BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

In re: Application of Pennsylvania-American Water Company under Section 1102(a) of the Pennsylvania Public Utility Code, 66 Pa C.S. § 1102(a), for approval of (1) the transfer, by sale, of substantially all of the Royersford Borough's assets, properties and rights related to its wastewater treatment, transportation and collection system facilities to Pennsylvania-American Water Company, and (2) the rights of Pennsylvania-American Water Company to begin to offer or furnish wastewater service to the public in Royersford Borough and a portion of the Township of Upper Providence, Montgomery County, Pennsylvania.	:	Docket No. A-2020-3014248 *et al.*

DIRECT TESTIMONY OF JEROME C. WEINERT, PE, ASA, CDP UTILITY VALUATION EXPERT SELECTED BY PENNSYLVANIA-AMERICAN WATER COMPANY

Date: July 14, 2020

PAWC Statement No. 4

DIRECT TESTIMONY OF JEROME C. WEINERT

Q. Please state your name, business address, and occupation.

A. My name is Jerome C. Weinert. My business address is 8555 West Forest Home Avenue, Suite 201, Greenfield, WI 53228. I am a Principal and Director of AUS Consultants, Inc. ("AUS Consultants"). This testimony was prepared by me.

Q. Please describe your qualifications and indicate if you are registered as a Utility Valuation Expert with the Pennsylvania Public Utility Commission.

A. My curriculum vitae ("CV") is attached to my report and this testimony. **PAWC Exhibit JCW-1**. AUS Consultants is a registered Utility Valuation Expert with the Pennsylvania Public Utility Commission ("PUC"). We obtained that registration in 2016 and were informed of our renewal by the PUC's Secretary on January 13, 2020.

Q. What is the purpose of your testimony?

A. This direct testimony provides clarification and explanation of the appraisal I provided to Pennsylvania-American Water Company ("PAWC"), the Acquiring Utility pursuant to 66 Pa. C.S. § 1329(a)(5) and in accordance with the Uniform Standards of Professional Appraisal Practice ("USPAP") (2020-2021 Edition).

Q. Are you advocating for any party or outcome?

A. No. The Ethics Rule of the USPAP, applicable here pursuant to 66 Pa. C.S. § 1329(a)(3), requires that I perform the appraisal with impartiality, objectivity, and independence, and without accommodation of personal interests. In addition, the USPAP Ethics Rule requires that I not perform the assignment with bias, that I must not advocate the cause or interest

of any party or issue and that I must not accept an assignment that includes the reporting of predetermined opinions and conclusions.

Q. Do you have any affiliation with either the Selling Utility or the Acquiring Public Utility or Entity?

A. No. Other than the current assignment to provide the subject appraisal, I have no business or personal relationships with any party to the proposed acquisition.

Q. What is your fee arrangement to deliver the appraisal?

A. A copy of the fee arrangement is included with the Application as **Appendix A-7.1**. In summary, AUS Consultants are to receive $28,200 plus expenses in compensation for our appraisal.

Q. Will you receive that fee regardless of whether the Commission approves the proposed transaction or whether it closes?

A. Yes. 66 Pa. C.S. § 1329(a)(3) mandates that I comply with the USPAP when developing my appraisal. Under the USPAP, I cannot perform the appraisal with bias and acceptance of a fee contingent on a particular outcome like closing or Commission approval would violate that Ethics Rule.

Q. Have you prepared any exhibits, schedules, or appendices to accompany your direct testimony?

A. Yes. The appraisal I submitted to the Acquiring Utility pursuant to Section 1329(a)(5) is included in the Application as **Appendix A-5.1**. The appraisal includes a narrative and supporting exhibits in sections. All were prepared under my supervision and control. Also, as stated above, attached to this testimony as **Exhibit PAWC JCW-1** is my CV.

Q. Please summarize your results of the application of the cost, market, and income approaches to valuation.

A. The summary results of the cost, income, and market approaches is presented below.

Appraisal Approach	Value Indicator	Weight	Wtd Value Indicator
Cost	13,376,109	50%	6,688,055
Income	14,486,081	40%	5,794,432
Market	12,873,137	10%	1,287,314
Appraisal Conclusion			13,769,801

Q. Please describe any assumptions, extraordinary assumptions, hypothetical conditions, and/or limiting conditions that you applied to the valuation.

A. The major assumptions and limiting conditions used in preparing our appraisal of the Royersford Borough's Wastewater Collection and Treatment System are described in our appraisal report "Fair Market Appraisal Report of Borough of Royersford (PA) Wastewater System, as of December 10, 2019." Beyond the above-described assumptions, there are

no extraordinary[1] or hypothetical[2] assumptions (as defined in the 2020-2021 edition of USPAP).

Q. How was each assumption used and what was its result?

A. The assumptions are detailed in my appraisal report and are discussed further in this testimony.

Q. How did you develop the weighting applied to each approach in your appraisal and why are the individual weights you chose appropriate for this proposed transaction?

A. For the cost approach I chose a weighting of 50%. It is my opinion that this weighting is appropriate for the cost approach because the major purpose of this appraisal is to be an input to the Commission's establishment of cost for future ratemaking and the cost approach conclusion is directly reflective of the property cost.

For the market approach, I chose a weighting of 10%. It is my opinion that this weighting is appropriate for the market approach because while the market approach provides some information as to the value of the property, establishing comparability between the individual sales to the subject property is difficult and uncertain therefore requiring less weight of the market approach and the 10% weight accomplishes that objective.

[1] Extraordinary assumption: an assignment-specific assumption as of the effective date regarding uncertain information used in an analysis which, if found to be false, could alter the appraiser's opinions or conclusions. 2018-2019 USPAP page 4.

[2] Hypothetical condition: a condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but used for the purpose of analysis. 2018-2019 USPAP page 4.

For the income approach, I chose a weighting of 40%. It is my opinion that this weighting is appropriate for the income approach because the income approach reflects the value of the property's return to the property's owner. The 40% weight accomplishes that objective.

Q. Did you conduct an on-site inspection of the Selling Utility assets, and if so, what was its result on the appraisal?

A. Yes. AUS Consultants conducted an on-site inspection of Royersford Borough's wastewater assets during June 2020. The on-site inspection was mainly used to provide an overview of the collection system and verify its condition.

Q. What Utility Earnings Report was used to create the capital structure used in your appraisal?

A. I used a market required capital structure based on an analysis of the market capital structure analysis (detailed in the Cost of Capital / Required Return portion of our appraisal report). Information used in developing the market capital structure was obtained from financial statistics reported in Value Line Investment Survey for the water / wastewater industry published in their January 10, 2020 issue.

Q. What capital structure was used in your appraisal?

A. The capital structure used in my appraisal is included below.

Water and Wastewater Cost of Capital First Quarter 2020 (1-1-2020) As an Investor-Owned Utility Weighted Cost of Capital (Discount Rate)							
(1)	(2)	(2a)	(3)	(3a)	(4)	(4a)	(5)
	Portion of Capital AUS Input	Type of Data	Capital Cost AUS Input	Type of Data	Tax Rate	Tax affect on cost of capital	After-tax Market Capital Cost (2)*(3)*(4a)
Debt	26%	Market	3.23%	Market	28.89%	71.11%	0.60%
Equity	74%	Market	9.95%	Market	0.0%	100.0%	7.36%
Total Capital r	**100.0%**						**7.96%**
Growth (g)							**1.82%**
Rate without Growth: [(1+r)/(1+g)]-1							**6.03%**

Cost Approach

Q. Regarding your application of the cost approach, what method did you use to determine the cost approach result (e.g. original cost, replacement cost, reproduction cost)?

A. I used the replacement cost method.

Q. Please explain why you chose the replacement cost method.

A. I chose the replacement cost method because it is considered the proper starting point for a cost approach. Replacement cost reflects the appraisal date cost of providing the property's functionality and capacity at the appraisal date cost using recognized materials and labor costs.

Q. What index did you use for that method?

A. I used the Handy Whitman Index of Public Utility Construction Costs for the Water Industry (North Eastern US Region), AUS Telephone Index (General Plant), and various United States Bureau of Labor Statistics cost index series.

Q. Under your application of the cost approach what assets did you value or trend differently from other assets and why was that necessary?

A. I costed each property account with cost trends appropriate for the property contained in the account. As such, the costing of each property account may differ from account to account. It is my opinion that an accurate appraisal requires each property account be costed with cost trends reflective of the property contained in the account. Royersford Borough's property as detailed in the Pennoni Associates, Inc. Engineer's Assessment of $7,666,492 was determined to have a replacement cost new of $40,821,536 summarized as follows:

Pennsylvania American Water Company
Royersford Borough
Wastewater Collection and Treatment System
Investor-Owned Utility
As of December 10, 2019

Replacement Cost New less Depreciation (RCNLD)

(18)	(19)	(21)	(22)	(23)	(24)	(28)	(29)	(30)	(31)
Account	Description	Age at December 10, 2019 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)
		years	COR $s		years	years	years	% of COR	CORLD $s
Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Calculation	Calculation
Eng Assmnt	Pennoni Associates, Inc.'s Royersford Engineers Assessment		Col (16)	AUS Input	AUS Input		Col (21) + (28)	Col (28) / (29)	Col (22) * (30)
Account	Description	Age	RCN	Iowa	NL	Rem Life	Total Life	Condition	CORLD
353.20	LAND AND LAND RIGHTS - COLLECTION	67.89	141	ZNonDep	-	-	-	-	141
353.30	LAND AND LAND RIGHTS - PUMPING	19.50	59	ZNonDep	-	-	-	-	59
353.40	LAND AND LAND RIGHTS - TREATMENT	84.50	55,287	ZNonDep	-	-	-	-	55,287
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	51.93	1,125,292	R4.0	45.00	13.09	65.02	0.29	323,362
354.40	STRUCTURES AND IMPROVEMENTS TREATMENT PLANT	83.42	10,324,774	R4.0	55.00	8.67	92.10	0.16	1,627,280
355.30	POWER GENERATION - PUMPING	16.55	94,209	R3.0	35.00	19.77	36.32	0.55	51,463
355.40	POWER GENERATION - TREATMENT AND DISPOSAL PLANT	11.50	372,215	R3.0	35.00	24.00	35.50	0.68	251,638
360.20	COLLECTION SEWERS - FORCE MAINS	80.11	661,466	R3.0	75.00	13.42	93.53	0.17	114,219
361.21	COLLECTION SEWERS -GRAVITY MAINS	71.88	8,029,623	R2.5	76.99	23.20	95.08	0.28	2,280,870
361.22	COLLECTION SEWERS -GRAVITY MAINS - RELINING	5.52	822,723	R2.5	60.00	54.79	60.30	0.91	747,466
361.23	COLLECTION SEWERS -GRAVITY - MANHOLES	80.55	626,210	R2.5	80.00	19.64	100.19	0.20	125,978
363.20	SERVICE TO CUSTOMERS	83.02	1,318,126	R3.0	45.00	6.91	89.94	0.15	201,771
364.30	FLOW MEASURING DEVICES - PUMPING	8.50	9,684	S2.0	30.00	21.72	30.22	0.72	6,960
364.40	FLOW MEASURING DEVICES - WWTP	8.50	12,025	S2.0	30.00	21.72	30.22	0.72	8,643
371.40	PUMPING EQUIPMENT - TREATMENT AND DISPOSAL PLANT	8.85	317,647	R3.0	35.00	26.57	35.42	0.75	238,419
380.40	TREATMENT AND DISPOSAL EQUIPMENT	40.86	17,039,720	R2.0	45.00	20.05	60.91	0.43	7,334,772
390.70	EQUIPMENT - GENERAL PLANT	4.50	7,171	R3.0	12.00	7.69	12.19	0.63	4,524
396.70	COMMUNICATION EQUIPMENT - GENERAL PLANT	4.50	5,164	R3.0	12.00	7.69	12.19	0.63	3,258
Grand Total	Grand Total	59.38	40,821,536		54.88	17.82	77.09	0.33	13,376,109

These results are detailed in the Application **Appendix A-7.1** (AUS Appraisal) under the Cost Approach section.

Q. Under your application of the cost approach, what year-end date did you use for calculating the depreciation or condition of the property?

A. I used the date of December 10, 2019

Q. How did you determine the depreciation parameters of survival/retirement characteristics and service lives for the utility property under the cost approach?

A. I determined those parameters based on our review of the depreciation studies filed by PAWC in support of their depreciation parameters (Iowa-type Survival Characteristics and Service Lives) and the resultant depreciation expense and rate base (net book) in their recent General Rate Cases (R-2017-2595853 and R-2020-3019371) and AUS Consultants' experience in preparing depreciation studies for the water and wastewater industry and our experience appraising water and wastewater properties. The following table summarizes those studies and AUS Consultants' review of the depreciation parameters:

Summary of PAWC Depreciation Studies Prepared for Rate Case

Account	Account Description	Iowa Curves 12/31/2016	Iowa Curves 12/31/2019	Service Life 12/31/2016 years	Service Life 12/31/2019 years	Remaining Life 12/31/2016 years	Remaining Life 12/31/2019 years
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	R3	R3	45	45	39.1	33.3
354.30	STRUCTURES AND IMPROVEMENTS - SPP	R2.5	50	50	55	45.2	32.6
354.40	STRUCTURES AND IMPROVEMENTS - TDP	R2	50	65	55	56.6	31.7
354.70	STRUCTURES AND IMPROVEMENTS - GENERAL	S1	S1	35	35	33.3	23.2
355.00	POWER GENERATION EQUIPMENT	R2.5	S0.5	35	35	29.7	19.3
360.10	COLLECTION SEWERS - FORCE MAINS	S2	R3	70	75	53.1	52.5
361.10	COLLECTION SEWERS - GRAVITY MAINS	R2.5	R2.5	70	80	56.9	54.8
361.20	MANHOLES	S1.5	S2.5	50	50	41.3	32.2
363.00	SERVICES	R3	R3	38	47	22.9	30.2
364.00	FLOW MEASURING DEVICES	L3	L2.5	20	15	13.3	5.1
365.00	FLOW MEASURING INSTALLATIONS	S1.5	S2	30	25	23.1	10.8
370.00	RECEIVING WELLS	R3	R3	50	50	42.7	33.7
371.00	PUMPING EQUIPMENT	S0	S0.5	40	30	35.5	18.2
380.00	TREATMENT EQUIPMENT	S-R2	S1.5	45	35	37.1	20.1
381.00	PLANT SEWERS	R3	R3	50	50	43.1	32.7
382.00	OUTFALL SEWER LINES	R3	R3	50	50	37.8	28.3
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	S2.5	S2.5	20	20	13.6	11.3
389.60	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - CPS	SQ	SQ	20	5	12.3	3.5
390.00	OFFICE FURNITURE AND EQUIPMENT	L4	SQ	15	20	9.5	10.1
391.00	TRANSPORTATION EQUIPMENT	SQ	L4	25	14	19.9	9.8
392.00	STORES EQUIPMENT	SQ	SQ	20	25	16.4	17.2
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	SQ	SQ	15	20	11.3	15.4
394.00	LABORATORY EQUIPMENT	L2.5	SQ	16	15	8.7	10.4
395.00	POWER OPERATED EQUIPMENT	SQ	R2	15	22	10.3	13.2
396.00	COMMUNICATION EQUIPMENT	SQ	SQ	15	15	9.6	6.9
397.00	MISCELLANEOUS EQUIPMENT		SQ		15		12.8
398.00	OTHER TANGIBLE PLANT		SQ		25		21.5
	TOTAL DEPRECIABLE PLANT						
	NONDEPRECIABLE PLANT						
352.10	FRANCHISES						
353.20	LAND AND LAND RIGHTS - COLLECTION						

Summary of Account Costing and Depreciation Parameters Used in the Depreciation Original Cost and the Depreciated Replacement Cost New Studies

(1)	(2)	(4) (4a)	(4b)	(5)	(6) (6a)	(6b)
Account Number	Description	Iowa Survivor / Retirement Curve	Normal Service Life years	Economic Obsolescence % of CORLD	Tax Depreciation Table	Life
354.00	Stuctures & Improvements	R4.0	55.00	0.00%	MACRS	25.00
355.00	Power Generation Equipment					
360.00	Collection Mains - Force	R2.0	75.00	0.00%	MACRS	25.00
361.00	Collection Mains - Gravity	R2.5	80.00	0.00%	MACRS	25.00
	Collection Mains - Gravity - Relining	R2.5	60.00	0.00%	MACRS	25.00
361.10	Manholes	S2.0	75.00	0.00%	MACRS	25.00
363.00	Service Laterals	R3.0	45.00	0.00%	MACRS	25.00
364.00	Flow Measuring Devices	L2.5	25.00	0.00%	MACRS	25.00
365.00	Flow Measuring Installations	S2.0	30.00	0.00%	MACRS	25.00
371.00	Pumping Equipment	R3.0	35.00	0.00%	MACRS	25.00
380.00	Treatment and Disposal Equipment	R2.0	45.00	0.00%	MACRS	25.00
381.00	Plant Sewers	R3.0	45.00	0.00%	MACRS	25.00
389.00	Other Plant & Misc Equip	R3.0	45.00	0.00%	MACRS	25.00
391.00	Office Furniture and Equipment	R3.0	20.00			
391.00	Transportation Equipment	R3.0	15.00	0.00%	MACRS	10.00
392.00	Stores Equipment	R3.0	35.00	0.00%	MACRS	25.00
393.00	Tools, Shop, & Garage Equipment	R3.0	25.00	0.00%	MACRS	25.00
394.00	Laboratory Equipment	R3.0	20.00	0.00%	MACRS	20.00
395.00	Power Operated Equipment	R3.0	15.00	0.00%	MACRS	15.00
396.00	Communications Equipment	R3.0	15.00	0.00%	MACRS	12.00
397.00	Miscellaneous Equipment	R3.0	20.00	0.00%	MACRS	20.00
352.00	Franchises	Non-Depr	0.00	0.00%	Non-Depr	0.00
353.00	Land & Land Rights	Non-Depr	0.00	0.00%	Non-Depr	0.00

Q. Why are those parameters appropriate?

A. Those parameters are appropriate because the parameters reflect the actual service life experienced by PAWC in serving wastewater customers in the Commonwealth of Pennsylvania and which were adjudicated by the PUC in the 2017 General Rate Cases and will be adjudicated by the PUC in the 2020 General Rate Cases (Docket Nos. R-2020-3019369 and R-2020-30193371). The parameters in the following table also reflect AUS Consultants' experience of the survival / retirement characteristics of normal and functional service lives of wastewater properties:

9 10 11 12 13

Pennsylvania American Water Company
Royersford Borough
Wastewater Collection and Treatment System
Investor-Owned Utility
December 10, 2019

Summary of Account Costing and Depreciation Parameters Used in the Depreciation Original Cost and the Depreciated Replacement Cost New Studies

(1)	(2)	(4)		(5)	(6)	
		(4a)	(4b)		(6a)	(6b)
Account Number	Description	Iowa Survivor / Retirement Curve	Normal Service Life	Economic Obsolescence	Tax Depreciation	
			years	% of CORLD	Table	Life
353.20	Land & Land Rights - Collection	ZNonDep	0.00	0.00%	Non-Depr	0.00
353.30	Land & Land Rights - Pumping	ZNonDep	0.00	0.00%	Non-Depr	0.00
353.40	Land & Land Rights - Treatment	ZNonDep	0.00	0.00%	Non-Depr	0.00
354.30	Stuctures & Improvements - Pumping	R4.0	45.00	0.00%	MACRS	25.00
354.40	Stuctures & Improvements - Treatment	R4.0	55.00	0.00%	MACRS	25.00
355.30	Generating Equipment - Pumping	R3.0	35.00	0.00%	MACRS	25.00
355.40	Generating Equipment - Treatment	R3.0	35.00	0.00%	MACRS	25.00
360.20	Collection Sewers - Force - Mains	R3.0	75.00	0.00%	MACRS	25.00
361.21	Collection Sewers - Gravity - Mains	R2.5	80.00	0.00%	MACRS	25.00
361.22	Collection Sewers - Gravity - Mains Relining	R2.5	60.00	0.00%	MACRS	25.00
361.23	Collection Sewers - Gravity - Manholes	R2.5	80.00	0.00%	MACRS	25.00
363.20	Service Laterals	R3.0	45.00	0.00%	MACRS	25.00
364.30	Flow Measuring Devices - Pumping	S2.0	30.00	0.00%	MACRS	25.00
364.40	Flow Measuring Devices - WWTP	S2.0	30.00	0.00%	MACRS	25.00
371.40	Pumping Equipment - Treatment	R3.0	35.00	0.00%	MACRS	25.00
380.40	Treatment and Disposal Equipment	R2.0	45.00	0.00%	MACRS	25.00
390.70	Office Furniture and Equipment	R3.0	12.00	0.00%	MACRS	12.00
391.00	Transportation Equipment	R3.0	10.00	0.00%	MACRS	10.00
392.00	Stores Equipment	R3.0	35.00	0.00%	MACRS	25.00
393.00	Tools, Shop, & Garage Equipment	R3.0	35.00	0.00%	MACRS	25.00
394.00	Laboratory Equipment	R3.0	20.00	0.00%	MACRS	20.00
395.00	Power Operated Equipment	R3.0	15.00	0.00%	MACRS	15.00
396.00	Communications Equipment	R3.0	12.00	0.00%	MACRS	12.00
396.70	Communications Equipment	R3.0	12.00	0.00%	MACRS	12.00
397.00	Miscellaneous Equipment	R3.0	20.00	0.00%	MACRS	20.00

8

Also, due the age of Royersford Borough's early property installations (1935-1936) the maximum depreciation was limited to 85% of the cost new.

Q. What was the result of the application of the depreciation parameters to the previously describe replacement cost new of $40,821,536?

A. With the application of the above described depreciation parameters, the replacement cost new of $40,821,536 results in a replacement cost new less depreciation of $13,376,109 determined as follows:

Pennsylvania American Water Company
Royersford Borough
Wastewater Collection and Treatment System
Investor-Owned Utility
As of December 10, 2019

Replacement Cost New less Depreciation (RCNLD)

(18)	(19)	(21)	(22)	(23)	(24)	(28)	(29)	(30)	(31)
Account	Description	Age at December 10, 2019 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion Iowa-type	Normal Service Life (NSL)	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)
		years	COR $s		years	years	years	% of COR	CORLD $s
Input	Input	Calculation	Calculation	Input	Input	Calculation	Calculation	Calculation	Calculation
Eng Assmnt	Pennoni Associates, Inc.'s Royersford Engineers Assessment		Col (16)	AUS Input	AUS Input		Col (21) + (28)	Col (28) / (29)	Col (22) * (30)
Account	Description	Age	RCN	Iowa	NL	Rem Life	Total Life	Condition	CORLD
353.20	LAND AND LAND RIGHTS - COLLECTION	67.89	141	ZNonDep	-	-	-	-	141
353.30	LAND AND LAND RIGHTS - PUMPING	19.50	59	ZNonDep	-	-	-	-	59
353.40	LAND AND LAND RIGHTS - TREATMENT	84.50	55,287	ZNonDep	-	-	-	-	55,287
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	51.93	1,125,292	R4.0	45.00	13.09	65.02	0.29	323,362
354.40	STRUCTURES AND IMPROVEMENTS TREATMENT PLANT	83.42	10,324,774	R4.0	55.00	8.67	92.10	0.16	1,627,280
355.30	POWER GENERATION - PUMPING	16.55	94,209	R3.0	35.00	19.77	36.32	0.55	51,463
355.40	POWER GENERATION - TREATMENT AND DISPOSAL PLANT	11.50	372,215	R3.0	35.00	24.00	35.50	0.68	251,638
360.20	COLLECTION SEWERS - FORCE MAINS	80.11	661,466	R3.0	75.00	13.42	93.53	0.17	114,219
361.21	COLLECTION SEWERS -GRAVITY MAINS	71.88	8,029,623	R2.5	76.99	23.20	95.08	0.28	2,280,870
361.22	COLLECTION SEWERS -GRAVITY MAINS - RELINING	5.52	822,723	R2.5	60.00	54.79	60.30	0.91	747,466
361.23	COLLECTION SEWERS -GRAVITY - MANHOLES	80.55	626,210	R2.5	80.00	19.64	100.19	0.20	125,978
363.20	SERVICE TO CUSTOMERS	83.02	1,318,126	R3.0	45.00	6.91	89.94	0.15	201,771
364.30	FLOW MEASURING DEVICES - PUMPING	8.50	9,684	S2.0	30.00	21.72	30.22	0.72	6,960
364.40	FLOW MEASURING DEVICES - WWTP	8.50	12,025	S2.0	30.00	21.72	30.22	0.72	8,643
371.40	PUMPING EQUIPMENT - TREATMENT AND DISPOSAL PLANT	8.85	317,647	R3.0	35.00	26.57	35.42	0.75	238,419
380.40	TREATMENT AND DISPOSAL EQUIPMENT	40.86	17,039,720	R2.0	45.00	20.05	60.91	0.43	7,334,772
390.70	EQUIPMENT - GENERAL PLANT	4.50	7,171	R3.0	12.00	7.69	12.19	0.63	4,524
396.70	COMMUNICATION EQUIPMENT - GENERAL PLANT	4.50	5,164	R3.0	12.00	7.69	12.19	0.63	3,258
Grand Total	Grand Total	59.38	40,821,536		54.88	17.82	77.09	0.33	13,376,109

The above replacement cost new less depreciation represents the preliminary cost approach conclusion which was tested for economic obsolescence based on the results of the income

and market approaches which will be described in the remainder of this testimony. Based on our review of the preliminary cost approach and the results of the income and market approaches, no economic obsolescence exists at the preliminary cost approach conclusion of $13,376,109; therefore, the final cost approach conclusion was determined to be $13,376,109. These results are detailed in the Application **Appendix A-7.1** (AUS Appraisal) under the Cost Approach section.

Market Approach

Q. Regarding your application of the market approach, what methods did you use to determine the market approach result?

A. I used the comparable sales of water and wastewater properties in the Commonwealth of Pennsylvania subsequent to the passage of Section 1329 and financial market value ratios of publicly traded water and wastewater companies as reported in the January 10, 2020 issue of Value Line Investment Survey.

Q. What assumptions, analyses, and/or adjustments did you make under each method?

A. Under the comparable sales method, it is my opinion that sales amount to depreciated replacement cost is the best indicator in arriving at the appraised value of physical assets operating as a wastewater collection system. Under the financial ratios method, I believe that an accurate result depends on using the weighted mean of the ratio of the market debt and equity to book debt and equity.

Q. What were the results of each analysis you performed?

A. The comparable sales analysis produced a result of $12,792,911. The financial market analysis produced a result of $10,916,210 detailed as follows:

Pennsylvania American Water Company
Royersford Borough
Wastewater Collection and Treatment System
Investor-Owned Utility
As of December 10, 2019

Market Approach Summary

Comparable Sales	OCLD / RCNLD	Book Ratios	Purchase Price to Depreciated Original Cost (Book Value)	Indicated Market Value
Replacement Cost New less Depreciation (RCNLD)				
Measures of Central Tendancy (PP/RCNLD)		Simple Mean	Purchase Price Weighted Mean	
Mean		0.8220	0.931393289	
Standard Deviation		0.1944	0.11	
Median		0.9065	0.9639	
Mode		0.9919	0.9919	
PP/RCNLD (Average)	13,376,109.04	0.8643	0.9624	12,873,137
			Average	
Original Cost less Depreciation (OCLD)				
Measures of Central Tendancy (PP/OCLD)		Simple Mean	Purchase Price Weighted Mean	
Mean		1.8306	1.8396	
Standard Deviation		0.6246	0.1781	
Median		1.5745	1.5888	
Mode		1.5601	1.5601	
PP/OCLD (Average)	5,173,559.13	1.7026	1.6628	8,602,767
			Average	
Financial Markets		Market Value per Share to Book Value per Share		
Market to Book (equity)		3.40		
Market to Book (equity and debt)		2.11		
Use (equity and debt)		2.11	Input	
Market Conclusion		Investor Purchaser Owned Value to Depreciated Original Cost (Book Value)		
Royersford Borough				
AUS Depreciated Original Cost		5,173,559.13	2.11	10,916,210
Market Approach Summary				Indicated Valus $s
Minimum				8,602,767
Mean				10,797,371
Median				10,916,210
Maximum				12,873,137
Use (RCNLD)				**12,873,137**

Q. Which results were used to determine your market approach result?

A. I used the results of $12,792,911 because I believe those results represent an accurate assessment and it was based on the relationship of market comparable sales to the replacement cost new less depreciation of those properties. These results are detailed in the Application **Appendix A-7.1** (AUS Appraisal) under the Market Approach section.

Q. What was the calculation you used to determine your overall market approach results?

A. The calculation I used consisted of the ratio of the market sales to their replacement cost new applied to the replacement cost new less depreciation of Royersford Borough's property.

Q. What comparable transactions or comparable sales did you evaluate to develop your market approach?

A. I examined the following transactions to develop the result of my market approach:

Pennsylvania American Water Company
Royersford Borough
Wastewater Collection and Treatment System
Investor-Owned Utility
As of December 10, 2019

Comparable Sales Approach

Market Sales Basis

Description	New Garden Wastewater System	McKeesport Wastewater System	Limerick Wastewater System	Mahoning Water System	Mahoning Wastewater System	East Bradford Wastewater Collection System	Sadsbury Wastewater Collection System	Exeter Wastewater Collection System	Steelton Water System	Cheltenham Wastewater Collection System	East Norriton Wastewater	Kane Wastewater		Simple Average / Standard Deviation	Weighted Average	Use
System Description																
Type of System	Wastewater	Wastewater	Wastewater	Water	Wastewater	Wastewater	Wastewater	Wastewater	Water	Wastewater	Wastewater	Wastewater				
System Attributes	Collection & Treatment	Collection & Treatment	Collection & Treatment	Treatment & Distribution	Collection & Treatment	Collection Only	Collection Only	Collection & Treatment	Treatment & Distribution	Collection Only	Collection Only	Collection & Treatment				
Purchase Price	29,500,000	159,000,000	75,100,000	4,734,800	4,765,200	5,000,000	9,250,000	96,000,000	22,500,000	50,250,000	21,000,000	17,560,000			494,660,000	
Proportion of Purchase Price to Total	6%	32%	15%	1%	1%	1%	2%	19%	5%	10%	4%	4%			100%	
Acquirer	Aqua-PA	PA-American	Aqua-PA	SUEZ PA	SUEZ PA	Aqua-PA	PA-American	PA-American	PA-American	Aqua-PA	Aqua-PA	PA-American				
Date	Aug-16	Sep-16				20-Dec-17		29-May-18	14-Nov-18	Jun-18	Oct-18	Sep-19				
Customers																
Original Cost																
Depreciated Original Cost (AUS Consultants) OCLD	18,567,728	101,915,080	46,153,867			5,383,591	6,128,876	40,057,634	14,433,435	15,784,463	8,407,007	12,070,455			268,902,136	
Purchase Price to OCLD	1.5888	1.5601	1.6272			0.9287	1.5092	2.3965	1.5589	3.1835	2.4979	1.4548	Mean	1.8306	1.8196	1.8196
Variance to Simple Mean	-0.2418	-0.2705	-0.2034			-0.9019	-0.3214	0.5659	-0.2717	1.3529	0.6673	-0.3758	StdDev	0.6246	0.6781	
Variance to Wtd Mean	-0.2508	-0.2795	-0.2124			-0.9109	-0.3304	0.5569	-0.2807	1.3439	0.6583	-0.3848	Median	1.5745	1.5888	
													Mode	1.5601	1.5601	
Replacement Cost New less Depreciation RCNLD	30,615,410	160,101,491	86,086,756	8,899,336	7,991,234	9,236,581	8,517,587	99,589,819	23,921,473	49,940,486	27,461,356	29,015,055			541,576,584	
Purchase Price to RCNLD	0.9636	0.9939	0.8724	0.532	0.5963	0.5413	1.086	0.964	0.9406	1.0062	0.7647	0.6052	Mean	0.8220	0.9313932B9	0.931393
Variance to Simple Mean	0.1416	0.1699	0.0504	-0.29	-0.2257	-0.2807	0.264	0.142	0.1186	0.1842	-0.0573	-0.2168	StdDev	0.1944	0.1100	
Variance to Wtd Mean	0.032206711	0.060506711	-0.058993289	-0.399393289	-0.335093289	-0.390093289	0.154606711	0.032606711	0.009206711	0.074806711	-0.166693289	-0.326193289	Median	0.9065	0.9639	
Variance Squared	0.001037772	0.003661062	0.003480208	0.159514999	0.112287532	0.152172774	0.023903235	0.001063198	8.47635E-05	0.005596044	0.027786653	0.106402062	Mode	0.9919	0.9919	

Income Approach

Q. Regarding your application of the income approach, what method did you use to determine the income approach result?

A. I used the discounted cash flow method.

Q. What assumptions did you employ to develop your income approach result?

A. Under the income approach, it is my opinion that the results of the future operations of the Royersford Borough's Wastewater Collection and Treatment System must be considered. I believe that an accurate result depends on adjusting recent results of the systems operation to better reflect how those results will migrate over future periods under the operation as a rate regulated wastewater system regulated by the PUC.

Q. What discount rate did you use to calculate your income approach?

A. I used a discount rate of 7.96% and 6.07% capitalization rate.

Q. Please explain how you developed the discount rate.

A. In each case, the discount rate was a market discount rate at the appraisal date and was determined using the weighted average cost of capital ("WACC") of both debt and equity. The inputs to the WACC determination, capital structure, cost of debt, cost of equity, and income tax rate (state and federal) were determined based on an analysis of Value Line Investment Surveys and the Ibbotson Stock, Bonds, Bills, and Inflation ("Ibbotson SBBI") 2020 Edition (SBBI activity over the period 1926 through 2019). The cost of debt was determined at December 10, 2019, based on the Value Line Investment Survey. The cost

of equity was based on the capital asset pricing model ("CAPM") and the Dividend Growth Model ("DGM"), two recognized cost of equity estimating models and the PUC's Bureau of Technical Utility Services' Report on Quarterly Earnings of Jurisdictional Utilities for Year-ending September 30, 2019. The above described data for the Royersford Borough's appraisal can be found in the exhibits to my appraisal report in the section entitled Cost of Capital / Required Return.

Q. What capital structure inputs differ from those identified in capital structure set forth earlier in your testimony?

A. None. As described in the previous discussion of the capital structure, we utilized a market required capital structure based on analysis of the water / wastewater industry's market capital structure as defined by analysis of market financials as published in Value Line Investment Survey (January 10, 2020). The theory in appraisal is to estimate the value of a property in an arm's length transaction wherein the purchaser finances the purchase with capital (debt and equity) available in the financial markets at the appraisal date. Those are the current (appraisal date) financial markets.

Q. What is the source and basis of the alternative input you propose in the income approach?

A. As discussed above, we had used Value Line Investment Survey to develop a market required capital structure. Please see Application **Appendix A-7.1** (AUS Appraisal) Income Approach section for the cost of capital of the Income Approach and Cost of Capital / Required Return section for the basis of the Cost of Capital / Required Return.

Q. If you used a terminal value in your discounted cash flow analysis what is the number of years over which the cash flows are considered?

A. I considered those cash flows over 19 periods with period 20 representing all future periods.

Q. What is the basis for using this number of years?

A. It is my opinion that the use of 19 periods is a reasonable number of periods for the forecast revenues and expenses to stabilize.

Q. What is your Income Approach conclusion?

A. AUS Consultants' income approach conclusion was determined to be $14,504,697 detailed as follows:

Pennsylvania American Water Company
Royersford Borough
Wastewater Collection and Treatment System
Potential Purchaser: Investor-Owned Utility
As of December 10, 2019
Discounted Cash Flow Analysis

Discount Rate: 7.96%
Capitalization Rate: 6.03%

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Period	Age	Revenues	O&M Expenses	Tax Depreciation	Cash Flow from Operations	Taxable Income before State & Federal Taxes	State and Federal Taxes @ 28.89%	Capital Expenditures	Change in Working Capital	Net Cash Flows	Period Present Worth Factor (PW)	PW of Cashflow	Accumulated PW of Cashflows
					(3)-(4)	(6)-(5)	(7) *28.89%			(3)-(4)-(8)-(9)-(10)		(11)*(12)	Sum (13)
1	0.5	1,122,000	717,929	746,706	404,071	(342,635)	(98,987)	214,549	14,688	273,821	0.962	263,416	263,416
2	1.5	1,144,440	733,088	756,382	411,352	(345,030)	(99,679)	217,769	1,212	292,050	0.891	260,217	523,633
3	2.5	1,464,883	748,693	766,393	716,190	(50,203)	(14,504)	221,035	17,303	492,356	0.826	406,686	930,319
4	3.5	1,494,181	764,752	776,748	729,429	(47,319)	(13,670)	224,350	1,583	517,166	0.765	395,632	1,325,951
5	4.5	1,524,065	781,281	787,455	742,784	(44,671)	(12,905)	227,716	1,613	526,360	0.708	372,663	1,698,614
6	5.5	1,950,803	798,283	798,522	1,152,520	353,998	102,270	231,132	23,045	796,073	0.656	522,224	2,220,838
7	6.5	1,989,819	815,771	738,384	1,174,048	435,664	125,863	85,124	2,106	960,955	0.608	584,261	2,805,099
8	7.5	2,029,615	832,472	738,542	1,197,143	458,601	132,490	86,239	2,149	976,265	0.563	549,637	3,354,736
9	8.5	2,557,315	849,690	738,797	1,707,625	968,828	279,894	87,371	28,496	1,311,864	0.522	684,793	4,039,529
10	9.5	2,608,461	867,442	739,153	1,741,019	1,001,866	289,439	88,520	2,762	1,360,298	0.483	657,024	4,696,553
11	10.5	2,660,630	885,733	739,608	1,774,897	1,035,289	299,095	89,683	2,817	1,383,302	0.447	618,336	5,314,889
12	11.5	2,873,480	904,577	740,167	1,968,903	1,228,736	354,982	90,863	11,494	1,511,564	0.414	625,787	5,940,676
13	12.5	2,930,950	923,990	723,808	2,006,960	1,283,152	370,703	92,060	3,103	1,541,094	0.384	591,780	6,532,456
14	13.5	2,989,569	943,988	724,492	2,045,581	1,321,089	381,663	93,275	3,165	1,567,478	0.356	558,022	7,090,478
15	14.5	3,228,735	964,579	725,283	2,264,156	1,538,873	444,581	94,507	12,916	1,712,152	0.329	563,298	7,653,776
16	15.5	3,293,310	985,775	423,915	2,307,535	1,883,620	544,178	237,184	3,487	1,522,686	0.305	464,419	8,118,195
17	16.5	3,359,176	1,008,820	429,553	2,350,356	1,920,803	554,920	240,743	3,556	1,551,137	0.283	438,972	8,557,167
18	17.5	3,627,910	1,032,494	435,326	2,595,416	2,160,090	624,050	244,353	14,512	1,712,501	0.262	448,675	9,005,842
19	18.5	3,700,468	1,056,810	441,238	2,643,658	2,202,420	636,279	248,019	3,918	1,755,442	0.242	424,817	9,430,659
20 and beyond	19.5	3,774,477	1,081,780	447,291	2,692,697	2,245,406	648,698	251,738	3,997	1,788,264	2.827	5,055,422	14,486,081
								3,366,230					
Age				19.5									
PW(Age) = 1/(1+Discount Rate)^(Age)				0.225				Net Plant		11,818,696			
PW to Perpetuity = 1/Capitalization Rate				12.563				ADIT		(2,453,954)			
PW(20and Beyond) = PW to Perpetuity * PW Factor(19.5)				2.827				Rate Base		9,364,742	0.225	2,107,067	11,537,726
								Annual Plant Construction Inflation Rate		0.0422 Input			
								Plant Inflation over 19.5 years		21,405,098	0.225	4,816,147	14,246,806
								PP	13,000,000				
								OCLD	5,173,559				
								PP/OCLD	2.513				
								RCNLD	13,376,109				
								RCNLD/PP		1.028931465			
										9,635,678.16	0.225	2,168,028	11,598,687
								Average					12,967,325

These results are detailed in the Application **Appendix A-7.1** (AUS Appraisal) under the Income Approach section.

Q. What number of Selling Utility customers or equivalent dwelling units did you use to value the Seller's system and how did you develop that number?

A. I did not use customers/EDUs in developing the forecasted revenues and expenses. Instead, I used past and budgeted results from operations to establish forecasted operating results.

Q. Did you make any updates to your appraisal after it was submitted to the Seller, and if so, what was the update, when was it made, and why was it necessary?

A. I did update my initial appraisal after it was submitted to PAWC since additional years of financials (2018) and budgets (2019-2020) were available and a final Engineers Assessment dated April 23, 2020 was available which I received in early May 2020.

Q. Does this conclude your direct testimony?

A. It does. However, by filing this direct testimony I understand that I may have the opportunity to submit additional testimony responsive to challenges to my appraisal.

Curriculum Vitae (CV) of Jerome C. Weinert, P.E., CDP, ASA

Mr. Weinert is currently Principal and Director of AUS Consultants, Depreciation and Valuation. He has forty-eight (2020-1972) years' experience in valuation and depreciation consulting and management. AUS, with offices across the country, has provided consulting services to the regulated utility industry nationally for over thirty-nine years. A partial list of services provided includes valuations depreciation studies, rate of return studies, cost of service studies, and rate design.

Prior to joining AUS in 1987, Mr. Weinert was employed by American Appraisal Associates, Inc. (American) for sixteen years in their Regulated Industries Group. He held various positions at American, the last being supervising appraiser. Among his other valuation responsibilities, he directed the firm's utility industry capital recovery studies and AUS Consultant's valuation of communication company assets and businesses.

Mr. Weinert graduated from the Milwaukee School of Engineering with a Bachelor of Science degree in Mechanical Engineering and received a master's in business administration from Marquette University. He is a registered professional engineer (1976) (by examination) in the state of Wisconsin as well as a senior member (1982) of the American Society of Appraisers in the public utility valuation field. This latter designation is obtained by written examination primarily in the areas of utility valuation, depreciation, and the economics of regulated firms. He is also a Certified Depreciation Professional (1997) (CDP) and founding member of the Society of Depreciation Professionals and the Society's 1995 President and sponsor of the Society's Certification and re-certification program; as such Mr. Weinert developed these programs and oversaw their initial introduction into the Society. He also worked in conjunction with Society members in the development of the Society's training programs which as of 2003 has become the only such formalized depreciation training program in the North America and is an instructor in several of its courses.

During his professional career related to valuations and depreciation matters Mr. Weinert has testified before various courts and public service commissions on these subjects. He has also assisted numerous utilities in preparing capital recovery plans which specifically address the issues of plant replacement. Mr. Weinert has also presented expert testimony on valuation matters. Mr. Weinert has testified before the Pennsylvania Public Utility Commission on regulatory matters associated with Pennsylvania Section 1329 matters. On matters related to eminent domain issues, Mr. Weinert has presented expert testimony in the Massachusetts Superior Court, the Court of Common Pleas, Fayette County, Ohio, the New Hampshire Public Utilities Commission, the Twentieth Judicial Court (deposition only) in Charlotte County, Florida, the Nineteenth Judicial Circuit Court in St. Lucie County, Florida (deposition only). In regard to ad valorem taxation, Mr. Weinert has presented study results to the New York State Board of Equalization and Assessment (now the New York Office of Real Property Services (NY ORPS)), pertaining to useful life and net salvage values for all types of utility property subject to the Board's mass appraisal model. Mr. Weinert has appeared before the Valuation Adjustment Board in Florida for Duval, Hillsborough, Okeechobee, and Palm Beach counties, the Twelfth Judicial Circuit Sarasota County, Florida, the California Board of Equalization and Assessment, the Arizona Board of Assessment, the Missouri Board of Taxation, the Colorado and Texas Departments of Review, the Massachusetts Tax Appeal Court, the Superior Court of the State of Arizona in the County of Maricopa, the State Tax Appeal Board of the State of Montana, the New York City Tax Commission and the Public Utility Commission of Pennsylvania Section 1329 hearings (8).

Mr. Weinert has appeared before regulatory bodies in Alaska, Arkansas, Illinois, Indiana, Iowa, Missouri, Nevada, Nebraska, North Carolina, Ohio, Oregon, Pennsylvania, and South Carolina in support of rate-base valuation determination and capital recovery. He has presented testimony on depreciation matters before the Canadian Radio-Television and Telecommunications Commission (CRTC) and the United

States Federal Energy Regulatory Commission (FERC). In terms of water and wastewater acquisitions and applications for regulatory approval of rate base Mr. Weinert has testified for two investor-owned acquisitions of municipal wastewater authorities one representing the municipality and secondly for the acquiring investor-owned utility. He has submitted study results to the State Commissions of Alabama, Alaska, Arkansas, Idaho, Illinois, Indiana, Iowa, Kentucky, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, North Carolina, Oregon, Pennsylvania, South Carolina, Washington, and Wisconsin, and the Federal Communications Commission.

Mr. Weinert has presented papers on valuation and depreciation topics to professional and utility industry trade organizations. He also directed AUS Consultants' semi-annual week-long depreciation training programs (1988-1997). These specialized training courses, offered at basic and advanced levels, teach depreciation study techniques to public utility and public service commission staff specialists. The training includes depreciation theory and concepts and hands-on experience with personal computer-based analytical depreciation programs.

Appraisal & Capital Recovery Activities Client List

Company	Property	Study Year	Year Performed	Activity
2020				
AT&T Communications	North America	2019	2020	Ad Valorem Tax Appraisal
AT&T Communications	California	2019	2020	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2019	2020	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2019	2020	Ad Valorem Tax Appraisal
Verizon New York, Inc.	New York	2019	2020	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2019	2020	Ad Valorem Tax Appraisal
East Norriton Township, PA	East Norriton Wastewater	2019	2020	Fair Market Value 1329
Pennsylvania American Water Company	Kane Wastewater	2019	2020	Fair Market Value 1329
2019				
AT&T Communications	North America	2018	2019	Ad Valorem Tax Appraisal
AT&T Communications	California	2018	2019	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2018	2019	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2018	2019	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2018	2019	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2018	2019	Ad Valorem Tax Appraisal
Cheltenham Township, PA	Cheltenham Wastewater	2018	2019	Fair Market Value 1329
Pennsylvania American Water Company	Steelton Water	2018	2019	Fair Market Value 1329
Pennsylvania American Water Company	Exeter Wastewater	2018	2019	Fair Market Value 1329
2018				
AT&T Communications	North America	2017	2018	Ad Valorem Tax Appraisal
AT&T Communications	California	2017	2018	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2017	2018	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2017	2018	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2017	2018	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2017	2018	Ad Valorem Tax Appraisal
Level 3 Communications, LLC	North America	2017	2018	Ad Valorem Tax Appraisal
Level 3 Communications, LLC	California	2017	2018	Ad Valorem Tax Appraisal
CenturyLink Communications, LLC	North America	2017	2018	Ad Valorem Tax Appraisal
CenturyLink Communications, LLC	California	2017	2018	Ad Valorem Tax Appraisal
East Bradford Township, PA	East Bradford Wastewater	2018	2018	Fair Market Value 1329
Pennsylvania American Water Company	Sadsbury Wastewater	2017	2018	Fair Market Value Appraisal
Pennsylvania American Water Company	Kane Wastewater	2017	2018	Fair Market Value Appraisal
2017				
AT&T Communications	North America	2016	2017	Ad Valorem Tax Appraisal
AT&T Communications	California	2016	2017	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2016	2017	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2016	2017	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2016	2017	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2016	2017	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2016	2017	Ad Valorem Tax Appraisal
Level 3 Communications	North America	2016	2017	Ad Valorem Tax Appraisal
Level 3 Communications	California	2016	2017	Ad Valorem Tax Appraisal
Whitpain Township, PA	Whitpain Wastewater	2016	2017	Appraisal for Planning

Appraisal & Capital Recovery Activities Client List

Company	Property	Study Year	Year Performed	Activity
Plymouth Township, PA	Plymouth Wastewater	2016	2017	Appraisal for Planning
East Norriton Township, PA	East Norriton Wastewater	2016	2017	Appraisal for Planning
Pennsylvania American Water Company	Sadsbury Wastewater	2016	2017	Fair Market Value Appraisal
Pennsylvania American Water Company	McKeesport Wastewater	2016	2017	Fair Market Value Appraisal
Intermountain Gas Company	Idaho	2016	2017	Depreciation Study
2016				
AT&T Communications	North America	2015	2016	Ad Valorem Tax Appraisal
AT&T Communications	California	2015	2016	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2015	2016	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2015	2016	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2015	2016	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2015	2016	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2015	2016	Ad Valorem Tax Appraisal
Level 3 Communications	North America,	2015	2016	Ad Valorem Tax Appraisal
Level 3 Communications	California	2015	2016	Ad Valorem Tax Appraisal
New Garden Township, PA	New Garden Wastewater	2016	2016	Fair Market Value Appraisal
2015				
AT&T Communications	North America	2014	2015	Ad Valorem Tax Appraisal
AT&T Communications	California	2014	2015	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2014	2015	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2014	2015	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2014	2015	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2014	2015	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2014	2015	Ad Valorem Tax Appraisal
Level 3 Communications	North America,	2014	2015	Ad Valorem Tax Appraisal
Level 3 Communications	California	2014	2015	Ad Valorem Tax Appraisal
Verizon Wireless	Nationwide	2014	2015	Ad Valorem Tax Appraisal
2014				
AT&T Communications	North America	2013	2014	Ad Valorem Tax Appraisal
AT&T Communications	California	2013	2014	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2013	2014	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2013	2014	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2013	2014	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2013	2014	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2013	2014	Ad Valorem Tax Appraisal
Level 3 Communications	North America,	2013	2014	Ad Valorem Tax Appraisal
Level 3 Communications	California	2013	2014	Ad Valorem Tax Appraisal
Cascade Natural Gas Corporation	Oregon & Washington	2013	2014	Depreciation Study
Intermountain Gas Company	Idaho	2013	2014	Depreciation Study
Virgin Islands Telephone Corporation	US Virgin Islands	2013	2014	Depreciation Study
Verizon Wireless	Nationwide	2013	2014	Ad Valorem Tax Appraisal
2013				
AT&T Communications	North America	2012	2013	Ad Valorem Tax Appraisal
AT&T Communications	California	2012	2013	Ad Valorem Tax Appraisal

Appraisal & Capital Recovery Activities Client List

Company	Property	Study Year	Year Performed	Activity
AT&T Communications	Florida	2012	2013	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2012	2013	Ad Valorem Tax Appraisal
AT&T - Michigan Bell Telephone Company	Michigan	2012	2013	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2012	2013	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2012	2013	Ad Valorem Tax Appraisal
Verizon Communications	New England - Mass	2012	2013	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2012	2013	Ad Valorem Tax Appraisal
Level 3 Communications	North America, California	2012	2013	Ad Valorem Tax Appraisal
Sprint Nextel Corporation	North America	2012	2013	Ad Valorem Tax Appraisal
Verizon Wireless	Palm Beach, Florida	2012	2013	Ad Valorem Tax Appraisal
Verizon Communications	New England Mass	2002-2007	2013	Ad Valorem Tax Appraisal
2012				
AT&T Communications	North America	2011	2012	Ad Valorem Tax Appraisal
AT&T Communications	California	2011	2012	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2011	2012	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2011	2012	Ad Valorem Tax Appraisal
AT&T - Michigan Bell Telephone Company	Michigan	2011	2012	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2011	2012	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2011	2012	Ad Valorem Tax Appraisal
Verizon Communications	New England - Mass	2011	2012	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2011	2012	Ad Valorem Tax Appraisal
Level 3 Communications	North America, California	2011	2012	Ad Valorem Tax Appraisal
Sprint Nextel Corporation	North America	2011	2012	Ad Valorem Tax Appraisal
Verizon Wireless	Palm Beach, Florida	2011	2012	Ad Valorem Tax Appraisal
MetroPCS	Palm Beach, Florida	2011	2012	Ad Valorem Tax Appraisal
Verizon Communications	Florida - revised	2008	2012	Ad Valorem Tax Appraisal
Verizon Wireless	Palm Beach, Florida	2012	2012	Ad Valorem Tax Appraisal
2011				
AT&T Communications	North America	2010	2011	Ad Valorem Tax Appraisal
AT&T Communications	California	2010	2011	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2010	2011	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2010	2011	Ad Valorem Tax Appraisal
AT&T - Michigan Bell Telephone Company	Michigan	2010	2011	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2010	2011	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2010	2011	Ad Valorem Tax Appraisal
Verizon Communications	New England - Mass	2010	2011	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2010	2011	Ad Valorem Tax Appraisal
Level 3 Communications	North America, California	2010	2011	Ad Valorem Tax Appraisal
Global Crossing	North America	2010	2011	Ad Valorem Tax Appraisal
Intermountain Gas Company	Idaho	2010	2011	Depreciation Study
Sprint Nextel Corporation	North America	2010	2011	Ad Valorem Tax Appraisal
Verizon Wireless	Palm Beach, Florida	2010	2011	Ad Valorem Tax Appraisal
MetroPCS	Palm Beach, Florida	2010	2011	Ad Valorem Tax Appraisal
Verizon Communications	Florida - revised	2008	2011	Ad Valorem Tax Appraisal
Intermountain Gas Company	Idaho	2010	2011	Depreciation Study
Virgin Islands Telephone Corporation	US Virgin Islands	2010	2011	Technical Update of Depreciation Study

Appraisal & Capital Recovery Activities Client List

Company	Property	Study Year	Year Performed	Activity
2010				
AT&T Communications	North America	2009	2010	Ad Valorem Tax Appraisal
AT&T Communications	California	2009	2010	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2009	2010	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2009	2010	Ad Valorem Tax Appraisal
AT&T - Michigan Bell Telephone Company	Michigan	2009	2010	Ad Valorem Tax Appraisal
AT&T - Southwestern Bell Telephone Company	Arkansas, Kansas, Missouri, Oklahoma, Texas	2009	2010	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2009	2010	Ad Valorem Tax Appraisal
Embarq Missouri, Inc.	Missouri	2009	2010	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2009	2010	Ad Valorem Tax Appraisal
Verizon Communications	Northwest	2009	2010	Ad Valorem Tax Appraisal
Verizon Communications	New England - Mass	2009	2010	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2009	2010	Ad Valorem Tax Appraisal
Level 3 Communications	North America, California	2009	2010	Ad Valorem Tax Appraisal
Global Crossing	North America	2009	2010	Ad Valorem Tax Appraisal
MetroPCS	Palm Beach, Florida	2009	2010	Ad Valorem Tax Appraisal
2009				
AT&T Communications	North America	2008	2009	Ad Valorem Tax Appraisal
AT&T Communications	California	2008	2009	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2008	2009	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2008	2009	Ad Valorem Tax Appraisal
AT&T - Michigan Bell Telephone Company	Michigan	2008	2009	Ad Valorem Tax Appraisal
AT&T - Wisconsin Bell Telephone Company	Wisconsin	2008	2009	Ad Valorem Tax Appraisal
AT&T - Southwestern Bell Telephone Company	Arkansas, Kansas, Missouri, Oklahoma, Texas	2008	2009	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2008	2009	Ad Valorem Tax Appraisal
Embarq Texas, Inc.	Texas	2008	2009	Ad Valorem Tax Appraisal
Embarq Missouri, Inc.	Missouri	2008	2009	Ad Valorem Tax Appraisal
Embarq Northwest	Washington	2008	2009	Ad Valorem Tax Appraisal
Embarq Virginia	Virginia	2008	2009	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2008	2009	Ad Valorem Tax Appraisal
Verizon Communications	Northwest	2008	2009	Ad Valorem Tax Appraisal
Verizon Communications	New England - Mass	2008	2009	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2008	2009	Ad Valorem Tax Appraisal
Level 3 Communications	North America, California, Michigan & Arizona	2008	2009	Ad Valorem Tax Appraisal
Global Crossing	North America	2008	2009	Ad Valorem Tax Appraisal
AboveNet, Inc	North America/California	2003	2009	Ad Valorem Tax Appraisal
Verizon Wireless	Ohio Properties	2004-2005	2009	Ad Valorem Tax Appraisal
Virgin Islands Telephone Corporation	US Virgin Islands	2008	2009	Depreciation Study
Sprint Nextel Corporation	North America	2008	2009	Ad Valorem Tax Appraisal
2008				
AT&T Communications	North America	2007	2008	Ad Valorem Tax Appraisal
AT&T Communications	California	2007	2008	Ad Valorem Tax Appraisal

Appraisal & Capital Recovery Activities Client List

Company	Property	Study Year	Year Performed	Activity
AT&T - Indiana Bell Telephone Company	Indiana	2007	2008	Ad Valorem Tax Appraisal
AT&T - Michigan Bell Telephone Company	Michigan	2007	2008	Ad Valorem Tax Appraisal
AT&T - Wisconsin Bell Telephone Company	Wisconsin	2007	2008	Ad Valorem Tax Appraisal
AT&T - Southwestern Bell Telephone Company	Arkansas, Kansas, Missouri, Oklahoma, Texas	2007	2008	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2007	2008	Ad Valorem Tax Appraisal
Embarq Texas, Inc.	Texas	2007	2008	Ad Valorem Tax Appraisal
Embarq Missouri, Inc.	Missouri	2007	2008	Ad Valorem Tax Appraisal
Embarq Northwest	Washington	2007	2008	Ad Valorem Tax Appraisal
Embarq Virginia	Virginia	2007	2008	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2007	2008	Ad Valorem Tax Appraisal
Verizon Communications	California	2007	2008	Ad Valorem Tax Appraisal
Verizon Communications	Northwest	2007	2008	Ad Valorem Tax Appraisal
Verizon Communications	New England Mass	2002-2007	2008	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2007	2008	Ad Valorem Tax Appraisal
Level 3 Communications	North America, California, Michigan & Arizona	2007	2008	Ad Valorem Tax Appraisal
Global Crossing	North America	2007	2007	Ad Valorem Tax Appraisal
Intermountain Gas Company	Idaho	2007	2008	Depreciation Study
2007				
AT&T Communications	North America	2006	2007	Ad Valorem Tax Appraisal
AT&T Communications	California	2006	2007	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2006	2007	Ad Valorem Tax Appraisal
AT&T - Michigan Bell Telephone Company	Michigan	2006	2007	Ad Valorem Tax Appraisal
AT&T - Wisconsin Bell Telephone Company	Wisconsin	2006	2007	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2006	2007	Ad Valorem Tax Appraisal
Embarq Texas, Inc.	Texas,	2006	2007	Ad Valorem Tax Appraisal
Embarq Missouri, Inc.	Missouri	2006	2007	Ad Valorem Tax Appraisal
Embarq North Carolina	North Carolina	2006	2007	Ad Valorem Tax Appraisal
Embarq Virginia	Virginia	2006	2007	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2006	2007	Ad Valorem Tax Appraisal
Verizon Communications	California	2006	2007	Ad Valorem Tax Appraisal
Verizon Communications	Northwest	2006	2007	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2006	2007	Ad Valorem Tax Appraisal
Qwest Communications Corporation	North America California	2006	2007	Ad Valorem Tax Appraisal
Level 3 Communications	North America, California, Michigan, & Arizona	2006	2007	Ad Valorem Tax Appraisal
Level 3 Communications	Arizona	2002 - 2006	2007	Ad Valorem Tax Appraisal
Global Crossing	North America	2006	2007	Ad Valorem Tax Appraisal
Alaska Communications System, Inc. (ACS)	ACS of Alaska ACS of Anchorage ACS of Fairbanks ACS of the Northland ACS Holdings	2006	2007	Depreciation Studies
Intermountain Gas Company	Idaho	2006	2007	Depreciation Study
2006				

Appraisal & Capital Recovery Activities Client List

Company	Property	Study Year	Year Performed	Activity
AT&T Communications	Palm Beach Florida	2000 - 2003	2006	Ad Valorem Tax Appraisal
AT&T Communications	North America	2005	2006	Ad Valorem Tax Appraisal
AT&T Communications	California	2005	2006	Ad Valorem Tax Appraisal
Sprint Florida, Inc.	Florida	2005	2006	Ad Valorem Tax Appraisal
Sprint Texas, Inc.	Texas,	2005	2006	Ad Valorem Tax Appraisal
Sprint Missouri, Inc.	Missouri	2005	2006	Ad Valorem Tax Appraisal
Sprint North Carolina	North Carolina	2005	2006	Ad Valorem Tax Appraisal
Sprint Virginia	Virginia	2005	2006	Ad Valorem Tax Appraisal
Embarq Nevada	Nevada	2005	2006	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2005	2006	Ad Valorem Tax Appraisal
Verizon Communications	California	2005	2006	Ad Valorem Tax Appraisal
Verizon Communications	Northwest	2005	2006	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	Massachusetts	2002-2--5	2006	Ad Valorem Tax Appraisal
Level 3 Communications	North America	2005	2006	Ad Valorem Tax Appraisal
Level 3 Communications	Arizona	2002-2006	2006	Ad Valorem Tax Appraisal
Global Crossing	North America	2005	2006	Ad Valorem Tax Appraisal
Indianapolis Power & Light	IPL	2005	2006	Depreciation Study
2005				
AT&T Communications	North America	2004	2005	Ad Valorem Tax Appraisal
AT&T Communications	California	2004	2005	Ad Valorem Tax Appraisal
Sprint Florida, Inc.	Florida	2004	2005	Ad Valorem Tax Appraisal
Sprint PCS	North America	2004	2005	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2004	2005	Ad Valorem Tax Appraisal
Verizon Communications	California	2004	2005	Ad Valorem Tax Appraisal
Verizon Communications	Northwest	2004	2005	Ad Valorem Tax Appraisal
Sprint Communications, LP	North America	2004	2005	Ad Valorem Tax Appraisal
Level 3 Communications	North America	2004	2005	Ad Valorem Tax Appraisal
Global Crossing	North America	2004	2005	Ad Valorem Tax Appraisal
Global Crossing	New York Special Franchise Property	2003 & 2004	2005	Ad Valorem Tax Appraisal
Indianapolis Power & Light	IPL	2004	2005	Depreciation Study
2004				
Sprint Florida, Inc.	Florida	2003	2004	Ad Valorem Tax Appraisal
Verizon Communications	California	2003	2004	Ad Valorem Tax Appraisal
Verizon Communications	Northwest	2003	2004	Ad Valorem Tax Appraisal
Verizon Communications	New England	2003	2004	Ad Valorem Tax Appraisal
Sprint Communications, LP	North America	2003	2004	Ad Valorem Tax Appraisal
Level 3 Communications	North America	2003	2004	Ad Valorem Tax Appraisal
Global Crossing	North America	2003	2004	Ad Valorem Tax Appraisal
Sprint PCS	Cost Indexes	2003	2004	Ad Valorem Tax Appraisal
AT&T Communications	North America	2003	2004	Ad Valorem Tax Appraisal
AT&T Communications	California	2003	2004	Ad Valorem Tax Appraisal
Intermountain Gas Company	Idaho	2003	2004	Depreciation Study
2003				
Sprint Florida, Inc.	Florida	2002	2003	Ad Valorem Tax Appraisal
Verizon Communications	California	2002	2003	Ad Valorem Tax Appraisal
Verizon Communications	Northwest	2002	2003	Ad Valorem Tax Appraisal
Sprint Communications, LP	North America	2002	2003	Ad Valorem Tax Appraisal

Appraisal & Capital Recovery Activities Client List

Company	Property	Study Year	Year Performed	Activity
Level 3 Communications	North America	2002	2003	Ad Valorem Tax Appraisal
Sprint PCS	Cost Indexes	2002	2003	Ad Valorem Tax Appraisal
AT&T Communications	North America	2002	2003	Ad Valorem Tax Appraisal
AT&T Communications	California	2002	2003	Ad Valorem Tax Appraisal
Global Crossing	North America	2002	2003	Ad Valorem Tax Appraisal
Verizon Wireless	Broward County, FL	1998 through 2002	2003	Ad Valorem Tax Appraisal
2002				
Sprint Florida, Inc.	Florida	2001	2002	Ad Valorem Tax Appraisal
Verizon Communications	California	2001	2002	Ad Valorem Tax Appraisal
Verizon Communications	Northwest	2001	2002	Ad Valorem Tax Appraisal
Sprint Communications, LP	North America	2001	2002	Ad Valorem Tax Appraisal
Level 3 Communications	North America	2001	2002	Ad Valorem Tax Appraisal
Global Crossing	North America	2001	2002	Ad Valorem Tax Appraisal
AT&T Wireless	Plymouth, MI	2001	2002	Ad Valorem Tax Appraisal
Sprint PCS	Cost Indexes	2001	2002	Ad Valorem Tax Appraisal
AT&T Communications	North America	2001	2002	Ad Valorem Tax Appraisal
Intermountain Gas Company	Idaho	2001	2002	Depreciation Study
AT&T Communications	California	2001	2002	Ad Valorem Tax Appraisal
2001				
Verizon	Verizon - New York	2001	2001-2	Functional Obsolescence & Useful Life studies for valuation
Sprint Florida, Inc.	Sprint Florida, Inc.	2000	2001	Ad Valorem Tax Appraisal
Verizon Communications	California	2000	2001	Ad Valorem Tax Appraisal
Sprint Communications, LP	North America	2000	2001	Ad Valorem Tax Appraisal
Global Crossing	North America	2000	2001	Ad Valorem Tax Appraisal
Sprint PCS	Cost Indexes	2000	2001	Ad Valorem Tax Appraisal
Sprint Corporation	Centel - Nevada	2000	2001-2	Depreciation Study
Alaska Communications System, Inc. (ACS)	ACS of Alaska ACS of Anchorage ACS of Fairbanks ACS of the Northland ACS Holdings	2000	2001	Depreciation Study
2000				
Sprint PCS	BTS Equipment	2000	2000	Economic Life Study
Telus Communications	Telus - Alberta & British Columbia	2000	2000	Depreciation study Phase III Price Caps
Sprint Florida, Inc.	Florida	1999	2000	Ad Valorem Tax Appraisal
Verizon Communications	California	1999	2000	Ad Valorem Tax Appraisal
Sprint Communications, LP	North America	1999	2000	Ad Valorem Tax Appraisal
1999				
Sprint Corporation	Centel - Nevada	1998	1999	Depreciation Study
Intermountain Gas Company	Intermountain Gas Company	1998	1999	Depreciation Study
Sprint Florida, Inc.	Florida	1998	1999	Ad Valorem Tax Appraisal
Sprint Communications, LP	North America	1998	1999	Ad Valorem Tax Appraisal

Appraisal & Capital Recovery Activities Client List

Company	Property	Study Year	Year Performed	Activity
1998				
Frontier Corporation	Frontier Telephone of Rochester	1998	1997	Valuation depreciation Lives and Net Salvage Parameters
Pacific Telecom, Inc.	Telephone Utilities of Washington	1997	1998	Depreciation Study
Sprint Florida, Inc.	Florida	1997	1998	Ad Valorem Tax Appraisal
Verizon Communications	Florida	1997	1998	Ad Valorem Tax Appraisal
Sprint Communications, LP	North America	1997	1998	Ad Valorem Tax Appraisal
Sprint Corporation	United Telephone Company of South Carolina	1998	1998	Depreciation Expense Universal Service Fund
Sprint Corporation	Carolina Telephone and Telegraph and Central Telephone of North Carolina	1998	1998	Depreciation Expense Universal Service Fund
Telus Communications	Telus - Edmonton (TCE)	1997	1998	Depreciation Study Phase II Price Caps
1997				
Sprint Corporation	Centel - Nevada	1997	1997	Unbundling/ Inter-connection Depreciation Study
Pacific Telecom, Inc.	Telephone Utilities of Oregon	1996	1997	Depreciation Study
Pacific Telecom, Inc.	Telephone Utilities of Alaska And the Northland	1996	1997	Depreciation Study
Telus Communications	Telus - TCI formerly AGT	1996	1997	Depreciation Study Phase II Price Caps
Indianapolis Power & Light	IPL	1996	1997	Depreciation Study
Sprint Florida, Inc.	Florida	1996	1997	Ad Valorem Tax Appraisal
Verizon Communications	Florida	1996	1997	Ad Valorem Tax Appraisal
Pacific Telecom, Inc.	Eagle Telephone (Colorado)	1996	1997	Depreciation Study
1996				
Intermountain Gas Company	Intermountain Gas Company	1995	1996	Depreciation Study
Sprint Florida, Inc.	Florida	1995	1996	Ad Valorem Tax Appraisal
Century Telephone	Century Telephone of Ohio, Inc.	1995	1996	Depreciation Study
Telus Communications	AGT Limited (Alberta Government Telephones)	1995	1996	Depreciation Study
Johnson County Kansas Office of the Assessor	Useful Life of Computer Equipment	1995	1995	Useful/Market Life Analysis
Milwaukee Metropolitan Sewerage	Milwaukee Metropolitan			

Appraisal & Capital Recovery Activities Client List

Company	Property	Study Year	Year Performed	Activity
District	Sewerage District	1995	1996	Depreciation Study
Sprint Corporation	Long Distance Division	1995	1995	Depreciation/Recovery Status Study
Sprint Corporation	Cellular Division	1995	1995	Depreciation/Recovery Status Study
Pacific Telecom, Inc.	Alascom, Inc.	1994	1995	Depreciation Study
Pacific Telecom, Inc.	Telephone Utilities of the Northland	1993	1994	Depreciation Study
	Telephone Utilities of Alaska	1993	1994	Depreciation Study
Indiana Energy	Indiana Gas Company	1993	1994	Depreciation Study
Columbia Gas Transmission	Gas Pipeline Property in Sullivan County, NY	1993	1993	Useful Life Study
United Telephone - Midwest Group	United Telephone Company of Missouri	1993	1993	Modernization/ Depreciation Study
Intermountain Gas Co.	Intermountain Gas Co.	1992	1993	Depreciation Study
Pacific Telecom, Inc.	Alascom, Inc.	1992	1993	Depreciation Study
	Telephone Utilities of Oregon, Inc.	1991	1992	Depreciation Study
	Telephone Utilities of Washington, Inc.	1991	1992	Depreciation Study
Small Telephone Company Coalition	Oregon Small Telephone Companies	1991	1992	Depreciation Support
United Telephone Systems	United Telephone Co. of Pennsylvania	1991	1992	Instructional Depreciation Study
New York State Division of Equalization and Assessment	Electric, Gas, Water, Telephone, Pipeline, Steam, CATV	1991	1992	Useful Lives and Net Salvage Values
Rochester Telephone Company	Enterprise Telephone	1991	1992	Study Review
Indiana Energy	Indiana Gas/Richmond Gas/ Terre Haute Gas	1990	1991	Depreciation Study
American Electric Power	Indiana/Michigan Power Co.	1990	1991	Depreciation Study
Rochester Telephone Company	Rochester Telephone Co.	1990	1991	Study Review

Appraisal & Capital Recovery Activities Client List

Company	Property	Year	Study Year Performed	Activity
United Telephone Systems	United Telephone Co. of Florida	1990	1991	Instructional Depreciation Study
United Telephone Systems	United Telephone Co. of Oregon	1989	1990	Study Review
Telephone and Data Systems, Inc.	Quincy Telephone Company	1990	1991	Depreciation Study
Telephone and Data Systems, Inc.	Wolverine Telephone Company	1989	1990	Depreciation Study
Indiana Energy	Indiana Gas Company, Inc.	1989	1990	Depreciation Study
Intermountain Gas Co.	Intermountain Gas Co.	1989	1990	Remaining Life/Net Salvage Support
North-West Telephone Company	North-West Telephone Company	1989	1990	Study Review
United Telephone System	United of Texas	1989	1990	Instructional Depreciation Study
	United of Missouri	1989	1990	Instructional Depreciation Study
Milwaukee Water	Milwaukee Water	1989	1990	Depreciation Study
Indiana Natural Gas Corp.	Indiana Natural Gas Corp.	1989	1990	Depreciation Study
Pacific Telecom	Telephone Utilities of the Northland	1989	1990	Depreciation Study
	Telephone Utilities of Alaska	1989	1990	Depreciation Study
	Alascom	1989	1990	Depreciation Study
	Telephone Utilities of Washington, Inc.	1988	1989	Depreciation Study
WICOR	Wisconsin Gas Company	1988	1989	Depreciation Study
ALLTEL	ALLTEL - Kentucky, Inc.	1987	1989	Depreciation Study
	ALLTEL - Ohio, Inc.	1988	1989	Depreciation Study
	Western Reserve Telephone Company	1988	1989	Depreciation Study

Utility Industries
Capital Recovery Activities Client List

Company	Property	Year	Study Year Performed	Activity
Milwaukee Metropolitan Sewer District	Milwaukee Metropolitan Sewer District	1988	1989	Depreciation Study
United Telephone	United of Ohio	1988	1989	ELG Support
Telephone Company	Telephone Company	1988	1989	ELG Support
United Telecom	U.S. Sprint	1988	1988	Useful Life Study
Pacific Telecom	Telephone Utilities of Oregon	1987	1988	Depreciation Study
	Telephone Utilities of Eastern Oregon	1987	1988	Depreciation Study
	Rose Valley Telephone Company	1987	1988	Depreciation Study
United Telephone	United of Minnesota	1987	1988	Capital Planning Support
Wisconsin Southern Gas	Wisconsin Southern Gas	1987	1988	Depreciation Study
Pacific Telecom	Glacier State Telephone Company	1986	1987	Depreciation Study
	Sitka Telephone Co.	1986	1987	Depreciation Study
	Juneau-Douglas Tel Company	1986	1987	Depreciation Study
Pacific Telecom	Telephone Utilities of Alaska	1986	1987	Depreciation Study
	Alascom	1986	1987	Depreciation Study
Lincoln Telecommunications	Lincoln Telephone and Telegraph Company	1986	1987	Digital Switching Service Life
Northwest Natural Gas Corporation	Northwest Natural Gas Corporation	1985	1986	Depreciation Study
ALLTEL	Western Reserve Telephone Company	1984	1985	Depreciation Study
	ALLTEL - Ohio	1984	1985	Depreciation Study
	ALLTEL - Alabama	1984	1985	Depreciation Study
Gulf Telephone Co.	Gulf Telephone Company	1984	1985	Depreciation Study
United Telephone	United of Iowa	1984	1985	Depreciation Study

Appraisal & Capital Recovery Activities Client List

Company	Property	Study Year	Year Performed	Activity
Systems, Inc.				
	United of Arkansas	1984	1985	Depreciation Study
Pacific Telecom	Telephone Utilities of Washington	1983	1984	Depreciation Study
	Telephone Utilities of Eastern Oregon	1983	1984	Depreciation Study
Pacific Telecom	Telephone Utilities of Oregon	1983	1984	Depreciation Study
	Northwestern Telephone Systems, Inc., Oregon	1983	1984	Depreciation Study
	Rose Valley Telephone Company	1983	1984	Depreciation Study
United Telecommunications	All United Telephone Companies	1983	1984	Capital Recovery Strategy
Lincoln Telecommunications	Lincoln Telephone & Telegraph Company	1983	1984	Depreciation Study
ALLTEL	ALLTEL - Mississippi	1982	1983	Depreciation Study
	ALLTEL - Michigan	1982	1983	Depreciation Study
North Carolina Natural Gas Corp.	North Carolina Natural Gas Corporation	1982	1983	Depreciation Study
Mid Continent Telephone (Currently ALLTEL)	Western Reserve Telephone	1982	1983	Depreciation Study
	Mid Ohio Telephone	1982	1982	Depreciation Study
	Florence Telephone Company	1980	1981	Depreciation Study
	Leeds Telephone Co.	1980	1981	Depreciation Study
	Elmore Coosa Tel Company	1980	1981	Depreciation Study
	Brookville Telephone Company	1980	1981	Depreciation Study
	Mid-Pennsylvania Telegraph	1980	1981	Depreciation Study
Telephone Utilities (Currently Pacific Telecom)	Telephone Utilities of Oregon	1979	1980	Depreciation Study
	Telephone Utilities of Eastern Oregon	1979	1980	Depreciation Study

Papers and Seminars

	Northwestern Telephone Systems, Inc.-Oregon	1979	1980	Depreciation Study
	Rose Valley Telephone Company	1979	1980	Depreciation Study
United Telephone Systems, Inc.	United of Ohio	1979	1980	Depreciation Study
Telephone Utilities	Telephone Utilities of Washington	1978	1979	Depreciation Study
United Telephone Systems, Inc.	United of Ohio	1978	1979	Depreciation Study
Rochester Telephone	Rochester Telephone (Indiana)	1977	1978	Depreciation Study
United Telephone Systems, Inc.	United of Ohio	1977	1978	Depreciation Study
Princeton Telephone	Princeton Telephone (Indiana)	1976	1977	Depreciation Study
Northwestern Telephone	Northwestern Telephone (Illinois)	1975	1976	Depreciation Study

Papers and Seminars

2011 Training Instructor Depreciation Basics Sessions A & B and Life and Salvage Analysis
Society of Depreciation Professionals 25th Annual Meeting
Atlanta, GA September 20-22, 2011

2010 Will the Real Cost Approach Please Stand Up?
National Association of Property Tax Representatives Transportation, Energy, & Communications (NAPTR·TEC)
Scottsdale, Arizona October 25-27, 2010

Issues Affecting Assessment of Regulated Industries
Institute for Professionals in Taxation (IPT) Property Tax Symposium
Austin, Texas October 31 – November 3, 2010

2009 (Valuing) Intangibles
Appraisal for Ad Valorem Taxation, Wichita State University
Wichita, Kansas July 28, 2009

Fair Value Accounting (Appraisal Panelist)
Appraisal for Ad Valorem Taxation, Wichita State University
Wichita, Kansas July 29, 2009

2008 Valuation Issues Valuation of Assets and the Impact of Depreciation
Society of Depreciation Professionals Annual Meeting
Greenville, SC September 21-26, 2008

Obsolescence in the Long-Distance and Local Transport Networks
Technology Futures Inc. Asset Valuation Conference
Austin Texas February 8, 2008

2007 Communications Industry Issues
National Association of Property Tax Representative – Transportation, Energy, & Communications
New Orleans, LA October 30, 2007

2006 Appraisal Procedures & Issues in a Changing communications Industry
Florida Chapter International Association of Assessing Officers' Tangible Personal Property Conference
Ocala, Florida January 12, 2006

Valuation of Intangibles
Appraisal for Ad Valorem Taxation, Wichita State University
Wichita, Kansas July 25, 2006

SDP 20 years of History and Beyond
Society of Depreciation Professionals 20th Annual Meeting
Long Beach, CA September 18, 2006

2005 Valuation in a World with Asset Impairments
Appraisal for Ad Valorem Taxation, Wichita State University
Wichita, Kansas August 1, 2005

Papers and Seminars

2004 Depreciation in the Valuation of Assets
Society of Depreciation Professionals' Eighteenth Annual Meeting
Washington, D.C., September 13, 2004

2003 Cost Approach and the Use of Appraisal Guidelines
Institute for Professionals in Taxation – Property Tax Symposium
Fort Lauderdale, FL, September 17, 2003

Cost Approach – Obsolescence and Depreciation
Appraisal for Ad Valorem Taxation, Wichita State University
Wichita, Kansas, July 28, 2003

2000 Appraisal Issues Associated with Technological Change in the Wireline Telecommunications Industry
Appraisal for Ad Valorem Taxation, Wichita State University
Wichita, Kansas, July 31, 2000

The Impact of Advancing Technology and the Changing Regulatory Environment on Obsolescence Calculations for Ad Valorem Valuation Purposes
Journal of Property Tax Management, Spring 2000

1996 How to Develop a Reproduction/Replacement Cost New Less Depreciation Approach to Value
Appraisal for Ad Valorem Taxation, Wichita State University
Wichita, Kansas, August 4, 1996

1995 Valuation Method, Techniques and Strategies (How to Quantify Stranded Investment) (Market, Income, & Cost Approach
AGA Depreciation Committee Meeting
Denver, Colorado, August 6-9, 1995, jointly presented with Earl Robinson of AUS Consultants

1994 Integrating Future Expectations for the Telephone Industry into Historical Depreciation Analysis
United States Telephone Association (USTA's 1994 Capital Recovery Seminar)
Scottsdale, Arizona, September 12-13, 1994

1994 Capital Recovery: United States versus Canada
Canadian Telephone Industry's Annual Capital Recovery Seminar
Edmonton, Alberta, Canada June 14-15, 1994

1990 Capital Recovery: Methods, Terminology, Procedures, and Record Keeping
United States Telephone Association (USTA)'s
1990 Non-FCC Subject and Small Company Capital Recovery Seminar
Minneapolis, Minnesota April 10_11, 1990

Integration of Technology Forecasting Into Historical Life Studies
29th Iowa State Regulatory Conference
Ames, Iowa May 15-17, 1990

The 1990's and the Second Wave of Major Plant Retirements in the Communications Industry
NARUC's Seventh Biennial Information Conference
Columbus, Ohio September 12-14, 1990

Papers and Seminars

How Do We Incorporate Change into the Study Filing Procedures?
USTA's 1990 Capital Recovery Seminar
Chicago, Illinois October 16_17, 1990

1989 Plant Modernization: Capital Planning and Capital Recovery
Midwest Utilities Conference
Chicago, Illinois September 11_14, 1989

Price Indexes Today: Procedures, Uses, and Misuses
Society of Depreciation Professionals' Third Annual Meeting
New Orleans, Louisiana December 6_7, 1989

1988 Plant Modernization: Capital Planning and Capital Recovery
National Association of Regulatory Utility Commissioners (NARUC)'s
Sixth Biennial Regulatory Information Conference
Columbus, Ohio September 14_16, 1988

Papers and Seminars

1997	Sprint Corporation - West Finance Center Overland Park, Kansas, August 1997
1997	Rochester Telephone Corporation Rochester, New York, April 1997
1996	Sprint-Florida-Vista United Telecommunications Altamonte Springs, Florida August 27-29, 1996
1994	Saskatchewan Telecommunications Regina, Saskatchewan, Canada, June 1994
1994	AUS Consultants/Leroy J. Murphy and Associates 1994 Capital Recovery Seminar May 1994
1993	Manitoba Telephone System, Winnipeg, Manitoba, December 1993
1993	Society of Depreciation Professionals Annual Meeting Charleston, South Carolina September 30, 1993
1993	SPRINT - Local Telephone Division Atlanta, Georgia August 11-12, 1993
1993	AUS Consultants/Leroy J. Murphy and Associates 1993 Capital Recovery Seminar Chicago, Illinois May 11 - 13, 1993
1993	Canadian Telephone Capital Recovery Seminar Halifax, Nova Scotia April 20 - 22, 1993
1993	United Telephone, Midwest Group Overland Park, Kansas January 20, 1993
1992	BellSouth Corporation Birmingham, Alabama November 23, 1992
1992	Sprint - Local Telephone Division Kansas City, Kansas November 18 - 20, 1992
1992	Society of Depreciation Professionals Annual Meeting San Antonio, Texas September 9 - 10, 1992
1992	AUS Consultants/Leroy J. Murphy and Associates 1992 Capital Recovery Seminar Chicago, Illinois October 6 - 8, 1992
1991	Society of Depreciation Professionals Annual Meeting Nashville, Tennessee November 20-22, 1991
1991	ALLTEL Corporation Microcomputer Depreciation Studies System Training Hudson, Ohio October 14-16, 1991

Capital Recovery Training

2016	Society of Depreciation Professionals Annual Training Charleston, South Carolina, September 18-23, 2016
2015	Society of Depreciation Professionals Annual Training Austin Texas September 2015
2014	Society of Depreciation Professionals Annual Training New Orleans, Louisiana September 2014
2013	Society of Depreciation Professionals Annual Training Salt Lake City, Utah September 2013
2012	Society of Depreciation Professionals Annual Training Minneapolis, Minnesota, September 16-18, 2012
1991	United Telecommunications, Inc., Capital Recovery/Microcomputer Depreciation Studies System Training Kansas City, Kansas September 23-25, 1991
1991	AUS Consultants/Leroy J. Murphy and Associates 1991 Capital Recovery Seminar Lake Geneva, Wisconsin September 17-19, 1991
1991	Rochester Telephone Corporation, Capital Recovery/Microcomputer Depreciation Studies System Training, Rochester, New York September 3-7, 1991
1991	Ameritech Services, Microcomputer Depreciation Studies System Training Chicago, Illinois May 16-17, 1991
1991	AUS Consultants/Leroy J. Murphy and Associates 1991 Capital Recovery Seminar Washington, D.C. April 9_11, 1991
1990	United Telecommunications, Inc., Capital Recovery Seminar Overland Park, Kansas December 1990
1990	AUS Consultants/Leroy J. Murphy and Associates 1990 Capital Recovery Seminar Chicago, Illinois September 24_27, 1990
1990	AUS Consultants/Leroy J. Murphy and Associates 1990 Capital Recovery Seminar Chicago, Illinois January 29-February 1, 1990
1990	United Telecommunications, Inc., Capital Recovery/Microcomputer Depreciation Studies System Training, Chicago, Illinois July 1990
1989	United Telecommunications, Inc., Capital Recovery/Microcomputer Depreciation Studies System Training, Chicago, Illinois July 1989

Capital Recovery Training

1989	AUS Consultants/Leroy J. Murphy and Associates 1989 Capital Recovery Seminar Chicago, Illinois March 6_9, 1989
1988	AUS Consultants/Leroy J. Murphy and Associates 1988 Capital Recovery Seminar Chicago, Illinois July 25_28, 1988
1988	United Telecommunications, Inc., Microcomputer Depreciation Studies System Training Kansas City, Kansas January 1988

VERIFICATION

I, Jerome C. Weinert, P.E., hereby state that the facts above set forth above are true and correct to the best of my knowledge, information and belief, and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements made herein are made subject to the penalties of 18 Pa. Cons. Stat. §4904 relating to unsworn falsification to authorities.

Jerome C. Weinert, P.E. Principal and Director
AUS Consultants, Inc.

Dated: 6/29/20