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October 8, 2015

BY HAND DELIVERY

Ms. Ingrid Ferrell
Executive Secretary
West Virginia Public Service Commission
201 Brooks Street
Charleston, WV 25301


02:44 PM OCT 08 2015 PSC EXEC SEC DIV

Re: *Appalachian Power Company*
Case No. 15-0722-E-P

Dear Ms. Ferrell:

I enclose herein for filing on behalf of Appalachian Power Company ("APCo") the original and twelve (12) copies of its **Application to Reopen** in the above-referenced matter.

Very truly yours,


Brian E. Calabrese
(W.Va. State Bar #12028)

Counsel for
Appalachian Power Company

BEC:sr
Enclosures
cc: Service List

**PUBLIC SERVICE COMMISSION
OF WEST VIRGINIA
CHARLESTON**

CASE NO. 15-0722-E-P

02:44 PM OCT 08 2015 PSC EXEC SEC DIV

APPALACHIAN POWER COMPANY,
a public utility.

Staff Petition Regarding the Closure of
Appalachian Power Company Electric
Generating Units.

APPLICATION TO REOPEN

COMES NOW Appalachian Power Company (“APCo”) and, pursuant to Rule 19.5 of the Commission’s Rules of Practice and Procedure, respectfully files this Application to Reopen the instant proceeding for the purpose of sharing its conclusions respecting the potential future viability of certain of its inactive generating resources and seeking authorization from the Commission to proceed with the decommissioning and disposal of some of those resources. In support of this Application to Reopen, APCo states:

1. On March 19, 2015, the Commission issued an Order (the “IRP Order”), pursuant to W.Va. Code §24-2-19, and directed, among others, APCo to file an integrated resource plan on or before December 31, 2015.

2. On May 8, 2015, the Staff of the Commission (the “Staff”) filed a Petition requesting that the Commission initiate a new proceeding and direct APCo to file information sufficient for the Commission to evaluate the factors that APCo regarded as justifying the

planned deactivation or retirement of certain generating units, which are referred to herein as the “Disposition Units,”¹ the options considered, and the impact to customers.

3. On July 7, 2015, the Commission issued an Order (the “July 7, 2015 Order”). Among other things, the Commission concluded that it “is reasonable for APCo to consider maintaining, for at least four years or until further order of the Commission, any infrastructure installed at Kanawha River that would be used if the plant was to be converted to burn natural gas.” July 7, 2015 Order at 7 (Conclusion of Law No. 5). The Commission further concluded that APCo should “consider whether property or equipment at the [Disposition Units other than Kanawha River Units 1 & 2] may economically contribute to natural gas conversion at those plant sites in the future before it takes irreversible steps to demolish or dispose of that equipment.” *Id.* (Conclusion of Law No. 6). The Commission urged APCo to maintain any infrastructure installed at the Kanawha River Plant that would be used for natural gas conversion of the plant for at least four years, or until further order of this Commission. *Id.* at 8 (First Ordering Paragraph).

4. APCo sought reconsideration of the July 7, 2015 Order with a Petition for Reconsideration filed on July 17, 2015. Among other things, in the Petition for Reconsideration, APCo noted that it sought a somewhat more specific address to certain aspects of the actions that APCo would be engaging in pursuant to the July 7, 2015 Order and appropriate measures respecting accounting for, and cost recovery of, the expenses associated with those actions. Further, APCo indicated that it would be considering whether and, if so, how any of the Disposition Units might figure into meeting its customers’ future needs, that it would perform its

¹ The term “Disposition Units” as used in this Application to Reopen (and in the Commission’s July 7, 2015 and August 7, 2015 Orders) refers to Units 5 & 6 of the Glen Lyn Plant, Units 1 & 2 of the Kanawha River Plant, and Units 1 & 3 of the Sporn Plant.

analyses as efficiently as circumstances allow, and that it would share its conclusions, regarding the potential future viability of the Disposition Units for possible use, at the earliest feasible date.

5. On August 7, 2015, the Commission issued an Order (the “August 7, 2015 Order”) and addressed the Petition for Reconsideration. Among other things, the Commission stated that it “will expect APCo to share its conclusions regarding its analysis of the future viability of the Disposition Units as soon as possible.” August 7, 2015 Order at 6.

6. As APCo indicated in its Petition for Reconsideration, APCo has studied the viability of the Disposition Units and is now able to report to the Commission the results that its analyses have produced to date.

7. In its analyses, APCo evaluated the cost of converting and operating Sporn Units 1 & 3, Glen Lyn Unit 6, and Kanawha River Units 1 & 2 to use natural gas, rather than coal, as fuel. APCo excluded Glen Lyn Unit 5 from its analyses. Glen Lyn Unit 5 has reached the end of its useful life and is effectively inoperable because of certain significant equipment liabilities.²

8. APCo modeled the costs of converting and operating Sporn Units 1 & 3, Glen Lyn Unit 6, and Kanawha River Units 1 & 2 based on an assumed ten-year life of any converted units and considered conversion, pipeline, and refurbishment costs, the latter under low cost and high capital cost scenarios. APCo then compared these conversion and operation costs to the costs of comparable, new gas-fired generating capacity, in the form of both combustion turbine (“CT”) and combined cycle (“CC”) units.

9. These analyses show that the cost of converting and operating the Kanawha River Units is significantly less than the cost of converting and operating either the Sporn Units or Glen Lyn Unit 6. Further, the cost of converting and operating the Kanawha River Units is,

² Clinch River Unit 3 was excluded because it is not one of the Disposition Units and because the prospect of converting the Clinch River Plant to use natural gas rather than coal as fuel had already been dealt with in Case No. 13-0764-E-CN.

under certain scenarios, relatively comparable to the cost of installing and operating new gas-fired capacity. The cost of converting and operating the Sporn Units or Glen Lyn Unit 6 would be significantly more than the cost of installing and operating new gas-fired capacity. The results of APCo's analyses are provided in more detail on **Exhibit A** to this Application to Reopen.

10. In view of the significant differences in cost between the conversion and operation of the Kanawha River Units or the construction and operation of new gas-fired capacity and the conversion and operation of the Sporn Units or Glen Lyn Unit 6, it does not make economic sense to consider further the conversion of the Sporn Units or Glen Lyn Unit 6.

11. Accordingly, APCo requests that it be relieved of any obligation to study further the future viability of the Sporn and Glen Lyn Units and of any obligation to maintain the Sporn and Glen Lyn Units for future use. APCo further requests authorization from the Commission to proceed with the decommissioning and disposal of Sporn Units 1 & 3, Glen Lyn Units 5 & 6, and Clinch River Unit 3.

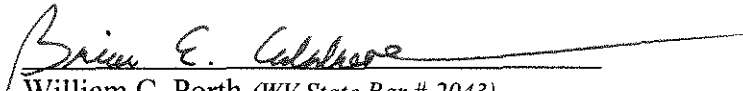
12. In light of the results of its analyses, APCo plans to keep open the possibility of the conversion of the Kanawha River Units and to include those units among the demand and supply alternatives that will be considered in APCo's preparation of the integrated resource plan to be filed by December 31, 2015 pursuant to W.Va. Code §24-2-19 and the IRP Order.

WHEREFORE APCo respectfully requests that the Commission grant the relief requested herein and such other relief as may be appropriate.

Respectfully submitted,

APPALACHIAN POWER COMPANY

By Counsel



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APCo -- Gas Conversion Economic Analysis Results

1: Determination of the relative economic ‘ranking’ of potential APCo natural gas conversion alternatives:

<u>Gas Conversion Alternative</u>	<u>MW</u> s	Low Refurbishment	Higher Refurbishment ⁽¹⁾	<u>Relative Rank</u>
		Cost Case 2016-2035 CPW Net System Cost (\$M)	Cost Case 2016-2035 CPW Net System Cost (\$M)	
Kanawha River 1&2	400	62.7	113.3	1
Sporn 1&3	300	165.6	210.8	2
Glen Lyn 6 ⁽²⁾	235	198.1	236.2	3

Note:

“CPW Net System Cost” represents the cumulative present worth (CPW) of all estimated variable and fixed operating costs, net of estimated (PJM) market value, discounted to 2016 dollars

(1) Assumes higher refurbishment costs, but that no cooling towers are required.

(2) Glen Lyn Unit 5 was removed from further consideration based on significant existing equipment liabilities that render the unit inoperable going-forward.

Conclusion:

- Kanawha River Units 1 & 2 gas conversion is the most economic (i.e., lowest cost under a reasonable range of refurbishment costs) gas conversion alternative.

2: Comparison of the gas conversion alternative economics to that of new-build CT or CC resources:

Kanawha River Units 1 & 2

<u>Gas Conversion / Replacement</u>	<u>Total Study Period (\$M)</u> ⁽¹⁾	
	<u>'Low'</u> Refurbishment Cost Case	<u>'Higher'</u> Refurbishment Cost Case ⁽²⁾
<i>With CT Replacement Alternative...</i>		
Kanawha 1&2 Conv + (2031) CT Repl	218.4	269.0
2-175 MW GE 7EA CTs (2020)	<u>274.1</u>	<u>274.1</u>
RELATIVE Cost / <Savings> of Gas Conv	(55.6)	(5.0)
<i>With CC Replacement Alternative...</i>		
Kanawha 1&2 Conv + (2031) CC Repl	(31.6)	19.0
390 MW CC (2020)	<u>(21.2)</u>	<u>(21.2)</u>
RELATIVE Cost / <Savings> of Gas Conv	(10.4)	40.2

Sporn Units 1 & 3

<u>Gas Conversion / Replacement</u>	Total Study Period (\$M) ⁽¹⁾	
	'Low'	'Higher'
	Refurbishment Cost Case	Refurbishment Cost Case ⁽²⁾
<i>With CT Replacement Alternative...</i>		
Sporn 1&3 Conv + (2031) CT Repl	321.4	366.6
2-175 MW GE 7EA CTs (2020)	<u>274.1</u>	<u>274.1</u>
RELATIVE Cost / <Savings> of Gas Conv	47.3	92.5
<hr/>		
<i>With CC Replacement Alternative...</i>		
Sporn 1&3 Conv + (2031) CC Repl	71.4	116.6
390 MW CC (2020)	<u>(21.2)</u>	<u>(21.2)</u>
RELATIVE Cost / <Savings> of Gas Conv	92.5	137.7

Glen Lyn Unit 6

<u>Gas Conversion / Replacement</u>	Total Study Period (\$M) ⁽¹⁾	
	'Low'	'Higher'
	Refurbishment Cost Case	Refurbishment Cost Case ⁽²⁾
<i>With CT Replacement Alternative...</i>		
Glen Lyn 6 Conv+ (2031) CT Repl	353.8	392.0
2-175 MW GE 7EA CTs (2020)	<u>274.1</u>	<u>274.1</u>
RELATIVE Cost / <Savings> of Gas Conv	79.8	117.9
<hr/>		
<i>With CC Replacement Alternative...</i>		
Glen Lyn 6 Conv + (2031) CC Repl	103.8	142.0
390 MW CC (2020)	<u>(21.2)</u>	<u>(21.2)</u>
RELATIVE Cost / <Savings> of Gas Conv	125.0	163.1

Note:

(1) Includes 2016-2040 CPW Net System Cost plus End-Effects Costs.

(2) Assumes higher refurbishment costs, but that no cooling towers are required.

Conclusion:

- The relative economics of the Kanawha River Units 1 & 2 gas conversion alternative under a “Low Refurbishment Cost” view are slightly more advantageous than a CT alternative, but on par with a CC alternative. If the “Higher Refurbishment Cost” view is assumed, the CT alternative is roughly equivalent, while the CC alternative is more economical than the comparable Kanawha River Units 1 & 2 gas conversion option.
- The relative economics of the Sporn Units 1 & 3 and Glen Lyn Unit 6 gas conversion alternatives are each more costly than either the CT or CC alternative under all views.
- Based on this analysis, the Kanawha River Units 1 & 2 gas conversion will be considered as a possible resource option in the upcoming APCo-W.Va. IRP analysis process, while Sporn Units 1 & 3 and Glen Lyn Units 5 & 6 will not be considered in that process.

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CASE NO. 15-0722-E-P

APPALACHIAN POWER COMPANY,
a public utility.

Staff Petition Regarding the Closure of Appalachian Power Company
Electric Generating Units.

CERTIFICATE OF SERVICE

I, Brian E. Calabrese, counsel for Appalachian Power Company, do hereby certify that true copies of the foregoing **Application to Reopen** were served by hand delivery or first-class U.S. Mail on this 8th day of October, 2015 addressed to the following:

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