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June 7, 2016

Rosemary Chiavetta, Secretary
PA Public Utility Commission
P.O. Box 3265
Harrisburg, PA 17105-3265

RE: Act 12 of 2016 (HB 1326)
M-2016-2543193
Utility Valuation Experts

Dear Ms. Chiavetta:

Per the regulations of the Act 12 of 2016 or Section 1329 (M-2016-2543193): "The Commission will maintain a list of utility valuation experts from which the acquiring public utility or entity and selling utility will choose". AUS Consultants has been serving private and public utilities for over 40 years.

Attached, is our Company background and experience relating to all aspects of the water and wastewater industry in the State of Pennsylvania. AUS Consultants would like to submit our Company and register as qualified Utility Valuation Experts.

Should the PUC have any questions or require additional information, please contact the undersigned at 717-763-9890 or email: dsheffer@ausconsultants.com

Respectfully submitted,
AUS Consultants

A handwritten signature in black ink, appearing to read "D.A. Sheffer", written over a horizontal line.

BY: DAVID A. SHEFFER, Principal

DAS:sm
Attachment

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SECRETARY'S BUREAU



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AUS Consultants is the consulting group of AUS, Inc.

AUS, Inc.

- Founded in 1967 by Joseph Brennan
- Initially providing utility rate of return consulting services
- Expanded to: cost of service, depreciation studies, lead-lag studies, original cost studies revenue requirements and valuations
- Headquartered in Mt. Laurel, New Jersey

Website: ausinc.com

AUS Consultants

Website: ausconsultants.com

Staff

Jerome C. Weinert, Professional Engineer (PE), Accredited Senior Appraiser (ASA), Certified Depreciation Professional (CDP)

- 45 years in Appraisal and Depreciation Consulting
- BS in Mechanical Engineering – Milwaukee School of Engineering (1972)
- Masters in Business Administration – Marquette University (1988)
- Testimony Experience:
 - Regulatory (Depreciation and Rate Base)
 - Courtroom (Valuations – ad valorem taxation and eminent domain and rate of return)

Earl M. Robinson, CDP

- 45 years in Costing and Depreciation
- Testimony Experience:
 - Regulatory (Depreciation)
 - Courtroom (Valuations)

Michael J. Diedrich, PE, ASA, CDP

- 34 years in Appraisal and Depreciation Consulting
- BS in Architectural Engineering Technology – Milwaukee School of Engineering (1981)
- Masters in Business Administration – Marquette University (1991)
- Testimony Experience:
 - Courtroom (Valuations ad valorem taxation and eminent domain)

David A. Sheffer

- 35 years in Regulatory Consulting (Depreciation, Rate Base, Cost of Service, Valuations and Original Cost Studies)

Elizabeth A Weinert

- 15 years in Appraisal and Depreciation Consulting
- BS in Mechanical Engineering – Milwaukee School of Engineering (2001)
- Masters in Aeronautical Engineering – University of Alabama (2015)

AUS Consultants Offices

Mt. Laurel, NJ

Camp Hill, PA

Milwaukee, WI

Albuquerque, NM

Valuation and Appraisal Experience

AUS Consultants provides appraisals and valuation consulting relate to all types of industrial and commercial properties, with emphasis on utilities and mass asset properties. The purposes of these appraisals are varied, but ad valorem taxation, purchase accounting and eminent domain are the predominant.

The typical appraisal seeks to determine the fair market value of the property in an exchange where the property is anticipated to remain in its current use, i.e., that which it was designed, built and is in currently in operation and producing utility to its owner (generating cash flows) and users (providing useful services). With that purpose in mind, we use the following definition established by the American Society of Appraisers:

Fair Market Value in Continued Use with an Earnings Analysis is an opinion, expressed in terms of money, at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of relevant facts, as of a specific date and supported by the earnings of the business.

An appraisal performed under this definition of value allows the appraiser to develop the appraisal utilizing the three approaches to value, those being:

- Cost Approach
- Income Approach
- Market Approach

Cost Approach – The cost approach is based on the principle of substitution where a prudent buyer will not pay more for a property than the cost of acquiring a substitute property of equivalent utility.¹ This principle establishes the replacement cost as the appropriate cost approach. The replacement cost approach is developed by determining the replacement cost of the current utility of the property less recognition of the property's depreciation. In developing the depreciation adjustment to the cost, now the appraiser recognizes physical depreciation, functional depreciation and obsolescence and economic or external obsolescence.

The replacement cost approach attributes are:

Replacement cost addresses the cost of the utility of the property

Depreciation, physical and functional, addresses the age of the property in relationship to the usefulness of the property

Economic or external obsolescence addresses the economics of the property at the appraisal date

Income Approach – The income approach addresses the economic return of the property recognizing that the expected cash flows and the appraisal date requires returns. There are two income approaches – the discounted cash flow or the direct capitalization of income.

Discounted Cash Flow (DCF) – In the DCF the appraiser develop a pro forma financials (income and balance statement) over a future period of five to 15 years. After tax net cash flows are developed from the income for operations by adding back depreciation and amortization and subtracting capital expenditures and the algebraic change in net working capital. The trick is to insure the revenues, capital expenditures, and change in working capital are consistent amongst one another. The after-tax net cash flows are discounted (present value) to the appraisal date using a discount rate reflective of the capital cost of the endeavor.

The discount rate is generally the weighted cost of capital (WACC), weighing the cost of debt and the cost of equity at the appraisal date. The appraiser studies the debt and equity cost of the property, the company or similar companies in developing the capital cost. The discount rate is the weighing of those costs.

Capitalized Income Method – Generally, the direct capitalization method is a simplification of the DCF, wherein the future cash flows are distilled into a single estimate of near-term income which is directly capitalized into value by dividing that net income by the capitalization rate. The capitalization rate is the discount rate (previously described) with any growth removed as the income to capitalize is a point estimate and as such, has no growth. As you can imagine, the DCF and direct capitalization methods are nearly identical if done correctly.

The results of the income approach are generally used in evaluation the existence of economic or external obsolescence in the last step of the cost approach.

Market Approach – The market approach looks to market sales to establish the value of the property. Market sales are reviewed and summarized into parameters which can be related to the subject property, typically customers, net plant, or other attribute that make a reasonable statistic for comparability. Often market sales are insufficient and the appraiser will utilize results of operation and financial market statistic as a surrogate for lack of an active market.

Value Conclusion – All three approaches are considered in the appraiser value conclusion resulting in a single conclusion of value.

¹ Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, 3rd Edition, American Society of Appraisers, 2011, page 39



RECENT STUDIES

Aqua Pennsylvania — Original Cost

**Treyffrin Township
Bunker Hill Water
Bunker Hill Sewer
Robin Hood Lakes
Mt. Jewett
Seaview Harbor Water
Penn Township
Treasure Lakes
Bristol Township
Kidder Township**

Pennsylvania American Water – Original Cost

**Olwen Heights
Paint Township
Indian Rock POA
Borough of Koppel
North Fayette/Balsinger
North Fayette/Springfield
Fernwood Resorts Water System**

Allied Utility Services, Inc. – Rate Filing

Appalachian Utilities, Inc. – Rate Filing

City of Allentown - Financial

East Bradford – Original Cost & Business Enterprise Valuation

Emporium Water Company – Rate Filing

Fairview Township – Business Enterprise Valuation

Lycoming County Water & Sewer Auth. – Water Plant Capitalization

Masonic Village – Rate Design

New Garden Township - Business Enterprise Valuation

Township of Springfield – Valuation

Scott Township – Original Cost

Town of Southbury – Heritage Village - Fair Market Value

PRIOR YEARS

Aqua American

**Pennsylvania Utility Co.
W.P. Water co.
Sleepy Hollow
Clarendon
Emlenton
Gouidsboro
Athens Township
Paupacken Lake
Sand Springs
Mifflin Township
Beech Mountain**

Pennsylvania American

**Applewood Development
All Season Water
Wildcat Park
Lake Spangenberg
Birch Acres Water Works
Sutton Hills Home Owners Assoc.
Nittany Water Co.
Saxonburg Area Authority
Amwell Township Water Authority
Boggs Township
Wallaceton Municipal Authority
Three Lane Utilities, Inc.
Redstone Water Co.
Lexington Woods
Blue Mtn. Lakes Assoc.**

Borough of West View

**Newtown Artesian Water Company
Erie Water Works Authority
Aleppo Township Sewer Auth.
New Garden Township
Hanover Foods Corp.
Mahoning Township Authority
Appalachian Utilities, Inc. – Rate Filing**

Emporium Water Company
Lycoming County Water & Sewer Auth.
Municipal Authority of the City of New Kensington
Columbia Water Company
Philadelphia Gas Works
Scott Township
NRG Center
Reading Area Water Authority
Middlesex Water Company
Fairview Sanitation Company
Borough of Quakertown
Municipal Authority of the Township Robinson
Borough of Hanover
Zelienople Borough
Borough of Sewickley Water Authority
Honesdale Consolidated Water Company
Cranberry Township
Pennichuck Water
Reynoldsville Water & Sewer Authority
Washington Park Water
United Water Company



Utility Consulting

Nationally-recognized utility ratemaking professionals at AUS Consultants are well respected in the industry and can help you meet both your business objectives and compliance needs. Our utility clients encompass electric, gas, steam heat, telecommunications, water and wastewater companies.

AUS Consultants' ratemaking professionals are well-known for knowledgeable and cogent testimonies with extensive background in both regulated and deregulated utility industries. Consequently, our utility clients can rely upon the timely preparation of reports, testimonies and exhibits, thorough analyses of testimonies and exhibits of others, and insightful rebuttal testimony as required.

Our professionals have testified before virtually every federal and state regulatory agency involved in rate proceedings, as well as in court proceedings and special tribunals assessing the value of utility assets. We deliver testimony needed to address regulatory issues, including: Rate of Return, Depreciation and Capital Recovery, Revenue Requirements, Cost of Service, Rate and Tariff Design, Valuation and Litigation Support.

Please contact AUS Consultants for advice on handling all the key strategic issues facing today's utility professionals.

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www.ausconsultants.com

The Utility Experts ...



**... that utility experts
turn to for advice.**

www.ausconsultants.com

Rate of Return Analysis

At AUS Consultants, our expert witnesses have decades of experience determining the cost rate of common equity and overall rate of return. Their expert testimonies incorporate ever-changing business risks within the various utility industries as well as an ever changing economic and capital market environment. Their extensive and successful on-the-witness-stand experience, combined with the use of a variety of cost of common equity models to formulate defensible expert opinions of the cost of common equity, have resulted in an impressive track record of satisfied clients.

Depreciation & Capital Recovery

Our professionals are specialists in providing time-sensitive analyses of known and anticipated events in order to enhance clients' opportunities to recover capital investments in accordance with the patterns in which property is consumed while providing service.

AUS Consultants conduct depreciation studies and provide expert testimony before regulatory commissions and other authorities. We also conduct cost based property valuations for ad valorem or other property taxes, condemnation proceedings, insurance and financial purposes as well as testify to such valuations before taxing authorities and courts.



Revenue Requirements

Lead/Lag studies, as important as they are, need not be costly nor time consuming. Our professionals are specialists in designing timely and economical lead/lag studies. Based upon our many years of industry experience, we have developed an innovative and efficient lead/lag methodology as well as software that allows our professionals to conduct lead/lag studies at our client's site.

As a result, we can complete lead/lag studies, which are generally regarded as the most accurate method of determining cash working capital, quickly, efficiently and economically.

Cost of Service

The professionals at AUS Consultants are specialists in developing functional and customer class cost allocation studies, and testifying in support of regulatory issues.

Our spreadsheet-based cost of service allocation models are custom tailored to each individual client. These models identify class costs of service and revenue requirements. The output from our state-of-the-art models is suitable for filing as an exhibit in electric, gas, water, or wastewater utility rate proceedings.

Valuation Consulting

AUS Consultants is comprised of professionals who have a wide range of capabilities and experience to help companies make better business decisions. Our Valuation practice focuses on the economic analysis and valuation of intangible assets and highly specialized tangible property. These services are performed on behalf of a wide range of utility clients in every industry segment.

Rate & Tariff Design

With today's back-to-basics strategy, utilities need to examine both traditional and innovative pricing formats that will meet regulatory requirements and allow utilities to remain competitive. The nationally-recognized experts at AUS Consultants have been providing bill analysis, rate design and tariff analysis for decades to electric, gas, water and wastewater utilities.

Our experience with a variety of pricing forms, coupled with our understanding of a client utility's strategic goals, enables us to protect our clients' revenue stream while maintaining a competitive advantage. Our consultants provide their expertise in time-of-use pricing, real time pricing, innovative economic development and interruptible rates, special contract pricing, multi-part tariffs, unbundled tariff services including ancillary service and stranded cost recovery and true-ups, marginal cost-based rates and performance-based ratemaking practices.

Utilities Management and Operations Training

AUS offers training programs on all aspect industry, from energy markets structure, operation, rules and regulations, and rate design to energy executive leadership and business skills training. All of our programs are specifically designed to improve the comprehension and skills of the energy executive through constructive and practical instruction.

- **Energy Executive Leader Program**
- **International Energy Executive Development Program**
- **Custom-Tailored Utility Management Training Programs**

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