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BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION) CASE NO. VEO-W-22-02
OF VEOLIA WATER IDAHO, INC. FOR)
AUTHORITY TO INCREASE ITS RATES)
AND CHARGES FOR WATER SERVICE IN)
THE STATE OF IDAHO)
)
)
)

REBUTTAL TESTIMONY OF ANN BUI FOR VEOLIA WATER IDAHO, INC.

MARCH 8, 2023

1 **Q. Please state your name, occupation, business address.**

2 A. My name is Ann Bui, and I am a Senior Managing Director with Black & Veatch
3 Management Consulting LLC ("Black & Veatch"), headquartered at 11041 Lamar
4 Avenue, Overland Park, Kansas.

5 **Q. Are you the same Ann Bui that filed direct testimony in this proceeding?**

6 A. Yes.

7 **Q. What is the purpose of your rebuttal testimony?**

8 A. I am providing this rebuttal testimony to address comments regarding the Cost-of-Service
9 Study ("COSS") and Customer Class Load Study ("Load Study") made by Public Utility
10 Commission ("PUC") Staff Witnesses, Mr. Travis Culbertson and Mr. Michael Eldred,
11 and Intervenor Witness, Ms. Jessica York of Micron Technology, Inc. ("Micron").

12 **CUSTOMER CLASS LOAD STUDY**

13 **Q. Does the Load Study identify how customer classes use the system during peaking**
14 **events?**

15 A. Yes. As identified in the Load Study, customers were grouped by typical water utility
16 customer classifications. The maximum day and maximum hour analyses were
17 incorporated into the COSS as customer class-specific maximum day and maximum hour
18 factors. The Advanced Metering Infrastructure (AMI) data also allowed the Company to
19 directly measure peaks which is more useful and accurate than using the M1 Manual's
20 Appendix A approach, which would rely on assumptions and interpolations of bi-monthly
21 data. Therefore, the load study was performed in a manner that makes it useful to inform
22 the COSS and brings forth new insights made possible by using AMI data.

1 **Q. Do you agree with the statement that a robust analysis was not conducted to verify**
2 **the hypothetical classes or any other potential classes?**

3 A. No. The Load Study is robust and examined over 1,000,000 data points. A statistical
4 analysis was conducted to assess whether the data were sufficient (statistically sufficient
5 sample) to be representative of customer class behaviors. The Company's customer
6 classes are consistent with what other water utilities use and are reasonable.

7 **Q. Please provide the rationale for the scope of the Load Study and concerns voiced**
8 **regarding the fact that the Load Study did not identify potential classes before data**
9 **collection and that the study should have included several other variables such as lot**
10 **sizes, different types of multi-family housing, and types of processes and equipment**
11 **used by commercial and industrial customers, etc.**

12 A. Mr. Eldred states that the "load study needed to identify potential customer classes based
13 on cost causation principles before collecting data on these potential classes." Using
14 valuable insights from AMI data, the Load Study identifies how typical water utility
15 customer classes use the system; therefore, if customers are "grouped" incorrectly, their
16 pattern of behavior will create outliers in the data. The results of the Load Study indicate
17 that the AMI data grouped by billing classifications are appropriate and that these
18 customers exhibit similar usage patterns.

19 One of the reasons why load studies are conducted is to evaluate whether new
20 customer classes or existing ones are indicated. As the M1 Manual states in its Chapter
21 III.2 overview, "...the cost of providing service can be reasonably determined for groups
22 or classes of customers that have similar water-use characteristics..." The Load Study
23 examined usage characteristics based on customer classifications rather than meter size.

1 The Load Study did examine several different ways to group findings and the study
2 revealed that there was no clear need for new customer classes.

3 Using additional factors, such as whether a property uses Company-provided
4 water to irrigate during summer months, property characteristics, or process/equipment
5 information, is not practical nor feasible. Getting more granular information on lot size
6 for single-family or different types of multi-family units (duplex, triplex, etc.) requires
7 much work to collect and maintain. Given the current area of AMI coverage, it may not
8 yield a statistically valid sample size for these sub-categories.

9 With respect to process and equipment information for commercial and industrial
10 customers, it is possible that different peaking profiles could result. However, the cost
11 and effort to obtain and maintain this information make this consideration impractical. In
12 our experience, obtaining information of this nature is useful if a utility has a large
13 commercial/industrial client basis that offers various services and for which deduct
14 meters may be necessary to address water used in producing a product and not returned to
15 the sewer system. For the Company's study, considerations of this nature for the
16 commercial/industrial would come into play when using the M1 Manual Appendix A
17 approach to reflect Maximum Day and Maximum Hour adjustments. When using AMI
18 data, such adjustments are not needed.

19 Regarding the suggestion of some undefined process to identify and bill
20 customers that use non-Company water for irrigation, it is our understanding that the
21 Company cannot identify those customers that may not use Company-water for irrigation
22 during the summer months. Specifically, obtaining usage information for these customers
23 would require the Company to monitor and meter such irrigation (from the non-Company

1 provided source). The assumption is that if a customer is connected to the system, the
2 customer expects to have water on-demand and will use the water as they wish. That
3 means the Company assumes that customers may or may not use Company-provided
4 water for irrigation during the summer months. From a practical implementation
5 perspective, there appears to be no reasonable method of billing such customers.

6 Finally, regarding the example provided regarding residential customers with
7 yards and lawns consuming much more water in the summer than apartment dwellers, I
8 would urge the Commission to understand that rates are designed such that apartment
9 dwellers using less water do not pay the same total bill because the bill is based on
10 consumption. Furthermore, with the Company's summer/winter rate structure, residential
11 customers with yards and lawns pay a higher rate for usage over the base usage amount.
12 This type of rate structure promotes water conservation and helps customers understand
13 that they have control over their discretionary water use.

14 **Q. Do you agree with the statement that the Company's AMI rollout could have been**
15 **altered to collect the necessary data?**

16 A. How a utility rolls out its AMI program reflects several business decisions, including how
17 to optimize routes, the age of meters being replaced, cost, and minimizing customer
18 disruptions. Collecting the data that PUC Staff is requesting would require detailed
19 information surveys and investigations including field verifications of such information,
20 which I understand have not previously been deemed necessary and would likely require
21 significant costs. As Mr. Thompson, in his testimony, discusses, the AMI rollout has been
22 in progress since 2016 and will continue until around 2035. Specific considerations, such
23 as making sure that a broad range of customer types is included could be considered in

1 future rollouts, but the costs must also be considered. The status of the AMI program and
2 its progression is address in Mr. Thompson's testimony.

3 **Q. Do you agree with the statement by Mr. Eldred that the load study was not**
4 **performed in a manner that makes it used and useful to inform the COSS?**

5 A. No, I do not. Mr. Eldred acknowledges that "ordinarily, load studies are structured around
6 existing customer classes." The AWWA M1 Manual states, "Formal demand studies
7 involve daily and hourly consumption records of samples of customers from each class of
8 service." These statements are consistent with how the Company approached the study,
9 using the existing and available customer class information that also reflects typical water
10 utility classifications.

11 Furthermore, AMI hourly data provides far greater insights into hourly and daily
12 peak demands than previous estimations generated from bi-monthly billing data. Each
13 meter on AMI now gathers approximately 8,760 data points per year, compared to 6 data
14 points for non-AMI bi-monthly billing records. The Load Study performed for the
15 Company leverages this information to advance understanding of customer usage patterns
16 and provide useful insights to inform the COSS.

17 **COST OF SERVICE**

18 **Q. Does the COSS follow accepted industry practices for these types of studies?**

19 A. Absolutely. The model provided with our filing shows on Exhibits 14-F1 and 14-F2 what
20 factors are applied to which functional cost elements and customer classes. We
21 acknowledge that following the presented exhibits in numerical order may make it seem
22 that the COSS first allocated the revenue requirements to the customer classes and then

1 the functional cost components. However, this is not the situation, and looking at how the
2 allocations are derived shows that we have followed cost-causation processes.

3 Black & Veatch agrees that cost-of-service analyses should allocate costs to those
4 customers that incur them. In the provided example of meter costs and installation, Mr.
5 Eldred states, "instead of directly assigning the costs of meters and meter installations,
6 the Company allocated these costs based on 5/8" meter equivalents." In Exhibit 14-3,
7 costs associated with meters are allocated to one of three functional cost components:
8 Meters, Services, or Billing and Meters. The allocation will depend on the nature of the
9 cost. For example, Meters and Meter Installations (Row 199) are allocated to Meters.
10 Maintenance of Meters-Labor (Row 125) is allocated to Services. Once all the revenue
11 requirements have been apportioned to the functional cost components, they are allocated
12 to the customer classifications based on each group's respective units of service (Exhibit
13 14-2). For the case of meter costs and installations, the appropriate unit of service uses an
14 equivalent meter ratio, with the 5/8" meter serving at the "base" meter. The meter ratios
15 recognize higher flows associated with larger meters and hence, a higher level of
16 demand. For meter costs, it is also a standard way to recognize that larger meters are
17 more costly. Allocating meter costs based on the number of meters rather than the
18 number of equivalent meters would not fairly recognize these conditions.

19 **Q. When conducting a cost-of-service analysis, do you first allocate costs to**
20 **customer classes?**

21 A. No, we do not. Black & Veatch agrees that revenue requirements should be allocated
22 based on cost-causation principles. We believe the difference in what we understand Mr.

1 Eldred states in his testimony versus what is done under a cost-of-service analysis lies in
2 when these revenue requirements are allocated to the customer classes.

3 AWWA's M1 Manual and Black & Veatch's methodology are consistent: First,
4 allocate costs to the functional cost components (what is causing the expense). Then,
5 allocate these cost elements based on the customer's units of service (who is causing the
6 expense). This approach allows the derivation of unit costs for each cost component that
7 are the same, and the only difference between customers (excluding special categories
8 such as fire protection and directly assigned) lies in how many units they have under each
9 cost component (e.g., the number of bills, average volume, etc.). The cost causation that
10 Mr. Eldred is seeking occurs after we have assigned the revenue requirements to the
11 functional cost elements. This allows for a fair and equitable way to apportion costs to
12 customer groups.

13 **Q. Did the current COSS update the factors used in the 2011 rate case?**

14 A. Yes. Black & Veatch understands that the Company and PUC Staff discussed the
15 methodology and factors during the 2011 rate case. We are not privy to any written
16 communications regarding these discussions. Regardless, we reviewed the provided
17 billing data and revenue requirements in conducting our COSS and performed a COSS as
18 we normally would for any client. The provided Exhibits maintain the format the
19 Company has used for several past filings to help with the review process.

20 Black & Veatch notes that all the factors used and presented in the COSS have
21 been reviewed and updated as appropriate. Just because a factor may not have changed
22 does not mean it was not reviewed. In our experience, a utility's cost-of-service

1 allocations may not change substantially if there are no underlying changes in how a
2 utility operates.

3 **Q. Do you believe the change in fire demand described in the COSS is appropriate and**
4 **based on reasonable assumptions?**

5 A. Yes. As part of Black & Veatch's review of the allocation factors, we looked at the
6 system fire demand. We could not find any documentation in the past rate case designs
7 supporting using a single fire lasting 10 hours and requiring 10,000 gallons per minute
8 (gpm) flow as the "correct" system fire demand. Consequently, Black & Veatch reviewed
9 the Company's fire flow map for their fire storage and flow requirements. We believe that
10 using a single fire instead of multiple simultaneous fires may have been an oversight and
11 have thus proposed using three simultaneous fires with a total duration of 10 hours and
12 10,000 gpm. The Company's Facility Plan outlines the system's fire flow requirements,
13 and there is no 10,000-gpm requirement. Assuming 3 simultaneous fires is a conservative
14 approach and provides a reasonable level of service.

15 **Q. Please discuss the customer classification used in the COSS?**

16 A. Please also see our prior responses regarding customer classification and the Load Study.
17 The customer classifications in the COSS reflect classifications found in the Company's
18 billing system and used as part of the Load Study. The COSS examines how different
19 customer classifications use the water system and groups customers based on similar
20 usage patterns. It is not a comprehensive listing of available classifications but includes
21 those classes for which the Company currently issues bills. The Load Study results show
22 that the system's diversity factor (range for coincident and non-coincident demands) is
23 less than 1.0, which is below the typical range cited by AWWA's M1 Manual of 1.1 to

1 1.4. This implies that the customer classes are generally peaking at the same time. From
2 that perspective, the customer groups are behaving in the same manner; therefore, the use
3 of a single rate tariff for all customers is reasonable.

4 **Q. Do you agree with Ms. York’s statement “the Company’s allocation of costs**
5 **associated with distribution mains...” do not reflect that some customers do not take**
6 **service from distribution mains?**

7 A. No. In our revised Exhibit, Black & Veatch did adjust for a split between distribution and
8 transmission mains. It is our understanding that the Company essentially views all mains
9 as distribution. For example, there are residential accounts that are served from large
10 diameter mains (24”) and some commercial accounts that are served from small diameter
11 lines (2”). Essentially, customers are served from the nearest line so long as the line can
12 meet demand and fire flow requirements.

13 **Q. What is your opinion regarding Ms. York’s suggestion regarding a special contract**
14 **or economic development rate?**

15 A. See Mr. Thompson’s testimony regarding this matter. As he states, the Company would
16 welcome discussions of a special contract rate with Micron or other interested parties.
17 There is a significant amount of data and information needed to support developing such
18 a rate (see for example our response regarding the use of distribution/transmission lines).
19 The development of a special contract rate would not be possible during this proceeding.

20 **Q. Does this conclude your rebuttal testimony?**

21 A. Yes.