

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Pennsylvania Public Utility Commission, <i>et al.</i>	:	
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v.	:	
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FirstEnergy Pennsylvania Electric Company,	:	Docket Nos. R-2024-3047068, <i>et al.</i>
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PSU Statement No. 1

**DIRECT TESTIMONY OF JAMES L. CRIST, P.E.
ON BEHALF OF
THE PENNSYLVANIA STATE UNIVERSITY**

June 25, 2024

1 **I. WITNESS QUALIFICATIONS**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS, AND ON WHOSE**
3 **BEHALF, YOU ARE TESTIFYING.**

4 A. I am James L. Crist, President of Lumen Group, Inc., a consulting firm focused on
5 regulatory and market issues. My business address is 4226 Yarmouth Drive, Suite 101,
6 Allison Park, Pennsylvania 15101. I am presenting testimony on behalf of The
7 Pennsylvania State University (“Penn State” or “PSU”).

8 **Q. DO YOU HAVE ANY QUALIFICATIONS OR OTHER SPECIALIZED**
9 **KNOWLEDGE THAT WOULD ASSIST THE PENNSYLVANIA PUBLIC UTILITY**
10 **COMMISSION ("COMMISSION") IN ITS DELIBERATIONS IN THIS CASE?**

11 A. Yes. I have a B.S. in Chemical Engineering from Carnegie Mellon University and an
12 M.B.A. from the University of Pittsburgh. Additionally, I am a Registered Professional
13 Engineer in the Commonwealth of Pennsylvania. I have attached a copy of my CV and
14 Regulatory Experience as Exhibit JLC-1.

15 **Q. BRIEFLY DESCRIBE YOUR RELEVANT BUSINESS QUALIFICATIONS.**

16 A. I have run a consulting practice for the past 25 years focused on regulated and deregulated
17 energy company strategy, market strategy, and regulatory issues. During 2004 and 2005, I
18 undertook a consulting assignment as the Vice President of Consumer Markets for ACN
19 Energy. ACN is a gas and electric marketer that is active in eight states. Prior to my
20 consulting practice, I worked at three major energy companies for a total of 19 years. Most
21 recently, I was Vice President of Marketing for Equitable Resources. In that function, I
22 was responsible for the development of the company’s deregulated business strategy.

1 Prior to that I was Vice President of Marketing for Citizens Utilities, responsible
2 for gas, electric, water and wastewater marketing activities in several service territories
3 within the United States. The gas and electric utility operations were in Vermont,
4 Louisiana, Arizona, Colorado, and Hawaii. Under my direction, Citizens initiated
5 commercial and industrial transportation and supply services at its gas operation in
6 Arizona. I also directed significant gas supply contracting activities with large industrial
7 and commercial customers in Citizens' gas operation in Louisiana.

8 Before that, during 1988 through 1994, I was the Marketing Director at the Peoples
9 Natural Gas Company where I was actively involved in many gas transportation programs
10 as the company relaxed transportation requirements so that customers would have supply
11 choices.

12 In summary, I have considerable experience in several states involving residential,
13 commercial, and industrial customer energy procurement, regulatory issues and industry
14 restructuring programs.

15 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PENNSYLVANIA PUBLIC**
16 **UTILITY COMMISSION?**

17 A. Yes, I have appeared before the Commission in numerous gas and electric regulatory
18 proceedings. I presented testimony in Pennsylvania in recent cases involving the
19 Philadelphia Gas Works, Columbia Gas of Pennsylvania, Duquesne Light Company, the
20 Peoples Natural Gas Company, and FirstEnergy Pennsylvania Electric Company ("FE PA"
21 or the "Company"). Additionally, I have provided testimony on a variety of issues relating
22 to energy procurement, industry restructuring, and demand response before regulatory

1 Commissions in Arizona, Kentucky, Tennessee, Maryland, New Mexico, Illinois, Ohio,
2 Wyoming, and the U.S. Virgin Islands.

3 **II. FE PA SERVICE TO PSU**

4 **Q. WHAT SERVICES DOES PENN STATE RECEIVE FROM FE PA?**

5 A. PSU is a major generation, transmission, and distribution service customer of FE PA
6 receiving service through FE PA's Tariff Electric – Pa. P.U.C. No. 1. PSU's University
7 Park campus is the only customer account taking service under Rate GP, General Service
8 – Primary, in the PSU Rate District and is a significantly large customer account of FE PA.
9 PSU also receives generation, transmission, and distribution service from FE PA's West
10 Penn Rate District under several rate schedules for approximately 160 additional accounts
11 at the University Park campus, including the airport and campuses at New Kensington,
12 Mont Alto, Fayette, and the Eberly Campus. PSU is also receiving service under the
13 Penelec Rate District taking service at PSU Erie, The Behrend College and the Altoona and
14 Dubois campuses, along with some accounts near University Park. PSU also receives
15 service under the Met-Ed Rate District at its campuses at York and at the Fruit Research
16 and Extension Center in Biglerville. The Shenango campus receives service under the
17 Penn Power Rate District. PSU also participates in FE PA's Energy Efficiency and
18 Conservation programs.

19 **III. ISSUES**

20 **Q. WHAT ARE THE ISSUES YOU WILL DISCUSS IN THIS TESTIMONY?**

21 A. I have identified three main issues with the Company's filing: (1) after reviewing the
22 Company's Cost of Service Study ("COSS"), I identified areas where the data was in error

1 and needs to be corrected, (2) the Company's approach to allocating the proposed rate
2 increase among the customer classes is inconsistent with principles of cost causation, and
3 (3) the Company unreasonably allocated a portion of the Company's uncollectible expense
4 to the PSU rate district.

5 **Q. WHAT ERRORS DID YOU IDENTIFY?**

6 A. The easiest error that is apparent is the billing determinants, or number of customer bills
7 annually, listed in Exhibit TSL-2, Page 36. As stated previously, the PSU Rate District
8 only has one customer account, PSU's University Park campus. PSU only receives one bill
9 each month for its University Park account. Thus, the annual bill count should be 12, not
10 16. Other data items, such as the annual sum of the monthly kilovolt-amperes ("kVA"),
11 also appears incorrect. On June 6, I had a discussion with FE PA witnesses Mr. Kehl,
12 Manager of Rates & Regulatory Affairs for Pennsylvania, and Mr. Lyons and they agreed
13 to review my concerns and notify me of any data corrections or updates. On June 18, Mr.
14 Kehl informed me that he agrees that some data are incorrect and will be updating the data
15 when the Company's internal review is complete. Once updated data are received from the
16 Company, and Mr. Lyons updates the COSS, then I will be in a position to conduct my
17 analysis and review. After that, I would reserve the right to submit supplemental testimony
18 on the COSS and resultant revenue allocation relative to the updated or newly provided
19 information.

20 **Q. ARE THE DATA ERRORS YOU IDENTIFIED SIGNIFICANT ENOUGH TO**
21 **INVALIDATE THE COMPANY'S COSS AND REVENUE ALLOCATION?**

22 A. They certainly are for the PSU Rate District. Mr. Lyons explained, "The primary drivers
23 of distribution costs are customers and demands." (FE PA Statement No. 7 at n.5). The

1 annual customer bill count data used by the Company, 16, instead of 12, would result in an
2 overallocation of customer-related costs by 33%.

3 With regards to demand data, I believe the Company used an incorrect value for the
4 Additional kVA @ 50% Demand. The value cited in Mr. Lyons' COSS of 699,368 kVA
5 greatly exceeds the value I have determined from review of operational data from Penn
6 State of 252,319 kVA. This is problematic because the rate base of an electric utility is the
7 value of the physical assets such as power lines, transformers, substations, and other
8 physical plant items used to provide service to customers. Such costs are demand-related
9 and Mr. Lyons explained that demand-related costs, "vary with maximum customer
10 demands at the time of the system peak, at the time of the rate class peak, or at the time of
11 the individual customer peak." (FE PA Statement No. 7 at 10:10-12) In the COSS, the
12 demand-related costs that are allocated to the PSU Rate District are based on the
13 Subtransmission Demand, and Primary Demand, and the allocators for those costs (labeled
14 "NCP" and "NCP-PRI") are based on the non-coincident peak demand. Such a large error,
15 252,319 kVA not 699,368 kVA, would cause a gross overallocation of rate base to the PSU
16 Rate District, and such a gross overallocation of rate base would then result in an over
17 assignment of revenue requirement to the PSU Rate District.

18 **Q. WHAT IS COST CAUSATION?**

19 A. This fundamental principle of ratemaking assigns costs to those classes of customers that
20 are responsible for the incurrences of costs. The Commission has been consistent in its
21 ratemaking practice of matching cost to the cost-causer as a fundamental principle and the
22 bedrock of cost assignment in the ratemaking process. Failure to adhere to proper cost
23 causation will create mis-allocations of costs which result in cross-class subsidization.

1 Cross-class subsidization refers to a situation where one class of customers is allocated
2 excessive costs for their distribution services in order to subsidize costs caused by another
3 customer class. This practice is counter to the purpose of a COSS, and such subsidy can
4 lead to economic inefficiencies, market distortions, and an inefficient allocation of
5 resources.

6 This principle may not be violated just because some customers do not like bearing
7 the costs or want to lessen the impact of the cost of the benefits they receive at the expense
8 of others, nor may it be violated because a utility wishes to benefit one customer class at
9 the expense of another. In the landmark case *Lloyd v. Pennsylvania Public Utility*
10 *Commission*, 904 A.2d 1010 (Pa. Cmwlth. 2004) (*Lloyd*), the Commonwealth Court
11 declared cost of service as the “polestar” of ratemaking and directed the Commission to set
12 non-discriminatory reasonable rates.

13 **Q. DID THE COMPANY MAKE SIGNIFICANT MOVEMENT TOWARD EQUAL**
14 **RATES OF RETURN FOR THE CLASSES?**

15 A. No. Mr. Lyons said that, “The results of the COSS support a movement toward a more
16 equitable rate structure where class RORs move closer to the system ROR. However, the
17 proposed movement to the system ROR was moderated to address customer bill impact
18 considerations.” (FE PA Statement No. 7 at 5:5-6). This clearly violates the basic
19 ratemaking principle against having one class subsidize another class’s costs. Simply
20 omitting calling it the subsidy it is and instead describing it as “equitable” and to “mitigate”
21 customer “bill impact” neither cures nor justifies it. It is not unusual when examining
22 customer classes in a COSS that different classes exhibit different rates of return at present
23 rates. The COSS can then be used to determine the class revenue requirement needed to

1 achieve equalized rates of return for all rate classes. Mr. Lyons presented such data, but
2 then said that he did not allocate revenue to achieve equalized rates of return for all rate
3 classes. Instead, he stated, “the proposed revenue targets for each rate class were based on
4 a 10.00 percent movement toward the system ROR.” (FE PA Statement No. 7 at 22:9-11).
5 Such a small movement toward equalized rates of return for all rate classes is not
6 substantial enough and violates the ratemaking principle stated in *Lloyd*. This principle
7 may not be violated just because some customers do not like bearing the costs or want to
8 lessen the impact of the cost of the benefits they receive at the expense of others, nor may
9 it be violated because a utility wishes to benefit one customer class at the expense of
10 another. As the Commonwealth Court declared in *Lloyd*, cost of service is the “polestar”
11 of ratemaking when setting non-discriminatory reasonable rates.

12 **Q. WHAT DO YOU RECOMMEND?**

13 A. I have raised two significant concerns regarding the allocation of revenue requirement to
14 the PSU Rate District. The data errors I identified must be corrected to produce an accurate
15 COSS, and there must be significant movement of all customer classes towards the system
16 rate of return. The current rate design proposal to only move 10% towards the system
17 ROR is inconsistent with the results of the COSS and violates *Lloyd*. I will have further
18 recommendations upon my review of FE’s corrected data and COSS.

19 **Q. WHAT ARE “UNCOLLECTIBLES”?**

20 A. Uncollectibles are the amount of revenue that the Company has not been successful in
21 recovering from customers after reasonable efforts to collect. Uncollectibles are an
22 operating expense that the Company desires to collect from those customers that do pay
23 their bills. The amount of uncollectibles should be collected from other customers within

1 their rate class. If uncollectibles are assigned uniformly across all rate classes that will
2 result in cross-class subsidization, and that is not appropriate. Cost of service principles
3 assign revenue collection to the customers that cause the cost to occur.

4 **Q. IS IT FEASIBLE TO COLLECT THE UNCOLLECTIBLE AMOUNT FROM THE**
5 **EXACT CUSTOMERS THAT CAUSE THE UNCOLLECTIBLE TO OCCUR?**

6 A. No. Obviously, such customers are not paying their bills, and therefore would not pay an
7 even higher bill that contains an allocation of uncollectibles. Uncollectible expense for a
8 customer class must be recovered from customers in the same customer class.

9 **Q. SHOULD THE PSU RATE DISTRICT HAVE ANY UNCOLLECTIBLE EXPENSE**
10 **ASSIGNED TO IT?**

11 A. No. Penn State pays its bills in accordance with FE PA's payment requirements and causes
12 no uncollectible expense. Uncollectible expense that Mr. Kehl has assigned to the PSU
13 Rate District should be removed and are in reality a subsidy to other classes. The COSS
14 conducted by Mr. Lyons should make the appropriate adjustments and not allocate
15 uncollectible expense to the PSU Rate District, and the revenue requirement should be
16 reduced accordingly.

17 **IV. ACCOUNT MANAGEMENT ISSUES**

18 **Q. WHAT ACCOUNT MANAGEMENT ISSUES HAS PENN STATE EXPERIENCED**
19 **SINCE THE PREVIOUS BASE RATE CASE?**

20 A. Penn State experienced an account shut-off and lock-out by another utility that was caused
21 by an unauthorized account transfer and, as a result, is concerned about account security.

22 After considerable research, Penn State learned the account shutoff occurred due to
23 the account being unpaid for approximately two months after the account had been

1 transferred to a third-party individual, presumably by someone else that had stolen the
2 account holder's identity. Moreover, the third-party had changed the billing address away
3 from the service address or the PSU business office, which presumably is why Penn State
4 was not receiving bills or shut-off notices.

5 **Q. WHAT SAFEGUARDS SHOULD BE IN PLACE AT FE PA TO PREVENT SUCH**
6 **AN OCCURRENCE?**

7 A. FE PA should modify its existing procedures to prevent unauthorized account transfers to
8 third parties. In response to data requests, FE PA provided several confidential documents
9 (PSU Set I-15, Confidential Attachments A-G), that described the Company's policies,
10 procedures, and customer service representative training to protect unauthorized transfers
11 and identity theft. I reviewed those documents but how procedures in place will protect
12 against this particular situation is not addressed. Specifically, I recommend that the
13 Company alert existing customers when a person initiates a request to start, stop, or transfer
14 gas service to a service property with an active account at the time of the request and at
15 least forty-eight (48) hours prior to the change taking effect. Such notice should be sent
16 by mail to the service property, and billing address if different, and by e-mail if FE PA has
17 the existing customer's email address.

18 FE PA has insufficient processes and checks and balances to prevent unauthorized
19 access to Penn State's account or for a third party to change the account without Penn
20 State's authorization. In today's age, there are numerous procedures used widely in
21 business in our Commonwealth and across the nation. For instance, it is common for
22 companies to adopt and provide a process whereby customers may opt-in to a higher level
23 of account security. The Company should incorporate (a) two-factor authentication with

1 notices by email, text or by contact to confirm permission to access or change an account
2 or service, and (b) allow for limitations on changes that can be made through the
3 Company's website, which will help prevent third parties from accessing a customer's
4 account information online. With respect to two-factor authentication, this usually would
5 involve knowing a secure password, followed by entering a number texted to a smartphone
6 before a customer is allowed to access their account online. Such procedures are very
7 common today for a wide range of services including on-line shopping, streaming services,
8 banking, memberships, and email access or subscriptions. With respect to limiting changes
9 that can be made through the Company's online website, a customer should be allowed to
10 opt-in to a feature whereby certain changes, such as account transfers, can only be made
11 by speaking directly to an employee of FE PA after the employee has verified the that the
12 caller is authorized to make changes on behalf of the customer. In short, FE PA needs to
13 keep up with best modern industry practices instead of the process which is less secure.

14 **Q. WHAT IS THE SUMMARY OF YOUR TESTIMONY?**

15 A. The Company's COSS is based on flawed data for the PSU Rate District, and the results
16 are not valid. When updated and corrected data are available, the COSS should be
17 corrected. I will then review those corrections at that point and submit supplemental
18 testimony, if necessary.

19 Additionally, FE PA must establish safeguards to prevent unauthorized attempts to
20 establish electric service or transfer ownership of a customer account as recommended in
21 my direct testimony.

22 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

23 A. Yes.

Exhibit JLC-1

DEMONSTRATED AREAS OF EXPERTISE

- “ GENERAL MANAGEMENT
Proven executive-level management expertise with excellent capabilities in developing, implementing, and supervising corporate-wide policies and procedures in areas including sales, marketing, customer service, public relations, rates, regulatory affairs, and administration. Possess a unique combination of abilities to set goals, develop winning business strategies, organize structures and work methods, and train the right people for the right positions to make it all work. Skilled in strategic short and long-term planning and budgeting with effective abilities in reducing the "fat" and increasing organizational efficiency. A creative, decisive leader who can successfully meet challenges and overcome obstacles to achieve profit objectives.

 - “ REGULATORY STRATEGY
A thorough strategist with an extensive background in utility business unit operation (electric, natural gas, water/wastewater) the full range of rate and regulatory functions, from tariff development and special contract negotiation. Proven personal testifying skills with an outstanding record of developing and presenting successful written and oral testimony, along with settlement negotiations.

 - “ PERSONNEL MANAGEMENT
Effective interpersonal communications skills support outstanding capabilities in recruiting, training, motivating, and directing staff at all levels. Proven ability to build productive, highly motivated teams of sales/marketing, operations, technical, and customer service personnel who contribute to top organizational performance.

 - “ PERSONAL ATTRIBUTES
A determined, hardworking, challenge-driven executive with the skills and experience to bring excellence to any business organization. A high-energy mover and shaper ... experienced in successful start-ups and turn-arounds. An excellent communicator - written and verbal. A frequent speaker at professional symposiums, able to interpret and communicate complex concepts for diverse audiences. An engineering/technical specialist and a management generalist. Active in civic and community affairs.
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EMPLOYMENT HISTORY

- | | |
|--|----------------|
| LUMEN GROUP, INC., Pittsburgh, PA | 1996 - Present |
| President - A consulting practice specializing in strategic planning, business planning, regulatory strategy, marketing and venture development in the electric, natural gas and energy services industries. Please see Addendum for amplification of consulting assignments. | |
| ACN ENERGY, Farmington Hills, MI | 2004-2005 |
| Vice President, Consumer Markets | |
| OPTIRON, Pittsburgh, PA | 2003-2004 |
| Vice President, Marketing | |
| E R I SERVICES, Pittsburgh, PA | 1996 |
| Vice President, Marketing & Product Development | |
| CITIZENS UTILITIES, Harvey, LA & Stamford, CT | 1994 - 1995 |
| Vice President, Marketing | |
| CONSOLIDATED NATURAL GAS, Pittsburgh, PA | 1977 - 1994 |
| Director, Residential & Commercial Marketing (1988 - 1994) | |
| Manager, Technical Sales/Market Development (1985 - 1988) | |
| Market Development Specialist (1982 - 1985) | |
| Project Engineer (1979 - 1982) ... promoted from ... Process Engineer (1977 - 1979) | |
| OCCIDENTIAL CHEMICAL CORP., Niagara Falls, NY | 1975 - 1977 |
| Research Engineer | |
| PENNSYLVANIA STATE UNIVERSITY, State College, PA | 1988 |
| CLEVELAND STATE UNIVERSITY, Cleveland, OH | 1984 |
| Instructor (Evening Division) - Economics, Engineering Economics | |

JAMES L. CRIST

SELECTED ACCOMPLISHMENTS

VICE PRESIDENT, CONSUMER MARKETS - ACN ENERGY

Retained for a turnaround assignment with an independent energy marketing company. Participated on the executive management team and directed a decentralized 3-person market management staff responsible for sales to 85,000 customers. Worked directly with the parent company executives and business unit management to create market-driven strategies for the corporation. Sharpened marketing and sales efforts of an energy marketing company operating in seven states and packaged company for eventual sale to Commerce Energy.

- “ Primary executive responsible for sales. Directed a team of market managers that was responsible for all aspects of 11 different markets (electric and natural gas) around the country. Provided direction and support to sales channel organization of commissioned representatives. Turned around five-year annual loss to significant gain in 2004. Tightened focus on market decisions.
- “ Directed regulatory involvement to insure compliance with market rules. Focused on maintaining positive relationships with state utility regulators to avoid penalties.
- “ Led weekly operations meetings during absence of COO. This involved direction of call center, provisioning, billing, credit & collection, and marketing.
- “ Worked in a team setting with other executives (VP Finance, VP Supply, COO) to provide consistent, professional focus to workforce experiencing changing environment.
- Directed development of annual business plan and budget with targets resulting in both goal achievements and income improvements.
- “ During transition period working with merger partner Commerce Energy’s executive team to train and advise incoming executives.
- “ Directed customer service improvements in the customer acquisition process which resulting in replacing outdated paper/fax process with phone order process.
- “ Organized and directed trade show presence at national sales convention for alliance sales channel to create awareness of new product and market focus.

VICE PRESIDENT, MARKETING - OPTIRON

Retained as part of executive team in venture capital startup company developing new CIS/CRM software for the energy industry. Worked closely with CEO, COO, and Director of Sales to determine business strategy and develop marketing strategy to create market awareness and brand attributes in medium and small energy companies.

- “ Added in-house marketing communications function and personnel and revamped all marketing materials.
- Added new website functionality and content.
- “ Implemented first print advertising campaign in industry publications.
- “ Using industry contacts, positioned Option as expert presenter at several conferences and trade shows.
- “ Developed business plan to identify sales prospects and created competitive database of CIS/CRM vendors.
- Participated in development of exit strategy plan resulting in the successful sale to large software company.

VICE PRESIDENT, MARKETING & PRODUCT DEVELOPMENT - ERI Services

Assumed responsibility for creating a new corporate marketing vision and strategy to facilitate entry into new deregulated energy markets nationally.

- “ Recruited and selected an exceptional management team and integrated marketing and sales activities into one functional operating unit.
- “ Established the product innovation process to identify and create new and profitable market-driven service offerings.
- “ Directed strategic branding to launch the new corporate identity; managed a \$2 million national advertising campaign; and developed over \$1 million of new sales/marketing collateral materials.
- “ Instituted financial controls that reduced costs 60% in the Iowa market rollout while maintaining 80% market share and high customer satisfaction.

VICE PRESIDENT, MARKETING - Citizens Utilities

Directed a decentralized 20-person sales staff and a five person marketing staff. Worked directly with the Board of Directors, Corporate President, and Sector Vice President to create market-driven sales strategies for the corporation. Revamped and redirected sales efforts of a five-state energy utility with 440,000 customers.

- “ Increased industrial sales revenues by reorganizing unregulated gas marketing effort.
- “ Revamped merchandising utilizing inbound telemarketing in Louisiana Gas.
- “ Revised training programs for entire sales force, identifying and correcting missing technical and equipment training, adding a greater competency in the commercial and industrial sectors.
- “ Developed first business plan in sales and marketing organization with monthly budget monitoring and

- targets resulting in both goal achievements and cost improvements.
- .. Launched an aggressive direct marketing program that increased sales 500% over previous year.
- .. Increased share of gas transportation business in Arizona by 15% in first year of operation through marketing efforts.
- .. Created a telephone long distance business in Louisiana that captured a 20% share (2nd to AT & T).

DIRECTOR, RESIDENTIAL & COMMERCIAL MARKETING - Consolidated Natural Gas

Managed a marketing staff of 12 and a "dotted-line" 24-person field sales force. Directed marketing and sales efforts in consumer, business, and manufacturing markets with \$154 million revenue.

- .. Added \$6 million in revenue by developing new products in gas transportation, supply, and agency.
- Directed sales activities in residential, commercial, institutional and governmental accounts for both product sales and technology sales.
- .. Produced \$600,000 annual revenue and doubled competitive project wins by revamping market approaches to residential and commercial new construction.
- .. Secured 50% increase in customer decisions over 5 gas companies and 4 electric companies.
- .. Experienced in PUC and Legislature lobbying. Increased revenues \$2.3 million through regulatory strategy/testifying and received major competitive program approval.

MANAGER, TECHNICAL SALES / MARKET DEVELOPMENT - Consolidated Natural Gas

Directed new market development and competitive market support.

- .. Focused on commercial and industrial accounts and increased the depth of relationship beyond the typical utility provider of service to a rich full service information provider and business partner.
- Captured \$150,000 in new business annually by competitive pricing analysis, sales tool development, and market approach.
- .. Developed total advertising and promotional plan launching new market programs.
- .. Compiled extensive technical database and developed economic model for project analysis, eliminating a \$100,000 operating budget expense.
- .. Led statewide coalition with customers and government agencies for fair treatment of new technology.

EDUCATION - PROFESSIONAL

UNIVERSITY OF PITTSBURGH, Pittsburgh, PA 1982
M.B.A. Degree

CARNEGIE - MELLON UNIVERSITY, Pittsburgh, PA 1975
B.S. Degree in Chemical Engineering

Registered Professional Engineer AGA Hall of Fame, 4/1991

JAMES L. CRIST

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Phone: 412.487.9708 • Cell: 412.613.8886 • E-mail: JLCrist@AOL.com

AMPLIFICATION OF LUMEN GROUP CONSULTING ASSIGNMENTS

A consulting practice specializing in strategic planning, business planning, marketing and venture development in the telecommunications, energy, and services industries.

REGULATORY

Represented the National Energy Marketers Association and their members in Equitable-Dominion Peoples merger case. Developed strategy, presented written and oral testimony and negotiated on behalf of clients. Worked with other interveners and FTC on anti-competitive issues.

UTILITY RATE NEGOTIATION

Represented large client group seeking to obtain rate reduction from electric utility. Prepared strategy, wrote testimony, and exceeded expectations by achieving a 40% reduction in charges, producing a \$2 million annual reduction.

STRATEGIC PLANNING FOR ON-SITE POWER GENERATION

Participated in proposal development for a 27-MW power plant on Kauai. Handled critical customer needs assessment in rapid turnaround fashion to meet proposal deadline. Maintained relationships with clients, vendors and proposal partners. Our proposal was selected as the preferred bidder out of five strong competitors.

NEW BUSINESS START-UP / TARIFF NEGOTIATIONS

Participated in the development of a new gas distribution utility in New York. Handled tariff development, pricing structure, transportation contracting, and operations, maintenance, and emergency manual preparation.

SALES STRATEGY/BUSINESS DEVELOPMENT

Developed sales strategy to focus on profitable accounts and markets. Developed sales training and account management plans and provided consulting to energy marketing organizations to improve overall sales.

BUSINESS STRATEGY/BUSINESS DEVELOPMENT

Developed business strategy to verticalize eCommerce/Customer Relationship Management product for the energy/utility industry. Produced sales training for global applications, product promotion presentations, developed alliance relationships with system integrators and software partners, developed business. Client is market leader in North America.

JOINT VENTURE/PRODUCT DEVELOPMENT

Assembled joint ventures resulting in sales to offer new hedge-based weather risk management retail product. Identified venture partners, and developed business arrangements and closed million-dollar deals

Served as energy expert on project team that obtained long-term natural gas supply for major government facilities. Prepared project specifications, negotiated with suppliers, prepared RFP, negotiated major reduction in delivery charges. This project resulted in annual cost reduction of \$2.5 million.

NEW BUSINESS DEVELOPMENT - TELECOMMUNICATIONS

Analyzed use of electric utility assets for possible telecommunications business venture. Wrote the business plan that identifies regulatory and non-regulatory issues, marketing plans, financial analysis, and organizational requirements. Launched the new non-regulated business unit in 1996.

JOINT VENTURE DEVELOPMENT - TELECOMMUNICATIONS

Conducted analysis of potential joint venture partners for new unregulated telecommunications venture, bypassing the Bell operating company. Held screening discussions with potential partners and selected lead candidate for venture. Developed working agreement with partners along with business case to launch venture.

JOINT VENTURE DEVELOPMENT - TELECOMMUNICATIONS & ENERGY

Developed strategic plan for joint venture involving gas, electric, and telecommunications partners. Screened potential business partners and held discussions with lead candidates. Assembled justification for top management approval.

PRODUCT DEVELOPMENT - UNREGULATED ENERGY SERVICES

Developed energy products for start-up subsidiary of major energy utility. Identified potential products and selected most likely candidates for further development. Developed market plans and sales plans for products.

MARKET PLAN - DIRECT MARKETING

Developed the market plan for large, global direct marketing agency to enter the energy industry. Identified strategies, strengths, weaknesses, and target prospects. Initiated sales effort and developed new business.

CORPORATE IMAGE DEVELOPMENT

Developed complete business unit identity for a new operations and services company. Produced capabilities brochure for use with prospects.

MARKET RESEARCH

Conducted market research to identify new customer/new business opportunities for major energy utility. Comprehensive project with two additional similar projects were completed. Entailed determination of goals, development of research methodology, script preparation, vendor selection, data analysis, and development of action plan.

MARKET DEVELOPMENT

Organized intervenor group in Illinois consisting of retail marketers and intervened in three rate proceedings (Nicor Gas base case, WPS-Peoples merger case, Peoples Gas base case) and secured significant improvements in rules and procedures enabling marketers to increase their business and profitability. Developed strategy and presented written and oral testimony.

PARTIAL LIST OF REGULATORY EXPERIENCE OF JAMES L. CRIST

1. Philadelphia Gas Works, Base Rate Case, Docket R-2023-3037933, Representing Grays Ferry Cogeneration Partnership
2. Columbia Gas of Kentucky, Tariff Filing of Columbia Gas of Kentucky to Extend Its Small Volume Gas Transportation Service, Case No. 2021-00386, Representing Interstate Gas Supply, Inc, Constellation New Energy Gas Division, LLC, Xoom Energy Kentucky, LLC
3. Chattanooga Gas Company, Petition for Approval of Tariff Amendments, Docket No. 22-00004, Representing Chattanooga Regional Manufacturers Association
4. Chattanooga Gas Company, Petition for Approval of its 2021 Annual Rate Review Filing, Docket No. 22-0032, Representing Chattanooga Regional Manufacturers Association
5. Duke Energy Ohio, Application for Tariff Approval, Case No. 20-0054-GA-ATA, Representing Retail Energy Supply Association
6. Black Hills Wyoming Gas, Application for Authority to Revise Certain Tariff Provisions, Docket 30026-GA-21, Representing Wyoming Community Gas
7. West Penn Power Company, Default Service Program, Docket P-2021-3030021, Representing the Pennsylvania State University
8. Columbia of PA General Base Rate Increase, Docket R-2021-3025775, Representing the Pennsylvania State University
9. Columbia of PA General Base Rate Increase, Docket R-2020-3018835, Representing the Pennsylvania State University
10. Dominion Energy Ohio Motion, Case No. 18-1419-GA-EXM, Representing Retail Energy Supply Association
11. Aqua America/Peoples Natural Gas Merger, Docket R-2018-3006061, Representing Natural Gas Supplier Parties and Retail Energy Supply Association
12. Peoples Natural Gas General Base Rate Increase, Docket R-2018-3006818, Representing Peoples Industrial Intervenors
13. Duquesne Light Company General Base Rate Increase, Docket R-2018-3000124, Representing the Duquesne Industrial Intervenors
14. Columbia of PA General Base Rate Increase, Docket R-2018-2647577, Representing the Pennsylvania State University
15. West Penn Power Company, Default Service Program, Docket R-2017-2637866, Representing the Pennsylvania State University
16. Vectren Energy Delivery Ohio, Alternative Rate Plan, Case No. 18-0049-GA-ALT, Representing Retail Energy Supply Association
17. Columbia of PA Gas Cost Increase, Docket R-2017-2591326, Representing the Pennsylvania State University
18. West Penn Power Company, General Base Rate Increase, Docket R-2016-2537359, Representing the Pennsylvania State University
19. Columbia of PA General Base Rate Increase, Docket R-2016-2529660, Representing the Pennsylvania State University
20. UGI Utilities General Base Rate Increase, Docket R-2015-2518438, Representing Dominion Retail, Inc., Shipley, Choice, LLC, Interstate Gas Supply, Inc., Amerigreen Energy, and Rhoads Energy
21. Columbia of PA General Base Rate Increase, Docket R-2015-2468056, Representing the Pennsylvania State University
22. West Penn Power Company, General Base Rate Increase, Docket R-2014-2428742, Representing the Pennsylvania State University
23. Herman Oil & Gas Company, General Base Rate Increase, R-2014-2414379, Representing Herman Oil & Gas Company
24. Columbia of PA General Base Rate Increase, Docket R-2014-2406274, Representing the Pennsylvania State University
25. Ameren Gas- General Base Rate Increase, Docket No. 13-0192, Representing Dominion Retail and Interstate Gas Supply of Illinois
26. Columbia of PA General Base Rate Increase, Docket R-2012-2321748, Representing the Pennsylvania State University, Dominion Retail, Interstate Gas Supply, and Shipley Energy
27. Columbia of PA Petition for Approval of a Distribution System Improvement Charge Docket R-2012-2338282, Representing the Pennsylvania State University
28. PUC PA Generic Investigation Regarding Gas-On-Gas Competition, Docket No. P-2011-2277868, Representing the Pennsylvania State University
29. Ameren Gas- General Base Rate Increase, Docket 11-0282 (Cons.), Representing Dominion Retail and Interstate Gas Supply of Illinois
30. Water and Power Authority (USVI)- Electric Base Rate Case, Docket 575, June 2009, Representing Frenchman's Reef Marriott
31. Water and Power Authority (USVI)- Water Base Rate Case, Docket 576, June 2009, Representing Frenchman's Reef Marriott

32. Public Service of New Mexico 2010 Base Rate Case, Informal rate design workshops pursuant to the stipulation in NMPRC Case No. 08-00273-UT, Representing City of Albuquerque
33. Public Service of New Mexico, Electric base case at Case No. 08-00273-UT, Representing City of Albuquerque
34. Public Service of New Mexico 2009 Renewable Energy Procurement Plan for 2010, Case No. 09-00260-UT, Representing City of Albuquerque and Santa Fe County
35. Public Service of New Mexico, Gas sale case at Case No. 08-00078-UT, Representing City of Albuquerque
36. UGI Utilities, Central Penn Gas, Penn Natural Gas, Gas Cost Increase, Docket No. R-2011-2238953, Representing Shipley Energy, Rhodes Energy, and CenterPoint Energy
37. UGI Utilities- Gas Division, Gas Cost Increase, Docket No. R-2010-2172933, Representing Shipley Energy
38. Columbia of PA General Base Rate Increase, Docket R-2010-2215623, Representing the Pennsylvania State University, Dominion Retail, Interstate Gas Supply, and Shipley Energy
39. Columbia of PA General Base Rate Increase, Docket R-2009-2149262, Representing the Pennsylvania State University, Dominion Retail, Interstate Gas Supply, and Shipley Energy
40. Columbia of PA General Base Rate Increase, Docket R-2008-2011621, Representing Hess Energy, Dominion Retail, Interstate Gas Supply, and Shipley Energy
41. Columbia of PA Gas Cost Increase, Docket R-2008-2028039, Representing Dominion Retail, Interstate Gas Supply, and Shipley Energy
42. PPL Electric Utilities Voluntary Purchase of Accounts Receivables Program and Merchant Function Charge, Docket No. P-2009-2129502
43. Nicor Gas Company, Provision of facilities and services and the transfer of assets between Nicor Gas Company and Nicor Inc., Docket No. 09-0301, Representing Dominion Retail
44. North Shore Gas and Peoples Gas Light and Coke Company, General Base Rate Increase, Dockets 09-0166 and 09-0167, Representing Dominion Retail, Interstate Gas Supply and Nicor Advanced Energy
45. Nicor Gas Company, Base Rate Increase, Docket No. 08-0363, Representing Interstate Gas Supply and Dominion Retail
46. North Shore Gas and Peoples Gas Light and Coke Company, General Base Rate Increase, Dockets 07-0241 and 07-0242, Representing Dominion Retail, Interstate Gas Supply and U.S. Energy Savings
47. WPS Resources, Peoples Energy, Peoples Gas Light and Coke Company, North Shore Gas Company, Application pursuant to Section 7-204 of the Public Utilities Act for authority to engage in a Reorganization, Docket 06-0540, Representing Dominion Retail, Interstate Gas Supply, US Energy Savings, MxEnergy, and Direct Energy Services.
48. Allegheny Energy, Approval of Retail Electric Default Service Program and Competitive Procurement Plan, Docket No. P-2008-2021608, Representing the Pennsylvania State University
49. Allegheny Energy, Generation Rate Cap, Docket No. P-2007-2001828, Representing the Pennsylvania State University
50. Equitable Gas Company, Rate Increase, Docket R-2008-2029325, Representing Independent Oil & Gas Association and Hess Corp.
51. Equitable Gas Company and Peoples Gas, Merger Case, Docket A-122250F5000, Representing National Energy Marketers, Hess Corporation, and Constellation New Energy.

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Pennsylvania Public Utility Commission, *et al.* :
 :
 v. : Docket Nos. R-2024-3047068, *et al.*
 :
 FirstEnergy Pennsylvania Electric Company :

PSU Statement No. 1-R

**REBUTTAL TESTIMONY OF JAMES L. CRIST, P.E.
ON BEHALF OF
THE PENNSYLVANIA STATE UNIVERSITY**

July 22, 2024

1 **I. WITNESS QUALIFICATIONS**

2 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND ON WHOSE**
3 **BEHALF YOU ARE TESTIFYING.**

4 A. I am James L. Crist, President of Lumen Group, Inc. I am presenting testimony on behalf
5 of The Pennsylvania State University (“Penn State” or “PSU”).

6 **Q. DID YOU PRESENT DIRECT TESTIMONY IN THIS CASE?**

7 A. Yes. I presented direct testimony on June 25, and supplemental direct testimony on July
8 12.

9 **Q. WHAT ARE THE ISSUES YOU WILL DISCUSS IN THIS REBUTTAL**
10 **TESTIMONY?**

11 A. During my preparation of direct testimony and my review of FirstEnergy Pennsylvania
12 Electric Company’s (“FE PA” or the “Company”) cost of service study (“COSS”), I
13 identified errors in the data used by the Company that resulted in the errors in the
14 calculations performed in the COSS. I also stated in my direct testimony that the Company
15 agreed that some of the data was incorrect, that FE PA would be updating the COSS, and
16 that I would submit supplemental direct testimony relative to the newly corrected
17 information. My supplemental direct testimony was submitted on July 12.

18 This rebuttal testimony addresses the COSS and revenue recommendations of
19 Large User Group (“LUG”) witness Mr. Andrews, which he presented in his direct
20 testimony and supplemental direct testimony. I will also address the COSS
21 recommendation of the Pennsylvania Office of Consumer Advocate (“OCA”) witness Mr.
22 Pavlovic. I also address the Bureau of Investigation and Enforcement (“I&E”) witness
23 Mr. Kubas’ scaleback recommendation.

1 **Q. WHAT IS YOUR CONCERN WITH THE COSS PRESENTED BY LUG WITNESS**
2 **MR. ANDREWS?**

3 A. Similar to the incorrect COSS presented by Company witness Mr. Lyons, Mr. Andrews
4 based his COSS in both his direct testimony and supplemental direct testimony on the
5 flawed power usage data that the Company used for Penn State. In my supplemental direct
6 testimony, I provided correct data for Penn State along with evidence that illustrated that
7 when the correct power usage data is used in the COSS model, it will result in a significant
8 required revenue reduction to Penn State. Mr. Andrews did not have access to the correct
9 data for Penn State when he conducted his COSS. Therefore, the results of his COSS
10 pertaining to Penn State are in error, and overstate the amount of revenue requirement that
11 should be allocated to Penn State.

12 **Q. DOES THE UPDATED COSS MR. ANDREWS PRESENTED IN HIS**
13 **SUPPLEMENTAL DIRECT TESTIMONY CORRECTLY ALLOCATE COSTS TO**
14 **THE PSU RATE DISTRICT?**

15 A. No. For the same reason that the COSS in his direct testimony is in error, the data used by
16 Mr. Andrews for aggregate demand overstated the actual usage at PSU's University Park
17 Campus as I explained in my direct testimony. I observed that with regards to demand
18 data, both the Company and Mr. Andrews used an incorrect value for the aggregate demand
19 of 819,368 kVA in its original COSS. A revision to Mr. Andrews' COSS must be performed
20 and use the correct amount of 372,150 kVA, which is less than half of the original value of
21 aggregate demand.

1 Q. **WHAT IMPACT SHOULD LOWERING THE AGGREGATE DEMAND BY HALF**
2 **HAVE ON THE REVENUE INCREASE ALLOCATED TO PSU?**

3 Because the primary driver of rate base costs is the demand, lowering the demand by half
4 will have a pronounced effect on the revenue increase assigned to PSU. This gross
5 overstatement of the value used in the COSS results in a larger allocation of cost and
6 revenue responsibility to Penn State. Mr. Andrews must correct these errors and update his
7 COSS.

8 Q. **HOW DID MR. ANDREWS' COSS TREAT UNCOLLECTIBLES?**

9 A. As it pertains to Penn State, Mr. Andrews made the same error that was in the Company's
10 COSS and included an allocation of uncollectible expense to Penn State. I explained in
11 my direct testimony that Penn State pays its bills in accordance with FE PA's payment
12 requirements and causes no uncollectible expense. The uncollectible expense that Mr.
13 Andrews allocated to Penn State should be removed to eliminate the subsidy to other
14 classes. The COSS conducted by Mr. Andrews should make the appropriate adjustments
15 and not allocate uncollectible expense to the PSU Rate District, and the revenue
16 requirement should be reduced accordingly.

17 Q. **WHAT IS YOUR CONCERN WITH THE COSS PRESENTED BY OCA WITNESS**
18 **MR. PAVLOVIC?**

19 A. Similar to the incorrect COSS presented by Company witness Mr. Lyons, Mr. Pavlovic
20 (OCA Statement No. 4) based his COSS on the flawed power usage data that the Company
21 used for Penn State. Mr. Pavlovic did not have access to the correct data for Penn State
22 when he conducted his COSS. Therefore, the results of his COSS pertaining to Penn State
23 are in error.

1 **Q. WHAT OBSERVATIONS DID I&E WITNESS MR. KUBAS HAVE?**

2 A. Mr. Kubas recommended a targeted scaleback mechanism in the event the Commission
3 grants less than the full requested increase for the West Penn Rate District. His Exhibit
4 (I&E Exhibit No. 3, Schedule 7, Page 4) recommends that the first \$19,500,000 reduction
5 be applied to rate classes GSM, GSL, POL, and PP44.

6 **Q. WHY SHOULD MR. KUBAS' RECOMMENDATION BE DISREGARDED?**

7 A. Evidence of record should be the basis of any revenue scaleback. In the duration of this
8 proceeding there are many issues presented that will impact the final determination of the
9 allowed revenue requirement, such as evidence on cost causation in particular.

10 **Q. WHAT SCALEBACK METHOD SHOULD BE USED?**

11 A. Considering all the details that will be weighed by the Commission in reaching a decision
12 on the revenue increase, once that amount has been determined, then a proportional
13 scaleback should be applied to all customer classes.

14 **Q. WHAT IS THE SUMMARY OF YOUR REBUTTAL TESTIMONY?**

15 A. The COSS presented by LUG witness Mr. Andrews is based on flawed data for the PSU
16 Rate District, and the results are not valid. Additionally, uncollectibles costs were allocated
17 to the Penn State Rate District and they must be removed. Correct CP and NCP data for
18 Penn State must be used in the COSS and Mr. Andrews should produce a revision to his
19 work. Mr. Pavlovic likewise relies on incorrect CP and NCP data for Penn State and he
20 should produce a revised version of his COSS with the correct data. Additionally, the
21 targeted scaleback mechanism suggested by I&E's Mr. Kubas should be disregarded and a
22 proportional scaleback of revenue requirement should be used if the Commission
23 determines that FE PA should receive less than the full rate increase requested.

1 Q: **DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

2 A. Yes.

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Pennsylvania Public Utility Commission, <i>et al.</i>	:	
	:	
v.	:	Docket Nos. R-2024-3047068, <i>et al.</i>
	:	
FirstEnergy Pennsylvania Electric Company	:	

PSU Statement No. 1-SR

**SURREBUTTAL TESTIMONY OF JAMES L. CRIST, P.E.
ON BEHALF OF
THE PENNSYLVANIA STATE UNIVERSITY**

August 8, 2024

1 **I. WITNESS QUALIFICATIONS**

2 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND ON WHOSE**
3 **BEHALF YOU ARE TESTIFYING.**

4 A. I am James L. Crist, President of Lumen Group, Inc. I am presenting testimony on behalf
5 of The Pennsylvania State University (“Penn State” or “PSU”). I presented direct testimony
6 on June 25, supplemental direct testimony on July 12, and rebuttal testimony on July 19.

7 **Q. WHAT ARE THE ISSUES YOU WILL DISCUSS IN THIS SURREBUTTAL**
8 **TESTIMONY?**

9 A. During my preparation of direct testimony and my review of FirstEnergy Pennsylvania
10 Electric Company’s (“FE PA” or the “Company”) cost of service study (“COSS”), I
11 identified errors in the data used by the Company that resulted in errors in the calculations
12 performed in the COSS. I also stated in my direct testimony that the Company agreed that
13 some of the data was incorrect, that FE PA would be updating the COSS, and that I would
14 submit supplemental direct testimony relative to the newly corrected information. My
15 supplemental direct testimony was submitted on July 12. In its rebuttal case, the Company
16 refused to fully correct its COSS even though it acknowledged the errors contained therein.
17 Because the data used to calculate the allocation factors for Penn State were incorrect, I
18 submitted a data request (PSU Set III-1) to the Company to produce an updated COSS
19 using the demand data from the recent 12-month period of 2023. I will review and discuss
20 the results of the updated COSS that Mr. Lyons provided in response to the data request.
21 There still are inaccuracies remaining that cause an overstatement of revenue. The contrast
22 of the amount proposed in the Company’s direct case of \$402,000 to the amount calculated

1 using the accurate demand data for PSU of \$308,000 represents an overstatement of
2 revenue responsibility to PSU of 30%.¹

3 **Q. WHAT DATA DID YOU PROVIDE MR. LYONS FOR THE UPDATED COSS?**

4 A. I reviewed the COSS that Mr. Lyons submitted in his Rebuttal testimony (Exhibits TSL-
5 R1 and TSL-R2). For Penn State, the recommended base revenue increase in the
6 Company's Rebuttal testimony is \$362,000, which is a 39.3% increase in revenue
7 responsibility assigned to PSU. The Company had initially proposed \$402,000, so the
8 Company's Rebuttal position on the base revenue increase to PSU (\$362,000) appears to
9 have moved closer to just and reasonable amount, however it does not appear to me to be
10 sufficient movement. Mr. Lyons did not provide the data he used as the Coincident Peak
11 ("CP") or Non-Coincident Peak ("NCP). Considering that the actual demand data metered
12 by FE PA and tracked by Penn State were so significantly less than what Mr. Lyons used
13 in the COSS presented in his direct testimony, I was concerned that there were still data
14 discrepancies and such errors would greatly influence the output of the COSS. Therefore,
15 I issued a data request (PSU Set III-1) that requested Mr. Lyons run his COSS model using
16 the actual data from the recent 12-month period of July 2023 through June 2024:

17 Using the values for Penn State CP of CP = 26,143 kW and NCP = 45,511 kW,
18 produce a revised COSS for West Penn.

19 The Coincident Peak is the load at Penn State during the same hour that the West Penn
20 system is experiencing its annual peak load and that load occurred on August 8, 2023 at
21 4pm. It would be expected that an electric distribution utility would have its peak occur
22 mid-day on a hot summer day when residential and commercial customers are using a great

¹ \$402,000/\$308,000= 1.30

1 amount of air conditioning. The Non-Coincident Peak is the highest load experienced at
2 Penn State in the course of the year, and that load occurred on September 6, 2023 at noon.
3 The fact that PSU's NCP occurs in September, not August, is not surprising, for campus
4 occupancy is lower in August than September. The ratio of Penn State's CP to NCP is only
5 57.4%, indicating that Penn State has a seasonal off-peak load profile. Such a load profile
6 is beneficial to the West Penn system because it indicates Penn State is using a greater
7 amount of power during the season when the utility system is not experiencing its peak.
8 In a COSS, peak demand is a major driver of how costs are allocated. The inaccurate
9 overstatement of PSU's NCP and CP would cause greater costs to be allocated to PSU.

10 As expected, the COSS produced by Mr. Lyons in discovery that uses the correct data again
11 moved the base revenue increase proposed to PSU closer to an accurate, just and reasonable
12 amount, consistent with the lower values for CP and NCP. The revenue deficiency
13 produced by Mr. Lyons' model is \$308,000.² I have included the page that shows the
14 revenue deficiency from the response to PSU Set III-1 as Exhibit JLC1-SR.

15 **Q. DOES MR. LYONS' MODEL STILL INCLUDE COSTS ALLOCATED TO PENN**
16 **STATE THAT ARE NOT APPROPRIATE?**

17 A. Yes. I explained in my direct testimony that he included costs for uncollectibles expense,
18 which are not costs created by Penn State. In his rebuttal testimony Mr. Lyons admitted
19 that there were uncollectibles expenses of \$3,358 included in the Penn State allocation:

20 Q. Did the Company allocate uncollectible expenses to the PSU rate district?

21 A. In part. The Company's CCOS study did not allocate test year uncollectible
22 expenses to the PSU Rate District; however, the CCOS study did allocate a
23 small portion of the uncollectible expenses (\$3,358) associated with the

² \$308,000 is the value in the Response to PSU Set III, No. 001 HIGHLY CONFIDENTIAL Attachment A, Tab "COSS Summary", Column "Penn. State University PSU", Line "Revenue deficiency"

1 proposed revenue increase to the PSU Rate District as part of the overall
2 rate increase that included an amount for uncollectible expenses.

3 Therefore, any proposed revenue increase to Penn State based on the COSS must be
4 reduced further by \$3,358.

5 **Q. WHAT CONCERNS DO YOU STILL HAVE REGARDING THE COSS DONE BY**
6 **THE COMPANY?**

7 A. COSS models are quite complex. The calculations performed in a COSS carry data from
8 page to page. Mr. Lyons' COSS model contains hundreds of pages of such calculations.
9 At the end of the day, even if the COSS model formulae are correct, the model output will
10 not be accurate unless the input data is accurate. In my review of Mr. Lyons' COSS that I
11 conducted for my direct testimony, I discovered data inaccuracies in not only the energy
12 data, including kW and peak demand data (CP and NCP), but also in the customer count.
13 Recall that Mr. Lyons used customer count data provided by the Company that stated that
14 there were 1.36 customers in the PSU rate district. Such datum was not visible in the
15 hundreds of pdf pages of output of the COSS that were included as Exhibit TSL-1 in the
16 Company filing, and only discovered by me when examining the actual formula in the
17 Confidential COSS model in Excel format that allowed the underlying formula to be
18 examined. I include both pages as Exhibit JLC2- SR. The first page of the exhibit that
19 shows "1" as the number of customers for PSU comes from the Company's initial filing,
20 which was presented as a PDF in Lyons' direct testimony³. I issued a data request for the
21 Excel spreadsheet of the COSS⁴. Upon receiving the live Excel spreadsheet, I examined
22 the cell that showed "1" and changed the formatting to allow more digits and it showed
23 "1.36". I did not modify anything on the COSS model, except the setting that was hiding

³ Exhibit TSL-1 Class Cost of Service Study (West Penn) Page 160

⁴ Data response to PSU Set III-1

1 the true customer count. In my exhibit I have indicated the numbers "1" or "1.36" on the
2 respective pages.

3 Even a cursory quality review by the Company should have identified that PSU is only one
4 customer, not 1.36 customers. Failure by the Company to spot and correct such errors
5 continues to concern me.

6 In summary, I have grave concerns that the data used and the COSS model results for PSU
7 continue to be inaccurate and overstate the revenue responsibility that the Company
8 proposes to assign to Penn State.

9 **Q. WHAT SUBSTANTIAL CHANGE DID THE COMPANY MAKE IN THIS BASE**
10 **RATE FILING THAT LIKELY CAUSED THE LARGE DATA INACCURACIES?**

11 A. I believe that the Company has failed in its consolidation/merger to ensure the personnel
12 and systems responsible for tracking and managing data produce accurate data outputs.
13 Historically, prior to the Merger proceeding (Docket A-2023-3038771) Penn State was
14 served under its own unique tariff (Electric Pa. P.U.C. No. 38). Prior rate cases that
15 involved the Penn State tariff considered Penn State's data as a stand-alone entity. Even
16 though an objective of the Merger case was to combine the tariff of Penn State and operate
17 as a "rate district" under FE PA's tariff, the outcome of the Merger case did not change the
18 rates for Penn State, or any other rate class. It was presented as a merging of tariffs but
19 holding the rates static. This base rate proceeding, which seeks an approximately 40%
20 increase in distribution rates is the first proceeding post-merger that the Company
21 performed Penn State's rate determination as part of the FE PA's West Penn Power rate
22 district. I believe it is apparent that the Company's back office that tracks and manages
23 data does not have processes and procedures refined to produce accurate data. Such a

1 shortcoming causes inaccurate COSS data and revenue requirement and allocation
2 determinations. I can appreciate that consolidation of the four former operating companies
3 is a big task, but the Company has the burden of proof to present accurate data, and accurate
4 model results, and has fallen short of that.

5 **Q. DO THE COSS CONDUCTED BY OCA'S MR. PAVLOVIC OR LUG'S MR.**
6 **ANDREWS CONTAIN THE FLAWS YOU EXPLAINED IN YOUR REBUTTAL**
7 **TESTIMONY?**

8 A. Yes. Both Mr. Pavlovic's and Mr. Andrews' COSS did not have the accurate peak demand
9 data for Penn State stated in the data request PSU III-1, therefore both studies significantly
10 overstated the revenue requirement allocated to Penn State. Additionally, as I explained in
11 my rebuttal testimony, they included an allocation of uncollectible expense to Penn State,
12 which is not appropriate. Their studies should be rejected.

13 **Q: WHAT IS YOUR RECCOMENDATION REGARDING THE REVENUE**
14 **INCREASE ASSIGNED TO PSU?**

15 A. If the Commission accepts the Company's rebuttal position revenue requirement, PSU
16 should be assigned an increase in rates no greater than \$308,000, less an additional \$3,358
17 (the adjustment for uncollectibles expense). If the Commission grants a lesser amount,
18 then the amount assigned to Penn State should be scaled back proportionally, for reasons I
19 explained in my rebuttal testimony, and then make an additional adjustment to remove
20 \$3,358 for uncollectibles expense.

21 **Q: DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

22 A. Yes.

Exhibit JLC1-SR

PSU Exhibit JLC1-SR

West Penn Rate District		Residential	General Service	General Service	General Service	General Service	General Power	Primary	Primary	Outdoor	Street Lighting	Penn. State	
COSS Summary		Service	Volunteer	Small	Medium	Large	/ Transmission	Power Sch. 44	Power Sch. 46	Lighting	Service	University	
Total Company		RS	GSV	GSS	GSM	GSL	GP/TP	PP44	PP46	POL	STLT	PSU	
Current Delivery Service Rates													
Rate base	\$	2,094,173	\$ 1,521,072	\$ 2,031	\$ 133,484	\$ 223,183	\$ 66,425	\$ 62,810	\$ 58	\$ 15,971	\$ 11,957	\$ 53,235	\$ 3,948
Net operating income	\$	56,715	\$ 40,393	\$ 335	\$ (5,130)	\$ 14,376	\$ 7,759	\$ (228)	\$ 11	\$ (258)	\$ 1,843	\$ (2,503)	\$ 117
Rate of return		2.71%	2.66%	16.50%	-3.84%	6.44%	11.68%	-0.36%	18.28%	-1.61%	15.41%	-4.70%	2.96%
Relative rate of return		100%	98%	609%	-142%	238%	431%	-13%	675%	-60%	569%	-174%	109%
Revenues	\$	444,346	\$ 319,329	\$ 826	\$ 15,638	\$ 59,107	\$ 22,565	\$ 12,248	\$ 30	\$ 2,807	\$ 4,587	\$ 6,313	\$ 896
Test Period Usage (MWh)		19,379,808	7,237,022	18,944	210,899	3,335,031	2,072,267	5,177,947	71,779	1,012,139	23,561	21,689	198,530
Revenue per MWh	\$	0.02	\$ 0.04	\$ 0.04	\$ 0.07	\$ 0.02	\$ 0.01	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.19	\$ 0.29	\$ 0.00
Revenues at Equalized Rates of Return													
Rate of return		8.19%	8.19%	8.19%	8.19%	8.19%	8.19%	8.19%	8.19%	8.19%	8.19%	8.19%	8.19%
Revenue required	\$	614,232	\$ 443,760	\$ 612	\$ 38,279	\$ 65,951	\$ 19,900	\$ 19,983	\$ 23	\$ 5,043	\$ 3,503	\$ 15,975	\$ 1,203
Revenue deficiency	\$	169,885	\$ 124,431	\$ (214)	\$ 22,641	\$ 6,844	\$ (2,665)	\$ 7,735	\$ (7)	\$ 2,236	\$ (1,085)	\$ 9,662	\$ 308
Percent increase required		38.2%	39.0%	-25.9%	144.8%	11.6%	-11.8%	63.2%	-24.4%	79.7%	-23.6%	153.0%	34.4%
Test Period Usage (MWh)		19,379,808	7,237,022	18,944	210,899	3,335,031	2,072,267	5,177,947	71,779	1,012,139	23,561	21,689	198,530
Revenue Required per MWh	\$	0.03	\$ 0.06	\$ 0.03	\$ 0.18	\$ 0.02	\$ 0.01	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.15	\$ 0.74	\$ 0.01
Revenue Deficiency per MWh	\$	0.01	\$ 0.02	\$ (0.01)	\$ 0.11	\$ 0.00	\$ (0.00)	\$ 0.00	\$ (0.00)	\$ 0.00	\$ (0.05)	\$ 0.45	\$ 0.00
Rate Class													
		Proposed Class ROR	Overall ROR										
RS		2.66%	2.71%										
GSV		16.50%	2.71%										
GSM		-3.84%	2.71%										
GSL		6.44%	2.71%										
GP/TP		11.68%	2.71%										
PP44		-0.36%	2.71%										
PP46		18.28%	2.71%										
POL		-1.61%	2.71%										
STLT		15.41%	2.71%										
PSU		-4.70%	2.71%										
		2.96%	2.71%										

Exhibit JLC2-SR

PSU Exhibit JLC2-SR
 Page 1 of 2

West Penn Rate District
 Billing Determinants
 Test Period 12 Months Ended December 2025

EXCERPT OF CUSTOMER COUNT AS PRESENTED IN FE PA'S COSS PDF EXHIBIT

Schedule	Normalized kWh	kWh %	Customers	%
RS	7,237,022,340	37.3%	636,179	85.7%
GSV	18,944,346	0.1%	630	0.1%
GSS	210,898,870	1.1%	62,540	8.4%
GSM	3,335,030,667	17.2%	37,355	5.0%
GSL	2,072,277,757	10.7%	903	0.1%
GP/TP	5,177,974,892	26.7%	190	0.0%
PP44	71,779,545	0.4%	1	0.0%
PP46	1,012,144,905	5.2%	3	0.0%
POL	23,560,789	0.1%	4,112	0.6%
STLT	21,689,311	0.1%	571	0.1%
PSU	217,652,003	1.1%	1	0.0%
Total	19,398,975,424	100.00%	742,485	100.00%

PSU Exhibit JLC2-SR
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West Penn Rate District
 Billing Determinants
 Test Period 12 Months Ended December 2025

OUTPUT OF EXCEL FILE SHOWING FULL DIGITS FOR PSU CUSTOMER COUNT

Schedule	Normalized kWh	kWh %	Customers	%
RS	7,237,022,340	37.3%	636,179	85.7%
GSV	18,944,346	0.1%	630	0.1%
GSS	210,898,870	1.1%	62,540	8.4%
GSM	3,335,030,667	17.2%	37,355	5.0%
GSL	2,072,277,757	10.7%	903	0.1%
GP/TP	5,177,974,892	26.7%	190	0.0%
PP44	71,779,545	0.4%	1	0.0%
PP46	1,012,144,905	5.2%	3	0.0%
POL	23,560,789	0.1%	4,112	0.6%
STLT	21,689,311	0.1%	571	0.1%
PSU	217,652,003	1.1%	1.36	0.0%
Total	19,398,975,424	100.00%	742,485	100.00%

