

November 2, 2017

INDIANA UTILITY

REGULATORY COMMISSION

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

JOINT PETITION OF INDIANA-AMERICAN WATER)
 COMPANY, INC. (“INDIANA AMERICAN”) AND THE)
 CITY OF CHARLESTOWN, INDIANA)
 (“CHARLESTOWN”) FOR APPROVAL AND)
 AUTHORIZATION OF: (A) THE ACQUISITION BY)
 INDIANA-AMERICAN OF CHARLESTOWN’S)
 WATER UTILITY PROPERTIES (THE)
 “CHARLESTOWN WATER SYSTEM”) IN CLARK)
 COUNTY, INDIANA IN ACCORDANCE WITH A)
 PURCHASE AGREEMENT THEREFOR; (B))
 APPROVAL OF ACCOUNTING AND RATE BASE)
 TREATMENT; (C) APPLICATION OF INDIANA)
 AMERICAN’S AREA ONE RATES AND CHARGES TO)
 WATER SERVICE RENDERED BY INDIANA)
 AMERICAN IN THE AREA SERVED BY THE)
 CHARLESTOWN WATER SYSTEM (“THE)
 CHARLESTOWN AREA”); (D) APPLICATION OF)
 INDIANA AMERICAN’S DEPRECIATION ACCRUAL)
 RATES TO SUCH ACQUIRED PROPERTIES; (E) THE)
 SUBJECTION OF THE ACQUIRED PROPERTIES TO)
 THE LIEN OF INDIANA AMERICAN’S MORTGAGE)
 INDENTURE AND THE POTENTIAL)
 ENCUMBRANCE FROM RIGHT OF FIRST REFUSAL;)
 AND (F) THE PLAN FOR REASONABLE AND)
 PRUDENT IMPROVEMENTS TO PROVIDE)
 ADEQUATE, EFFICIENT, SAFE AND REASONABLE)
 SERVICE TO CUSTOMERS OF THE CHARLESTOWN)
 WATER SYSTEM.)

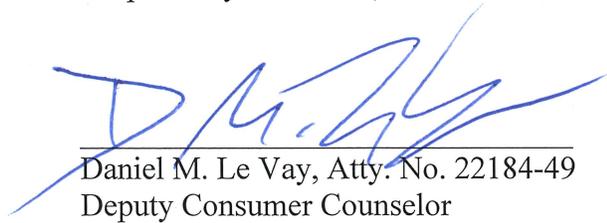
CAUSE NO. 44976

VERIFIED COMPLAINT AND REQUEST FOR)
 COMMISSION INVESTIGATION BY NOW! INC. AND)
 CUSTOMERS OF THE CITY OF CHARLESTOWN)
 AGAINST INDIANA AMERICAN WATER COMPANY)
 REGARDING ITS PROPOSED ACQUISITION OF THE)
 CITY OF CHARLESTOWN’S WATER UTILITY)

CAUSE NO. 44964

TESTIMONY OF
CARL N. SEALS – PUBLIC’S EXHIBIT NO. 3
ON BEHALF OF THE
INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR
NOVEMBER 2, 2017

Respectfully submitted,



Daniel M. Le Vay, Atty. No. 22184-49
Deputy Consumer Counselor

Jesse James, Atty. No. 29971-53
Deputy Consumer Counselor

TESTIMONY OF CARL N. SEALS
CAUSE NO. 44976
INDIANA AMERICAN WATER COMPANY, INC. AND
THE CITY OF CHARLESTOWN, INDIANA

I. INTRODUCTION

1 **Q: Please state your name and business address.**

2 A: My name is Carl N. Seals, and my business address is 115 West Washington Street, Suite
3 1500 South, Indianapolis, Indiana 46204.

4 **Q: By whom are you employed and in what capacity?**

5 A: I am employed by the Indiana Office of Utility Consumer Counselor ("OUCC") as a Utility
6 Analyst in the Water/Wastewater Division. My qualifications and experience are set forth
7 in Appendix A.

8 **Q: What is the purpose of your testimony?**

9 A: My testimony discusses four topics regarding the acquisition of the City of Charlestown
10 ("City" or "Charlestown") water utility assets by Indiana-American Water Company, Inc.
11 ("Indiana-American"):

- 12 1. Indiana-American's plans for improvements to the Charlestown water system;
- 13 2. The cost per customer of the proposed acquisition;
- 14 3. The condition of Charlestown's water utility; and
- 15 4. The ages of water meters as represented in Charlestown's Valuation Report.

16 **Q: What have you done to prepare your testimony?**

17 A: I reviewed Joint Petitioners' testimony, Commission Annual Reports, and responses Joint
18 Petitioners provided to OUCC data requests. On October 3, 2017, along with other OUCC
19 staff I met with representatives of two of the engineering firms hired by Charlestown to
20 produce the Valuation Report used to establish the assets' purchase price. This meeting

1 took place at Banning Engineering's offices where participants, including counsel from all
2 parties, either attended in person or appeared by phone. On October 12, 2017, James Parks,
3 Edward Kaufman and I visited the Charlestown facilities and examined their source of
4 supply, treatment, pumpage and storage facilities. We also examined approximately fifty
5 (50) hydrants throughout the town, taking photographs and recording dates of manufacture.

6 **Q: Does your testimony include attachments?**

7 A: Yes. My testimony includes the following Attachments:

- 8 • Attachment CNS-1: Pictures of Charlestown's above-ground facilities;
- 9 • Attachment CNS-2: Charlestown historical plant in service, 2000-2016;
- 10 • Attachment CNS-3: Exhibit GRH-2, page 13; and
- 11 • Attachment CNS-4: Exhibit WAS-2.

II. PLAN FOR IMPROVEMENTS

12 **Q: Does Indiana Code § 8-1-30.3-5(d) require Indiana-American to provide a plan for**
13 **reasonable and prudent improvements?**

14 A: Yes. IC § 8-1-30.3-5(d) establishes in pertinent part the following:

15 (d) A utility company "may petition the commission in an
16 independent proceeding to approve a petition under subsection (c) before
17 the utility company acquires the utility property if the utility company
18 provides:

* * * * *

19 (4) a plan for reasonable and prudent improvements to provide
20 adequate, efficient, safe, and reasonable service to customers of the
21 distressed utility.

22 **Q: Has Indiana-American provided "a plan for reasonable and prudent improvements**
23 **to provide adequate, efficient, safe, and reasonable service to customers of the**
24 **distressed utility"?**

25 A: No. With respect to its plan as required by IC 8-1-30.3-5(d), Indiana-American indicated
26 it needs to do a more thorough evaluation of the Charlestown system, including experience

1 that it will gain through direct operation of the system. (See Mr. Hoffman's testimony,
2 Joint Petitioners' Exhibit No. 6, p. 18.) Mr. Hoffman added that Indiana-American's plan
3 includes the possible solutions he discusses in his testimony along with likely distribution
4 system improvements stemming from the Saegesser Preliminary Engineering report and
5 further evaluation. Mr. Hoffman then expressed his expectation that investments may
6 exceed the amount identified in the asset purchase agreement. (Id.)

7 **Q: What possible solutions does Mr. Hoffman discuss in his testimony?**

8 A: Mr. Hoffman briefly mentions:

- 9 1. Addressing the distribution system;
- 10 2. Thoroughly testing, evaluating, and understanding the raw water concentrations of
11 manganese;
- 12 3. Locating another source of supply further away from the existing location;
- 13 4. Treatment of the existing well supply by removal of manganese through oxidation and
14 filtration or adsorption, and filter backwashing; and,
- 15 5. Unidirectional flushing.

16 However, none of these "possible solutions," are developed. For instance, when asked
17 if Charlestown should install filtration, Mr. Hoffman's responded "That is not my
18 testimony," and added only that it would "be prudent to investigate filtration." (See Joint
19 Petitioners' Exhibit No. 6, p. 14.)

1 **Q: Had Mr. Hoffman studied the improvements proposed in the Saegesser Preliminary**
2 **Engineering Report?**

3 A: No. According to his testimony, he had not yet done that. But he said he expected that
4 many of the proposed improvements could be valuable for effective operation of the
5 system. (See Joint Petitioners' Exhibit No. 6, p. 17.)

6 **Q Did the OUCC seek additional clarification from Indiana-American regarding its**
7 **plan for reasonable and prudent improvements?**

8 A: Yes. In order to determine Indiana-American's plan for improvements as required by IC 8-
9 1-30.3-5(d)(4), the OUCC issued Data Request Question 1.15, which requested Indiana
10 American to provide "all plans for reasonable and prudent improvements to the acquired
11 system and identify all costs."

12 **Q: What was Indiana-American's response?**

13 A: Indiana-American again referred us to page 18 of Mr. Hoffman's testimony:

14 Information Provided:

15 Please refer to page 18 of Mr. Hoffman's direct testimony for reply to this
16 request, which is attached as "OUCC DR 1.15-R1.pdf". Additionally,
17 Indiana American anticipates making improvements to the supervisory and
18 data acquisition (SCADA) system. A detail cost of possible SCADA
19 improvements is not determined at this time. Indiana American will also
20 further evaluate customer meter performance and/or age upon acquisition
21 to determine a schedule for replacing meters. The timing and cost of any
22 meter replacements is not determined at this time. As Indiana
23 American identifies further improvement needs with more thorough
24 evaluation and with direct operation of the Charlestown system, Indiana
25 American will incorporate the improvement needs in its capital planning
26 and investment prioritization models.

27 (Emphasis added)

28 While the response includes for the first time references to SCADA and replacing meters,
29 Indiana-American has really only indicated it has a plan to form a plan. Importantly,
30 neither SCADA nor replaced meters directly address Charlestown's water quality issues.

1 Through Mr. Hoffman's testimony, Indiana-American provides little in the way of a
2 tangible "plan for reasonable and prudent improvements." IC 8-1-30.3-5(d)(4). Mr.
3 Hoffman's testimony does not identify specific action items that tie to any particular
4 component of the Charlestown system. Indiana-American's promise to "[identify] further
5 improvement needs with a more thorough evaluation of the system" is *not* providing a plan
6 for reasonable and prudent improvements.

7 **Q: What would the OUCC expect to see in a plan required by IC 8-1-30.3-5(d)(4)?**

8 A: Depending upon the nature of the acquisition, i.e. whether or not there are significant
9 operational challenges faced by the distressed utility, a plan would identify the projects,
10 state which components of the water system would be affected (e.g. source of supply, water
11 treatment, transmission/distribution mains, storage, metering facilities, etc.), identify when
12 those projects would be commenced, estimate what the specific projects would cost, and
13 explain how the projects would address each problem. This level of detail would provide
14 the OUCC and the Commission with the information necessary to determine whether the
15 plan includes improvements that are reasonable and prudent and otherwise satisfy the
16 criteria of IC 8-1-30.3-5(d)(4).

III. COST PER CUSTOMER

17 **Q: Has the OUCC reviewed the acquisition cost per customer in this case?**

18 A: Yes. The acquisition cost, based upon the proposed \$13,583,711¹ purchase price and
19 2,898² customers, yields a per customer cost of approximately \$4,687.

¹ VerDow direct testimony, page 5. Includes incidental expenses.

² Prine direct testimony, page 4.

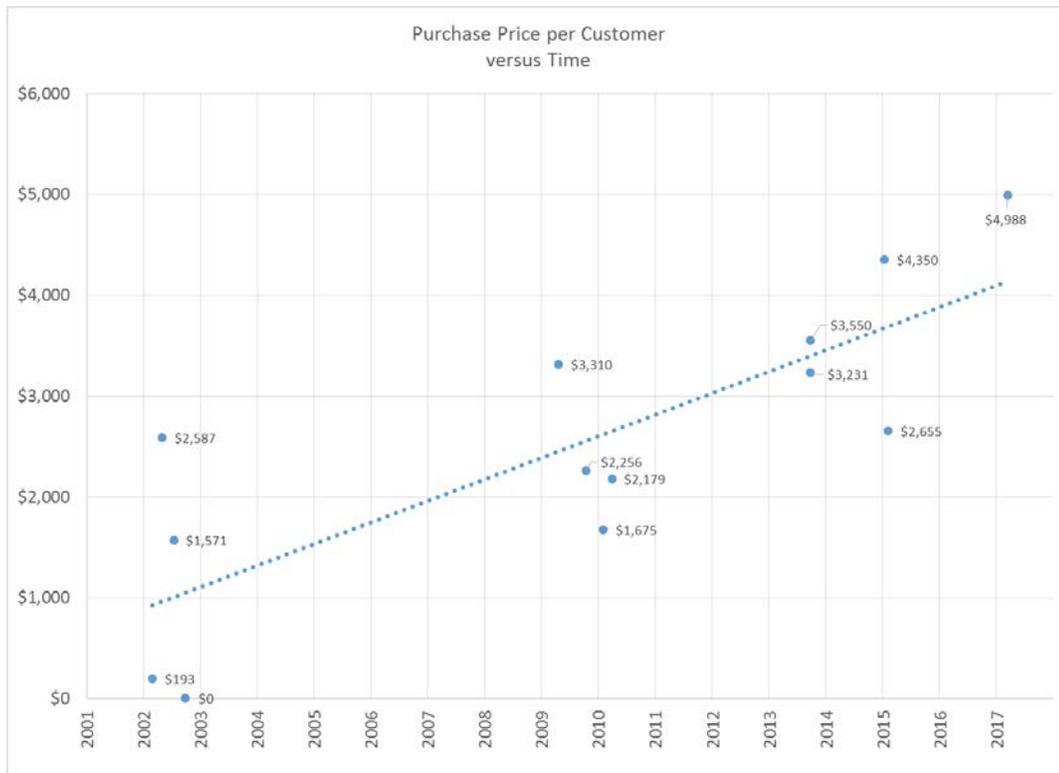
1 **Q: How does this cost per customer compare to other acquisitions by Indiana-American?**
 2 A: As shown in Table 1, the acquisition cost per customer (\$4,687) of the Charlestown system
 3 will be exceeded only by that of Georgetown (\$4,988), which was approved by the
 4 Commission on October 11, 2017.

Table 1

Cause	Utilities	File Date	Order Date	Purchase Price	Cust Nos	Cost/Cust	Notes
44976	IA Charlestown	8/17/2017		\$ 13,583,711	2,898	\$4,687	
44915	IA Georgetown	3/16/2017	10/11/2017	\$ 6,529,000	1,309	\$4,988	
44592	IA ASU	2/9/2015	8/5/2015	\$ 153,987	58	\$2,655	(1)
44584	IA Russiaville	1/16/2015	7/22/2015	\$ 1,870,500	430	\$4,350	
44400	IA Yankeetown	9/27/2013	3/26/2014	\$ 2,045,000	633	\$3,231	
44399	IA Merom	9/26/2013	1/29/2014	\$ 436,609	123	\$3,550	
44222	IA Mecca	7/16/2002	12/19/2012	\$ 495,000	315	\$1,571	(2)
43883	IA New Whiteland	4/1/2010	3/2/2011	\$ 4,575,000	2,100	\$2,179	
43855	IA Riley	2/5/2010	4/5/2011	\$ 1,060,500	633	\$1,675	
43817	IA Marion Heights	10/15/2009	3/10/2010	\$ 925,000	410	\$2,256	
43671	IA Waveland	4/22/2009	9/23/2009	\$ 705,000	213	\$3,310	
42298	IA Westwood	9/30/2002	1/15/2003	\$ 1	63	\$0	
42226	IA Dune Acres	5/3/2002	9/18/2002	\$ 406,149	157	\$2,587	
42191	IA Turkey Creek	2/28/2002	11/20/2002	\$ 193,000	1,000	\$193	
(1) - Reflects IURC downward adjustment, includes transaction costs of 25k							
(2) - IA adjusted price down from calculated \$587,585 due to improvements needed							

5 **Q: How has Indiana-American's acquisition cost per customer changed over time?**
 6 A: Table 2 below provides a graphical representation of historical acquisition costs per
 7 customer, showing each acquisition case as an individual point. The Excel-generated linear
 8 regression line suggest a fairly strong rate of increase in acquisition cost per customer over
 9 the past fifteen (15) years.

Table 2



1 **Q: Why is cost per customer an important metric when reviewing acquisitions?**

2 A: In Cause No. 43883, Indiana-American's acquisition of the Town of New Whiteland's
3 utility properties, Indiana-American's witness (Mr. Jeffery C. Henson) made the following
4 statement in response to the OUCC's concern about acquisition purchase prices growing
5 too high:

6 There are two responses. First, we are not going to be willing to engage in
7 consolidation that does not make good business sense. There is a rather
8 straightforward method for determining the point where an acquisition is
9 one we should pursue. We know that Indiana-American presently has
10 invested in rate base an amount of approximately \$2,400 per customer. So
11 long as the net investment we are making per customer is less than our
12 current average investment per customer, the acquisition is a consolidation
13 that we should all want Indiana-American to pursue. In this case, the cost
14 of the acquisition per customer to be added is \$2,195. While the impact will

1 be minimal given its size, it will decrease our total investment per customer.
2 It presents a win-win situation.

3 Second, the Commission will have the opportunity to approve such
4 acquisitions. If we should present a proposal where the purchase price is too
5 high such that the acquisition is not in the public interest, the Commission
6 can decline to approve. (p. 14, Petitioner's Exhibit JCH-R, Cause No.
7 43883, August 5, 2010)

8 Based on Mr. Henson's testimony, it appears Indiana-American has used average
9 investment per customer as a metric to determine whether an acquisition makes "good
10 business sense." In the New Whiteland case, the average investment per customer to
11 acquire the New Whiteland system was lower than Indiana-American's overall average
12 investment per customer. Thus, based on Indiana-American's metric, the New Whiteland
13 acquisition made "good business sense." However, in the immediate case, the average
14 investment per customer (\$4,687) is significantly higher than Indiana-American's overall
15 average investment per customer (\$3,031).³ Applying Indiana-American's metric to this
16 acquisition, the acquisition would not make "good business sense," especially given the
17 condition of the assets. Moreover, a higher than average investment per customer may
18 signal that the acquiring utility's existing ratepayers may experience a rate increase as a
19 result of the acquisition. OUCC witness Edward Kaufman discusses how this acquisition
20 should affect Indiana-American's rates.

IV. CONDITION OF CHARLESTOWN SYSTEM

21 **Q: How might the condition of the Charlestown system be assessed?**

22 A: The condition of the Charlestown water utility could have been evaluated by a few different
23 metrics. One approach might include inspecting the visible condition of the above-ground,

³ See Schedule ERK-1, page 1 of 4, line 4.

1 physical assets. Another metric might be to track the investment Charlestown has made to
2 its plant over time, such as by reviewing IURC Annual Report filings or the utility's
3 continuing property records. Another metric might involve an evaluation of Charlestown's
4 final product, potable water. Finally, records of operation and of utility plant can be
5 reviewed to determine the utility's condition. Other, more labor-intensive means of
6 evaluation might exist, though these seem to be readily accessible ways of assessing the
7 condition.

8 **Q: What is the apparent condition of Charlestown's above-ground plant?**

9 A: Based upon our October 12, 2017 site visit, much of Charlestown's visible plant, excluding
10 the elevated tank and newer hydrants, appears to be inconsistently maintained. As reflected
11 in Attachment CNS-1 the Charlestown system's lone standpipe and its plant need coating
12 and other work. Not only does the standpipe appear to have been only partially coated at
13 some point (note the rust pattern), but it appears also to have experienced material loss at
14 its base due to corrosion.⁴ On the other hand, piping within the treatment plant appeared to
15 have be more recently painted. According to Mr. Perry, the standby generator located at
16 the plant has not been functional since its purchase; however it remains on site, adjacent to
17 the plant and is shown on Page 4 of Attachment CNS-1.

18 **Q: How useful have other metrics been to evaluate the condition of Charlestown's**
19 **municipal water assets?**

20 A: From discussions with the appraisers, with Charlestown's operator, and through
21 examination of documents provided in this case, operating and plant records appear to be
22 minimal. Charlestown was unable to provide the OUCC any as-built drawings of original

⁴ This is also shown on Page 10 of Attachment CNS-1.

1 and older sections of the Charlestown system. Similarly the OUCC was shown no customer
2 (service) record cards, hydrant cards or valve cards that one might expect to use to record
3 the addition, maintenance, or rehabilitation of specific assets. When asked about the lack
4 of system maps and other records, Charlestown's operator indicated that these materials
5 were often lost during changes in administration. Without these records, physical
6 inspection of plant and more exhaustive record searches become more crucial to an
7 accurate appraisal.

8 **Q: Over the last sixteen years has the City of Charlestown made consistent and necessary**
9 **investment in its water utility plant?**

10 A: No. I reviewed the Utility Plant in Service ("UPIS") from Charlestown's IURC annual
11 reports. The verified IURC annual reports show virtually no investment in UPIS during the
12 last seven years (Attachment CNS-2). This suggests the City of Charlestown has not been
13 re-investing its depreciation back into plant over the last several years. All water systems
14 require regular capital investment to replace aging and failing infrastructure and to
15 introduce new technology as appropriate. The City's lack of regular investment is alarming.

16 **Q: How could the City's lack of plant investment affect its facilities' condition?**

17 A: As noted previously, water systems require some level of investment to replace and update
18 facilities. The lack of capital investment is reflected in, and highlights the poor condition
19 of, the City's municipal water system. This should require Indiana-American to make
20 significant investment in the Charlestown system. Moreover, all of Indiana American's
21 ratepayers will bear the burden of the cost to repair the City's neglected plant after
22 ownership changes.

1 **Q: Has Indiana-American recognized the condition of the utility in its proposed purchase**
2 **price?**

3 A: No. The purchase price is based on the appraisal, which did not take asset condition into
4 account. This is unfortunate. What an item could be worth based on replacing it is different
5 from what it could be worth based on its actual condition. By analogy, when purchasing a
6 used vehicle, a buyer would certainly consider the condition of observable, physical aspects
7 of that vehicle before making an offer. If the vehicle in question needed new tires, or a new
8 windshield, or perhaps new brakes (all critical components in the operation of the vehicle),
9 a potential buyer would be expected to adjust any offer to take into account the cost of
10 making the vehicle safe and reliable. Since the Valuation Report did not consider actual
11 condition of the assets, Indiana-American will pay more than it would have.

12 **Q: Has Indiana-American recognized the condition of utility plant in determining its**
13 **purchase price in other acquisitions?**

14 A: Yes. For instance, in Cause No. 44222, regarding Indiana-American's Mecca purchase, the
15 Final Order noted that Indiana-American considered the condition of plant to determine
16 the purchase price it was willing to pay:

17 [Jeff Henson] said Indiana-American determined current replacements costs for
18 Mecca's plant in service and then trended those costs backwards using the Handy-
19 Whitman Index to arrive at an estimate of original cost, and then subtracted
20 depreciation to arrive at the depreciated net original cost of \$587,085.
21 However, given the number of customers and the improvements needed for the
22 Mecca Water System, Indiana-American determined \$445,000 to be the fair market
23 value of the assets and the appropriate purchase price for the system.

24 (Order in Cause No. 44222, page 4, emphasis added)

V. AGE OF WATER METERS

1 **Q: For appraisal purposes, what is the apparent, calculated age of 5/8-inch and 3/4-inch**
2 **meters in the Charlestown system?**

3 A: Page 13 of Joint Petitioner's Exhibit No. 1, the direct testimony of Mayor G. Robert Hall,
4 Attachment GRH-2⁵ lists "5/8 and 3/4 inch" meters as being 33% depreciated as of 2015.
5 With the service life being shown as 15 years, this would suggest that the meters were
6 installed in 2010.⁶

7 **Q: What do you believe is the actual age of residential meters?**

8 A: Charlestown's operator advised me the meters were installed in 2001, but the meter heads
9 were replaced in 2007 with radio read meter heads. This would make the meter bodies
10 fully depreciated, based upon the proposed 15-year life. Radio read meter heads, sometimes
11 referred to as "AMR units," have a life of 10-15 years before requiring battery or total
12 replacement, which suggests that even the heads may be 66% to 100% depreciated.

13 **Q: If meters bodies are 15 years old, and meter heads are 10 years old, what does this**
14 **suggest about the remaining life of the meters?**

15 A: While this is difficult to quantify with precision, given the mixed lives of the individual
16 meter components, it is highly unlikely that the total unit will have ten (10) years of useful
17 life remaining as shown in Joint Petitioners' Attachment GRH-2. In fact, Joint Petitioners'
18 witness William Saegesser appears to recognize this, proposing in his testimony⁷ that
19 meters should be replaced in 2017 or 2018. This suggests a much shorter remaining life.

20 **Q: Does this conclude your testimony?**

21 A: Yes.

⁵ Included with my testimony as Attachment CNS-3.

⁶ $33\% \times 15 \text{ years} = 5 \text{ years}; 2015 - 5 = 2010.$

⁷ Included with my testimony as Attachment CNS-4.

APPENDIX A

- 1 **Q: Please describe your educational background and experience.**
- 2 A: In 1981 I graduated from Purdue University, where I received a Bachelor of Science degree
- 3 in Industrial Management with a minor in Engineering. I was recruited by the Union Pacific
- 4 Railroad, where I served as mechanical and maintenance supervisor and industrial engineer
- 5 in both local and corporate settings. I then served as Industrial Engineer for a molded-
- 6 rubber parts manufacturer before joining the Indiana Utility Regulatory Commission
- 7 (“Commission”) as Engineer, Supervisor and Analyst for more than ten years. It was
- 8 during my tenure at the Commission that I received my Master of Health Administration
- 9 degree from Indiana University. After the Commission, I worked at Indiana-American
- 10 Water Company, initially in their rates department, then managing their Shelbyville
- 11 operations for eight years, and later served as Director of Regulatory Compliance and
- 12 Contract Management for Veolia Water Indianapolis. I joined Citizens Energy Group as
- 13 Rate & Regulatory Analyst following the October 2011 transfer of the Indianapolis water
- 14 utility and joined the Office of Utility Consumer Counselor in April of 2016.



Well field overview



Well control building (L) and one of four wells (R)



Well control panel inside control building



Damage to well field security fence, trail on other side



View of plant from front



3/4 view of plant (L), inoperative generator and ground storage tank (R)



Inoperative generator at plant, valve box covers and risers



Plant interior showing piping, high service pump (R)



Clamp storage inside plant



Electrical panel inside plant



View of chlorine storage room in plant



Removed meter heads stored in plant



Rear view of plant



1.5 million gallon ground storage facility behind plant



500,000 gallon elevated storage tank



258,000 gallon standpipe located near hospital



Bottom of standpipe showing corrosion at chine (base)



Bottom of standpipe showing corrosion, cable routing

Charlestown, Indiana
Water Utility Plant in Service
2000-2016

Year	Utility Plant	Additions
2016	\$ 7,722,741	
2015	\$ 7,726,141	\$ (3,400)
2014	\$ 7,726,141	\$ -
2013	\$ 7,726,141	\$ -
2012	\$ 7,726,141	\$ -
2011	\$ 7,732,631	\$ (6,490)
2010	\$ 8,122,299	\$ (389,668)
2009	\$ 8,098,799	\$ 23,500
2008	\$ 7,383,189	\$ 715,610
2007	\$ 7,322,314	\$ 60,875
2006	\$ 6,107,922	\$ 1,214,392
2005	\$ 6,012,772	\$ 95,150
2004	\$ 6,012,772	\$ -
2003	\$ 6,012,772	\$ -
2002	\$ 3,274,970	\$ 2,737,802
2001	\$ 3,184,916	\$ 90,054
2000	\$ 3,012,091	\$ 172,825

Source: Annual Reports pages F-1(a)

TABLE 1
DISTRIBUTION SYSTEM DEPRECIATED REPLACEMENT COST

Item	Unit	Qty	Unit Price to Replace	Total Cost to Replace	Service Life	Decade Constructed	Percent Depreciated	Depreciated Cost	Present Value
Distribution Mains									
16-inch D.I.	LF	14,546	\$ 105.00	\$ 1,527,330.00	75	1980's	40%	\$ 610,932.00	\$ 916,398.00
16-inch PVC	LF	184	\$ 95.00	\$ 17,480.00	75	1960's	67%	\$ 11,653.33	\$ 5,826.67
16-inch PVC	LF	5,669	\$ 95.00	\$ 538,555.00	75	1970's	53%	\$ 287,229.33	\$ 251,325.67
12-inch PVC	LF	6,627	\$ 80.00	\$ 530,160.00	75	1940's	93%	\$ 494,816.00	\$ 35,344.00
12-inch PVC	LF	209	\$ 80.00	\$ 16,720.00	75	1960's	67%	\$ 11,146.67	\$ 5,573.33
12-inch PVC	LF	7,159	\$ 80.00	\$ 572,720.00	75	1980's	40%	\$ 229,088.00	\$ 343,632.00
8-inch PVC	LF	1,343	\$ 60.00	\$ 80,580.00	75	1940's	93%	\$ 75,208.00	\$ 5,372.00
8-inch PVC	LF	29,311	\$ 60.00	\$ 1,758,660.00	75	1960's	67%	\$ 1,172,440.00	\$ 586,220.00
8-inch PVC	LF	5,108	\$ 60.00	\$ 306,480.00	75	1970's	53%	\$ 163,456.00	\$ 143,024.00
8-inch PVC	LF	451	\$ 60.00	\$ 27,060.00	75	1980's	40%	\$ 10,824.00	\$ 16,236.00
8-inch PVC	LF	18,737	\$ 60.00	\$ 1,124,220.00	75	1990's	27%	\$ 299,792.00	\$ 824,428.00
8-inch PVC	LF	6,014	\$ 60.00	\$ 360,840.00	75	2000's	13%	\$ 48,112.00	\$ 312,728.00
6-inch PVC	LF	19,391	\$ 50.00	\$ 969,550.00	75	1940's	93%	\$ 904,913.33	\$ 64,636.67
6-inch PVC	LF	32,590	\$ 50.00	\$ 1,629,500.00	75	1960's	67%	\$ 1,086,333.33	\$ 543,166.67
6-inch PVC	LF	10,967	\$ 50.00	\$ 548,350.00	75	1970's	53%	\$ 292,453.33	\$ 255,896.67
6-inch PVC	LF	3,884	\$ 50.00	\$ 194,200.00	75	1980's	40%	\$ 77,680.00	\$ 116,520.00
6-inch PVC	LF	16,717	\$ 50.00	\$ 835,850.00	75	1990's	27%	\$ 222,893.33	\$ 612,956.67
6-inch PVC	LF	5,989	\$ 50.00	\$ 299,450.00	75	2000's	13%	\$ 39,926.67	\$ 259,523.33
4-inch PVC	LF	5,254	\$ 45.00	\$ 236,430.00	75	1940's	93%	\$ 220,668.00	\$ 15,762.00
4-inch PVC	LF	489	\$ 45.00	\$ 22,005.00	75	1960's	67%	\$ 14,670.00	\$ 7,335.00
4-inch PVC	LF	21,064	\$ 45.00	\$ 947,880.00	75	1970's	53%	\$ 505,536.00	\$ 442,344.00
4-inch PVC	LF	1,355	\$ 45.00	\$ 60,975.00	75	1980's	40%	\$ 24,390.00	\$ 36,585.00
4-inch PVC	LF	7,449	\$ 45.00	\$ 335,205.00	75	1990's	27%	\$ 89,388.00	\$ 245,817.00
4-inch PVC	LF	38,864	\$ 45.00	\$ 1,748,880.00	75	2000's	13%	\$ 233,184.00	\$ 1,515,696.00
2-inch PVC	LF	8,763	\$ 40.00	\$ 350,520.00	75	1940's	93%	\$ 327,152.00	\$ 23,368.00
2-inch PVC	LF	3,061	\$ 40.00	\$ 122,440.00	76	1960's	66%	\$ 80,552.63	\$ 41,887.37
2-inch PVC	LF	9,088	\$ 40.00	\$ 363,520.00	75	1970's	53%	\$ 193,877.33	\$ 169,642.67
2-inch PVC	LF	4,797	\$ 40.00	\$ 191,880.00	75	1980's	40%	\$ 76,752.00	\$ 115,128.00
2-inch PVC	LF	2,817	\$ 40.00	\$ 112,680.00	75	1990's	27%	\$ 30,048.00	\$ 82,632.00
2-inch PVC	LF	3,533	\$ 40.00	\$ 141,320.00	75	2000's	13%	\$ 18,842.67	\$ 122,477.33
Fire Hydrants									
Fire Hydrant	EA	54	\$ 5,500.00	\$ 297,000.00	50	1960's	90%	\$ 267,300.00	\$ 29,700.00
Fire Hydrant	EA	45	\$ 5,500.00	\$ 247,500.00	50	1970's	80%	\$ 198,000.00	\$ 49,500.00
Fire Hydrant	EA	17	\$ 5,500.00	\$ 93,500.00	50	1980's	60%	\$ 56,100.00	\$ 37,400.00
Fire Hydrant	EA	56	\$ 5,500.00	\$ 308,000.00	50	1990's	40%	\$ 123,200.00	\$ 184,800.00
Fire Hydrant	EA	97	\$ 5,500.00	\$ 533,500.00	50	2000's	20%	\$ 106,700.00	\$ 426,800.00
Service Meters									
5/8 & 3/4-inch	EA	2,831	\$ 90.00	\$ 254,790.00	15	2000's	33%	\$ 84,080.70	\$ 170,709.30
1-inch	EA	17	\$ 125.00	\$ 2,125.00	15	2000's	33%	\$ 701.25	\$ 1,423.75
1.5-inch	EA	6	\$ 255.00	\$ 1,530.00	15	2000's	33%	\$ 504.90	\$ 1,025.10
2-inch	EA	34	\$ 350.00	\$ 11,900.00	15	2000's	33%	\$ 3,927.00	\$ 7,973.00
3-inch	EA	5	\$ 1,300.00	\$ 6,500.00	15	2000's	33%	\$ 2,145.00	\$ 4,355.00
4-inch	EA	4	\$ 1,800.00	\$ 7,200.00	15	2000's	33%	\$ 2,376.00	\$ 4,824.00
6-inch	EA	1	\$ 3,050.00	\$ 3,050.00	15	2000's	33%	\$ 1,006.50	\$ 2,043.50
Water Services									
1-inch Copper	EA	2,500	\$ 1,500.00	\$ 3,750,000.00	75	1970's	50%	\$ 1,875,000.00	\$ 1,875,000.00
Total				\$ 21,488,035.00				\$ 10,574,999.31	\$ 10,913,035.69

City of Charlestown Water Utility

Project Summary & Updated Costs

Project Years	Project	Cost	Total
2017-18	Loops and Gospel Rd. Tank Conversion	\$ 3,000,000.00	
2017-18	Autoread Meters	\$ 650,000.00	
2017-18	Hydrants	<u>\$ 175,000.00</u>	\$ 3,825,000.00
2017-18	Well Upgrades	\$ 250,000.00	
2017-18	Plant Upgrades	<u>\$ 750,000.00</u>	\$ 1,000,000.00
2017-18	Main Replacements	<u>\$ 2,000,000.00</u>	\$ 2,000,000.00
2017-18	Contingency	\$ 375,000.00	\$ 375,000.00
	Total		<u>\$ 7,200,000.00</u>

Prepared under the direction of William A. Saegesser, Saegesser Engineering, Inc.

AFFIRMATION

I affirm, under the penalties for perjury, that the foregoing representations are true.



Carl N. Seals
Indiana Office of Utility Consumer Counselor

November 2, 2017
Date

Cause No. 44976
Indiana-American Water Co., Inc.
Charlestown Municipal Water

CERTIFICATE OF SERVICE

This is to certify that a copy of the foregoing *OUCC's Testimony of Carl N. Seals: Public's Exhibit No. 3* has been served upon the following counsel of record in the captioned proceeding by electronic service on November 2, 2017.

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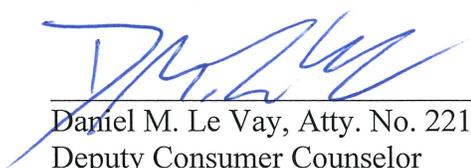
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