541	50606681	13	08/02/23	<b>Fire Service Meter</b> – No estimates since meter was replaced
5000159129	55553467	21	08/09/23	<b>Hydrant Meter</b> – No estimates since meter was replaced
5000137701	55553461	34	06/22/23	<b>Hydrant Meter</b> – Meter is estimating. The contractor has either moved the meter outside the local area or it is being stored in an area where the meter cannot communicate with the meter reading system.

### Witness: William A. Lewis

10. Refer to Kentucky-American's response to Staff's Post-Hearing Request, Item 7. Provide the number of meters that have received estimated reads for three months up to ten months.

### **Response:**

The following table reflects the number of meters that received estimated reads for three months up to ten months as of May 2023.

May-23	5									
Meters Estimating	Months									
		3	4	5	6	7	8	9	10	Grand Total
No Account		25	12	16	9	8	8	7	3	88
Active Account		197	74	83	48	15	9	8	7	441
Sales for Resale				1						1
Residential		162	55	56	17	3	2	3	1	299
Private Fire Service- Non Residentia		11	11	8	19	12	2	3	3	69
OPA			1	2	3					6
Miscellaneous					2		1	2		5
Industrial		1								1
Company Account				1					1	2
Commercial		23	7	15	7		4		2	58
Grand Total		222	86	99	57	23	17	15	10	529

The following table reflects the number of meters that received estimated reads for three months up to ten months as of October 25, 2023.

Count of city	Column Labels	<b>.</b> 7								
Row Labels	)	3	4	5	6	7	8	10	11	Grand Total
KY Central Water: Com		10	7	1		3				21
KY Central Water: Company Use		1								1
KY Central Water: Misc Mo			1	1				1		3
KY Central Water: OPA		3	1		1					5
KY Central Water: Private Fire Service		3	6	1	1	1	2		1	15
KY Central Water: Res		24	7	1						32
Grand Total		41	22	4	2	4	2	1	1	77

The above table shows KAWC's progress on reducing consecutive estimates. For example, it shows that, as of October 25, 2023, there were only 77 meters at active accounts (out of approximately 140,000 in KAWC's system) that had between 3 and 10 consecutive estimates. That equates to only .06% of its meters.

### Witness: William A. Lewis

11. Refer to Kentucky-American's response to Staff's Post-Hearing Request, Item 7. Also refer to 807 KAR 5:006, Section 7(5)(a). Explain why Kentucky-American considers 11 months excessive when 807 KAR 5:006, Section 7(5)(a) requires meters to be read at least quarterly.

### **Response:**

KAWC acknowledges the requirements of 807 KAR 5:006, Section 7(5)(a) and the requirement to read meters at least quarterly except if KAWC is prevented from doing so for reasons beyond its control. Additionally, KAWC acknowledges that its meter reading performance has not always met this requirement over the time period questioned by the Throughout this investigation and as noted in its responses to both Commission. Commission and Office of the Attorney General questions, KAWC has described the various changes it has made to the meter reading program to improve that performance. The response to Staff's Post-Hearing Request, Item 7 was intended to provide a status update, at the time of the request, and to identify the number of meters that were still receiving consecutive estimates longer than 11-months. KAWC's approach to addressing consecutive estimate reduction has consisted of two primary objectives: first, identify organizational, operational, and systematic improvements necessary to address factors causing estimated reads (e.g., replacement of underperforming meters, improved meter route efficiency, employee training, improved automated alert notifications, etc.) to stop new consecutive estimates from occurring; and second, purposefully reduce the longest running consecutive estimates in our meter inventory. KAWC's response to Staff's Post-Hearing Request, Item 7 was intended to demonstrate to the Commission the progress that has been made to reduce the number and duration of consecutive estimates. 12 months was used as milestone to help measure progress made to date compared to the highest count and duration of consecutive estimates from last year and the continued positive progress being made towards achieving the quarterly meter reading requirement.

Over the past 12 months, KAWC has implemented the following changes and improvements related to the meter reading program:

- 1. Refinement of the KAWC meter reading routes was performed to find drive time and data collection efficiencies to reduce the time necessary to read each meter route.
- 2. Programming improvements were made to SAP to ensure an automatic workorder was being generated and issued to KAWC employees at the second consecutive estimate. This improvement ensures visibility to meters that require immediate attention to prevent a third consecutive estimate.

- 3. Functionality was added to SAP so that partial meter routes could be uploaded. This was important to ensure that actual AMR read meters in a particular route could be uploaded and not put at risk if manual read meters could not be uploaded within the 3-day SAP meter reading window that would have caused a mass estimation of the entire meter route. This resulted in a reduction of unnecessary estimates.
- 4. Additional training was provided to KAWC employees to better understand the internal processes and relationships between meter reading errors and corrective work orders required to resolve them. This has helped to reduce unnecessary work orders, improved field service employee productivity and decrease estimates.
- 5. Coordination with American Water Supply Chain to address recent limitations of meter manufacturing and delivery timelines. In most cases, the correction necessary to resolve an estimating meter is its replacement. KAWC was able to negotiate agreements with meter vendors to ensure an available inventory of meters was available to sustain the number of replacements required to address underperforming meters.
- 6. Additional contractor firms were hired to replace meters to ensure KAWC was able to overcome the backlog of meter replacements needed and to keep pace with any new meter performance issues.
- 7. Since January 1, 2023, over 16,800 meters have been replaced to address KAWC's backlog of underperforming meters and to keep pace with any new meter performance issues.

The following tables illustrate the progress KAWC has made to eliminate consecutive estimates.

December 2022																											
Service Class	Number of Consecutively Estimated Months															Total											
Service class	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Total
KY Central Water: Com	46	17	15	8	4		1						1														92
KY Central Water: Company Use			1																								1
KY Central Water: Ind	1			1																							2
KY Central Water: Misc Mo	1	4	4	5							3	1															18
KY Central Water: OPA	3			2	2																						7
KY Central Water: Private Fire Service	11	8	17	15	5	2	1	4	1				1	2	2	1	1										71
KY Central Water: Res	382	233	210	66	13	3	2	1	4	1	1		1	1													918
KY Central Water: RES w/o KRA Fee	1	1																									2
KY Eastern Rockcastle Water Res Mo 5/8"	1		1	1																							3
KY Northern Water: RES Mo	4																										4
KY Northern Water: RES w/o KRA Fee Mo						1																					1
KY: Northern Middletown WT Res wo SS	2																										2
Total	452	263	248	98	24	6	4	5	5	1	4	1	3	3	2	1	1	0	0	0	0	0	0	0	0	0	1121

The table shows KAWC's progress on reducing consecutive estimates. For example, it shows that, as of October 25, 2023, there were only 77 meters at active accounts (out of approximately 140,000 in KAWC's system) that had between 3 and 10 consecutive estimates. That equates to only .06% of its meters.

Count of city	Column Labels 👽								
Row Labels 🗸	3	4	5	6	7	8	10	11	Grand Total
KY Central Water: Com	10	7	1		3				21
KY Central Water: Company Use	1								1
KY Central Water: Misc Mo		1	1				1		3
KY Central Water: OPA	3	1		1					5
KY Central Water: Private Fire Service	3	6	1	1	1	2		1	15
KY Central Water: Res	24	7	1						32
Grand Total	41	22	4	2	4	2	1	1	77

#### Witness: William A. Lewis

12. Refer to Kentucky-American's response to Staff's Post-Hearing Request, Item 11. Explain why Kentucky-American does not have a written policy for what is "outside its control" so that a meter does not have to be read.

### **Response:**

KAWC does not have a written policy specific to the issue of "outside its control" (thereby meaning a meter does not have to be read) because KAWC's policy is to attempt to read *all* meters monthly. That may not be possible, but the policy is that the attempt should be made and the process is governed by an automated SAP process that issues meter reading orders based on pre-defined meter reading schedules. This practice eliminates discretion regarding what meters are read. As noted in KAWC's response to Staff's Post-hearing Request, Item 11, one exception to this would be in cases of inclement weather for safety reasons.

When AMR exceptions are identified, again, SAP automatically issues Business Process Exception Management (BPEM) cases for follow-up by local employees to identify and correct the problem. This process will be automatically repeated until the meter issue is resolved. These processes are automated thereby removing discretion from the practice and the need for a formal written policy.

In the case where manual meter reading is required, meter readers will continue to manually read the meter monthly to obtain a reading as long as the meter is accessible, safe to access, functional, and the manual dials can be read accurately. This process will continue until the meter can be repaired or replaced to resume AMR.

### Witness: William A. Lewis

13. Explain why Kentucky-American should be permitted to include inactive with consumption in its water loss report.

#### **Response:**

The water loss report incorporates several factors that contribute to water loss including produced water, purchased water, billed usage, water used for treatment activity, accounted for water loss and unaccounted for water loss. In this case, metered flow through an inactive meter could reflect actual usage for an account that has not been properly activated, a temporary transition between account owners where usage will be billed at a later date, a leak at the premises, or theft. Reading inactive metered accounts enables KAWC to actively track usage at the premises so that the usage, regardless of account status, can be accounted for and differentiated from unaccounted for water loss.