

Public Service Commission
Of West Virginia

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



Phone: (304) 340-0300
FAX: (304) 340-0325

October 11, 2011

William C. Porth, Jr., Esq.
Counsel, Appalachian Power Company
Robinson & McElwee PLLC
PO Box 1791
Charleston, WV 25326

RE: Case No. 11-1034-E-P
Appalachian Power Company,
dba American Electric Power

Dear Mr. Porth:

Pursuant to Rule 2 of the Commission's Rules of Practice and Procedure, we are enclosing a copy of the Staff memorandum in this matter. If you wish to respond to the enclosed Staff memorandum, you may do so in writing, **within 10 days**, unless directed otherwise, of this date.

Your failure to respond in writing to the utility's answer, Staff's recommendations, or other documents may result in a decision in your case based on your original filing and the other documents in the case file, without further hearing or notice.

You have the ability to view documents as they are filed in this case if you have email. Please visit our web site at www.psc.state.wv.us and register with our email subscription system to receive customized daily activity information in this case. The public will not be given access to your email address. If you have provided an email address you will automatically receive docket notifications as documents are filed.

Sincerely,

A handwritten signature in black ink, appearing to read "Sandra Squire".

Sandra Squire
Executive Secretary

SS/ck
Enclosure

FINAL JOINT STAFF MEMORANDUM**TO: SANDRA SQUIRE**
Executive Secretary**DATE: October 11, 2011****FROM: JOHN AUVILLE**
Staff Attorney**RE: CASE NO. 11-1034-E-P**
APPALACHIAN POWER COMPANY,
dba AMERICAN ELECTRIC POWER

On July 19, 2011, Appalachian Power Company, dba American Electric Power (APCo) filed a petition for Commission certification that thirteen of APCo's electric generation facilities qualify as a "Qualified Energy Resource" as defined by the Commission's Rules Governing Alternative and Renewable Energy Portfolio Standard or Portfolio Standard Rules, so APCo can start generating "Alternative and Renewable Energy Resource Credits" or "Credits." The facilities include two supercritical advanced-coal technology plants, one gas-fired peaking plant, nine run-of-the-river hydro-electric facilities and one pumped storage hydro-electric facility. All of the facilities are wholly owned by APCo, except Unit No. 3 of the John E. Amos Generating Station, which is jointed owned with Ohio Power Company. APCo is also seeking certification of four EE/DR programs that the Commission has approved.

Donald Walker submitted the attached memorandum on September 28, 2011. Mr. Walker states all of the generation facilities are clearly "Qualified Energy Resources" that qualify for a different number of credits. The nine run-of-the-river hydro-electric facilities qualify for two credits per megawatt-hour generated. The gas-fired peaking plant and the pumped storage hydro-electric plant qualify for one credit per megawatt-hour generated. APCo only owns a third of the Amos facility, therefore, it only qualifies for 0.33 credits per every megawatt-hour generated. Lastly, the Mountaineer facility qualifies for one credit per megawatt-hour generated for utilizing supercritical technology, plus an additional 0.02 credit for the use of carbon capture and sequestration, for a total of 1.02 credits per megawatt-hour generated. As for the Energy Efficiency/Demand Response programs, Mr. Walker states it appears they qualify, but the credits should be determined and awarded upon APCo meeting and submitting the requirements in the Portfolio Standards as well as meeting the criteria set forth in the ENEC rate case (Case No. 10-0261-E-GI).

Legal Staff has reviewed the above mentioned memorandum and agrees with the contents therein. The generating facilities are all "Qualified Energy Resources" that generate differing numbers of credits. More information is needed for the EE/DR programs to know the amount of credits they will generate.

JRA/s

Attachment

CWS *CWS*

H:\jauville\WPdocs\111034aep\finalmemo.wpd

Final Engineering Memorandum

To: John Auville, Staff Attorney **Date:** September 27, 2011
Legal Division

From: Donald E. Walker, Technical Analyst *DZW*
Engineering Division

RE: Case Number: 11-1034-E-P
Appalachian Power Company, dba American Electric Power

Petition for Certification of Alternative and Renewable Energy Facilities and Energy Efficiency/Demand-Side Energy Initiative Projects pursuant to the Rules Governing Alternative and Renewable Energy Portfolio Standard, 150 C.S.R. 34

Scope of Petition

The Appalachian Power Company dba American Electric Power (Company) filed a petition consisting of thirteen (13) generating facilities and four (4) Energy Efficiency/Demand Response (EE/DR) Programs previously reviewed and approved regarding an ENEC rate increase effective July 1, 2010 (Case Number: 10-0261-E-GI).

The Company is seeking certification of its identified generating facilities and its EE/DR programs as qualified resources in accordance with West Virginia's Rules Governing Alternative and Renewable Energy Portfolio Standard, 150 C.S.R. 34 (Portfolio Standard).

Discussion

I. Generation

Attachment A to this memorandum is a modification of the summary provided by the Company in its application filed on July 19, 2011 (EXHIBIT F) pertaining to its generating fleet. The additional section – outlined in double lines – titled “Commission Evaluation (Engineering Division)” summarizes the results of the engineering review.

The evaluation of the Company’s petition as it applies to generation was for the most part, straight forward. Nine of the facilities qualify for two credits per megawatt-hour generated as they are Renewable, Run of River generators. Two

additional facilities qualify for one credit per MW generated as they are categorized as Alternative Energy Resources – a pumped hydroelectric facility and a natural or synthetic gas fired facility as defined by the Portfolio Standard.

Two facilities having unique circumstances requiring a different procedure when reporting their generation and ultimately the number of credits assigned to those plants are the Amos and Mountaineer facilities.

Amos Facility

The Company indicated that Unit 1 and Unit 2 are 100 percent owned by the Appalachian Power Company, and Unit 3 is one third owned by the Appalachian Power Company with the remaining two thirds owned by an affiliate, the Ohio Power Company. In order to maintain the proper number of credits produced by the Amos Facility, each unit will report its generation on a unit basis – not as a total facility. Unit 1 will produce one credit for each MW generated. Unit 2 will produce one credit for each MW generated. Unit 3 will produce 0.33 credit for each MW generated.

Mountaineer Facility

The Mountaineer Facility qualifies for two Advanced Coal credits. As a supercritical unit, the facility will produce one credit for each MW generated. Additionally, the Mountaineer Facility employs Carbon Capture and Storage Technology (CCST) utilized in 20 MW of the total nameplate generation of 1300 MW or 0.015 MW of each MW generated (rounded to 0.02). Since the CCST is an integral part of the generation at the Mountaineer Facility, the credits produced by both Advanced Coal Technology categories as defined in the Portfolio Standard, can be added together producing 1.02 credits for each MW generated by the facility.

II. Energy Efficiency/Demand Response Programs

The Appalachian Power Company included in its petition a list of four (4) Energy Efficiency/Demand Response (EE/DR) Programs previously reviewed and approved regarding an ENEC rate increase effective July 1, 2010 (Case Number: 10-0261-E-GI). Credits will be determined and awarded upon meeting and submitting the requirements established in the Portfolio Standards as well as meeting the criteria set forth in the ENEC rate case (Case Number 10-0261-E-GI).

Conclusion

The Engineering Division reviewed the 13 generating facilities and the four (4) Energy Efficiency/Demand Response projects presented in this petition, for

certification as Alternative Energy Resources or Energy Efficiency or Demand-side Energy Initiative Projects as defined in the Portfolio Standard.

The generating facilities as reviewed in the *Discussion* section of this memorandum are summarized on "Attachment A" to this document indicating the criteria which was verified as required by the Portfolio Standard. The *Commission Evaluation (Engineering Division)* section also provides a summary of the number of credits each generating facility may produce based on the rules. Nine of the generating facilities petitioned by the Company qualify for two Renewable Energy Resource Credits per MW generated. Two additional facilities require a more detailed analysis and explanation when determining their qualified generated credits. The Amos Facility will report its individual unit generation with Unit 1 producing 1 credit per one MW generated, Unit 2 producing 1 credit per one MW generated and Unit 3 producing 0.33 of a credit per one MW generated because Appalachian Power Company owns one third of that generating unit. The Mountaineer Facility qualifies in producing 1.02 credits per one MW generated because of its integrated Carbon Capture and Storage Technology accounting for 20 MW of the nameplate generation of 1300 MW or 0.02 MW of each MW generated.

The Energy Efficiency/Demand Response (EE/DR) Programs petitioned by the Company for the production of Renewable Energy Resource Credits were reviewed. Credits will be determined and awarded upon meeting and submitting the requirements established in the Portfolio Standards as well as meeting the criteria set forth in the ENEC rate case (Case Number 10-0261-E-GI).

Recommendations

The Appalachian Power Company, dba as American Electric Power petition appears to comply with the Rules Governing Alternative and Renewable Energy Portfolio Standard, 150 C.S.R. 34. The Engineering Division recommends that the generating facilities petitioned by the Company be certified as Qualified Energy Resource Facilities as indicated on Attachment A of this memorandum.

The Energy Efficiency/Demand Response (EE/DR) Programs petitioned by the Company will be certified as Qualified Energy Resource projects when the required information is submitted to the Commission for review as established in Case Number 10-0261-E-GI and compliance with the Rules Governing Alternative and Renewable Energy Portfolio Standard, 150 C.S.R. 34 is verified.

DEW/s
attachment

West Virginia Alternative and Renewable Energy Portfolio Standard Plan

OWNER
4.4.b.2 Appalachian Power Company
Ste. 1100, Chase Tower, 707 Virginia St. E
Charleston, West Virginia 25301

OPERATOR
4.4.b.3 Appalachian Power Company
Ste. 1100, Chase Tower, 707 Virginia St. E
Charleston, West Virginia 25301

REPRESENTATIVE
4.4.b.4 Jeffrey D. LaFleur
Ste. 1100, Chase Tower, 707 Virginia St. E
Charleston, West Virginia 25301

| 4.4.b.1 | FACILITY NAME STREET ADDRESS City STATE ZIP CODE | Amos ¹ 1530 Winfield Road Winfield West Virginia 25213 | Buck 3564 Byllesby Road Ivanhoe Virginia 24350 | Byllesby 3564 Byllesby Road Ivanhoe Virginia 24350 | Claytor 8355 Little River Dam Road Radford Virginia 24141 | Ceredo 1662 Walkers Branch Road Huntington West Virginia 25704 | Leesville 754 County Road Hurt Virginia 24563 | London Route 61 Handley West Virginia 25102 | Marmet 200 86th St. Marmet West Virginia 25315 | Mountaineer Rt. 62 New Haven West Virginia 25265 | Niagra 1495 Niagra Road Vinton Virginia 24179 | Reuzens 4200 Hydro Street Lynchburg Virginia 24503 | Smith Mountain 2072 Ford Road Sandy Level Virginia 24161 | Winfield 3732 Winfield Road Winfield Virginia 25213 |
|----------|---|---|--|---|---|---|---|--|--|--|---|--|--|---|
| 4.4.b.5 | DOCUMENTATION OF AUTHORITY | See Attached | See Attached | See Attached | See Attached | See Attached | See Attached | See Attached | See Attached | See Attached | See Attached | See Attached | See Attached | See Attached |
| 4.4.b.6 | LONGITUDE (Degrees, Minutes, Seconds) LATITUDE (Degrees, Minutes, Seconds) IS FACILITY SITED UPON A RECLAIMED SURFACE MINE? | 38 28 23 81 49 24 NO | 36 48 29 80 56 19 NO | 36 47 9 80 56 0 NO | 37 4 30 80 35 5 NO | 38 22 1 82 31 59 NO | 37 5 36 79 24 9 NO | 38 11 40 81 22 14 NO | 38 15 18 81 34 14 NO | 38 58 46 81 56 4 NO | 37 15 16 79 52 32 NO | 37 27 50 79 11 8 NO | 37 2 29 79 32 11 NO | 38 30 56 81 54 43 NO |
| 4.4.b.7 | FUEL TYPE CAPACITY (MW) | Coal 2900 | Water 8,505 | Water 21.6 | Water 75 | Gas 522 | Water 50 | Water 14.4 | Water 14.4 | Coal 1300 | Water 2.4 | Water 12.5 | Water 586 | Water 14.76 |
| 4.4.b.8 | FACILITY DESCRIPTION PLANT TYPE UNITS IS THE FACILITY A CUSTOMER OR BTM GENERATOR? | Supercritical; Advanced Coal Technology Unit 1, 800 MW, in service 1971 Unit 2, 800 MW, in service 1972 Unit 3 ¹ , 1300 MW, in service 1973 NO | Run of the River Hydropower Unit 1, 2,835 MW, acquired 1925 Unit 2, 2,835 MW, acquired 1925 Unit 3, 2,835 MW, acquired 1925 NO | Run of the River Hydropower Unit 1, 5.4 MW, acquired 1925 Unit 2, 5.4 MW, acquired 1925 Unit 3, 5.4 MW, acquired 1925 Unit 4, 5.4 MW, acquired 1925 NO | Run of the River Hydropower Unit 1, 18.75 MW, in service 1939 Unit 2, 18.75 MW, in service 1939 Unit 3, 18.75 MW, in service 1939 Unit 4, 18.75 MW, in service 1939 NO | Gas Unit 1, 87 MW, in service 2001 Unit 2, 86 MW, in service 2001 Unit 3, 87 MW, in service 2001 Unit 4, 88 MW, in service 2001 Unit 5, 88 MW, in service 2001 NO | Run of the River Hydropower Unit 1, 25 MW, in service 1964 Unit 2, 25 MW, in service 1964 NO | Run of the River Hydropower Unit 1, 4.8 MW, in service 1975 Unit 2, 4.8 MW, in service 1975 Unit 3, 4.8 MW, in service 1975 NO | Run of the River Hydropower Unit 1, 4.8 MW, in service 1935 Unit 2, 4.8 MW, in service 1935 Unit 3, 4.8 MW, in service 1935 NO | Supercritical; Carbon Capture and Storage Advanced Coal Technology Unit 1, 1300 MW, in service 1980 NO | Run of the River Hydropower Unit 1, 1.2 MW, in service 1906 Unit 2, 1.2 MW, in service 1906 NO | Run of the River Hydropower Unit 1, 2.5 MW, in service 1903 Unit 2, 2.5 MW, in service 1903 Unit 3, 2.5 MW, in service 1903 Unit 4, 2.5 MW, in service 1903 Unit 5, 2.5 MW, in service 1903 NO | Run of the River Hydropower Unit 1, 65 MW, in service 1965 Unit 2, 174 MW, in service 1965 Unit 3, 106 MW, in service 1976 Unit 4, 174 MW, in service 1966 Unit 5, 65 MW, in service 1966 NO | Pump Storage Hydropower Unit 1, 4.92 MW, in service 1938 Unit 2, 4.92 MW, in service 1938 Unit 3, 4.92 MW, in service 1938 NO |
| 4.4.b.9 | METERING SYSTEM IDENTIFICATION AND DESCRIPTION | Pulse accumulators via AEP's Energy Management System (EMS) and accounting systems to PJM | Pulse accumulators via AEP's Energy Management System (EMS) and accounting systems to PJM | Pulse accumulators via AEP's Energy Management System (EMS) and accounting systems to PJM | Pulse accumulators via AEP's Energy Management System (EMS) and accounting systems to PJM | Pulse accumulators via AEP's Energy Management System (EMS) and accounting systems to PJM | Pulse accumulators via AEP's Energy Management System (EMS) and accounting systems to PJM | Pulse accumulators via AEP's Energy Management System (EMS) and accounting systems to PJM | Pulse accumulators via AEP's Energy Management System (EMS) and accounting systems to PJM | Pulse accumulators via AEP's Energy Management System (EMS) and accounting systems to PJM | Pulse accumulators via AEP's Energy Management System (EMS) and accounting systems to PJM | Pulse accumulators via AEP's Energy Management System (EMS) and accounting systems to PJM | Pulse accumulators via AEP's Energy Management System (EMS) and accounting systems to PJM | Pulse accumulators via AEP's Energy Management System (EMS) and accounting systems to PJM |
| 4.4.10 | IS THE FACILITY IN THE PJM REGION? | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES | YES |
| 4.4.b.11 | IS THE FACILITY CERTIFIED BY ANOTHER STATE AS AN ELIGIBLE GENERATION RESOURCE TO MEET THE PORTFOLIO STANDARD OF THAT STATE? | NO | YES | YES | YES | YES | YES | YES | YES | NO | YES | YES | YES | YES |
| 4.4.b.12 | IS THE FACILITY BEING USED FOR A VOLUNTARY RETAIL CUSTOMER PROGRAM BY AN ELECTRIC UTILITY IN WEST VIRGINIA? | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO | NO |
| 4.4.b.13 | ORISP CODE | 3935 | 3772 | 3773 | 3774 | 55276 | 3777 | 3560 | 6561 | 6264 | 3778 | 3779 | 3780 | 6562 |
| 4.4.b.14 | ENERGY INFORMATION ADMINISTRATION FORM EIA 869 | See Application | See Application | See Application | See Application | See Application | See Application | See Application | See Application | See Application | See Application | See Application | See Application | See Application |

Commission Evaluation (Engineering Division)

| Qualifies for Alternative and Renewable Energy Resource Credits | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
|---|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----------------------|-----|-----|-----|-----|
| Number of Credits Approved: Credit per Megawatt Hour Generated | Amos 1 - 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | Supercritical - 1 | 2 | 2 | 1 | 2 |
| | Amos 2 - 1 | | | | | | | | | Carbon Capture - 0.02 | | | | |
| | Amos 3 - 0.33 | | | | | | | | | Total Credits = 1.02 | | | | |
| <p>NOTES</p> <p>¹ Amos 3 ownership is 1/3 Appalachian Power Company (APCo) and 2/3 Ohio Power Company (OPCo)</p> <p>² Carbon Capture Technology is used in 20 MW of the total nameplate generation of 1300 MW or 0.015 MW of each MW generated.</p> | | | | | | | | | | | | | | |