

2018 Management Summary Report

and the

**Electric and Gas Utilities
Supply - Demand
Forecast Reports
For 2019-2028**

**Public Service
Commission
of
West Virginia**



A digital copy of this report can be found at
http://www.psc.state.wv.us/Mgmt_Sum/MSR2018_Report.pdf

Public Service Commission of West Virginia

201 Brooks Street, P.O. Box 812
Charleston, West Virginia 25323



Michael A. Albert
Chairman

January 9, 2019

To the Honorable James C. Justice, II, Governor of the State of West Virginia,
Distinguished Members of the 84th West Virginia Legislature:

It is our pleasure to submit to you the *2018 Management Summary Report and the Electric and Natural Gas Utilities Supply – Demand Forecasts for 2019-2028* for the Public Service Commission of West Virginia. This report details how the Commission met its mission of supporting and promoting a utility regulatory and transportation safety environment while balancing the interests of the citizens, the regulated parties and the State.

This year the Commission faced a number of challenges and opportunities. Those included hearing numerous major rate cases; assessing the impact on Commission-regulated utilities and utility customers of the 2017 Tax Cuts and Jobs Act; assuring the available capital to make needed repairs to infrastructure and meeting infrastructure needs and affordable rates in the face of declining customer bases and sales.

Some of the issues the Commission will be addressing in the coming year include electric rate issues to address economic development and industrial load retention and expansion in the state, the continued oversight of rate base and O&M matters in expedited ratemaking approaches, quality of service issues related to landline phone service and finalizing the impacts of the 2017 Tax Act's impact on retail utility rates. The Commission intends to have greater involvement in Federal proceedings at FERC and the FCC, greater oversight of transmission upgrade projects (other than projects mandated by PJM) and involvement in the electric generation capacity market changes being considered by PJM.

The Commission handled nearly 2,400 formal cases in 2018, many of which generated significant public attention. These cases ranged from complex major

rate cases and requests for multi-billion dollar projects to simple complaint cases. The Commission processed nearly 9,800 informal cases last year. These cases included complaints about inadequate service, nonpayment for service, service restoration, billing problems and a variety of other significant service problems. Commission Staff negotiated solutions, resolved communication problems or acted as a liaison between utilities and customers to mediate differences. If the problems are not resolved, customers are assisted in filing a formal complaint with the Commission. Formal complaint proceedings, however, are usually more time consuming and require attorney representation by the utility and, in many cases, by the customer. Commission Staff was successful in resolving 97% of these complaints at the informal level; 95% within 30 days, saving time and money for the utilities, customers and the Commission.

The Commission is investing in needed upgrades to the main hearing room at the Charleston office to permit interactive web-based broadcasting, training and to eventually be used for mediation and a more efficient communication tool for use in cases.

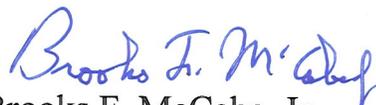
We hope you find this report informative and we look forward to continuing to work with you to serve the utility needs of West Virginia.

Respectfully submitted,



Michael A. Albert
Chairman

Renee A. Larrick
Commissioner



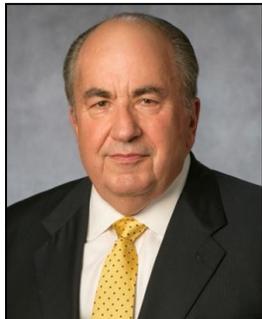
Brooks F. McCabe, Jr.
Commissioner

Table of Contents

| | |
|------------------------------------------------------------------|--------|
| Meet the Commission | 4 |
| What the Public Service Commission Regulates | 6 |
| 2018 Performance Accomplishments and Statistics... .. | 7 |
| Acronyms..... | 9 |
| 2018 Significant Proceedings | |
| • 2017 Federal Tax Cut Act... .. | 10 |
| • Electricity..... | 10 |
| • Natural Gas..... | 18 |
| • Gas Pipeline Safety..... | 21 |
| • Water and Wastewater..... | 24 |
| • Telecommunications..... | 35 |
| • Transportation Safety Enforcement..... | 36 |
| • Motor Carriers... .. | 38 |
| • Solid Waste Facilities/Landfills .. | 40 |
| • Rulemaking Proceedings | 41 |
| • The Courts..... | 44 |
| Appendix A: Organization..... | 47 |
| Appendix B: Budget and Human Resources | 54 |
| Appendix C: Summary of the Utility Discount Program..... | 55 |
| Appendix D: Summary of the Tel-Assistance Service Program..... | 60 |
| Appendix E: Electric Utilities Supply – Demand Forecast | 61 |
| Appendix F: Natural Gas Utilities Supply – Demand Forecast | 73 |

Meet the Commission

Chairman Michael A. Albert



Michael A. Albert was appointed to the Commission in February 2007 to fill an unexpired term ending June 30, 2007. He was reappointed to two consecutive six-year terms expiring June 30, 2019. On July 1, 2007, he was appointed Chairman and continues to serve in that role. He previously served as a Manager and Member in the Business Law Department of Jackson Kelly, PLLC, in Charleston, West Virginia, focusing on public utilities, business and commercial transactions.

Chairman Albert has served as President and as a member of the Board of Directors of the Kanawha County Public Library, and as Chairman of the Education Alliance, Junior Achievement of Kanawha Valley and the National Institute for Chemical Studies.

Chairman Albert graduated from West Virginia University with a Bachelor of Science degree in Business Administration, majoring in Accounting. He achieved numerous academic and extracurricular awards and, upon graduating, he served as an officer in the United States Navy, including a tour of duty in Vietnam. Following an Honorable Discharge, he attended West Virginia University College of Law where he was the Editor in Chief of the West Virginia Law Review, received his Doctorate of Jurisprudence and was a member of the Order of the Coif.

He is a Fellow of both the West Virginia Bar Foundation and the American Bar Foundation, served on the West Virginia State Bar Board of Governors and served as Chairman of the WVU Law School Visiting Committee. He currently resides in Charleston with his wife. They have three children and eight grandchildren.

Commissioner Renee A. Larrick



Renee A. Larrick was appointed to the Commission in July 2017 to a full term ending June 30, 2023. She is a member of the National Association of Regulatory Utility Commissioners (NARUC) Water Committee and recently moderated a panel on Wholesale and Retail Power Markets, Grid Transformation and Regulatory Policies at the Mid-Atlantic Conference of Regulatory Utility Commissioners (MACRUC) Annual Education Conference.

Prior to joining the Commission, she served as the Business Manager

for a private law firm in Beckley. She has also taught on the college and high school levels in Raleigh County.

Commissioner Larrick has served on the Board of Directors of the United Way of Southern West Virginia and is the past President of the Raleigh County Garden Council, the Woodcliff Garden Club and the Black Knight Country Club Ladies Golf Association.

Commissioner Larrick is a graduate of Woodrow Wilson High School in Beckley and the University of Kentucky in Lexington, Kentucky, where she earned a Bachelor's degree in Business and Economics with a concentration in Finance. She and her husband live in Daniels, West Virginia.

Commissioner Brooks F. McCabe, Jr.



Brooks F. McCabe, Jr. was appointed to the Commission in November 2014 to fill an unexpired term and was reappointed to a full term ending June 30, 2021. He currently serves as First Vice President of MACRUC. Prior to joining the Commission, he served as a State Senator representing Kanawha County from 1998-2014, and served on the Finance, Economic Development, Pensions, Banking and Insurance, Natural Resources and Transportation and Infrastructure Committees. His 35-plus years in business have focused on commercial real estate with a concentration in downtown redevelopment through West Virginia Commercial, LLC and similar business ventures.

Commissioner McCabe has served on the boards of the Charleston Renaissance Corporation, Chemical Alliance Zone, The Nature Conservancy's West Virginia Chapter, Charleston Area Medical Center, West Virginia State College Foundation, the University of Vermont and the GOW School, a private college preparatory school for dyslexic students.

Commissioner McCabe is a graduate of the University of Vermont, where he earned a Bachelor of Science in Management Engineering and a Master of Education in Education Administration. He received his Doctor of Education degree from West Virginia University, with concentration in Planning and Community Development. His professional designations include the American Institute of Certified Planners and the REALTORS® National Marketing Institute, in which he is a Certified Commercial Investment Member. He and his wife reside in Charleston and have one daughter and two grandchildren.

What the Public Service Commission Regulates

1. Electric utilities
2. Natural gas utilities
3. Landline services of telephone utilities
4. Certification of independent power producers or non-utility electric wholesale generation facilities located in West Virginia, including wind, natural gas, landfill gas or other methane sources, solar, water, coal, renewable fuels and waste fuels
5. Gas pipeline safety, natural gas interstate transmission, regulated gathering and distribution pipelines, hazardous liquids intrastate transmission and regulated gathering and, on occasion, acts as an agent of the Federal Department of Transportation, Pipeline and Hazardous Material Safety Administration (PHMSA)
6. Private and publicly owned water and sewer utilities (limited jurisdiction over rates of municipal and larger public service district water and sewer utilities)
7. Intrastate solid waste carriers
8. Commercial solid waste facilities (landfills)
9. Allocation of Energy Intensive Industrial Consumers Revitalization Tax Credits
10. Some motor carrier operations, including economic regulation of intrastate transportation of passengers (taxis and limousines) and towing services not arranged by the owner of a towed vehicle (third-party tows)
11. Safety, weight and speed limit enforcement of all commercial motor vehicles (private fleet and common carrier vehicles) operating in the state, including motor carriers involved in interstate commerce, with emphasis on high accident areas
12. Transportation of hazardous materials, including identification, registration and permitting of commercial motor vehicles transporting such materials in and through the state
13. The Coal Resource Transportation System (CRTS)
14. Administration and enforcement of Federal and State railroad safety regulations

2018 Performance Accomplishment & Statistics

2018 Total

| | | |
|--------------------------|----------------------------------------------|--------------|
| | Orders Issued | 4,921 |
| Orders | General Orders | 17 |
| | Commission Hearings | 38 |
| | Administrative Law Judge Hearings | 117 |
| Hearings | Hearings Held Outside Charleston | 105 |
| | Public Comment Hearings | 15 |
| | Cases in Mediation Process | 35 |
| Mediation Program | Mediation Meetings | 32 |
| | Cases Successfully Mediated | 27 |
| | Formal Cases Processed | 2,389 |
| | Consumer Questions and Inquiries Processed | 3,472 |
| | Informal Complaint Cases | 9,763 |
| Cases | Assistance to Water and Wastewater Utilities | 1,122 |
| | Utility Audits Conducted | 157 |
| | Utility Annual Report Reviews Performed | 1,683 |
| | WVIJDC Reviews Performed | 60 |

| | | |
|-----------------------------------|------------------------------------------------|----------------------|
| | Water and Wastewater Seminars | 10 |
| | Gas Pipeline Safety Seminars | 2 |
| Seminars and Presentations | Transportation Safety Seminars | 19 |
| | People Trained at Seminars | 956 |
| | Students Reached through Conservation Efforts | 460 |
| | Presentations to Outside Organizations | 33 |
| | | |
| | CRTS Transactions Monitored | 1.84 million |
| | CRTS Site Inspections | 750 |
| | Complaints to CRTS Hotline Investigated | 164 |
| Highway Safety | Accidents Attributed to Overweight Coal Trucks | Zero |
| | Trucks Inspected | 15,371 |
| | Buses Inspected | 741 |
| | Collected for DOH Transportation Fund | \$2.3 million |
| | | |
| | Rail Cars and Locomotives Inspected | 17,098 |
| Railroad Safety | Defective Rail Cars Identified | 1,884 |
| | Miles Railroad Tracks Inspected | 3,543 |
| | Highway Rail-Grade Crossings Inspected | 217 |
| | | |
| Gas Pipeline Safety | GPS Inspections Performed | 137 |
| | GPS Inspection Days | 439 |

Acronyms

| | |
|-----------|-----------------------------------------------------------|
| ADIT | Accumulated Deferred Income Taxes |
| AEP | American Electric Power Company |
| ALJ | Administrative Law Judge |
| APCo | Appalachian Power Company |
| CAD | Consumer Advocate Division |
| CRTS | Coal Resource Transportation System |
| DEP | West Virginia Department of Environmental Protection |
| DOH | West Virginia Department of Highways |
| DSIC | Distribution System Improvement Charge |
| ENEC | Expanded Net Energy Cost |
| EPA | U.S. Environmental Protection Agency |
| FCC | Federal Communications Commission |
| FE | FirstEnergy Corporation |
| FERC | Federal Energy Regulatory Commission |
| FMCSA | Federal Motor Carrier Safety Administration |
| GPS | Gas Pipeline Safety |
| IOGA | Independent Oil and Gas Association |
| IREP | Infrastructure Replacement and Expansion Plans |
| MACRUC | Mid-Atlantic Conference of Regulatory Commissioners |
| Mon Power | Monongahela Power Company |
| MW | Megawatt |
| MWh | Megawatt hour |
| NOV | Notice of Violation |
| OPS | Office of Pipeline Safety |
| PE | Potomac Edison West Virginia |
| PHMSA | Pipeline and Hazardous Materials Safety Administration |
| SWVA | Steel of West Virginia |
| TCJA | 2017 Tax Cut and Jobs Act |
| VSCC | Virginia State Corporation Commission |
| WPCo | Wheeling Power Company |
| WVAWC | West Virginia American Water Company |
| WVCAG | West Virginia Citizens Action Group |
| WVEUG | West Virginia Energy Users Group |
| WVIJDC | West Virginia Infrastructure and Jobs Development Council |
| WVONGA | West Virginia Oil and Natural Gas Association |
| WVSUN | West Virginia Solar United Neighborhoods |
| WVTransco | AEP West Virginia Transmission Company, Inc. |

2018 Significant Proceedings

2017 Tax Cuts and Jobs Act

Following the passage of the 2017 Tax Cuts and Jobs Act (TCJA), the Commission initiated a proceeding to investigate the effects of the TCJA tax cuts on utilities (GO 236.1). The TCJA reduced Federal corporate income tax rates and significantly lowered the amount of Federal taxes paid by businesses and utilities. Most privately owned utilities have Federal income tax expenses embedded in their revenue requirements and in the rates paid by ratepayers. The Commission directed the utilities to use regulatory accounting methods to track the effects of the TCJA, including current and deferred tax impacts, in order to protect the interests of ratepayers until the Federal tax benefits could be appropriately reflected in rates.

Among the larger utilities involved in this proceeding were Appalachian Power Company (APCo); Wheeling Power Company (WPCo); Monongahela Power Company (Mon Power); Potomac Edison West Virginia (PE); Mountaineer Gas; Hope Gas Inc., dba Dominion Energy WV; Peoples Gas WV; Bluefield Gas; West Virginia American Water Company (WVAWC) and Beckley Water Company. Intervenors included the Staff, Consumer Advocate Division (CAD) of the Commission, West Virginia Energy Users Group (WVEUG), the Kanawha County Commission and the City of Charleston.

The Commission ordered that \$236.2 million be credited to customers or offset against the revenues to be collected by the utilities. The Commission also approved agreements that provide approximately \$409.3 million in excess accumulated deferred income taxes (ADIT) to be credited to customer rates in the future. This case is now closed.

Electricity

Generation Cases

Mon Power and PE Proposed Acquisition of the Pleasants Power Station

Mon Power and PE filed a petition seeking approval of a generation resource transaction (Case No. 17-0296-E-PC). The Companies anticipated a growing capacity deficit over the next ten years and developed a request to solicit proposals to reduce or eliminate the projected deficit. The Pleasants Power Station in Belmont, West Virginia, submitted the most attractive proposal. Allegheny Energy Supply Company, LLC (AE Supply) offered to sell Mon Power 100% ownership of Pleasants' 1300 megawatts (MW) for \$195 million.

Intervenors included the Staff of the Commission; CAD; the West Virginia Citizens Action Group (WVCAG); Solar United Neighborhoods (WVSUN); WVEUG; Longview Power, LLC; the Sierra Club; ESC Harrison County Power, LLC; ESC Brooke County Power, LLC; the West Virginia Coal Association and the West Virginia Business & Industry Council. Public comment hearings were held in Parkersburg, Martinsburg and Morgantown.

The Commission approved the Petition subject to certain conditions to protect ratepayers, but the Companies chose not to accept the conditions. The transaction did not occur, and this case is now closed.

ESC Brooke County Power I, LLC

ESC Brooke County Power I, LLC (BCP), filed an application to construct and operate an electric wholesale generating facility and all necessary interconnection and ancillary facilities (Case No. 17-0521-E-CS). The project, an 830 MW natural gas-fired electric generating facility, consists of two combustion turbines driving two combustion turbine generators and one steam turbine, is to be constructed in the West Virginia Division of Natural Resources' Cross Creek Wildlife Management Area. The power will be delivered to a new 345 kV three-breaker ring bus First Energy (FE) substation immediately east of the facility. The facility will receive natural gas and ethane from dedicated pipelines to be constructed and operated by third parties under contract to BCP. The estimated cost of construction is \$884 million.

BCP testified that the project will generate approximately four hundred construction jobs and thirty permanent jobs. The economic impact on the state is estimated to be \$1.8 billion during construction and more than \$19 billion over the expected 30-year operational life of the project.

Intervenors included the West Virginia State Building and Construction Trades Council, AFL-CIO; the West Virginia Department of Commerce; West Virginia Oil and Natural Gas Association (WVONGA); the Ohio Valley Jobs Alliance, Inc. (OVJA) and a number of local residents. A public comment hearing was held in Follansbee.

The Company, Building and Trades Council, Commerce Department, WVONGA and Commission Staff filed a Joint Stipulation with the Commission recommending approval of the siting certificate, subject to certain terms and conditions.

The Commission granted the siting certificate. OVJA and several individuals appealed the Commission's decision to the Supreme Court of Appeals of West Virginia. The Supreme Court upheld the Commission decision. The Commission case and the Supreme Court case are now closed.

APCo and WPCo Acquisition of Wind Facilities

APCo and WPCo filed a Petition to purchase the equity interests of Hardin Wind Energy, LLC (Hardin), to provide 175 MW of generation and Beech Ridge Energy II, LLC, to provide 50 MW of generation (Case No. 17-0894-E-PC). APCo/WPCo also sought to merge Hardin and Beech Ridge II into APCo through a series of affiliated transactions. APCo is a net buyer of energy from the PJM Interconnection wholesale power market, particularly in the winter months, and argued that the wind resources were well suited to address APCo's winter energy deficit because wind facilities are more productive during the winter.

APCo/WPCo also asked for rate recovery of the wind facilities' costs through a Construction Surcharge, with an estimated revenue requirement of approximately \$84.6 million over ten years and \$10.2 million in the first year. The Companies proposed collecting the Construction Surcharge as part of their Expanded Net Energy Costs (ENEC) rates as soon as the two wind facilities were placed into service. The Companies contended that the acquisition was not expected to lead to any significant increase in customer rates, but would actually reduce customers' rates over the lives of the facilities. Intervenors included CAD and WVEUG.

While the case was pending before the Commission, the Virginia State Corporation Commission (VSCC) denied the Company's request for a rate adjustment to recover Virginia's allocated share of the project costs.

This Commission determined that the base rate revenue requirement over the entire 25-year life of the wind facilities, without the costs being allocated between West Virginia and Virginia, would total nearly \$840 million, that the wind farms were not necessary to serve the Company's customers, and that the wind farms would not provide a rate benefit to West Virginia customers. The Commission denied the petition, and this case is now closed.

Base Rate Case Review and Cost Recovery Cases

APCo and WPCo Base Rate and Depreciation Rate Cases

APCo/WPCo filed a general rate case to increase base rates by approximately \$114.6 million, a 7.85% increase (Case No. 18-0646-E-42T) and to implement new depreciation rates and increase depreciation expenses by \$31.3 annually (Case No. 18-0645-E-D). Intervenors included CAD; WVEUG; Steel of West Virginia (SWVA); The Kroger Company; Wal-Mart, Inc.; the City of Charleston and the Kanawha County & Cities Association.

CAD recommended a \$13.8 million decrease of base rates with a return on equity of 8.75% or a decrease of \$450,008 with a return on equity of 9.25%. Staff recommended a revenue increase of \$2.27 million, or 0.16% and a return on equity of 9.25%. Staff also recommended changes to correct an under-payment from low usage customers and over-payment by high usage customers such as winter heating customers. The Commission held public comment hearings in Princeton, Beckley, Wheeling, Huntington and Charleston.

After extensive negotiations, the Companies, CAD, WVEUG, Kroger, Wal-Mart, the City of Charleston, the Kanawha County & Cities Association and Staff filed a Joint Stipulation. The parties agreed that base rates should be increased by approximately \$44.2 million, using a return on equity of 9.75% and an overall rate of return of 7.28%; the allocation of the costs between the rate classes should be adjusted to reduce somewhat the subsidies provided by certain classes; and barring financial distress, the Companies would not file another base rate application before April 1, 2020. This case is pending before the Commission, and will be decided in the first quarter of 2019.

APCo and WPCo 2018 Expanded Net Energy Cost Case

APCo/WPCo filed a petition to initiate the annual review and update of their ENEC rates (Case No. 18-0503-E-ENEC). The ENEC rate review is a narrower special purpose rate proceeding for electric utilities that allows cost recovery for certain prudently incurred costs for fuel, purchased power, purchased transmission costs and construction costs for specific projects. The Companies stated the ENEC deferral balance was under-recovered by approximately \$91.3 million through 2017, and the Construction Surcharge balance was projected to under-recover costs by approximately \$3.3 million during the forecast period of July 1, 2018 through June 30, 2019. In order to address the under-recovery balance, the Companies proposed either to offset the under-recovery balance with an equal amount of Unprotected Excess ADIT resulting from the TCJA and to keep existing ENEC rates in effect for the forecast period or to increase the ENEC rates to recover an additional \$91.3 million in annual revenues and to increase Construction Surcharge rates to recover an additional \$3.3 million in annual revenues. Intervenors included the Staff, CAD, WVEUG, SWVA, and the Sierra Club.

Staff, CAD, WVEUG and SWVA filed a Joint Stipulation. The parties agreed that the ENEC under-recovery balance as of December 31, 2018, should be reduced to \$89.9 million; that an equal amount of Unprotected Excess ADIT should be used to offset the under-recovery balance and that new ENEC rates requested by the Companies should be reduced by \$6.4 million and placed in effect September 1, 2018; and that the ENEC rates should be redesigned to better recover each rate class's portion of the ENEC costs and reduce the likelihood that costs owed by certain classes would be under-recovered while costs owed by other classes were over-recovered.

The ENEC historic period under-recovery and forecasted costs, including costs associated with purchases from the Ohio Valley Energy Corporation (OVEC) remained in dispute by the Sierra Club. As a result, the Sierra Club did not join in the stipulation, but did not object to the Commission placing the stipulated ENEC rates in effect, provided the Commission heard evidence and made a determination on the prudence of the OVEC costs. The Sierra Club and the stipulating parties agreed that if the OVEC costs were disallowed by the Commission, the amount of disallowed costs would be reconciled against the ENEC deferral balance in a future proceeding.

The Commission approved the terms of the Joint Stipulation concerning ENEC rates and ordered the ENEC rates into effect. The Commission has not yet ruled on the OVEC costs, and the case is pending before the Commission.

APCo and WPCo Vegetation Management Program

In their 2018 Vegetation Management Program (VMP) review and surcharge true-up, APCo/WPCo stated the VMP deferral balance was under-recovered by approximately \$37.1 million from the previous year (Case No. 18-0504-E-P). The VMP rates in effect were designed to recover approximately \$44.47 million annually. The Companies proposed two alternatives for the VMP rates: either offset the under-recovery balance with an equal amount of Unprotected Excess ADIT and continue the existing VMP rates for the forecast period of July 1, 2018 through June 30, 2019; or increase the VMP rates to recover an additional \$37.1 million during the forecast period. Intervenors included CAD, WVEUG and SWVA.

The parties filed a Joint Stipulation that proposed \$18.5 million of Unprotected Excess ADIT be used to reduce the outstanding VMP balance as of December 31, 2017, by approximately one-half. The Stipulation also provided that APCo/WPCo would meet with Mon Power/PE to investigate and discuss best practices circuit selection to determine the length or percentage of a circuit to be completed in each year and contractor evaluation.

The Commission approved the terms of the Joint Stipulation concerning the VMP practices and rates, and the case is pending before the Commission.

APCo and WPCo EE/DR Programs

In 2017, APCo/WPCo filed a Petition for review of their Energy Efficiency/Demand Response (EE/DR) program rate, a proposal for four new EE/DR programs and related tariff modifications (Case No. 17-0401-E-P). The Companies proposed compensating customers participating in the Residential Peak Reduction Program with refund checks

rather than credits on their bills. The Companies proposed increasing their annual EE/DR budget and to continue the existing EE/DR rates that are projected to collect approximately \$7.5 million per year.

Intervenors included the Staff, CAD, WVEUG, SWVA, the Sierra Club and WVCAG. The parties filed a Joint Stipulation that provided, among other things, the Companies should continue to offer their current EE/DR programs, but should not implement the four new proposed programs. The parties also agreed to meet to discuss the appropriate cost-benefit analysis to be used to measure the benefits of the EE/DR programs and make a recommendation to the Commission. The Commission adopted the Joint Stipulation, and this case is now closed.

AmBit and Mon Power Purchased Power Agreement

In 2017, American Bituminous Power Partners, L.P. (AmBit) and Mon Power filed a Joint Petition to reopen Case No. 87-0669-E-P and to modify an existing Electric Energy Purchase Agreement (EEPA) between AmBit and Mon Power. The joint petitioners requested the Commission allow Mon Power to recover any incremental purchased power costs associated with the amended EEPA in Mon Power's annual ENEC proceeding. The rates govern the purchase of power from AmBit's electric generation facility in Grant Town, West Virginia, which costs in turn are passed through to retail customers of Mon Power. The petitioners testified that AmBit was in financial distress; that without increased revenues, new ownership of the project was not viable; and that reorganization through bankruptcy would not work without increased revenues to cover the operational costs. The petitioners argued that the project provided many benefits to the state and local economy, and without rate relief, the project would cease operations. The Commission reopened the case and required future filings be docketed in Case No. 17-0631-E-P.

Under the EEPA, Mon Power pays an avoided energy cost rate plus an agreed upon capacity cost rate for up to 80 MW of energy. Under the current contract, the capacity cost rate is \$34.25/megawatt hour (MWh), but that rate was to decrease to \$27.00/MWh in October 2017, when AmBit paid off its bonds. That rate was to remain at that level through the end of the contract in 2035. The proposed EEPA provides that Mon Power will purchase up to 80 MW at Mon Power's current Energy Cost Rate and increases the Capacity Cost Rate to \$40.00/MWh through the life of the contract. This change would increase revenues by \$3.6 million over the current level and \$8.2 million over the levels that went into effect in October 2017.

Under the current EEPA, excess payments made by Mon Power to AmBit are tracked. AmBit must amortize the balance of that account over time by reducing the energy cost rate to \$19.00/MWh until fully amortized, beginning January 2020. The amended EEPA

states no amounts will be subtracted from the Tracking Account until January 1, 2030. At that time, \$4.00/MWh of the Energy Cost Rate will be allocated to the repayment of the Tracking Account until the balance is reduced to zero. Interest on the Tracking Account will continue to accrue. Under the current EEPA, AmBit is also required to keep a maintenance reserve fund, which it has not been able to fund to date. The proposed EEPA caps this fund at \$8 million. Once fully funded, AmBit will not be required to continue to increase the level of reserve.

Intervenors include the Staff, CAD, WVEUG and the Sierra Club. All the parties recommended the Commission deny the proposed EEPA.

The Commission approved a pass-through to retail customers of a capacity rate of \$34.25/MWh until the EEPA expires in 2035. Commission Staff filed a Petition to Reconsider the Commission Order. The Commission denied the Staff Petition to Reconsider as it related to the issues of retroactivity and the impact on a prior settlement, but granted the Petition relating to safeguards to ensure ratepayers do not pay more than the all-in levelized costs previously established. The Commission protection was to fix the avoided energy cost. The joint petitioners filed an executed amended EEPA.

The Sierra Club appealed the Commission decision to the West Virginia Supreme Court. Although the Commission case is closed, this matter is pending before the Supreme Court and is scheduled for oral arguments in the January 2019 Term.

Black Diamond Purchased Power Cost

Black Diamond Power Company filed an application with the Commission for an increase in its consolidated purchased power surcharge (Case No. 18-1124-E-P). If approved, it would result in an annual revenue increase of \$105,867. The parties filed a Joint Stipulation agreeing to the Company's proposed purchase power rate. The Commission approved the Joint Stipulation and closed the case.

Mon Power and PE 2018 ENEC

Mon Power and PE filed a petition to initiate the annual review and update of their ENEC rates (Case No. 18-1231-E-ENEC). The Companies proposed a \$100.9 million annual decrease in ENEC rates effective January 1, 2019, of which approximately \$25.6 million is pursuant to the Joint Stipulation in GO 236.1 and the TCJA. Of the remaining amount, approximately \$23.4 million is due to an over-recovery during the review period and \$59.7 million is due to a projected over-recovery during 2019 and an increase for continued boiler modification capital costs for the U.S. Environmental Protection Agency

(EPA) Mercury Air Toxic Standard/Cross State Air Pollution Rule compliance. This case is pending before the Commission.

AEP West Virginia Transmission Company and APCo

AEP West Virginia Transmission Company, Inc. (WV Transco) and APCo jointly filed a petition for a new service agreement (Case No. 18-0016-E-PC). The previous service agreement allowed for APCo to provide certain services to WV Transco, for WV Transco to make payments to APCo and for each party to grant the other party a license to attach to or occupy its property or facilities. The VSCC had approved the previous agreement that expired April 23, 2018.

According to the Companies, WV Transco has developed and constructed transmission projects in West Virginia since 2013. It was the position of the Companies that the service agreement was appropriate and had worked well in the early stages of WV Transco's development. Now, however, WV Transco has significant assets and operations in West Virginia and the Companies argued, "It is appropriate to revise the relationship between APCo and WV Transco." The proposed new service agreement is structured to ensure that each party pays the other party for the rights and obligations it undertakes.

The parties to this case submitted a Joint Stipulation and Agreement for Settlement that supported the revised service agreement. The Commission approved the Joint Stipulation. This case is now closed.

Grid Assurance, LLC

APCo, WPCo, WV Transco, Mon Power, PE, and Trans-Allegheny Interstate Line Company (Trailco) filed a joint petition to enter into an affiliated agreement with Grid Assurance LLC (Case No. 18-1028-E-PC). APCo, WPCo and WV Transco are subsidiaries of American Electric Power Company (AEP) and Mon Power, PE and Trailco are subsidiaries of FE. Grid Assurance, LLC is or will be partially owned by affiliates of the Joint Petitioners.

Grid Assurance was established in May 2016 to address an increasingly critical and foreseeable grid resilience need facing transmission-owning electric utilities. Grid Assurance provides an increased ability for transmission utilities to ensure prompt restoration of their power systems after a catastrophic event, such as a natural disaster or a physical or cyber attack. Initial investors of Grid Assurance are six major utility companies or their affiliates: Berkshire Hathaway Energy U.S. Transmission, LLC; AEP; Duke Energy; Edison Transmission, LLC; Eversource Energy and Great Plains Energy,

Inc. The Joint Petitioners will be participating in Grid Assurance as subscribers. Upon occurrence of a qualifying event, subscribers may purchase spare equipment and other select inventory from Grid Assurance.

The Commission granted the joint petition to enter into the affiliated agreement and subscribe to the service offered by Grid Assurance. This case is now closed.

Natural Gas

Purchased Gas Adjustment Cases

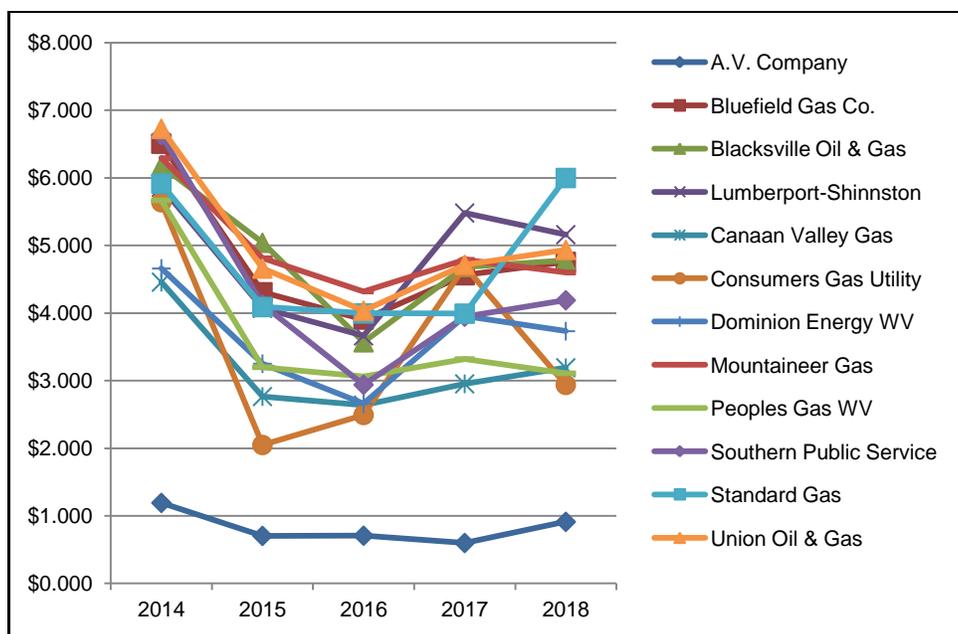
Natural gas utilities are required to file annually to reflect any increase in the purchased gas component of their rates. This purchased gas adjustment procedure allows the gas utility to recover the costs it pays suppliers for the gas it delivers to gas customers. The cost of purchased gas is, on average, slightly less than half of typical residential natural gas utility charges.

The prices that natural gas utilities pay their suppliers for gas are not regulated by either the Commission or any Federal government agency, but are determined by the national market. Over recent years, the market-driven price has been volatile, largely resulting from the availability of Marcellus and Utica gas in the market and other external factors.

The Commission has ordered the following interim gas rates for the winter of 2018-2019.

Purchased Gas Costs per McF 2014-2018

| Company and Case No. | 2014 | 2015 | 2016 | 2017 | 2018 |
|----------------------------------------------------------------------------------|----------|----------|----------|----------|----------|
| A.V. Company | \$1.193 | \$0.705 | \$0.708 | \$0.60 | \$0.913 |
| Cardinal Natural Gas Company, Southern Division (formerly Bluefield Gas) | \$6.5063 | \$4.3082 | \$3.9054 | \$4.5609 | \$4.7578 |
| Cardinal Natural Gas Company, Northern Division (formerly Blacksville Oil & Gas) | \$6.176 | \$5.041 | \$3.569 | \$4.681 | \$4.778 |
| Cardinal Natural Gas Company, Northern Division (formerly Lumberport-Shinnston) | \$5.862 | \$4.071 | \$3.664 | \$5.481 | \$5.161 |
| Canaan Valley Gas | \$4.458 | \$2.766 | \$2.64 | \$2.954 | \$3.192 |
| Consumers Gas Utility | \$5.64 | \$2.05 | \$2.494 | \$4.692 | \$2.939 |
| Dominion Energy WV | \$4.66 | \$3.252 | \$2.662 | \$3.957 | \$3.733 |
| Mountaineer Gas | \$6.293 | \$4.812 | \$4.32 | \$4.789 | \$4.60 |
| Peoples Gas WV | \$5.67 | \$3.20 | \$3.06 | \$3.320 | \$3.11 |
| Southern Public Service | \$6.634 | \$4.127 | \$2.94 | \$3.947 | \$4.19 |
| Standard Gas | \$5.915 | \$4.09 | \$3.996 | \$3.992 | \$5.999 |
| Union Oil & Gas | \$6.727 | \$4.66 | \$4.036 | \$4.714 | \$4.935 |



Infrastructure Replacement and Expansion Plans

In 2015, the West Virginia Legislature passed Senate Bill 390 authorizing the Commission to approve Infrastructure Replacement and Expansion Plans (IREP), an expedited cost recovery for natural gas utility infrastructure projects through the use of a surcharge and outside the purview of a base rate case.

Bluefield Gas Company

Bluefield Gas Company filed its 2019 IREP, and proposed investing approximately \$7.1 million for infrastructure replacement and system upgrades over the next three years, including approximately \$1.85 million in the first year (Case No. 18-0791-G-390P). The parties submitted a Joint Stipulation for settlement that the Commission approved. This case is now closed.

Hope Gas, Inc., dba Dominion Energy West Virginia

Hope Gas, Inc. dba Dominion Energy West Virginia filed its 2019 IREP for a five-year plan of infrastructure improvements, including an investment of approximately \$35.8 million in 2019 (Case No. 18-0780-G-390P). The Commission allowed the recovery of \$7.1 million for 2019, but included a requirement that the Company, Staff and other West Virginia gas utilities develop some consumer protections to be included in the next IREP filing. The case is now closed.

Mountaineer Gas Company

Mountaineer Gas Company filed its 2019 IREP, proposing an investment of \$119.8 million over five years, including \$40.2 million in 2019 (Case No. 18-1115-G-390P). Of the total 2019 IREP investment, approximately \$16.5 million represents an ongoing investment to expand and enhance gas service in the Eastern Panhandle. The Company intends to construct five extensions in this area. The 2019 IREP rate component takes into account an under-recovery of \$376,966 related to investments made in 2017. The total revenue requirement is approximately \$11.2 million. The Commission held a public comment hearing in Shepherdstown.

Intervenors included CAD, the Independent Oil and Gas Association (IOGA) and WVEUG. The parties filed a Joint Stipulation with the Commission that provided a typical customer would incur an increase of approximately \$0.94 per month. On December 21, 2018, the Commission approved the Joint Stipulation with one minor modification. This case is now closed.

Union Oil & Gas, Inc.

Union Oil & Gas, Inc., filed its 2019 IREP, proposing an investment of \$1.8 million through November 2018 (Case No. 18-0263-G-390P). These upgrades will allow the Company to connect to TransCanada's Mountaineer Xpress Pipeline (MXP). The connection to the MXP will provide continued and enhanced safety and reliability on the Union system, more economic natural gas service and the potential for economic growth in the Union service territory.

The parties filed a Joint Stipulation. By Order dated June 27, 2018, the Commission approved the Joint Stipulation and this case is now closed.

Other Gas Cases

Bluefield Gas Company Base Rate Case

Bluefield Gas Company filed an application to increase its rates and charges to produce an additional \$1.5 million in revenue, or 31.78% (Case No. 17-0565-G-42T). CAD was granted intervenor status.

The parties submitted a Joint Stipulation recommending a \$606,000 increase in base rates and agreeing that Bluefield would transfer approximately \$1.2 million of IREP investment to base rates, which would decrease IREP revenues by \$97,161. The Commission approved the Joint Stipulation. This case is now closed.

Lumberport-Shinnston Gas and Blacksville Oil & Gas Transfer to Bluefield Gas

In 2017, Bluefield Gas Company, Lumberport-Shinnston Gas Company and Blacksville Oil and Gas Company requested approval to transfer the assets of Lumberport and Blacksville to Bluefield (Case No. 17-0363-G-PC). The transfer would take place by assignment of those assets from Utility Pipeline, LTD (UPL), the indirect owner of Bluefield. The joint petitioners asserted the acquisition will not change the management, financing, operations, employee levels, service levels or rates of Bluefield; that the transaction would not have an adverse impact on the existing customers of the companies; that most employees of Lumberport and Blacksville would be retained; and the transaction would not have an impact on the rates of Lumberport and Blacksville. Under the transfer, Bluefield agreed not to apply for a base rate increase to the Lumberport and Blacksville rates for five years.

Upon completion of the transaction, Bluefield will own and operate the utility assets and will change its corporate name to Cardinal Natural Gas Company. CAD was granted intervenor status.

On June 15, 2018, the Commission approved the acquisition of Lumberport and Blacksville by Bluefield, subject to certain conditions. This case is now closed.

Gas Pipeline Safety

The Gas Pipeline Safety (GPS) Division oversees pipeline safety compliance for ninety-four gas companies with approximately 14,000 miles of pipeline.

| Type of Pipeline Miles in West Virginia | | | | | | |
|---------------------------------------------------------------------------|---------------------------------|-------------------------------|----------------------------------------|------------------|----------|--------|
| Year | Hazardous Liquid ⁽¹⁾ | Gas Transmission (Intrastate) | Regulated Gas Gathering ⁽²⁾ | Gas Distribution | | Total |
| | | | | Mains | Services | |
| 2017 | 164 | 170 | 388 | 10,906 | 2,280 | 13,908 |
| 2016 | 230 | 170 | 399 | 10,883 | 2,262 | 13,944 |
| 2015 | 322 | 221 | 414 | 10,850 | 2,431 | 14,238 |
| 2014 | 204 | 280 | 438 | 10,732 | 2,424 | 14,078 |
| ⁽¹⁾ Mileage includes both transmission and gathering | | | | | | |
| ⁽²⁾ Reported mileage may not represent all regulated gathering | | | | | | |

Yearly variations in mileage occur as operators re-evaluate their pipelines according to regulations, changes in ownership and abandonment of pipeline. Regulated gathering pipelines represent most of the mileage changes. Not all production and gathering operators fall under GPS oversight and some operators do not understand the requirement to review their lines and determine changes in regulatory status.

| Commission Regulated Pipeline Operators | | | | | |
|-----------------------------------------|------------------|------------------|---------------|------------------|---------------|
| Year | Hazardous Liquid | Gas Transmission | Gas Gathering | Gas Distribution | Master Meters |
| 2017 | 5 | 16 | 27 | 16 | 35 |
| 2016 | 6 | 12 | 19 | 21 | 36 |
| 2015 | 5 | 10 | 28 | 21 | 36 |
| 2014 | 5 | 12 | 22 | 20 | 39 |

Funding

The GPS Division is funded by a pipeline assessment fee paid by operators as outlined in Chapter 24B, and by a Federal Pipeline Safety Grant provided under 49 USC §60105 by the U.S. Department of Transportation, Pipeline and Hazardous Material Safety Administration (PHMSA), Office of Pipeline Safety (OPS). The money available for Federal funding for State pipeline safety programs was established by the PIPES Act of 2016. The amount of money available to states is reduced from previous years. As a requirement of the Federal grant, the GPS Division must follow the 2017 Guidelines for States Participating in the Pipeline Safety Program that provide the requirements for the types of inspections, reporting requirements, staffing levels and other criteria. By participating in the Federal Pipelines Safety grant program, GPS is subjected to an annual review, the results of which affect the amount of Federal funding it receives. The program is subject to a three-year audit to insure monies are appropriately spent.

Training

All Commission inspectors receive training on Federal pipeline regulations at the PHMSA Training Facility in Oklahoma City, Oklahoma, the only place where that training occurs. Seven initial classes must be completed within three years in order for an inspector to be considered a minimally trained pipeline safety inspector. Inspectors must meet minimum requirements prior to being allowed to inspect pipelines. There are also advanced level courses, including integrity management, control room management and root cause analysis. The GPS Division is required to have inspectors trained in all classes. The training costs approximately \$2,000 per class per inspector and is paid primarily by a Federal pipeline safety grant.

Staffing

GPS continues to struggle to staff the Division within the PHMSA guidelines, which state GPS should have seven inspectors in order to provide adequate inspection and oversight of the ninety-four operators currently operating in West Virginia. During much of 2018, the Division only had two trained inspectors. With the growth of the oil and gas industry, the Division has had a difficult time maintaining appropriate staffing because of low State salary guidelines. While two additional inspectors were hired late in 2018, they

have yet to complete their initial training. Once inspectors become trained, they are frequently hired by private companies at a 50-100% salary increase.

One-Call Program

In 2016, PHMSA issued new Federal damage prevention regulations (49 CFR 196) that strengthen the protection of underground pipeline facilities by allowing PHMSA to take enforcement actions against contractors who violate the one-call regulations. GPS continues to work with WV811 to educate the public about, and ensure compliance with, the State one-call laws.

During the 2018 Legislative Session, new damage prevention enforcement regulations were passed, and the West Virginia program now complies with federally mandated criteria. The new regulations became effective July 1, 2018, and created a 10-member damage prevention board to review violations of the State one-call law.

Siting of Pipelines

GPS is not involved in the siting and locating of pipelines. Interstate pipelines, including the Mountain Valley and Atlantic Coast Pipelines, are certificated by the Federal Energy Regulatory Commission (FERC) and do not fall under State or Commission jurisdiction. GPS does not have a role in siting intrastate pipelines and has no oversight of non-regulated gathering pipelines.

Farm Taps

In 2017, PHMSA passed new regulations about “farm taps,” defining them as service pipelines. Farm taps on both regulated and unregulated pipelines will become regulated and be inspected periodically. All farm tap operators will be required to report the number of taps annually. These new regulations could lead to the abandonment of taps and the loss of gas service in underserved areas if operators choose not to adhere to the regulations. PHMSA is continuing to examine the farm tap issue and has proposed a stay on the new regulations. GPS continues to work with industry to determine the path forward for farm taps and meet the current compliance date of December 31, 2019.

Working with Industry

GPS personnel continue to work with the oil and gas industry, providing guidance on proposed changes to pipeline safety regulations. GPS personnel participated in WVONGA and IOGA meetings this year to discuss federally proposed changes that could increase both the number of regulated miles of pipelines and regulated operators in the state.

Water and Wastewater

West Virginia American Water Company Rates and Charges

WVAWC applied for general base rate increases of approximately \$32.7 million or 24.04% over current rates for its water operations, and \$218,000 or 23.94% for its wastewater operations in Fayetteville (Case Nos. 18-0573-W-42T and 18-0576-S-42T). The proposed water rate increase will impact 166,000 customers in nineteen counties and eight other entities who purchase water from the Company. The proposed sewer rate increase will impact 1,000 customers in Fayette County.

Intervenors include the Commission Staff, CAD, the City of Charleston, and the Kanawha County & Cities Association. Public comment hearings were held in Bluefield, Fayetteville, Weston, Huntington and Charleston.

WVAWC, CAD and Commission Staff filed a Joint Stipulation agreeing the Company would be allowed to implement a \$23 million increase for water operations and a \$152,650 increase for sewer operations. The stipulating parties also agreed that all costs associated with the Distribution System Improvement Charge (DSIC) filing would be rolled into base rates and the DISC surcharge would be reset to zero for all services. The City of Charleston and the Kanawha County & Cities Association were not signatories to the stipulation, but indicated they would not oppose the agreement. This case is pending before the Commission and will be decided in early 2019.

West Virginia American Water Distribution System Improvement Charge

WVAWC filed a petition for approval of a Distribution System Improvement Charge for 2019 (Case No. 18-0960-W-DSIC). The DSIC primarily would cover the replacement of transmission and distribution mains, valves, hydrants, storage tanks and service lines. WVAWC proposed the accelerated rate recovery of approximately \$24.8 million for infrastructure replacement and system upgrades in 2019 throughout its entire 19-county service area. In the future, WVAWC proposes to apply the DSIC to other investments, including utility plant replacement, improvements and extensions of service. CAD intervened in this case.

WVAWC proposed a two-tier rate increase, with Tier 1 rates representing a 5.16% increase over base rates, the 2017 DSIC rate representing 1.10% of that amount and the incremental impact of the 2018 DSIC rate component representing 3.15% of the remaining Tier 1 rates. Tier 1 rates would be effective January 1, 2019 through February 24, 2019. Tier 2 rates would be effective February 25, 2019 through December 31, 2019, and represent a 1.24% increase over WVAWC's current base rates. Tier 2 rates would be

a 1.91% reduction from the 2018 DSIC rate and a 3.92% reduction from the Tier I 2019 DSIC rate.

WVAWC, Commission Staff and CAD filed a Joint Stipulation with the Commission agreeing that all costs associated with the DSIC filing would be rolled into base rates, and the DISC surcharge would be reset to zero for all service, starting February 25, 2019. The stipulating parties further agreed WVAWC would be allowed to book the revenue that would have billed from February 25, 2019 through December 31, 2019, under WVAWC's as-filed Tier 1 DSIC rates, less all actual DSIC revenues billed during that time period and seek collection of that revenue in the 2020 DSIC filing. The parties also agreed WVAWC would use the savings from the TCJA related to the reduction in ADITs to offset future DSIC related increases. This case is pending before the Commission, and will be decided in the first quarter of 2019.

West Virginia American Water Company Tariff

In 2017, WVAWC filed an "Application for Revisions to Company Rules and Regulations," proposing a comprehensive revision and reorganization of the Company's existing rules and regulations for water service (Case No. 17-1310-W-T). While individual pages of its rules and regulations had been updated and added, the rules and regulations had not been comprehensively updated or organized in almost 30 years. The Company believed its rules and regulations were difficult to navigate and needed to be updated to address the evolution of the Commission's Rules for the Government of Water Utilities (150 C.S.R. 7) as well as modern concerns.

A Joint Stipulation and agreed upon tariff was filed by the parties, which included the Company, Staff and CAD. On June 28, 2018, the Commission approved the Joint Stipulation, and this case is now closed.

Delby B. Pool v. Greater Harrison County Public Service District

In 2017, Delby B. Pool filed a complaint against the Greater Harrison County Public Service District alleging violations in the adoption of a sewer rate increase, claiming Greater Harrison failed to file its proposed rate increase application with the Commission and give proper notice to customers (Case No. 17-1168-PSWD-C). The District instead adopted a resolution to increase sewer rates over a three-year period and submitted the resolution to the Harrison County Commission for approval. The County Commission approved the rate increase. Pool also requested a General Investigation into the District's management practices and affiliate transactions and submitted a petition signed by over 900 customers who supported filing the complaint with the Commission and the Harrison County Circuit Court. Pool alleged the District had an insufficient number of customers

to qualify as a “locally rate regulated district” under Senate Bill 234 (SB234) passed by the 2015 Legislature.

A Commission Administrative Law Judge (ALJ) ruled in favor of Pool, stating that a customer of utility services is defined by statute as one customer. The Commission overruled the Recommended Decision, stating that a customer of a combined system should be counted as both a water and sewer customer for purposes of determining the customer count under SB234. Pool filed an appeal to the Supreme Court and the Court upheld the Commission decision. This case is now closed.

Steel of West Virginia, Inc. v. Huntington Sanitary Board

Late in 2017, SWVA filed a complaint and request for interim relief with the Commission against the Huntington Sanitary Board (HSB) and the Huntington City Council (Case No. 17-1680-S-C). SWVA contended that, as a locally rate regulated municipal utility, HSB is required by law to give notice to its customers and affected citizens before it undertakes construction of projects that are not “in the ordinary course of business.”

The HSB stated it had submitted a rate ordinance to the City Council for approval that would provide an additional \$7.5 million to cover current operational costs and debt service to finance capital improvements for nine separate projects, all of which were in the ordinary course of business.

The Commission agreed that the nine projects were in the ordinary course of business and that proper notice had been given. This case is now closed.

In a separate proceeding before the Cabell Circuit Court, the Court denied SWVA’s request for injunctive relief, stating that it had an alternative remedy with the Commission. After review, the Supreme Court reached a similar conclusion.

Petition to Dissolve the Jefferson County Public Service District

In 2017, the Jefferson County Commission filed a petition to dissolve the Jefferson County Public Service District (District) and convey the assets, debts and customers of the District to the City of Charles Town, dba the Charles Town Utility Board (Case No. 17-0915-PSWD-PC). Intervenors included The City of Charles Town; Charles Town Utility Board; the District; Jefferson County Citizens for Economic Preservation; Shenandoah Junction Public Sewer and Arcadia Land, Inc.

The Commission granted approval for Charles Town and the District to enter into a Purchase Agreement, subject to bondholder approval, and authorized the Charles Town Utility Board to add the District's current rates and charges to its tariff as a separate schedule. The Commission also granted the County Commission request to dissolve the District upon consummation of the Purchase Agreement.

The Jefferson County Citizens for Economic Preservation; Shenandoah Junction Public Sewer, Inc.; and Arcadia Land, Inc. appealed the Commission Order to the West Virginia Supreme Court. The Supreme Court affirmed the Commission Decision. This case is now closed.

Transfer of Ranson's Sewer System Assets to Charles Town

The Cities of Charles Town and Ranson filed a Joint Petition to allow Charles Town to take over Ranson's public sewage collection and transmission system (Case No. 17-1534-S-PC). All sanitary sewer flows collected by Ranson were already being transmitted to and treated by the Charles Town Utility Board. The Cities entered into a Purchase Agreement and sought Commission approval of that Agreement.

The Commission approved the Purchase Agreement subject to Charles Town obtaining any required bondholder approval. The Commission authorized the Charles Town Utility Board to add the City of Ranson's current rates and charges to the Charles Town Utility Board's tariff as a separate schedule. This case is now closed.

Beckley Water Company Rates and Charges

In 2017, Beckley Water Company filed an application to increase water rates and charges by 18.77%, resulting in an additional \$2.3 million in annual revenues (Case No. 17-0536-W-42T.) The parties filed a Joint Stipulation that increased Beckley Water's base rates by \$1.3 million or 10.68%.

A Joint Stipulation by the parties was approved by an ALJ Recommended Decision. The Commission, on its own motion, stayed the Recommended Decision and ordered Beckley Water to adjust its rates to reflect its tax savings from the TCJA. After the TCJA modification, the Commission approved the adjusted revenue requirement and rates. This case is now closed.

Greater St. Albans Public Service District

Greater St. Albans Public Service District filed a petition to cease using the City of St. Albans Municipal Corporation's billing, collection and clerical services (Case No. 18-0321-PSD-PC). The City opposed the petition, indicating that to remove billing and the associated income made the remaining duties uneconomical and would most likely cause the District to require higher rates from the City.

An ALJ Recommended Decision denied the District's petition. This case is now closed.

Mingo County Public Service District Water and Sewer Rates and Charges

The Mingo County Public Service District (District) filed an application to increase its water rates and charges by \$336,887 or 13.2% (Case No. 18-0726-PWD-42R). The District provides water service to 4,298 residential and commercial customers and three resale customers in Mingo County and reported approximately \$2.6 million in annual operating revenues. This case is pending before the Commission.

The District also filed an application to increase its sewer rates and charges by \$118,096 or 68.14% (Case No. 18-0825-PSD-42T). The District provides sewer service to 433 residential and commercial customers in Mingo County, and has annual revenues of \$173,252. Intervenors include the Water Development Authority (WDA), which holds the District's water revenue bonds. The Commission held an evidentiary hearing in Williamson, but despite significant written protest and proper notice, no members of the public attended.

Staff recommended and the District and the WDA agreed to a two-step increase for the sewer rates. Step 1 rates generate a revenue increase of \$81,222 or 46.88% over current rates, effective December 6, 2018, for a period of 24 months. Step 2 rates decrease the Step 1 rates by 7.13% and generate a revenue increase of \$63,070 or 36.40% over current rates. The Step 2 rates would be effective December 6, 2020. The Commission approved the recommended rates. This case is now closed.

Justice Public Service District Water Rates

The Justice Public Service District filed an application to increase its water rates and charges by \$52,814 or 52.59% (Case No. 18-1081-PWD-42T). Justice PSD also needed to fund a cash working capital reserve required by SB234. Justice PSD provides water utility service to approximately 233 customers in Mingo County and is managed and operated by the Mingo County Public Service District (MCPSD), which has a separate

schedule of rates on its water utility tariff applicable to Justice PSD customers. The most recent Justice PSD rate increase was filed in 1997.

The WDA petitioned to intervene, stated that it held the Justice PSD water revenue bonds and expressed concern about the annual debt service of \$16,508 of Justice PSD to the MCPSD. The WDA explained that the debt service was for funds that Justice PSD borrowed from the MCPSD in violation of bond covenants. The WDA noted that it had proposed that the \$82,540 debt be repaid to the MCPSD within five years. The WDA stated that the decision of the Commission in this case would directly affect the ability of the MCPSD to repay the water bond deficiency in its own rate case (Case No. 18-0726-PWD-42R). The WDA was granted intervenor status by the Commission.

Commission Staff proposed a two-step rate increase. Step 1 rates are an increase of 33.3% above current rates to be in effect for two years. Step 2 rates will be an increase of 24.11% above current rates. Both the WDA and the Justice PSD agreed to Staff's recommended rates. The Commission approved the agreed upon rates and this case is now closed.

Timberline Four Seasons Utilities

The Commission initiated a General Investigation into the practices of Timberline Utilities to determine whether the Company should be placed into receivership (Case No. 18-0674-WS-GI). This action followed numerous and increasingly strident complaints that included customers being required to boil water before using it; not having a licensed operator working for the utility; inconsistent billing of customers and affiliates; the utility phone being disconnected; payroll checks to staff being refused for insufficient funds; failure to collect the ordered repayment for improper affiliate transfers of cash; failure to satisfy multiple years of Federal and State tax liabilities; and the utility not paying its bills, including bills to Canaan Valley Public Service District (CVPSD) for sewage treatment. The parties entered into a Settlement Agreement requiring Timberline Four Seasons Utilities to turn over its bank routing numbers to CVPSD and authorizing CVPSD to periodically sweep funds from the Timberline Utilities sewer accounts until the outstanding debt to CVPSD was satisfied. The Commission stressed that no cross-utility subsidization should occur. Timberline Utilities serves approximately 743 sewer customers and 428 water customers in Tucker County.

The Commission also directed Timberline Utilities to hire a Class 2 Operator to operate its water system and dispatched a financial analyst and engineer to Timberline Utilities in order to review additional financial information and assess the physical system. This case was recently heard by the Commission's Chief ALJ and an Order is expected in the first quarter of 2019.

West Virginia Infrastructure and Jobs Development Council

The Public Service Commission is a voting member of the West Virginia Infrastructure and Jobs Development Council (WVIJDC). The WVIJDC serves as the funding clearinghouse for West Virginia's water, wastewater and economic development projects and streamlines support for needed infrastructure projects. Commission Staff serve as members of the Technical Review Committees (both water and sewer), the Funding Committee, the Consolidation Committee and the full Council.

Commission Staff performs a financial and engineering review for water and sewer filings brought before the WVIJDC. This engineering review takes into account the likely impact of any proposed project on the short and long term operations and maintenance costs of the utility. These estimates serve as a useful measure of the project's cost effectiveness and efficiency. Commission Staff works closely with the applicants and their project teams to correct errors and fill in data gaps in the preliminary applications filed with the WVIJDC. In 2018, Commission Staff reviewed 60 WVIJDC applications.

The Commission also assists the Council when questions arise about utility practice, ratemaking and regulation of public utilities. No other agency completes an independent review of the proposed utility rates, nor does any other agency have the extensive organizational knowledge of utilities and their service territories to identify opportunities for consolidation, merger or other opportunities to increase efficiencies and lower the cost of providing utility service.

Various State agencies, including the West Virginia Department of Health and Human Resources, Bureau for Public Health and the West Virginia Department of Environmental Protection (DEP), rely on the Commission review of WVIJDC filings and incorporate those reviews in their final recommendations.

Water and Sewer Certificate Cases

During 2018, the Commission completed seventeen cases totaling investments nearly \$85 million to extend water or sewer service to more than 600 new customers. Municipalities, public service districts and water or sewer associations must obtain certificates of convenience and necessity to expand, upgrade or replace water and sewer infrastructure within their service territories. The utility seeking a certificate of convenience and necessity submits an application, an engineering study describing the scope of the project, specifications for physical infrastructure to be constructed, estimated costs and the benefits to be provided by the project. The filing also describes the sources of funding for the project, such as loans and grants, and contains detailed financial statements regarding the impact of the project in terms of any additional customer

revenue, changes in operating expenses and annual debt service requirements related to the project. The utility may request increased rates to support project costs.

The filing is reviewed to determine the adequacy of the supporting data, and additional information may be requested to assure that the Commission has all of the information required to determine the reasonableness of the request. Staff reviews the engineering specifications for design, cost and rate impact. Staff also reviews and analyzes the financial and operational data to determine appropriate rate levels if the utility's current rates will not generate adequate revenue to support the project costs. A public hearing is held and evidence is submitted by the utility, Commission Staff and any intervenors about the need for the project, any modifications to the project and the proper rate levels required to support it. The Commission uses this evidence to determine if the project should be granted a certificate and the appropriate rates.

Following is a table summarizing those projects for which certificates of convenience and necessity were approved during 2018.

| Utility-Project | Estimated Cost | Pre-Project Customers | Customers Added | Date Filed | Date Approved |
|------------------------------------|----------------|-----------------------|-----------------|------------|---------------|
| Hamrick PSD | \$6,250,000 | 726 | 42 | 10/8/15 | 4/3/18 |
| Harpers Ferry-Bolivar PSD | \$2,599,779 | 752 | 0 | 12/29/16 | 1/18/18 |
| Doddridge County PSD | \$969,500 | 0 | 26 | 3/10/17 | 4/23/18 |
| Middlebourne Municipal Waterworks | \$2,745,000 | 516 | 0 | 4/26/17 | 7/10/18 |
| Town of Oceana Sewer System | \$6,905,850 | 1,582 | 0 | 6/28/17 | 2/27/18 |
| Brooke County PSD | \$2,760,000 | 1,029 | 122 | 9/19/17 | 5/2/18 |
| City of Mount Hope | \$3,200,000 | 524 | 0 | 9/27/17 | 8/2/18 |
| Eastern Wyoming PSD | \$3,020,615 | 1,381 | 63 | 9/28/17 | 1/29/18 |
| Town of Marlinton | \$6,563,000 | 728 | 0 | 9/29/17 | 2/8/18 |
| Nettie-Leivasy PSD | \$2,753,000 | 1,375 | 0 | 9/29/17 | 1/31/18 |
| Chapmanville Municipal Water Works | \$2,529,000 | 212 | 0 | 9/29/17 | 4/4/18 |
| Union PSD | \$8,637,000 | 5,315 | 183 | 10/2/17 | 11/29/18 |
| Ravenclyff-McGraws-Saulsville PSD | \$2,673,000 | 1,285 | 0 | 10/3/17 | 4/24/18 |
| Bluewell PSD | \$3,547,000 | 33,605 | 75 | 12/6/17 | 7/12/18 |
| Tyler County PSD | \$1,920,000 | 942 | 75 | 5/9/18 | 9/5/18 |
| Marshall Co. PSD #4 | \$1,367,300 | 1,706 | 20 | 5/30/18 | 10/4/18 |
| Town of Moorefield | \$26,184,000 | 1,160 | 0 | 6/15/18 | 10/9/18 |

Public Water and Sewer Rate Cases

Passage of SB234 limited the rate jurisdiction of the Commission over public service districts to those districts with fewer than 4,500 customers or annual gross revenues under \$3 million. Those water and sewer utilities under Commission jurisdiction with revenues in excess of \$1 million are required to file full financial support for their requested rates. Those proposed rates are published, and the Commission Staff undertakes a full review of the utility's books and records.

Following its review, Staff recommends new rates. If the utility does not object to Staff's proposed rates and if there is no significant public protest, Staff's recommended rates may be approved without a public hearing. If the utility objects to Staff's recommendation or if there is significant public protest, a hearing will be held. Based on testimony and the evidence presented at the hearings, the Commission determines a reasonable level of rates.

In 2018, the Commission completed fourteen public water and sewer rate cases. Others are in progress. The results of those completed cases are summarized below.

| Utility | Case Number | Amount Granted | Increase/Decrease | Customers | Date Approved |
|-----------------------------|-----------------|----------------|-------------------|-----------|---------------|
| Beckley Water Co. | 17-0536-W-42T | \$1,322,979 | 10.68% | 22,500 | 2/22/18 |
| Boone County PSD, Step 1 | 17-1010-PSD-42R | \$129,229 | 11.58% | 1,833 | 2/18/18 |
| Boone County PSD, Step 2 | | \$61,789 | 5.54% | | |
| Mineral Wells PSD, Step 1 | 17-1315-PWD-42R | \$88,801 | 5.89% | 2,547 | 3/27/18 |
| Mineral Wells PSD, Step 2 | | \$38,118 | 2.53% | | |
| Bluewell PSD, Step 1 | 17-1345-PWD-42A | \$376,304 | 27.92% | 2,998 | 4/1/18 |
| Bluewell PSD, Step 2 | | -\$91,870 | -5.33% | | |
| Clinton Water Assn. | 17-1386-W-42T | \$158,137 | 8.07% | 3,601 | 3/20/18 |
| Pea Ridge PSD | 17-1400-PSD-42A | \$82,000 | 3.32% | 4,850 | 4/18/18 |
| Elk Valley PSD | 17-1591-PSD-42T | \$89,997 | 3.45% | 4,585 | 5/13/18 |
| Kanawha PSD, Step 1 | 18-0570-PSD-42R | \$106,658 | 5.00% | 2,575 | 11/20/18 |
| Kanawha PSD, Step 2 | | \$15,253 | 3.00% | | |
| The Newell Co. | 18-0368-W-42T | \$147,356 | 29.56% | 652 | 7/17/18 |
| Clay Battelle PSD | 18-0773-PWD-42T | \$56,403 | 5.97% | 1,639 | 9/27/18 |
| Mingo County PSD, Step 1 | 18-0825-PSD-42T | \$81,222 | 46.88% | 433 | 11/4/18 |
| Mingo County PSD, Step 2 | | -\$18,152 | -7.13% | | |
| Justice PSD, Step 1 | 18-1081-PWD-42T | \$33,193 | 33.30% | 233 | 11/13/18 |
| Justice PSD, Step 2 | | \$24,027 | 24.11% | | |
| Monumental PSD, Step 1 | 18-1206-PWD-42T | \$49,404 | 10.23% | 866 | 11/21/18 |
| Monumental PSD, Step 2 | | -\$23,269 | -12.70% | | |
| Central Barbour PSD, Step 1 | 18-1114-PWD-19A | \$46,722 | 7.79% | 1,064 | 12/24/18 |
| Central Barbour PSD, Step 2 | | -\$37,896 | -5.86% | | |

Rule 19A Rate Cases

The Commission uses an accelerated and simplified procedure for smaller utilities with annual revenues of less than \$1 million to file for increased rates without supporting financial statements. In those instances, Commission Staff performs all of the financial analyses required to establish appropriate rates. In most instances the utility does not request specific rates or a given level of increase, and the Staff files a report based on its review and recommends new rates for the utility. The utility is required to publish Staff's recommended rates. If the utility objects to Staff's recommendation or there is significant public protest, a hearing will be held.

Twenty-seven of these rate filings were completed in 2018. Those cases are summarized below.

| Utility | Case Number | Amount Granted | Increase/Decrease | Customers | Date Approved |
|-------------------------------------------------|-----------------|----------------|-------------------|-----------|---------------|
| Sugar Creek PSD, Step 1 | 17-0650-PWD-19A | \$30,247 | 8.59% | 585 | 3/5/18 |
| Sugar Creek PSD, Step 2 | | \$11,354 | 3.22% | | |
| Kopperston PSD, Step 1 | 17-0712-PWD-19A | \$80,210 | 44.37% | 428 | 8/29/18 |
| Kopperston PSD, Step 2 | | -\$26,473 | -10.14% | | |
| Ministers Run Water Assoc. | 17-0854-W-19A | \$931 | 1.25% | 147 | 3/5/18 |
| Bellwood Community Facilities Improvement Corp. | 17-1214-W-19A | \$1,002 | 13.12% | 36 | 2/15/18 |
| Marshall County PSD No. 1, Step 1 | 17-1304-PWD-19A | \$31,786 | 6.44% | 1,462 | 3/14/18 |
| Marshall County PSD No. 1, Step 2 | | \$6,163 | 1.25% | | |
| West Dunbar PSD, Step 1 | 17-1335-PSD-19A | \$12,851 | 78.51% | 724 | 8/20/18 |
| West Dunbar PSD, Step 2 | | \$748 | 4.57% | | |
| Fountainhead Homeowners Assoc. | 17-1446-S-19A | \$5,117 | 24.86% | 89 | 4/15/18 |
| Enlarged Hepzibah PSD, Step 1 | 17-1521-PWD-19A | \$66,758 | 14.09% | 833 | 4/25/18 |
| Enlarged Hepzibah PSD, Step 2 | | \$66,122 | 14.95% | | |
| Gallipolis Ferry Water Assoc. | 17-1580-W-19A | \$24,289 | 16.09% | 433 | 4/22/18 |
| Cowen PSD, Step 1 | 17-1609-PSD-19A | \$12,624 | 3.48% | 566 | 5/30/18 |
| Cowen PSD, Step 2 | | -\$12,392 | -3.30% | | |
| Monumental PSD, Step 1 | 17-1645-PWD-19A | \$85,312 | 21.38% | 866 | 5/1/18 |
| Monumental PSD, Step 2 | | -\$31,057 | -6.41% | | |
| Walton PSD, Step 1 | 17-1647-PWD-19A | \$63,757 | 15.42% | 840 | 6/24/18 |
| Walton PSD, Step 2 | | -\$35,324 | -7.40% | | |
| Century Volga PSD, Step 1 | 17-1671-PWD-19A | \$67,964 | 8.95% | 1,021 | 8/30/18 |
| Century Volga PSD, Step 2 | | -\$40,797 | -5.41% | | |
| Hamlin PSD | 17-1686-PSD-19A | \$21,180 | 9.84% | 707 | 5/20/18 |
| Whitehall PSD | 17-1718-PSD-19A | | -0.43% | 1,291 | 7/11/18 |
| Hardy County Rural Development Authority | 18-0025-W-19A | \$13,153 | 113.49% | 80 | 7/2/18 |
| Culloden PSD, Step 1 | 18-0051-PSD-19A | \$80,357 | 9.71% | 1,208 | 11/16/18 |
| Culloden PSD, Step 2 | | -\$51,351 | -5.65% | | |
| Hodgesville PSD, Step 1 | 18-0053-PWD-19A | \$153,018 | 24.27% | 1,199 | 9/28/18 |
| Hodgesville PSD, Step 2 | | -\$46,765 | -5.97% | | |
| Mannington PSD, Step 1 | 18-0104-PWD-19A | \$87,557 | 18.58% | 549 | 8/15/18 |
| Mannington PSD, Step 2 | | -\$40,291 | -7.21% | | |
| Hammond PSD, Step 1 | 18-0255-PWD-19A | \$0 | 0.00% | 905 | 7/12/18 |
| Hammond PSD, Step 2 | | -\$42,038 | -7.76% | | |
| Williamsburg Sewer System | 18-0264-S-19A | \$12,887 | 20.50% | 209 | 10/2/18 |
| Mount Hope Water Assoc. | 18-0341-W-19A | \$10,441 | 8.56% | 1,201 | 9/9/18 |
| Washington Pike PSD, Step 1 | 18-0608-PWD-19A | \$87,340 | 13.84% | 1,383 | 10/16/18 |
| Washington Pike PSD, Step 2 | | \$85,715 | 12.79% | | |
| Washington Pike PSD, Step 3 | | \$35,164 | 5.25% | | |
| White Oak PSD | 18-0716-PSD-19A | \$37,840 | 9.82% | 955 | 10/24/18 |
| Carney Park Landowners/Homeowners Assn. | 18-0736-S-19A | \$7,214 | 77.56% | 55 | 11/6/18 |
| Cowen PSD, Step 1 | 18-0863-PWD-19A | -\$60,833 | -7.71% | 1,308 | 11/20/18 |
| Cowen PSD, Step 2 | | -\$7,502 | -1.04% | | |
| Branchland-Midkiff PSD, Step 1 | 18-0892-PWD-19A | \$69,950 | 10.25% | 1,163 | 12/10/18 |
| Branchland-Midkiff PSD, Step 2 | | -\$47,331 | -6.29% | | |

Rule 30B Pass-Through Cases

The Commission allows smaller water and sewer utilities that purchase finished water for resale (or that have the sewage they collect treated at a plant operated by another utility) to file to recover rate increases on an expedited basis for resale rates charged to them. In these cases, the Commission allows the purchasing utility to increase rates to its customers enough to make them whole for the increased cost of purchased water or sewage treatment services. The utility is required to publish the new rates and to provide an opportunity for public protest.

Because the amount of the pass-through rate is largely a mathematical calculation, there is usually little dispute between the utility and Commission Staff as to the rates. If no significant public protest is received, the rates are approved, usually quickly and without the need for public hearing. If high levels of unaccounted for or lost water are discovered during Staff's review, the Commission may require the utility to determine the causes of the high water loss, develop a remediation plan and report the results of steps taken prior to approving the interim rate increases as final rates. Eighteen of these 30B pass-through rate filings were completed in 2018. Those cases are summarized below.

| Utility | Case Number | Amount Granted | Increase/Decrease | Customers | Date Approved |
|-----------------------------------|-----------------|----------------|-------------------|-----------|---------------|
| Marshall County PSD No. 3, Step 1 | 17-0056-PWD-30B | \$64,178 | 8.31% | 1,170 | 1/25/18 |
| Marshall County PSD No. 3, Step 2 | | \$4,325 | 8.87% | | |
| Marshall County PSD No. 4 | 17-0057-PWD-30B | \$78,110 | 22.03% | 1,669 | 1/29/18 |
| Pea Ridge PSD | 17-0451-PSD-30B | \$5,604 | 0.41% | 4,854 | 2/7/18 |
| West Logan Water Company | 17-0779-W-30B | \$6,106 | 14.62% | 417 | 2/22/18 |
| Fenwick Mountain PSD, Step 1 | 17-0866-PWD-30B | \$5,843 | 16.48% | 215 | 1/5/18 |
| Fenwick Mountain PSD, Step 2 | | -\$2,582 | -6.20% | | |
| Century Volga PSD | 17-1346-PWD-30B | \$13,327 | 6.81% | 1,021 | 3/16/18 |
| Chestnut Ridge PSD | 17-1372-PWD-30B | \$18,211 | 6.90% | 1,199 | 4/10/18 |
| Central Barbour PSD | 17-1374-PWD-30B | \$12,599 | 6.94% | 1,064 | 4/16/18 |
| Tennerton PSD | 17-1619-PSD-30B | \$22,256 | 5.28% | 884 | 3/2/18 |
| Washington Pike PSD | 17-1700-PWD-30B | \$12,710 | 33.33% | 1,383 | 5/14/18 |
| Cool Ridge-Flat Top PSD | 18-0040-PWD-30B | \$41,547 | 12.17% | 1,805 | 4/30/18 |
| Kanawha PSD | 18-0069-PSD-30B | \$15,936 | 22.22% | 2,550 | 6/28/18 |
| Washington Pike PSD | 18-0472-PWD-30B | \$35,666 | 11.92% | 1,383 | 10/1/18 |
| Green Valley - Glenwood PSD | 18-0499-PSD-30B | \$14,682 | 8.14% | 3,601 | 6/28/18 |
| Greenbrier PSD No. 1 | 18-0687-PSD-30B | \$641,921 | 33.93% | 2,252 | 7/10/18 |
| Glen Rogers PSD, Step 1 | 18-0520-PWD-30B | \$2,889 | 8.76% | 95 | 12/18/18 |
| Glen Rogers PSD, Step 2 | | -\$2,495 | -6.95% | | |
| Tomlinson PSD | 18-0899-PWD-30B | \$37,888 | 28.06% | 1,831 | 10/16/18 |
| Central Hampshire PSD | 18-0919-PSD-30B | \$9,015 | 10.61% | 776 | 10/1/18 |

Telecommunications

Frontier West Virginia Inc. and Citizens Telecommunications Company of West Virginia Copper Network and Quality of Service

The Communications Workers of America filed a petition with the Commission to initiate a General Investigation into the current status of Frontier West Virginia Inc., and Citizens Telecommunications Company of West Virginia dba Frontier Communications of the copper network in West Virginia and the service quality issues related to their network (Case No. 18-0291-T-P).

The Commission ordered a focused management audit of Frontier to determine if Frontier was operating efficiently, utilizing sound management practices and to identify those areas where Frontier was operating inefficiently. The Commission determined it did not have adequate staff to conduct a management audit in a timely manner and ordered that the audit be conducted by a qualified outside auditing firm and paid for by Frontier. The audit will focus on the current status of the copper network, adequacy of staffing levels dedicated to the copper network, adequacy of capital investment in the copper network since 2010, adequacy of policies and procedures impacting the quality of service, adequacy of metrics currently in place to measure quality of service, impact of the declining customer base on internal cash flow from operations relative to historic and current copper infrastructure maintenance and capital investment and the impact of the current bargaining agreement and ongoing relations between management and labor on customer service quality and response timing. The audit is also to make appropriate recommendations for addressing those areas that need to be improved. This case is pending before the Commission.

General Investigation Regarding the Use of Federal Universal Service Funding by Eligible Telecommunications Carriers

The Federal Communications Commission (FCC) requires each state to certify that all high cost funds flowing to rural and non-rural carriers in that state are used in accordance with the Telecommunication Act of 1934. The Commission initiated a General Investigation regarding the use of Federal Universal Service Funding by Eligible Telecommunications Carriers in West Virginia (Case No. 18-0478-T-GI).

A Recommended Decision was issued directing a certification be issued to the FCC and the Universal Service Administration Company stating that the carriers appropriately utilized Federal high-cost and other universal service support. This case is now closed.

Enhanced 911 Wireless Tower Access Assistance Fund

Revenue for the Tower Access Assistance Fund comes from the \$3.34 per cell phone number collected each month from cell phone subscribers. The Commission administers this fund, but it passes all monies to recipients as required by law. The Commission does not charge for its services in collecting the fees or administering the grants. A monthly deposit of \$83,333.33 is made to this fund. The fund began 2018 with a balance of \$3,488.

In 2018, Wood County (TAF Wood 18A) was awarded a grant of \$420,000, leaving a balance of uncommitted funds of \$583,488 as of December 31, 2018. Two additional applications are under consideration.

Transportation Safety Enforcement

Special Initiatives

The Commission's Transportation Division works with the Commercial Vehicle Safety Alliance and the Federal Motor Carrier Safety Administration (FMCSA) to increase safety enforcement for commercial motor vehicles on interstate highways and heavily traveled roadways in order to reduce commercial vehicle and passenger carrier incidents. In 2018, Transportation Enforcement Officers worked with FMCSA to increase the number of passenger carrier inspections and on other special initiatives, including the annual 72 Consecutive Hour International Road Check, Brake Safety Week and Operation Safe Driver.

Transportation Enforcement Officers also teamed up with the Governor's Highway Safety Program (GHSP) to increase seatbelt use in passenger and commercial motor vehicles through a "Click It or Ticket" campaign. The initial blitz occurred in November 2018, and will be followed by three additional blitzes in 2019. In 2019, Officers will also participate in the GHSP Distracted Driving campaign.

Working with Law Enforcement

Transportation Enforcement Officers participate in many joint activities with the West Virginia State Police (WVSP), including assisting with firearms training during Basic and Cadet classes at the WVSP Academy, assisting with annual firearms training for current Troopers, DUI checkpoints, combined patrols on the West Virginia Turnpike and the combined efforts on I-64 in Kanawha, Putnam and Cabell counties. Transportation Enforcement Officers also work with local law enforcement on DUI, seatbelt and speed control activities.

Upgrading Facilities

The Commission continues efforts to upgrade its I-77 Southbound Weigh Station in Mineral Wells to a state-of-the-art facility featuring the IIS Smart Roadside System. This system includes an automated license plate reader, an automated U.S. Department of Transportation (USDOT) number reader, an automated vehicle camera and an automated thermal inspection system. The system will be purchased with the assistance of a USDOT Commercial Vehicle Inspection System Network grant.

Electronic Logging Devices

In 2018, new Federal regulations became effective that require most motor carriers to utilize electronic logging devices. Transportation Enforcement Officers have been involved in various outreach and training programs for motor carrier companies and drivers about the new regulations and devices.

Coal Resource Transportation Division

The Coal Resource Transportation System (CRTS) has significantly increased public safety while allowing coal producers to efficiently transport coal in nineteen West Virginia counties and into surrounding states. Coal facilities and transporters now work together to haul increased weights on over 2,000 miles of West Virginia's roads designated by the West Virginia Department of Highways (DOH) as CRTS routes. Coal haulers may purchase a permit that will allow for a gross vehicle weight of up to 120,000 pounds, depending on the truck configuration and the specific routes on which the truck will be operating. Coal operations and transporters operating on designated CRTS roads must adhere to additional reporting and permitting statutes and regulations and are subject to administrative sanctions by the Commission.

Notices of Violation (NOV) are initiated through audits conducted by CRTS inspectors and supervisors or by uniform traffic citations issued by Transportation Enforcement Officers. In 2018, there were 301 NOVs issued, two Petitions for Waiver were processed and the Commission collected \$390,489 for CRTS violations.

In 2018, the CRTS Permitting Unit registered 193 transport companies in five states and issued 1,258 permits. Over the past 12 months, the CRTS Reporting Unit had 155 mines, processing plants, load outs, power plants and other coal facilities registered to operate in West Virginia and report coal shipments to the Commission. Daily electronic files were submitted to the Commission containing unique tracking information for approximately 1.84 million transactions, representing over 950,000 loads, or approximately 34.8 million tons of coal being transported over CRTS roads last year. Each electronic transaction contains the origin, destination, date, time, weight, permit ID and a unique transaction number for that specific shipment of coal. Records are forwarded to the CRTS Auditing

Program and are reviewed by Commission Staff to detect non-compliance. Staff conducts onsite inspections and audits and initiates administrative violations to companies. The CRTS Program generated \$2.3 million in 2018 dedicated for improvements and repairs to CRTS roads and bridges.

Complaints about coal trucks operating on the CRTS highways can be made through the Commission's 1-866-SEE-TRUX hotline. Complaints range from speeding and overweight trucks to impaired drivers. In 2018, CRTS officers received and processed 164 complaints from the CRTS hotline.

Railroad Safety

In 2018, Railroad Safety Section inspectors conducted over 1,298 inspections, inspected over 3,500 miles of track, checked over 200 highway rail grade crossings and inspected 17,098 rail cars and locomotives. An intensive inspection program, coupled with the fact that most of the Commission's Railroad Safety inspectors are also Operation Lifesaver volunteers, has made West Virginia's railroads among the safest in the nation.

The Railroad Safety Section was ranked the sixth most efficient State program in the country last year based on the number of inspections and deficits cited by the Federal Railroad Administration.

Motor Carriers

Sunrise Sanitation Services and Preston Sanitation

Sunrise Sanitation Services, Inc. and Preston Sanitation, Inc. filed a Joint Petition with the Commission for emergency operating authority for Sunrise to operate in Preston's certificated territory (Case No. 18-0027-MC-PC). Sunrise and Preston intended to transfer Preston's certificate to Sunrise. Sunrise and Preston stated that it was in the public interest that Sunrise be permitted to operate in Preston's certificated territory on an emergency interim basis because over 40 complaints had been filed with the Commission relating to Preston Sanitation.

The Commission granted Sunrise the authority to provide interim service to Preston's customers. Preston filed an application to transfer the Preston Certificate to Sunrise (Case No. 18-0743-MC-TC-AC), and the Commission approved the transfer on October 30, 2018, closing the cases.

Preston Sanitation's Base Rate Case

On January 17, 2018, Preston Sanitation filed an application seeking a rate increase of 23.27% for residential customers and a negotiable corresponding percentage increase for commercial customers (Case No. 18-0028-MC-42A).

Parties filed a Joint Stipulation recommending a residential base rate increase of \$23.20 and a 14.85% increase to commercial customers. The Commission approved the stipulated rates, and this case is now closed.

E & L, Inc.

In 2013, an ALJ ordered new rates for E&L, Inc. of Putnam County for the transportation of trash, rubbish and garbage (Case No. 13-1261-MC-19A). During the investigation, Staff discovered that the Company had overcharged its customers \$320,806 for a fuel surcharge. The Company was ordered to implement a monthly credit to customers of \$2.10 per month for approximately four years, until it had completely refunded the overcharged amount. The Company was also ordered to file semi-annual reports showing its current rate and fuel surcharge, the accumulated fuel surcharge refund amount and total number of customers.

In February 2018, after receiving a number of complaints about E&L's service, the Commission reopened the case. Staff stated the Company had not refunded the overcharged fuel surcharge to its customers or filed the required semi-annual reports with the Commission. The parties filed a Joint Stipulation that provided for a refund to customers and progress reports to the Commission. The Commission approved the Joint Stipulation. This case is now closed.

Fuel Surcharges

The Commission continues to respond to the volatility of fuel costs for motor carriers by reviewing and adjusting fuel surcharges for regulated motor carriers. This series of surcharges was initiated in MC GO 56.4 (Reopened) in March 2004 following a dramatic increase in fuel prices from previous levels. The most recent surcharges are based on forecasted fuel prices for the period of January 1, 2019 through June 30, 2019.

The average price for unleaded regular gasoline is forecasted to be \$2.46 per gallon and the price of diesel is forecasted to be \$3.00 per gallon. This forecast reflects decreases of \$0.41 per gallon for regular grade gasoline and \$0.25 per gallon for diesel fuel over the previously forecasted average prices for July 1, 2018 through December 31, 2018.

Commission Staff concluded that these forecasted changes were significant. The Commission, therefore, decreased the surcharges.

The authorized fuel surcharges for all certificated carriers of solid waste decreased from 5.72% to 4.96%. The surcharge for taxi and limousine operators decreased from 14.96% to 11.02%. The surcharge for wrecker operators for third-party tows decreased from 6.08% to 5.32%. Fuel prices are reviewed every six months to determine if there is a need for relief for eligible motor carriers. The surcharges are not automatic. Eligible motor carriers may not charge the old surcharge after it has expired and may not implement a new surcharge unless they have filed a Fuel Surcharge Supplement to their tariffs with the Commission Tariff Office.

Commission Staff will continue to monitor fuel prices, and the Commission will continue to make adjustments in its semi-annual General Orders. If between its semi-annual orders there is a 20% or greater increase or decrease in the price of either regular grade gasoline, diesel fuel or both, Commission Staff will file a further memorandum requesting a reopening of the case and will recommend adjustments to the fuel surcharges based on that increase or decrease in price.

Motor Carrier Rate Cases

The Commission completed six applications to increase motor carrier rates in 2018.

| Utility and Certificate Numbers | Amount Granted | Percent Increase | Customers | Date Approved |
|---------------------------------------------------------------------------------------------------|----------------|------------------|-----------|---------------|
| RGL, Inc., dba Mountain State Waste (F455, F5076, F5855, F6219, F7345, F7393) | \$24.95 | 6.85% | 9,699 | 4/15/18 |
| RGL, Inc., dba Mountain State Waste (F5940) | \$21.50 | 1.40% | 1,154 | 4/15/18 |
| Allegheny Disposal, L.L.C. (F6609) | \$18.00 | 7.10% | 298 | 7/5/18 |
| Waste Management of West Virginia, Inc. (F7484, F7490) | \$18.40 | 7.92% | 17,559 | 7/6/18 |
| Sunrise Sanitation Services, Inc. (F5921, F5979, F6133, F6269, F6393, F6983, F7023, F7470, F7535) | \$21.96 | 18.70% | 1,543 | 7/30/18 |
| Preston Sanitation, Inc. (F6047) | \$22.95 | 13.61% | 2,768 | 10/10/18 |

Solid Waste Facilities/Landfills

Nicholas County Solid Waste Authority

Nicholas County Solid Waste Authority (Nicholas) filed an application to close its municipal solid waste (MSW) landfill and to construct and operate a transfer station

(Case No. 17-1340-SWF-PC-CN). Nicholas also requested approval of an Inter-Utility Agreement between Nicholas and the Raleigh County Solid Waste Authority (Raleigh) to transport and dispose of MSW at the Raleigh Facility at Lenore. Nicholas contended that it was more cost effective to operate a transfer station than to operate a landfill. Nicholas serves approximately 7,900 customers and receives approximately 1,850 tons of MSW per month.

The Commission approved the application for the construction, operation and maintenance of a solid waste transfer station with a monthly tonnage cap of 8,333.25 tons. The Commission also approved a revised Inter-Utility Agreement between Nicholas and Raleigh County Solid Waste Authority without approving its specific terms and conditions. The transfer station is now operating. This case is now closed.

Rulemaking Proceedings

Rules Governing Emergency Telephone Service

The Commission promulgated proposed amendments to Rules 10 and 11 of the Rules Governing Emergency Telephone Service, 150 C.S.R. Series 25 (G.O. No. 187.52). The proposed changes revised dates for the receipt of data from local exchange carriers that the Commission uses to calculate biennial revisions to the E-911 Wireless Fee that the commercial radio service providers (CMRS providers) charge to their customers and pass through to the Commission for distribution. The revised rules improve processing of the E-911 Wireless Fee calculation and the issuance, if necessary, of an Order respecifying the E-911 Wireless Fee in a timely manner so that CMRS providers have sufficient time to incorporate a changed E-911 Wireless Fee into customer bills by the July 1 effective date. Comments were filed by Time Warner Cable Information Services, LLC and Staff.

The Commission adopted the final rule and filed it with the Secretary of State. This rule is now in effect and the case is closed.

Rules for the Construction and Filing of Tariffs **Rules of Practice and Procedure**

SB234 became effective in June 2015 and made widespread changes to the jurisdiction and authority of the Commission over certain municipal utilities and public service districts. Soon after, the Commission issued an Order requesting proposed revisions to the Rules for the Construction and Filing of Tariffs, 150 C.S.R. Series 2, to incorporate the changes in the law while maintaining applicability of the current Tariff Rules to electric, gas, telephone, private water and sewer utilities (Case No. 15-1255-PSWD-WS-

GI). Additionally, the Commission requested proposed rule changes to accommodate the changes made by SB234 in the Commission's Rules of Practice and Procedure, 150 C.S.R. Series 1, governing the issuance of certificates of convenience and necessity. Both Commission Staff and the West Virginia Rural Water Association (WVRWA) submitted proposed rules. Consideration of this case is now before the Commission.

Further statutory changes to the jurisdiction and authority of the Commission, similar to the provisions of SB234, took effect in July 2017, by the enactment of HB3096 and in March 2018, by the passage of SB10.

The Commission promulgated proposed amendments to the Tariff Rules (G.O. No. 183.09) and Procedural Rules (G.O. No. 182.13). The proposed changes consisted of comments received in Case No. 15-1255-PSWD-WS-GI and Commission proposals to implement changes required by SB234, HB3096 and SB10. Comments were filed by Staff, West Virginia Municipal Water Quality Association and WVRWA. The Commission intends to adopt the final Tariff Rules and Procedural Rules by early 2019.

Rules Governing Electric Utility Net Metering Arrangement and Interconnections

In 2015, the Commission created a Net Metering Task Force to review the net metering issues that needed to be developed in West Virginia, studies that should occur and possible revisions to the current Net Metering Rules (Case No. 15-0682-E-GI). Commission's Staff chaired the Task Force, which included members of the Commission's Legal, Utilities, and Engineering Divisions; CAD; APCo/WPCo; Mon Power/PE; Alliance for Solar Choice; Solar Holler; WVCAG; West Virginia Environmental Council; WVSUN; WVEUG and the WVU College of Law.

In September 2018, the Commission initiated a rulemaking proceeding to propose revisions to Rules Governing Electric Utility Net Metering Arrangements and Interconnections, 150 C.S.R. Series 33, necessitated by the repeal of Sections one through seven and nine through twelve of Article 2F of Chapter 24 of the West Virginia Code and the revision of Section eight of that same Article, necessitating revisions to the Net Metering Rules.

Comments were filed by Commission Staff; CAD; APCo/WPCo; Mon Power/PE; WVSUN; WVCAG; Mountain View Solar, LLC; WVEUG and numerous individuals. The Commission is considering these comments and will issue final rules by May 2019.

Rules for the Government of Electric Utilities

Rules for the Government of Gas Utilities and Gas Pipeline Safety

The Commission initiated a General Investigation regarding the requirements of the Commission Rules governing electric and gas utility discontinuance of service provisions, sometimes referred to as Customer Termination Rules, set forth in Rule 4.8 of the Rules for the Government of Electric Utilities, 150 C.S.R. Series 3 and Rule 4.8 of the Rules for the Government of Gas Utilities and Gas Pipeline Safety, 150 C.S.R. 4 (Case No. 15-0469-E-G-GI).

Comments were filed by Commission Staff; CAD; APCo/WPCo; Mon Power/PE; Mountaineer Gas Company; Dominion Hope, Inc.; Peoples Gas WV, LLC; AARP West Virginia and West Virginia Small Public Utilities Association.

The Commission adopted revised the Electric and Gas Termination Rules, and this case is now closed.

Rules for Commission Review of Electric Cooperatives, Natural Gas Cooperatives, Telephone Cooperatives and Municipal Rate Change

In GO 200.5, the Commission repealed Procedural Rule for Commission Review of Electric Cooperatives, Natural Gas Cooperatives, Telephone Cooperatives and Municipal Rate Change Pursuant to West Virginia Code §24-2-4b, 150 C.S.R. Series 10 because the content of the rule was included in a more appropriate rule.

Rules and Regulations for the Government of Public Service Districts

In GO 229.6, the Commission repealed Rules and Regulations for the Government of Public Service Districts, 150 C.S.R. Series 17 because the content of the rule was included in a more appropriate rule.

Rules and Regulations for the Use and Consumption of Water

In GO 188.61, the Commission repealed Rules and Regulations for the Use and Consumption of Water by the Inhabitants and All Users, Regardless of Class of Service, during Times of Emergency and Periods of Temporary Inadequacy of Supply of Available Water, 150 C.S.R. Series 20 because the content of the rule was included in a more appropriate rule.

Rules Governing Alternative and Renewable Energy Portfolio Standard

In GO 184.5, the Commission repealed Rules Governing Alternative and Renewable Energy Portfolio Standard, 150 C.S.R. Series 34 because the underlying statutes were repealed by the Legislature.

Rules for the Government of Stormwater Utilities

In GO 260.1, the Commission repealed Rules for the Government of Stormwater Utilities, 150 C.S.R. Series 36 because the Legislature removed the item from Commission jurisdiction.

The Courts

Federal District Court

Frontier West Virginia, Inc. and Citizens Telecommunications Company of West Virginia dba Frontier Communications of West Virginia v. James C. Justice, et al.

In 2017, Frontier West Virginia, Inc. and Citizens Telecommunications Company of West Virginia dba Frontier Communications of West Virginia filed a civil action in the U.S. District Court, Southern District of West Virginia against James C. Justice in his official capacity as Governor of the State of West Virginia, Michael A. Albert in his official capacity as Chairman and Commissioner of the Public Service Commission of West Virginia and Brooks F. McCabe, Jr. and Renee A. Larrick in their official capacities as Commissioners of the Public Service Commission of West Virginia, alleging that the Governor and the Commission had the authority to enforce the provisions of HB3093, Article 4 regarding pole attachments (Case No. 2:17-cv-03560).

HB3093, passed by the West Virginia Legislature during the 2017 General Session, provided new terms and conditions of access to utility poles. The Plaintiffs claim that enforcement of Article 4 will inflict significant harm on Frontier and its customers. The Plaintiffs further claimed that Federal law preempts the West Virginia statute pertaining to pole attachments.

After dismissing the Governor as a defendant, Judge Thomas E. Johnston granted the plaintiffs' joint motion for summary judgment, writing that Article 4 conflicted with the FCC regulatory regime governing pole attachments. The Court declared that W. Va. Code §31G-4-1, et.seq., (Article 4) was preempted by Federal law as applied to privately owned utility poles, and then permanently enjoined the Commission from enforcing,

applying or otherwise giving effect to W. Va. Code §31G-4-1, et seq., as applied to privately owned utility poles.

Supreme Court of Appeals of West Virginia

City of Wheeling v. Public Service Commission of West Virginia; Mary Beth and Derek Andreini; Lisa and Mark Kepple; John and Beth Prayther; Karl and Cynthia Mueller; Bernie and Sally Peace and Robert and Nancy Carr

The Commission resolved formal complaints filed by six customers of the City of Wheeling Water Utility. The Commission determined, consistent with long-standing Commission policy, case precedent, Commission rules and prior decisions of the West Virginia Supreme Court, that Wheeling was responsible for future maintenance and repair of a four-inch water line and facilities serving 13 customers. Wheeling filed an appeal of the Commission Order to the Supreme Court. The case is scheduled for oral argument in the January 2019 Term.

State Circuit Court

Village of Barboursville Sanitary Board, Petitioner v. Public Service Commission of West Virginia, Cabell County West Virginia Health Department, Hurricane Plaza, Inc., dba Billy Bob's Wonderland, R.E.X., Inc. and Forrest R. Donahue and Barbara Donahue, Respondents

The Village of Barboursville Sanitary Board initiated an action pursuant to the West Virginia Uniform Declaratory Judgments Act, W.Va. Code §55-13-1, et seq. against the Respondents. The Petitioner stated that it was a party to two separate agreements relating to a sewage collection system: a Sewer Alternate Main Line Extension Agreement between the Petitioner and Hurricane Plaza, Inc. (HPI) from 2004 and a Pending Claim Resolution Terms Agreement from 2017 signed by the Petitioner, Cabell County Health Department (Health Department), HPI and Commission Staff that was adopted by a Commission Final Order in resolution of Commission Case No. 16-1668-S-C. The Petitioner requested the Court declare the 2004 and 2017 agreements null and void due to failure of timely and complete performance by HPI and that the Petitioner had no legal duty to take ownership of or perform maintenance on the private sewer line, notwithstanding that the Petitioner billed customers for sewer service provided via sewer lines connected to its sewer treatment and collection system. The Respondents each filed Motions to Dismiss. Meanwhile the Commission granted the Health Department request to reopen Case No. 16-1668-S-C, which is pending before the Commission.

The Court held arguments on the motions to dismiss. The Court found the Petitioner had failed to exhaust the administrative remedies and dismissed, without prejudice, the petition for declaratory judgment and the matter is now closed.

APPENDIX A

ORGANIZATION OF THE COMMISSION

The Public Service Commission of West Virginia consists of thirteen divisions and the Consumer Advocate Division. The CAD is physically separate and financially independent of the Commission and acts as an independent party representing residential customers in Commission proceedings.

The Commission is supported in its work by a current staff of 229 employees, including many professionals, such as lawyers, engineers, economists and accountants. The professional staff is supported by skilled specialists in the areas of investigation of utility practices, safety issues and transportation operations.

Commission

The Commission regulates the rates, charges, acts and practices of those persons, firms and governmental subdivisions that provide public utility services, including electricity, natural gas, water, sewer, telephone landlines, solid waste disposal (landfills), gas pipeline safety and, to some extent, the transportation of persons and property for hire over the public highways of the state. Motor carriers regulated by the Commission include taxi service, specialized limousine service, solid waste, transportation service and third-party towing. The Commission sets statewide policies for utility regulation through rulemaking proceedings, investigates the acts and practices of regulated utilities, recommends statutory changes that affect utilities and the Commission, and sets the administrative policies for the agency.

The Office of the Commission includes the Commissioners, the Quality Assurance, Communications and Government Relations Divisions and support personnel.

Administrative Division

The Administrative Division is comprised of the Budgets and Finance, Human Resources, Information Technology, Facilities Management and Training Sections.

The Budgets and Finance Section prepares Commission budgets; provides fiscal review and control; processes and monitors travel expenses, payables and receivables; oversees all procurement activities and ensures fixed assets are properly recorded and funded through assessment of public utilities or from grants and other programs. This Section is also responsible for managing the Commission's annually appropriated special revenue budget, Federal funds and non-appropriated special revenue funds. It also acts as the

processing “conduit” for the collection and distribution of E-911 fees for the State of West Virginia.

The Human Resources Section oversees employee hiring and separations, administers employee benefit programs, State grievance procedures and other personnel-related activities. This Section also administers the personnel budget by processing payroll, tax and benefit transactions for Commission employees.

The Information Technology Section manages the Commission's technical assets. This includes overseeing the Commission's computer system and service desk needs in conjunction with the State Office of Technology by providing programming, database design, web design, training and support and other technical assistance. It also oversees the webcasts of the Commission hearings in Charleston.

The Facilities Management Section oversees the maintenance and upkeep of Commission office buildings, parking garage, vehicles and physical properties.

The Training Section coordinates and provides education and skills training for Commission employees and maintains training records for the agency.

Administrative Law Judges Division

The ALJ Division consists primarily of attorneys and support staff who act in an adjudicatory role under the auspices of the Commission. The ALJs issue Recommended Decisions within time periods prescribed by the Commission or set by statute in cases referred to the ALJ Division by the Commission. A Recommended Decision becomes the Commission's Final Order in a case, unless modified or suspended by the Commission based on exceptions filed by one of the parties or Staff of the Commission or suspended on Commission statutory authority.

The ALJ Division works on a variety of cases involving public utilities, motor carriers, cable television and coal hauling on CRTS roads. The ALJs hold hearings and provide Recommended Decisions in cases involving quality of service or other complaints from consumers about utilities or motor carriers, rate change requests, applications for certificates of convenience and necessity to construct new or expand existing utility plants and petitions for numerous utility transactions regulated by the Commission. The ALJs are bound by the rules regarding *ex parte* contact with parties in proceedings before the Commission.

Engineering Division

The Engineering Division provides technical recommendations in cases before the Commission relating to rate requests, quality of service or billing disputes, engineering agreements, alternate main line extensions, certificates of convenience and necessity, mergers and acquisitions of utilities, service territory disputes, general investigations of utility operations and other cases requiring engineering expertise.

Engineering Staff members provide technical assistance to customers and utility companies, supervise and certify utility meter tests, conduct water pressure tests, investigate voltage levels and other electrical complaints, investigate water taste and odor problems, investigate odor and other problems for sewer utilities, provide leak detection services, review utility construction estimates and undertake other technical tasks and studies as ordered by the Commission.

The Engineering Division provides recommendations to the Commission and the WVIJDC on the merits of proposed water and sewer projects, technical comments and assistance on proposed rules and regulations, information and assistance to governmental entities around the state and technical training for public service district board members and staff. The Engineering Division also assists in the preparation of the annual *Electric and Gas Supply-Demand Forecasts* for the West Virginia Legislature.

Executive Secretary Division

The Executive Secretary Division is the public face of the Commission and maintains a complete record of all proceedings, acts, orders and judgments of the Commission and assures that documents and pleadings in cases are available to the public in a timely fashion on the Commission website at www.psc.state.wv.us. The Division receives, processes and maintains in safe custody all documents, maps and papers filed in formal cases on the Commission's docket, processes all orders and schedules statewide hearings for the Commission and the ALJ Division.

The Executive Secretary Division receives and maintains all statutory records required for the Commission, including annual reports from regulated utilities; reviews utility reports for accuracy and compliance; processes all Commission Freedom of Information Act (FOIA) requests; receives and processes all formal complaints filed with the Commission, either online or in person; issues all tariffs for rate cases; and, when necessary, issues subpoenas at the direction of the Commission.

The Executive Secretary maintains and updates the Commission's Web Docket, provides copies of all orders, filings and case documents maintained by the Executive Secretary Division, all of which are available online without cost. This database separately lists

each case on the formal docket and contains PDF files of every non-confidential document filed in each case. Remarkably, documents filed in formal cases can be accessed, reviewed and copied within one hour of being docketed, scanned and linked to the Commission's website. Documents are docketed and scanned throughout the day. The Executive Secretary Division processes all electronic case subscriptions through the Commission website, allowing individuals to track progress in cases and receive daily electronic individualized notification of all activities, including Recommended Decisions and Orders, in any docketed case. Public hearing schedules and logistical information pertaining to docketed cases are also available online.

Gas Pipeline Safety Division

The GPS Division is responsible for the application, oversight and enforcement of pipeline safety regulations under W.Va. Code §24B and is certified annually under 49 USC §60105 by the USDOT, PHMSA, OPS. The GPS Division oversees safety compliance with 49 CFR 191, 192, 195 and 199 for ninety-four regulated pipeline operators who operate approximately 14,000 miles of intrastate natural gas and hazardous liquid transmission and regulated gathering pipelines and natural gas distribution pipelines. On an as needed basis, the GPS Division is certified to inspect interstate transmission pipelines as an agent for and at the request of PHMSA.

GPS inspectors perform regularly scheduled (approximately every 18-24 months) inspections of all operators of intrastate natural gas and hazardous liquid transmission and regulated gathering pipelines and natural gas distribution pipelines and master meter systems to determine compliance with Federal and State regulations. The GPS Division has developed a multiyear master plan for the scheduling of routine inspections. In 2018, the GPS Division performed 137 scheduled inspections that included operations and maintenance, integrity management, operator qualification and drug and alcohol plans. In addition to scheduled inspections, the GPS Division inspects construction activities to ensure compliance with design and construction regulations. In 2018, GPS inspectors spent 439 days performing inspections.

The GPS Division may conduct additional inspections based on complaints from the public, reports from other State agencies or as a follow up to previous inspections. Inspectors may lead or assist with accident investigations to determine the cause of the accident and to evaluate adherence to the required regulations. Unsatisfactory inspections may result in a variety of enforcement actions that are available to ensure compliance with pipeline safety regulations.

Pipeline operators are required to meet specific reporting requirements for certain events that occur on their pipeline facilities. The GPS Division has a 24-hour emergency phone number to facilitate operators' notification of these events.

Office of the General Counsel

The Commission General Counsel acts as the chief legal advisor to the Commission on cases, policies and other issues facing the Commission. In addition to rendering legal advice to the Commission, the General Counsel represents the Commission in outside litigation and in other State and Federal court and agency proceedings such as the Federal District and Circuit Courts, FERC and the FCC.

The Office of the General Counsel includes law clerks, an employment attorney and support personnel. The law clerks research regulatory matters involved in cases; prepare summaries of facts and issues in Commission deliberations and hearings and draft orders that are reviewed, revised and approved by the Commission. The General Counsel and law clerks are bound by the rules regarding *ex parte* contact with parties in proceedings before the Commission. The employment attorney assists in the development of policy, tracks court opinions in human resources and employment law and researches and handles grievances and other employment issues.

Legal Division

The Legal Division provides legal assistance to the other Divisions and represents the Staff of the Commission in proceedings before the Commission and Administrative Law Judges for adjudication and resolution. The Legal Division is bound by the rules regarding *ex parte* contact with the Commission and the Commission's immediate staff.

The Commission Staff is a formal party to Commission proceedings. The Legal Division works with the technical and financial analysts to review the positions of all parties to the proceedings to the Commission. The Legal Division represents the Staff, not individual complainants, in matters before the Commission.

As required, the Legal Division, in coordination with the General Counsel, represents the Commission in State and Federal courts and before other State and Federal agencies including the WVIJDC, FERC and the FCC. The Legal Division assists in defending Commission Orders that are appealed to the West Virginia Supreme Court. In addition to working on formal cases, the Legal Division helps other Divisions within the Commission develop responses to utility customers and utility company inquiries.

Transportation Division

The Transportation Division consists of seven operating sections.

The Safety Enforcement Section performs safety inspections of motor vehicles operated by interstate and intrastate motor and private carriers, commercial motor vehicles and drivers. Officers enforce compliance with U.S. Department of Transportation safety criteria adopted by the Commission.

The Special Operations Section conducts safety audits on newly-established motor carriers involved in interstate commerce and compliance reviews on interstate and intrastate motor carriers with lower than average safety ratings in conjunction with investigators of the FMCSA located in West Virginia. This Section also monitors intrastate taxi carriers.

The Motor Carrier Section conducts registration of intrastate and interstate motor carriers, collects registration fees, filing fees, insurance fees and hazardous materials assessments.

The Hazardous Material Registration Section is responsible for registration of hazardous material transported in the state and for a multi-state project that provides for identification, registration and permitting of commercial motor vehicles carrying these materials in West Virginia.

The Coal Resource Transportation System (CRTS) Section is responsible for permitting vehicles on designated CRTS roads in nineteen counties, for imposing reporting requirements for coal shippers and receivers, imposing administrative sanctions for violations and collecting the five cents per ton fee for coal in excess of 88,000 pounds shipped on CRTS roads.

The Railroad Safety Section is responsible for the administration and enforcement of Federal and State regulations governing transportation of persons and property by rail.

The Logistics Section is responsible for commercial vehicle enforcement on the West Virginia Turnpike, the scheduling of special patrols to high accident areas and the procurement and inventory of all supplies and equipment to support the Transportation Division, including all electronic equipment.

Utilities Division

The Utilities Division consists of accountants, auditors, financial analysts and economists, and provides accounting, audit, financial, economic and other technical assistance and analysis in Commission cases and processes. The Utilities Division participates in rate and other filings made by electric, natural gas, telephone, water and wastewater utilities, solid waste carriers, taxis, limousine services, tow operators and commercial solid waste facilities.

This Division is responsible for reviewing and making recommendations to the Commission about formal customer complaints filed against natural gas, electric, telephone, and water and wastewater utilities, regulated motor carriers and commercial solid waste facilities, and informal complaints or requests for assistance dealing with other regulated utility services. The Utilities Division assists customers with quality of service complaints related to cable television, maintains a comparative database of motor carrier costs and rates and conducts both financial and management audits of motor carriers operating within the state.

Water and Wastewater Division

The Water and Wastewater Division provides assistance in the areas of technical support, operations, engineering, design, financial analysis, accounting, ratemaking, Commission rules and policies and other regulatory matters to political subdivisions of the State that operate a water or sewer utility. The Division also provides assistance to private utilities with Commission rules and policies.

The Division provides mandatory and optional training seminars, makes field visits and, in collaboration with the DEP and the Bureau for Risk and Insurance Management, publishes *The Pipeline*, a quarterly newsletter.

The Division is charged with reviewing, from a financial perspective, the preliminary applications to WVIJDC. It also reviews annual reports filed by water and wastewater utilities for quality and accuracy.

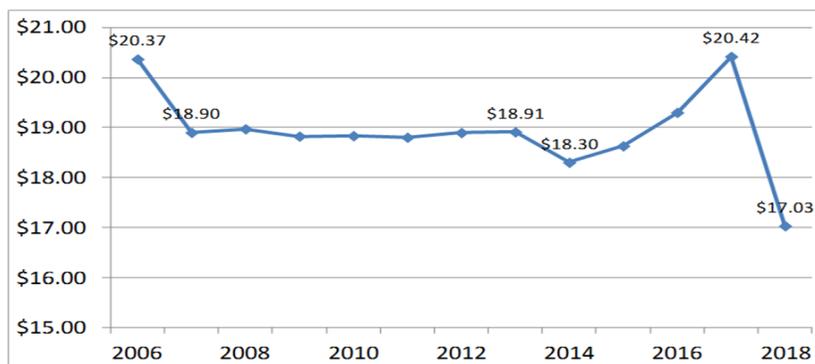
APPENDIX B

BUDGET & HUMAN RESOURCES

The Commission is committed to being a prudent steward of its stakeholder dollars and actively pursuing and implementing savings initiatives. Since 2007, the Commission has documented more than 55 individual savings initiatives and projects that have resulted in annualized savings of well over \$1 million.

After a large spending reduction from 2006 to 2007, the Commission maintained its appropriated special revenue funds expenditures flat for the next seven years. Spending increased from 2015-2017 because of the necessary building façade replacement project. The Commission’s 2018 spending for all of its appropriated special revenue funds was approximately \$3 million less than in 2017.

West Virginia Public Service Commission
Appropriated Special Revenue Funds - Spending
Millions of Dollars



- Appropriated Special Revenue Funds include Utilities & Weight Enforcement (8623), Gas Pipeline (8624) and Motor Carrier (8625)

Administration Division Staff utilizes the wvOASIS and KRONOS systems for budgeting, financial transactions and recordkeeping, personnel transactions, timekeeping and payroll processing.

The Financial Manager and Procurement Officer earned procurement certifications by successfully completing the training and testing requirements of the initial West Virginia Procurement Certification program. By continuously reviewing processes and contracts, and monitoring tasks that impact procurement activities, these individuals identify savings opportunities for the Commission.

APPENDIX C

SUMMARY OF THE UTILITY DISCOUNT PROGRAM

Through a program created by the West Virginia Legislature in 1983, certain qualifying residential customers are eligible for a special reduced rate schedule in their gas, electric and water utility rates. The special reduced rate is 20% less than the rate applicable to other residential customers obtaining similar service.

Eligible customers must be receiving:

- Social Security Supplemental Security Income (SSI);
- WV Works, program previously called Aid to Families with Dependent Children (AFDC) and Temporary Aid to Needy Families (TANF); or
- Supplemental Nutrition Assistance Program (SNAP), program previously called Food Stamps, if the recipient is age 60 or older.

During the 2017-2018 program year, 36,274 electric customers received more than \$5.3 million in discounts, 13,060 natural gas customers received more than \$1.1 million in discounts and 5,488 eligible West Virginia American Water Company customers received \$503,890 in discounts.

Following is a report on the 20% discount program for the billing months of December 2017 through April 2018 for the gas and electric utilities and for the billing months of June 2017 through May 2018 for West Virginia American Water Company. A summary by type of utility, including the percentage changes from last year and individual utility information is detailed on the following pages.

20% Discount Program for Electric Utilities

| | <u>Appalachian Power</u> | <u>Black Diamond Power</u> | <u>Monongahela Power</u> | <u>Potomac Edison</u> | <u>Wheeling Power</u> |
|---------------------------------------------|--------------------------|----------------------------|--------------------------|-----------------------|-----------------------|
| Applications Received | 20,010 | 368 | 14,065 | 3,499 | 1,197 |
| Applications Approved | 18,356 | 364 | 13,165 | 3,264 | 1,125 |
| Percent Approved | 91.73% | 98.91% | 93.60% | 93.28% | 93.98% |
| Residential Customers | 425,985 | 5,323 | 390,809 | 141,378 | 41,269 |
| Customers Given Discount | 18,356 | 364 | 13,165 | 3,264 | 1,125 |
| Percent Given Discount | 4.31% | 6.84% | 3.37% | 2.31% | 2.73% |
| SSI Customers | 10,499 | 245 | 6,948 | 1,296 | 537 |
| WV Works Customers | 1,292 | 20 | 703 | 207 | 49 |
| SNAP (Age 60 Plus) | 6,565 | 99 | 5,514 | 1,761 | 539 |
| Bills at Non-Discounted Rates | \$15,994,245.05 | \$162,866.20 | \$7,466,695.47 | \$2,581,730.75 | \$693,309.35 |
| Bills at Discounted Rates | \$12,795,396.04 | \$130,294.56 | \$5,973,358.58 | \$2,065,384.06 | \$554,647.48 |
| Revenue Decrease | \$3,198,849.01 | \$32,571.64 | \$1,493,336.89 | \$516,346.69 | \$138,661.87 |
| Adjustment for B&O Tax Reduction | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Revenue Deficiency Certified | \$3,198,849.01 | \$32,571.64 | \$1,493,336.89 | \$516,346.69 | \$138,661.87 |

Data for December 2017 - April 2018

20% Discount Program for Natural Gas Utilities

| | <u>Cardinal Natural Gas (formerly Blacksville)</u> | <u>Cardinal Natural Gas (formerly Bluefield)</u> | <u>Cardinal Natural Gas (formerly Lumberport- Shinnston)</u> | <u>Consumers Gas Utility</u> | <u>Dominion Energy WV (formerly Hope Gas)</u> | <u>Megan Oil & Gas</u> |
|---------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------|----------------------------------|-----------------------------------------------------------|--------------------------------|
| Applications Received | 3 | 95 | 118 | 432 | 5,039 | 30 |
| Applications Approved | 3 | 95 | 118 | 432 | 4,967 | 30 |
| Percent Approved | 100.00% | 100.00% | 100.00% | 100.00% | 98.57% | 100.00% |
| Residential Customers | 292 | 3,311 | 3,354 | 8,401 | 111,550 | 197 |
| Customers Given Discount | 3 | 95 | 118 | 432 | 4,967 | 30 |
| Percent Given Discount | 1.03% | 2.87% | 3.52% | 5.14% | 4.45% | 15.23% |
| SSI Customers | 0 | 32 | 70 | 246 | 2,547 | 16 |
| WV Works Customers | 1 | 13 | 6 | 24 | 329 | 0 |
| SNAP (Age 60 Plus) | 2 | 50 | 42 | 162 | 2,091 | 14 |
| Bills at Non-Discounted Rates | \$1,451.81 | \$67,317.80 | \$79,758.22 | \$201,099.50 | \$1,851,058.15 | \$19,612.19 |
| Bills at Discounted Rates | \$1,161.43 | \$53,854.24 | \$63,806.28 | \$160,878.78 | \$1,480,846.52 | \$15,689.64 |
| Revenue Decrease | \$290.38 | \$13,463.56 | \$15,951.94 | \$40,220.72 | \$370,211.63 | \$3,922.55 |
| Adjustment for B&O Tax Reduction | <u>\$12.46</u> | <u>\$577.59</u> | <u>\$684.34</u> | <u>\$1,725.47</u> | <u>\$15,882.08</u> | <u>\$110.56</u> |
| Revenue Deficiency Certified | \$277.92 | \$12,885.97 | \$15,267.60 | \$38,495.25 | \$354,329.55 | \$2,466.51 |

Data for December 2017 - April 2018

20% Discount Program for Natural Gas Utilities

| | <u>Mountaineer Gas</u> | <u>People's Gas WV</u> | <u>Southern Public Service</u> | <u>Standard Gas</u> | <u>Union Oil & Gas</u> |
|---------------------------------------------|------------------------|------------------------|--------------------------------|---------------------|----------------------------|
| Applications Received | 6,711 | 389 | 236 | 10 | 86 |
| Applications Approved | 6,711 | 377 | 236 | 10 | 81 |
| Percent Approved | 100.00% | 96.92% | 100.00% | 100.00% | 94.19% |
| Residential Customers | 215,912 | 12,840 | 6,322 | 419 | 6,265 |
| Customers Given Discount | 6,711 | 377 | 236 | 10 | 81 |
| Percent Given Discount | 3.11% | 2.94% | 3.73% | 2.39% | 1.29% |
| SSI Customers | 3,339 | 204 | 130 | 9 | 42 |
| WV Works Customers | 473 | 22 | 21 | 0 | 28 |
| SNAP (Age 60 Plus) | 2,899 | 151 | 85 | 1 | 11 |
| Bills at Non-Discounted Rates | \$3,371,478.95 | \$194,258.25 | \$91,275.25 | \$3,677.48 | \$31,459.90 |
| Bills at Discounted Rates | \$2,697,183.16 | \$155,406.60 | \$73,020.20 | \$2,941.98 | \$25,167.92 |
| Revenue Decrease | \$674,295.79 | \$38,851.65 | \$18,255.05 | \$735.50 | \$6,291.98 |
| Adjustment for B&O Tax Reduction | \$28,927.29 | \$1,666.74 | \$783.14 | \$31.55 | \$269.93 |
| Revenue Deficiency Certified | \$645,368.50 | \$37,184.91 | \$17,471.91 | \$703.95 | \$6,022.05 |

Data for December 2017 - April 2018

20% Discount Program Summary Data

| | Electric Utilities | | | Natural Gas Utilities | | | WV American Water Co. | | |
|---------------------------------------------|--------------------|-----------------|--------|-----------------------|----------------|--------|-----------------------|----------------|--------|
| | 2017-2018 | 2016-2017 | Change | 2017-2018 | 2016-2017 | Change | 2017-2018 | 2016-2017 | Change |
| Applications Received | 39,139 | 39,481 | -0.87% | 13,149 | 12,328 | 6.66% | 1,147 | 1,238 | 7.35% |
| Applications Approved | 36,274 | 36,515 | -0.66% | 13,060 | 12,271 | 6.43% | 782 | 827 | 38.69% |
| Percent Approved | 92.68% | 92.49% | | 99.32% | 99.54% | | 68.18% | 66.80% | |
| Residential Customers | 1,004,764 | 1,004,613 | 0.02% | 368,863 | 369,130 | -0.07% | 166,760 | 167,366 | 0.36% |
| Customers Given Discount | 36,274 | 36,515 | -0.66% | 13,060 | 12,271 | 6.43% | 5,488 | 5,289 | -3.76% |
| Percent Given Discount | 3.61% | 3.63% | | 3.54% | 3.32% | | 3.29% | 3.16% | |
| SSI Customers | 19,525 | 20,260 | -3.63% | 6,635 | 6,424 | 3.28% | 2,498 | 2,388 | -4.61% |
| WV Works Customers | 2,271 | 2,415 | -5.96% | 917 | 890 | 3.03% | 779 | 808 | 3.59% |
| SNAP (Age 60 Plus) | 14,478 | 13,840 | 4.61% | 5,508 | 4,957 | 11.12% | 2,211 | 2,093 | -5.64% |
| Bills at Non-Discounted Rates | \$26,898,846.82 | \$24,236,502.94 | | \$5,912,447.50 | \$4,574,700.06 | | \$2,517,321.00 | \$2,689,661.00 | |
| Bills at Discounted Rates | \$21,519,080.72 | \$19,389,202.37 | | \$4,729,956.75 | \$3,643,883.45 | | \$2,013,413.00 | \$2,143,969.00 | |
| Revenue Decrease | \$5,379,766.10 | \$4,847,300.57 | 10.98% | \$1,182,490.75 | \$930,816.61 | 27.04% | \$503,908.00 | \$545,692.00 | -8.30% |
| Adjustment for B&O Tax Reduction | 0.00 | \$0.00 | 0.00% | \$50,728.85 | \$39,932.03 | 27.04% | \$22,171.00 | \$24,010.00 | -0.38% |
| Revenue Deficiency Certified | \$5,379,766.10 | \$4,847,300.57 | 10.98% | \$1,131,761.90 | \$890,884.58 | 27.04% | \$481,737.00 | \$521,682.00 | -0.38% |

Gas and electric utility data for December 2017 - April 2018
West Virginia American Water Company data for June 2017 - May 2018

APPENDIX D

SUMMARY OF THE TEL-ASSISTANCE SERVICE TELEPHONE RATE DISCOUNT PROGRAM

Tel-Assistance Service provides reduced rates for qualified low-income residential customers of telephone utilities through a waiver of the monthly Federal Subscriber Line Charge. The option of Tel-Assistance Service remains part of the filed residential tariffs of all of the local exchange telephone utilities and is available to all eligible customers. Eligible customers must be receiving benefits from an income-related State or Federal program, including SSI, WV Works, Medicaid, Federal Public Housing Assistance, LIEAP or SNAP if the recipient is age 60 or older.

The telephone utilities may recover their certified revenue deficiency as a credit against the carrier's income tax. The agreements or tariffs filed with the Commission for approval in accordance with the Tel-Assistance Program may specify the methodology by which the eligible telecommunications carrier calculates its annual revenue deficiency. Subject to prior approval by the Commission, eligible telecommunications carriers may agree to freeze or cap the amount of the revenue deficiency at specific levels.

Frontier, West Virginia Inc. and Citizens Telecommunications Company of West Virginia, dba Frontier Communications of West Virginia, are the only companies that filed a Tel-Assistance report for certification of revenue deficiency for 2018.

Frontier requested the Commission certify \$66,384.89 as its revenue deficiency associated with the Tel-Assistance Program for the 2017 program year (Case No. 18-0497-T-P). Citizens requested the Commission certify \$19,603.80 as its revenue deficiency for the 2018 program year (Case No. 18-0496-T-P). The Commission approved these revenue deficiencies. These cases are now closed.

APPENDIX E

ELECTRIC UTILITIES SUPPLY – DEMAND FORECAST 2019 - 2028

Executive Summary

The major electric utility systems in West Virginia owning generation have completed acquisitions of capacity in recent years. During that same time period, several older generating facilities have been retired. Cancellation of long-standing capacity agreements with affiliates has occurred, contributing to the need for alternative capacity resources. APCo and WPCo will have marginally adequate capacity for summer requirements in the near future, but will have low reserve margins in the next several years and may have low winter reserve margins during the forecast period. Mon Power and PE also have adequate capacity for summer requirements in the near future, but reserve margins will gradually diminish, becoming negative during the forecast period. The general conclusions reached in preparing this report are:

- APCo and WPCo expect their projected electrical demand to decrease by 3.9%, mainly due to lower industrial load attributed to reduced coal production in southern West Virginia and its shrinking residential customer base.
- Mon Power provided data suggesting a projected growth rate in electrical demand of 10.2% by 2028, largely because of increased electricity demand related to natural gas activity in its operating territory.
- Because of PJM discounting a portion of Installed Capacity (ICAP), it is appropriate to use the reduced peak capacity value, referred to as Unforced Capacity (UCAP), assigned annually to each generation unit by PJM in the *Electric Utilities Supply-Demand Forecast Report*.
- Because PJM calculates an increased peak load, including diversity and reserves, it is appropriate to use the increased PJM assigned peak load, referred to as UCAP Load, in the *Electric Utilities Supply-Demand Forecast Report*.
- Historically, the Commission measured reserve margins as a percentage of total installed generation capacity in excess of unadjusted internal peak load requirements. In this and other recent reports, an Excess Reserve Margin is calculated as a percentage of UCAP in excess of UCAP Load. Using this approach, there are significant reserves already built into UCAP and UCAP Load. Reserve margins, as historically presented in the annual *Electric Utilities Supply-Demand Forecast Report* would be higher than the Excess Reserve Margins in this report.

- PJM has implemented new Capacity Performance Rules that require enhanced levels of availability of capacity resources and that increase penalties for non-performance during certain peak load conditions. These rules affect both APCo and Mon Power. A major result of these rules is to reduce the UCAP of solar, hydro, pumped storage and wind resources.
- Both APCo and Mon Power face declining reserve margins above their PJM UCAP. That will require additions of capacity or reductions in demand during the forecast period.

General Discussion

Under the provisions of W. Va. Code § 24-1-1(d)(3), the Commission is required to report to the Legislature annually on the 10-year supply and demand balance for the electric utilities in West Virginia. Commission Staff conducts an annual examination of long-term demand forecasts and resource plans of the major electric utilities in West Virginia. Staff evaluates the plans and underlying assumptions and reasonableness of the forecasts when preparing the annual *Electric Utilities Supply – Demand Forecast*.

The four largest regulated electric utilities in West Virginia are APCo, WPCo, Mon Power and PE. APCo and WPCo are affiliate companies of AEP. Mon Power and PE are affiliate companies of FE. These four electric utilities account for approximately 96% of West Virginia residential sales and 98% of West Virginia commercial and industrial sales. APCo, WPCo and Mon Power are regulated electric distribution utilities, which also own generation facilities. For purposes of this report, APCo and WPCo data are combined, providing the supply and demand forecast as a single entity based on their combined resource plans and projected demand. Mon Power and the PE West Virginia operations' data are similarly combined. Reference to APCo includes the total company supply resources and load of APCo, including Virginia data plus the total company supply resources and load of WPCo, which operates only in West Virginia. Reference to Mon Power includes supply resources and load of Mon Power, which operates only in West Virginia, plus the load of the PE West Virginia operations.

Five independent non-generation electric utilities in West Virginia currently operate distribution systems providing power to local residential, commercial and industrial customers at retail rates. Those utilities are:

- Harrison Rural Electrification Association, Inc.
- Black Diamond Power Company
- Craig-Botetourt Electric Cooperative
- City of New Martinsville
- City of Philippi

These companies purchase power requirements from various generators operating in the regional area served by PJM Interconnection (PJM). They have historically relied on medium to long-term contracts with wholesale providers, but can also purchase available energy and capacity in the PJM markets when planning their power supply requirements. The PJM organization manages the bulk-power transmission system and an extensive capacity and energy market. This market has become the major source of power supply for many customers and load-serving entities in the PJM Region.

The *Electric Utilities Supply – Demand Forecast* is based primarily on a review of supply resources and load forecasts provided by AEP and FE. AEP and FE companies provide a capacity (supply) plan, known as an Integrated Resource Plan (IRP). An IRP considers supply options to economically meet the future net demand requirements. The IRP includes projected equipment upgrades, re-rating of plants, retirement of internal generation resources, additional internal generation resources, demand side resources and purchased capacity, if needed. An IRP also provides insight reflecting possible future demand impacts of customers’ owned energy-saving technologies and equipment that will also control or reduce demand. Commission Staff reviews this information and determines how the capacity resources compare to the projected loads and whether the expected supply is sufficient to meet peak loads plus a reasonable reserve margin over the forecast period. These IRPs are updated periodically, accounting for economic and regulatory influences that may affect the utilities’ operation.

EPA Clean Power Plan and Affordable Clean Energy Rule

On August 3, 2015, the EPA issued a pre-publication release of its final proposed rule for controlling carbon emissions from existing power plants. That proposed rule was referred to by the EPA as its Clean Power Plan (CPP).

In March 2017, an Executive Order was issued directing the EPA to begin the process of withdrawing and rewriting the CPP. On October 10, 2017, the EPA Administrator issued a proposal to repeal the CPP, and on August 21, 2018, the EPA issued a new proposed rule, which it referred to as the Affordable Clean Energy Rule (ACE). Unlike the CPP, which set carbon dioxide limits on a statewide basis and required both inside- and outside-the-plant carbon-reducing technologies, the ACE Rule:

- Defines the “best system of emission reduction” for existing power plants as on-site, heat-rate efficiency improvements;
- Provides states with a list of “candidate technologies” that can be used to establish standards of performance and be incorporated into State plans;

- Updates the New Source Review permitting program to further encourage efficiency improvements at existing power plants;
- Aligns regulations under CAA section 111(d) to give states adequate time and flexibility to develop their State plans; and
- Gives states flexibility to consider unit-specific factors – including a particular unit’s remaining useful life – when it comes to standards of performance.

EPA News Release, August 21, 2018:

<https://www.epa.gov/newsreleases/epa-proposes-affordable-clean-energy-ace-rule>

The EPA is presently considering the comments received on its proposal and testimony from a public hearing held on October 1, 2018. It is premature to estimate or model how the ACE Rule or alternative plan might affect the future supplies of electricity in West Virginia. Given the uncertainty of the timing and outcome of the ACE Rule, no assumptions regarding its impact on West Virginia’s electricity supply or demand are made in this report.

Summer versus Winter Peaks

PJM incurs its peak capacity requirements in the summer and plans its capacity resources accordingly. Both APCo and Mon Power have been winter peaking companies. Historically, the ability of those companies to meet their internal peak, whenever that occurred, has been the focus of utility capacity adequacy planning and, until recently, the Commission’s *Electric Utilities Supply – Demand Forecast*. Because of the availability of energy from the PJM market and the PJM assignment of capacity obligations based on summer peaks, the Commission now evaluates the APCo and Mon Power supply and demand during the summer months. For the forecast period of summer 2019 through 2028:

- APCo/WPCo expect their projected electrical demand to decrease by 3.9%, mainly due to the lower industrial load attributed to reduced coal production in southern West Virginia.
- Mon Power provided data suggesting a projected growth rate in electrical demand of 10.2% by 2028, largely because of increased industrial load attributed to natural gas activity in its operating territory.
- Utility-owned (internal) generation installed capacity plus existing installed capacity available through purchased power contracts will be greater than customer demand.

- PJM discounts ICAP to reflect the probability of outages on generation units based on prior unit performance that PJM uses to assign an Equivalent Forced Outage Rate (EFOR) to each generation unit. The reduced peak capacity value assigned to each generation unit is referred to as UCAP.
- PJM adds diversity and reserve requirements to projected internal demand to arrive at an adjusted peak demand referred to as UCAP Load.
- The Commission forecast of electricity supply has historically focused on the ICAP of APCo and Mon Power. Staff has implemented a fundamental change in its forecast analysis, to shift the focus of supply and demand data to UCAP values used by utilities for PJM planning purposes.
- Because UCAP reflects lower supply values than ICAP, and UCAP Load reflects higher demand values, which include diversity and reserve targets, there is a level of built-in reserve margin reflected in the difference between UCAP and UCAP Load. This built-in UCAP reserve margin for fossil fuel-fired generation changes annually and generally ranges between 8% and 12%, depending on the PJM determination of historical EFOR. The net reserve margins built into UCAP Load after an allowance for diversity, generally ranges around 8%.
- PJM Capacity Performance Rules, when fully implemented, require a greater level of reliability of capacity resources. These changes in the Capacity Performance Rules will affect both APCo and Mon Power. One of the major changes is a further discounting of capacity from solar, hydro, pumped storage and wind resources. The decrement between ICAP and UCAP of these resources will increase during the forecast period of this report. APCo has a greater level of solar, hydro and wind resources in its capacity than Mon Power, so it will be affected more than Mon Power by the PJM Capacity Performance changes. Most significantly for both APCo and Mon Power, the UCAP of hydro generation, including pump storage generation, will be reduced significantly in 2020.
- Based on existing capacity resources, both APCo and Mon Power face declining excess reserve margins above their net UCAP capacity values and UCAP Load obligations.
- Since APCo has elected an exclusive self-supply option under PJM rules, it plans to meet UCAP Load obligations and maintain a small and declining excess reserve margin with company-owned capacity and purchased power contracts.
- Mon Power faces reserve margins declining below zero, which means it must acquire additional capacity or control load to meet its PJM UCAP Load obligation.
- Unlike APCo, which has elected an exclusive self-supply option, Mon Power has

elected to have the PJM market available for meeting shortfalls in UCAP to meet UCAP Load obligations. Thus, the Mon Power negative excess reserve margins reflected in this report can be covered by either self-supply or market purchases.

American Electric Power

APCo is the largest, in terms of population served, number of customers and area of service territory, of the operating companies that comprise the AEP East System. The APCo service territory covers southern West Virginia and adjacent portions of Virginia. WPCo owns generation facilities as well as transmission and distribution facilities providing service in Marshall and Ohio Counties in the Northern Panhandle of West Virginia. For rate regulation purposes in West Virginia, all operating costs, including power supply costs, of APCo and WPCo are combined and shared among APCo and WPCo customers. The Commission sets the same tariff rates, by class of customer, for both companies.

APCo's current internal electricity supply sources include coal-fired steam plants, natural gas-fired plants employing either solely combustion turbine technology or combined combustion turbine and steam technology (combined cycle), hydroelectric facilities and purchased power contracts. The APCo purchased power contracts presently include hydro and wind capacity. Potential future changes in APCo supply sources include additional capacity and energy supplies from renewable energy sources.

APCo has historically reached its annual peak demands during the winter months. Historically, the Commission has projected the APCo supply and demand balances at the time of the annual winter peaks. Because PJM peaks in the summer, for PJM planning purposes the adequacy of APCo self-supply capacity to meet UCAP Load obligations is measured during the summer months and the supply and demand data used in this report reflect summer peaks. Thus, it is possible that APCo's projected excess reserve margins in any year will be less, and possibly even negative, when APCo reaches its winter internal peaks. Because of the availability of capacity and energy from the PJM market after meeting its summer self-supply obligations, any additional capacity and energy required during APCo's winter peak periods should be available from the PJM market.

Projected capacity of APCo/WPCo reflects significant derating or reduced reliance for some intermittent resources in 2020 due to the new Capacity Performance rules of PJM. Pumped-storage hydro unit capacity to meet self-supply obligations is reduced by approximately 33%. Wind resource capacity value is reduced to 5% of nameplate rating, as compared to the current PJM value of 13.5%. These assumptions are based on a current understanding of the PJM Capacity Performance rules, but may change when the PJM tariffs relating to Capacity Performance are finalized.

Gradual additions to APCo/WPCo capacity resources are reflected in the *Electric Utilities Supply – Demand Forecast*. These are not firm commitments for capacity additions, but reflect types and amounts of additions that are under consideration by APCo. The projected modifications to existing capacity and additions to capacity resources have not significantly changed since the *Electric Utilities Supply – Demand Forecast for 2018 – 2027* and include:

- Beginning in 2020: Reduction of Smith Mountain pumped storage capacity by approximately 200 MW, reduction of all run-of-river hydro from the available UCAP by 25%, and reduction in PJM-allowed capacity levels for wind resources from 13.5% to 5% of nameplate capacity¹
- Additions of 25 MW of utility-owned, large-scale solar capacity beginning in 2019, with subsequent additions totaling 465 MW by 2030
- Additions of 345 MW (nameplate rating) of wind capacity in 2019, with additional wind capacity being added through 2027, totaling 1,395 MW (Note: Because of reductions recognized for wind resources by PJM, only 5% of these additions will be included in UCAP)
- Increased efficiency of distribution facilities
- Increased use of battery storage resources
- Increased energy efficiency projects at the end-user level
- Increases in customer-owned distributed solar capacity

A summary of the combined projected capacity supply and demand (at PJM UCAP level) for APCo and WPCo is represented in the following table. These calculations incorporate unit operating data over a three-year rolling average, reflecting minimal changes from year to year.

¹ These reductions are not an actual reduction in installed capacity, but reflect reduced values of the installed capacity after considering PJM rules.

| Appalachian Power Company / Wheeling Power Company Projected Supply and Demand - 2019 through 2028 (1) Based on Summer Internal Load and PJM UCAP Load Obligations and Capacity | | | | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------------|--------------------------|-------------|------------------|------------------------------------------------------------------------------------|------|
| Year | APCo | WPCo | APCo / WPCo | | | | | |
| | Internal UCAP Load Obligation (2) | Internal UCAP Load Obligation (2) | Total Internal UCAP Load Obligation (2) | UCAP Capacity (3) | | | Excess Reserve Margin in Addition to Margins Already Built into UCAP Values | |
| | | | | APCo | WPCo | APCo/WPCo | | |
| | | | | MW | MW | MW | | |
| 2019 | 6,007 | 635 | 6,642 | 6,481 | 586 | 7,067 | 424 | 6.0% |
| 2020 | 6,038 | 633 | 6,671 | 6,316 | 670 | 6,986 | 316 | 4.5% |
| 2021 | 6,059 | 635 | 6,694 | 6,322 | 670 | 6,992 | 298 | 4.3% |
| 2022 | 5,763 | 536 | 6,299 | 6,322 | 670 | 6,992 | 693 | 9.9% |
| 2023 | 5,785 | 539 | 6,324 | 6,322 | 670 | 6,992 | 668 | 9.5% |
| 2024 | 5,793 | 539 | 6,332 | 6,322 | 670 | 6,992 | 660 | 9.4% |
| 2025 | 5,801 | 542 | 6,343 | 5,921 | 670 | 6,591 | 248 | 3.8% |
| 2026 | 5,810 | 544 | 6,354 | 5,921 | 670 | 6,591 | 237 | 3.6% |
| 2027 | 5,824 | 546 | 6,370 | 5,879 | 670 | 6,549 | 180 | 2.7% |
| 2028 | 5,839 | 547 | 6,386 | 5,873 | 670 | 6,543 | 158 | 2.4% |

Notes:

- (1) Includes APCo total company (WV and VA) UCAP capacity resources and UCAP load obligations.
- (2) Includes PJM adjustments to measured load to reflect diversity and reserve requirements.
- (3) Includes APCo-owned generation and long-term power contracts and WPCo- owned generation.
- (4) WPCo is assigned 82.5% of their 50% ownership of the Mitchell plant through 2019.

The data are based on internally generated data from the Companies.

FirstEnergy Corporation

Mon Power and PE are regulated subsidiaries of FE. The long-term assessment of supply and demand includes the total current and future capacity resources owned or contracted by Mon Power and the total load (demand) for the combined FE service territory in West Virginia.

Mon Power's current internal electricity supply sources include coal-fired steam plants and purchased power contracts. The purchased power contracts include coal- and gas-fired generation and both run-of-river and pump storage hydro generation. Potential future changes in the Mon Power supply sources include acquisition of additional generating capacity and additional purchases from the PJM market.

Like APCo, Mon Power has historically reached its annual peak demands during the winter months. Because PJM peaks in the summer, for PJM planning purposes the adequacy of Mon Power capacity is measured during the summer months. Although on a stand-alone basis it would be normal to project the Mon Power supply and demand balances at the time of the annual winter peaks, for purposes of this report the Commission is using the summer demand levels that are used for PJM planning purposes. It is likely that projected excess reserve margins will be less or projected negative. Excess reserve margins will be greater in the winter when Mon Power reaches its internal peaks. Because it has not elected an exclusive self-supply option, if Mon Power requires more capacity at any time, that capacity should be available from the PJM market.

Projected capacity of Mon Power reflects significant derating of its share of the Bath County pumped-storage capacity beginning in 2020. This decrease is based on a current understanding of the PJM Capacity Performance rules, but may change when the PJM tariffs relating to Capacity Performance are finalized.

A summary of the Mon Power projected capacity supply and demand for the forecast period is reflected in the following chart. The Mon Power data reflects a gradual decline in the calculated excess reserve margin, reaching a deficit capacity during the forecast period. Absent significant changes in actual values from the projections, at some point during the forecast period, Mon Power will have to consider either continuing to rely on the PJM market to meet its total UCAP Load obligations or adding new company-owned or contracted capacity. The following table reflects current existing capacity resources. These calculations incorporate unit operating data over a three-year rolling average reflecting minimal changes from year to year.

**Monongahela Power Company / The Potomac Edison Company
Projected Supply and Demand - 2019 through 2028 (1)
Based on Summer Internal Load and PJM UCAP Obligations and Capacity**

| Year | Mon | PE | Mon Power / Potomac Edison | | | | | |
|-------------|----------------------------------------------|----------------------------------------------|----------------------------------------------------|-------------------|----|--------|-----------------------------------------------------------------------------|---------|
| | Internal UCAP Load Obligations Plus Reserves | Internal UCAP Load Obligations Plus Reserves | Total Internal UCAP Load Obligations Plus Reserves | UCAP Capacity (2) | | | Excess Reserve Margin in Addition to Margins Already Built Into UCAP Values | |
| | | | | Mon | PE | Mon/PE | | |
| | MW | MW | MW | MW | MW | MW | MW | Percent |
| 2019 | 2,399 | 764 | 3,163 | 3,375 | 0 | 3,375 | 212 | 6.3% |
| 2020 | 2,451 | 780 | 3,231 | 3,202 | 0 | 3,202 | (29) | -0.9% |
| 2021 | 2,536 | 789 | 3,325 | 3,108 | 0 | 3,108 | (217) | -7.0% |
| 2022 | 2,612 | 793 | 3,404 | 3,145 | 0 | 3,145 | (259) | -8.2% |
| 2023 | 2,654 | 796 | 3,450 | 3,145 | 0 | 3,145 | (305) | -9.7% |
| 2024 | 2,677 | 798 | 3,476 | 3,145 | 0 | 3,145 | (331) | -10.5% |
| 2025 | 2,692 | 799 | 3,491 | 3,145 | 0 | 3,145 | (346) | -11.0% |
| 2026 | 2,700 | 800 | 3,501 | 3,145 | 0 | 3,145 | (356) | -11.3% |
| 2027 | 2,712 | 802 | 3,514 | 3,145 | 0 | 3,145 | (369) | -11.7% |
| 2028 | 2,721 | 804 | 3,524 | 3,145 | 0 | 3,145 | (379) | -12.1% |

Notes:

(1) Includes Mon Power UCAP capacity resources and combined Mon Power and PE West Virginia UCAP Load obligations.

(2) Includes Mon Power owned generation and long-term power contracts.

Reference: 2018 PJM Reserve Requirement Study (October 10, 2018), p. 9-10

PJM Interconnection LLC

PJM is a regional transmission organization that operates the transmission grid delivering power in all or parts of Illinois, Michigan, Indiana, Ohio, Kentucky, Tennessee, North Carolina, Virginia, West Virginia, Maryland, the District of Columbia, Pennsylvania, Delaware and New Jersey. The PJM grid is made up of the major transmission facilities owned by a large number of integrated electric utilities, transmission companies spun off from former integrated electric utilities and new transmission companies. These transmission owners have turned over the operation of their interconnected transmission lines to PJM. As the grid operator, PJM conducts ongoing long-term regional planning that projects load within the system. Based on overall load levels, geographic locations and the ability of the transmission lines to move energy within the grid, PJM evaluates potential grid transmission bottlenecks and reliability issues. The end result of the evaluation and planning process is the identification of transmission upgrades and construction necessary to ensure reliably delivered power now and over the long-term planning horizon. PJM notifies the transmission owners of the need for system upgrades. For local, lower voltage upgrades, transmission owners are then responsible for implementing the necessary upgrades. Under FERC rules, larger upgrades needed for reliability purposes and subject to PJM-wide cost allocation may be subject to competitive bidding.

PJM operates a competitive wholesale electricity energy market within the region served by the transmission facilities under its control. Generation providers can bid their production volumes and prices for delivery into the market on the next day. Those energy bids are matched to the energy requirements of load-serving entities on the next day (day-ahead market). PJM matches generation and load requirements on a regional basis and determines the hourly prices at which power will enter (clear) the market. The market price for power can vary based on location and time of day. In addition, PJM manages a real-time power market to price power necessary to serve hourly supply and demand fluctuations from the day-ahead market commitments.

PJM also operates a capacity market. The capacity market is based on the PJM long-term Reliability Pricing Model (RPM). Along with capacity buyers and sellers, the RPM takes into consideration the continued use of self-supply and bilateral contracts by load-serving entities electing to generate or contract for their own capacity requirements. Annual capacity auctions obtain the remaining capacity that is needed after market participants have committed the resources they will supply themselves or obtain through contracts. PJM receives bids for annual capacity from suppliers three years in the future. Through this bidding process, the price that will be paid for that future capacity is established based on the price of the last unit of capacity that clears the market. All successful bidders receive the marginal market clearing price, and all load pays that price.

FERC recently determined that the PJM Capacity Market bidding rules were unjust and unreasonable (June 29, 2018 FERC Order in Docket Nos. EL16-49-000, ER18-1314-000, ER18-1314-001 and EL18-178-000, Consolidated). To address its perceived deficiencies

in the PJM Capacity Market, FERC initiated a hearing process seeking input on its preliminary findings that PJM should expand the Minimum Offer Price Rule to cover all capacity resources, existing and planned, receiving out-of-market support (subsidies); and implement a new, resource-specific construct that allows subsidized resources to remain on the system but outside the capacity market. Proposals and comments have been submitted to FERC and its decision on changes to the PJM capacity market rules is expected early in 2019.

Conclusion

Based on the information provided to and reviewed by the Commission Staff, it is the conclusion of the Commission that West Virginia will have an adequate supply of electricity available to meet demand for the next ten years (2019-2028). Any shortfall in supply will be met through the PJM Interconnection.

APPENDIX F

NATURAL GAS UTILITIES **SUPPLY – DEMAND FORECAST 2019-2028**

Executive Summary

This report presents information about the current natural gas supply and demand conditions in West Virginia and the future natural gas supply and demand over the next ten years. Information for this report was provided in part by U.S. Energy Information Administration (EIA), the Colorado School of Mines Potential Gas Committee, and the American Gas Association (AGA).

The *Natural Gas Utilities Supply-Demand Forecast 2019-2028* is similar to previous reports to the Legislature, primarily because (i) the actual flowing supplies match all demand in the state at all times (except for minimal unplanned outages), (ii) the capacity of unrestrained production far exceeds the current and future projected demand, (iii) shale gas development is still occurring and (iv) there have been no significant identified additions to current or projected demands on utility systems in the state or power production fuel switching involving natural gas public utilities. Therefore, the only changes made are to update the forecast date range, comment on the likely effects of SB390 and update market price forecasts.

Prior to 1979, the wholesale price of natural gas was regulated and capped by the Federal government. There was some concern at that time that suppliers of natural gas were reluctant to produce and market their supplies and that exploration for new supplies was somewhat curtailed because some believed wholesale gas prices were artificially low and unprofitable. The Legislature, concerned about these factors and interested in learning more about the natural gas production industry in West Virginia and what role the Legislature might play in it, directed the Commission as part of an annual *Management Summary Report*, to describe in a concise manner the current balance of supply and demand for natural gas and electric utility services in the state and forecast the probable balance for the next ten years.

Prior to the passage of the Federal Natural Gas Policy Act of 1978 (NGPA), the natural gas market was experiencing production shortages that many believed were a direct result of Federal price controls. The NGPA addressed the situation by devising a schedule of price decontrol over time, reducing barriers between interstate and intrastate markets and providing incentives for gas exploration and development. Today, wholesale natural gas prices are market driven and are subject to various market forces, much like the prices of any other publicly-traded commodity.

West Virginia, as a major gas producing state, exports far more native production gas than it consumes. The state also has multiple access points to interstate gas from other production areas and major gas storage areas. This report focuses on the physical availability of supplies of natural gas and the outlook for the next ten years. Based on recent developments of unconventional natural gas reserves in the Appalachian Basin and elsewhere in the United States, there is more than an ample supply for the coming decade and beyond. Included again in this year's report are some concerns regarding peripheral issues related to general supply and demand and some more localized concerns that certain trends call to attention.

Natural gas public utilities buy gas based primarily on a national market price basis, and recover those costs through rates that contain additional storage and transportation costs and adjustments due to past period over- or under-recoveries of gas costs.

Genesis of Report and the Current Situation

Prior to the passage of the NGPA in 1978 and for the first few years afterward, natural gas prices at the wellhead were regulated with a maximum allowable price. As production costs escalated with inflation, the producers saw their profits decrease to the point that it was no longer attractive to investors and owners to drill new wells or, in some situations, to continue to maintain wells that had already been put into production, therefore increasing Legislative interest in shut-in wells.

The situation became so severe that there were moratoria put into place restricting the addition of new distribution customers, essentially nationwide. This resulted in an increase of all-electric housing and businesses.

Congress passed the Industrial Fuel Use Act of 1978, which dictated the allowable uses of natural gas by industry. The use of natural gas in industrial boilers, including for the generation of electricity, was not allowed. This led to conversion of natural gas-fired boilers to fuel oil and reduced natural gas use in industrial boilers.

Congress then passed the Natural Gas Utilization Act of 1987, which repealed much of the Fuel Use Act at about the same time wellhead prices became fully deregulated under the NGPA, and the commodity began trading on a national commodity market basis. Both supply and demand, as well as prices, rose significantly. These actions greatly reduced concerns over adequate supplies in the near term.

Since 2007, huge new supplies of gas have become available and recoverable due to advances in deep well and horizontal drilling technology and economic feasibility, along with the accompanying hydraulic fracturing process. Estimates by industry, government and academia show there is more than ample supply for the long term, with most saying there is a recoverable supply in North America to cover needs for 100 years or more. The abundance has driven the price of natural gas to near record low levels as compared to

prices in the 1980s and 1990s. There continues to be a growing increase in the use of gas for electric generation and other industrial applications and the exporting of liquefied natural gas to other countries has begun.

Because of the dramatic changes in the industry, which are mirrored by production and consumption activities in the Appalachian Region, including West Virginia, the Commission has decided to include the current status of a robust natural gas supply market as opposed to limiting the discussion to the supply side concerns of 40 years ago.

Marcellus Shale Impact on Supply

The feasibility of extracting natural gas from the Marcellus Shale formation in the Appalachian Region has resulted in increased drilling and production activity in West Virginia over the past 13 years. This gas has long been known to exist in the formation, but until improvements in deep well and horizontal drilling capabilities were made, the resource was not attractive to producers and consumers. Since 2006, the supply has grown to the extent of driving wellhead prices down to a level where new drilling is slowing. Recently, production activities have shifted to oil-bearing areas in the eastern United States formations, most notably the Utica Shale that is predominately in Ohio, and to “wet” gas zones in the Marcellus formation. This shift in production activities may slow, but will not eliminate, production of natural gas from other non-traditional formations. As producers develop oil bearing formations, gas that coexists with the oil must also be produced.

Because demand has not kept up with supply, there is currently activity aimed at preparing to export more liquefied natural gas from the United States to foreign markets. There is also increased activity to encourage the use of compressed natural gas as vehicular fuel. Because of the low prices and environmental regulatory actions regarding air quality, natural gas use for electric generation is increasing dramatically, including in West Virginia, Ohio and Pennsylvania. Despite all these demand increases, there remain expectations of some increases in price as compared to the recent extreme lows, but prices will still remain relatively low. In its *Short-Term Energy Outlook*, released in November 2018, the EIA indicated that it expects prices to rise somewhat through 2019. EIA expects the Henry Hub price will average \$2.98 per Million British Thermal Units (MMBtu) in 2019, compared to 3.01 per MMBtu in 2018.

Local and Regional Concerns

The Marcellus drilling activity is creating some concerns on the supply side in terms of what is happening to conventional local production supplies and the midstream gathering pipelines that carry it, as well as some interstate pipelines upon which local distribution companies rely for supply deliveries.

There are several issues for consideration. Much of the Marcellus gas is “wet” and contains high levels of heavier hydrocarbons and water vapor. Higher pressures are being used in existing and new pipelines carrying Marcellus gas. Existing conventional production is declining and new conventional drilling is slowing as producers focus on what is perceived to be the more lucrative Marcellus production.

Wet gas has special handling and treatment needs. The heavier hydrocarbons, such as propane, butane, ethane, etc., cause the gas to have significantly higher BTU content, which is sometimes not tolerated well, or is even unusable, in today’s modern high-efficiency appliances. This requires more stripping to make the gas useable in normal consumer gas-using appliances. Because the hydrocarbons often condense from the gas and collect in the pipelines and other gas handling equipment, the pipelines must be cleaned frequently. This causes planned, and occasionally, unplanned outages. Drier gas from conventional production fields is more likely to be useable by customers downstream of drying facilities. Marcellus gas customers along the gathering pipelines and transmission upstream of compression and drying equipment must take precautions to accommodate the wetter gas and may even have to abandon their traditional field-line-quality sources of supply.

Continued availability of natural gas to many rural customers may also be affected by the higher pressures typically used in pipelines transporting Marcellus gas to facilitate the production and transportation of much higher gas volumes. Producers and transporters are reluctant to allow customers on higher pressure pipelines for liability and operational reasons. Additional pressure regulating equipment may be necessary at a substantial cost.

Conventional production from existing wells is declining in some areas of the state as producers focus on the higher value Marcellus production. Many of the conventional wells are marginal producers and are not worth reworking or even maintaining. As a result, those wells are left to produce what they can in their remaining life and then are capped and eventually plugged. Volumes in field lines from those depleting existing wells will be reduced and pipelines from those fields will increasingly be in danger of being abandoned. This is having, and will continue to have, the effect of local pockets of field-line customers being abandoned. Some distribution areas served by local distribution companies are in danger of losing access to sufficient quantities of gas. Additionally, large amounts of capital that would normally be used to fund new conventional drilling are being redirected to the Marcellus and other shale formations, leaving conventional gas in the ground in various parts of the state, primarily southern West Virginia.

One other area of concern is the uncertainty regarding governmental actions that could affect hydraulic fracturing (fracking). In December 2016, the EPA issued its final report on its detailed, multifaceted study that includes data gathered from hundreds of natural gas and oil wells across the country. In its report, the EPA listed major areas of the fracking water cycle that it studied, including the impact of large water supply

withdrawals to provide the fracking water, the possible impacts of surface spills on drinking water sources, the effects of injection and the fracturing process on drinking water supplies, how fracking wastewater could affect water supplies and the possible effects of inadequate treatment of fracking wastewater. The report can be accessed at the EPA website. Additionally, more recent concerns have arisen concerning increased seismic activity that may be related to fracking.

Natural Gas Utility Positions

As with past years' *Natural Gas Utilities Supply-Demand Forecast*, the largest natural gas utilities operating in the state provided information regarding their ten-year supply and demand projections. Their responses show that very little change is expected in demand over what was reported last year. However, two disclaimers should be noted. First, electric generation operators are studying the economic and environmental feasibility of either switching to natural gas as the sole fuel or using some combination of natural gas and coal in existing plants. They are also factoring in the use of natural gas in planning new generation plants.

Second is the possibility of using more natural gas as feedstock for the production of ethylene and other byproducts that would, in turn, be used primarily for chemical manufacturing and production of plastics. This activity is in the early to mid-stages of study and it is not certain whether the suppliers would be the public gas utilities or some other entities in the private gas industry. The passage of SB390, designed to encourage the expansion of the gas industry and the availability of natural gas to unserved or underserved areas of the state, will almost certainly lead to increased expansion of gas utility infrastructure. At this point, however, it is difficult to estimate what volumes would be involved in these activities and, therefore, this report will only state that the utilities support the use of basically flat numbers in their demand forecasts for the next ten years. It is noted that certain areas of the state may experience declines in gas demand due to shrinking populations and certain industrial declines. These issues will be addressed in future reports as further developments emerge.

Conclusion

Based on the information reviewed by the Commission Staff, West Virginia and the United States have more than sufficient supplies of natural gas available to meet demand for the next ten years (2019-2028) and well beyond. The state's natural gas utilities predict ample supplies for their systems and flat demand for the coming decade, although they are keeping a watchful eye on possible developments in the electric and chemical industries for what could create large increases in demand. Though system upgrades would be necessary if this occurs, there is high confidence that the available supply will be more than enough to meet that demand.