May 6, 2021

Connie Graley, Executive Secretary
Public Service Commission of West Virginia
201 Brooks Street, PO Box 812
Charleston, WV 25323-0812

Re: *APPALACHIAN POWER COMPANY and WHEELING POWER COMPANY, Application for the issuance of a certificate of public convenience and necessity for the internal modifications at coal fired generating plants necessary to comply with federal environmental regulations, Case No. CASE NO. 20-1040-E-CN*

Dear Ms. Graley:

Please find enclosed for filing on behalf of West Virginia Citizen Action Group, Solar United Neighbors, and Energy Efficient West Virginia, in the above-referenced case, the original and twelve copies of the PUBLIC VERSION of the Direct Testimony of Sean O'Leary.

Copies of the public version of this testimony are being served upon all parties of record. The confidential version is being served on the Companies, and those parties that have executed an appropriate protective agreement with the Companies.

Please contact me if you have any questions concerning this filing.

Respectfully,

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Enclosures

PUBLIC SERVICE COMMISSION
OF WEST VIRGINIA
CHARLESTON

APPALACHIAN POWER COMPANY and	**)**	
WHEELING POWER COMPANY,	**)**	**Case No. 20-1040-E-CN**
Application for the issuance of a Certificate	**)**	
of Public Convenience and Necessity for	**)**	
internal modifications at coal fired	**)**	
generating plants necessary to comply with	**)**	
federal environmental regulations.	**)**	

Direct Testimony of
Sean O'Leary

Public Version

On Behalf of
West Virginia Citizen Action Group
Solar United Neighbors
Energy Efficient West Virginia

May 6, 2021

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I. Introduction and Qualifications

Q1: Please state your name, position, and business address.

A: My name is Sean O'Leary. I am a senior researcher at the Ohio River Valley Institute (ORVI), a public policy think tank located at 216 Franklin Street, Suite 400, Johnstown, Pennsylvania 15901.[1]

Q2: What are your responsibilities at the Ohio River Valley Institute?

A: My areas of focus are energy, petrochemicals, and economic development in the greater Ohio Valley. In that capacity, I recently published a report on the economic impacts of the shale gas boom on major gas-producing counties in Appalachia, which include Marshall, Ohio, and Wetzel Counties in West Virginia.[2]

Q3: What is your background in West Virginia?

A: I am a native of Wheeling and a graduate of Warwood High School and Bethany College. Until 2014, I was a resident of Harpers Ferry where I wrote "*The State of My State*" newspaper column about public policy and economic issues for *The Journal* in Martinsburg and published a book of the same name.[3] I am also a playwright who has written about West Virginia, and in 2005 was named to the inaugural *Literary Map of West Virginia*[4].

Q4: What other experience do you offer that is relevant to this case?

A: I am the former communications director at the NW Energy Coalition, an energy policy think tank based in Seattle, Washington. The Coalition played a principal role in developing and administering an economic and clean energy transition plan that has been effective in helping to

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[1] Attachment SL-CV: Sean O'Leary Curriculum Vitae
[2] Sean O'Leary, Ohio River Valley Inst., Appalachia's Natural Gas Counties (updated Feb. 12, 2021), https://ohiorivervalleyinstitute.org/wp-content/uploads/2021/02/Frackalachia-Report-update-2_12_01.pdf.
[3] Sean O'Leary, *The State of My State* (2013).
[4] *See West Virginia Literary Map*, W. Va. Folklife Ctr. at Fairmont State Univ., https://www.fairmontstate.edu/folklife/west-virginia-literary-map (last accessed, May 4, 2021).

preserve jobs and businesses, and in improving the quality of life in Centralia, Washington, a community that bears similarities to Moundsville, and in which a major coal-fired power plant owned by TransAlta Corporation is in the process of being retired. Prior to joining the NW Energy Coalition, I was the founder, and for seventeen years, President of MarketLab LLC, a marketing analytics and research firm that modeled workings of the economy and markets for the pharmaceutical and consumer packaged goods industries.

Q5: What is the scope and purpose of your testimony?

A: I am writing to describe an economic transition plan that could help address the challenges Marshall County will face when the Mitchell plant is retired or begins operating primarily as a capacity resource. My testimony will describe an economic transition plan developed for Centralia, Washington, to help that community deal with closure of a coal mine and retirement of a coal plant. In the event that the Mitchell plant is retired in 2028, the Centralia plan may be able to serve as a model for Marshall County and adjoining counties. Of course, the local community and stakeholders must be involved in development of this plan. My testimony will describe the Centralia plan – its structure, its funding, and its effects on the community of Centralia and Lewis County, Washington, where Centralia is located. Then, I will discuss how similar economic transition efforts could help address the challenges Marshall County and surrounding counties such as Wetzel and Ohio may face when the Mitchell plant retires in 2028 or operates primarily as a capacity resource, as AEP projects it would do starting in the early 2030s.

The core elements of the $55 million Centralia Coal Transition plan, which might be applicable to Marshall and the surrounding counties, are Energy Efficiency/Weatherization, Economic and Community Development, and Energy Technology funds, which provide grants to individuals, businesses, and public and private organizations in Centralia, Lewis County, South Thurston County, and to communities statewide in some cases. The Centralia plan is funded by the plant's owner, TransAlta Corporation, using shareholder dollars. A similar plan in Marshall County could be funded through a mix of ratepayer dollars, shareholder dollars, and federal funds, and private grants.

II. The Economic Impacts of the Mitchell Plant

Q6: What role does the Mitchell plant played in Marshall County's economy?

A: Mitchell provides about 2% of jobs in the county through direct employment.[5] The plant has also been a major source of property tax revenue for county government: in 2020, Wheeling Power Company and Kentucky Power Company each paid $3,094,045 to the county for property taxes on the Mitchell plant.[6] In addition, the coal burned at the Mitchell plant is mined in the region,[7] with the majority of the coal mined in Marshall County.[8]

Q7: Has the economic impact of the Mitchell Plant declined in recent years?

A: Yes. From 2016 to 2020, the number of people employed at the Mitchell Plant has declined by approximately 25%, from 282 to 214.[9] In addition, net generation at Mitchell has declined from approximately 7.7 million MWhs in each of 2016 and 2017, to approximately 5.5 million MWhs in 2018, just over 5 million MWhs in 2019, and only 3.6 million MWhs in

[5] Bureau of Labor Statistics, U.S. Dep't of Labor, County Employment and Wages in West Virginia – Third Quarter 2020 (Mar. 16, 2021), https://www.bls.gov/regions/mid-atlantic/news-release/pdf/countyemploymentandwages_westvirginia.pdf.
[6] Attachment SL-1 AEP Response to CAD 3-9(ii).
[7] Attachment SL-2 AEP Response to Staff 1-4.
[8] Attachment SL-3 AEP Confidential Response to CAG 2-15 Attachment 1.
[9] Attachment SL-4 AEP Response to CAG 2-4 Attachment 1.

2020.[10] As a result, total annual coal costs for Mitchell declined by more than half between 2016 and 2020.[11]

Q8: What options are being considered for the future of the Mitchell Plant?

A: AEP has presented two options for the future of the Mitchell Plant. Under Option 1, AEP would spend approximately $98 million in ratepayer money to bring the Mitchell Plant into compliance with the federal Effluent Limitation Guidelines ("ELGs") and continue to operate the plant until 2040.[12] Under Option 2, AEP would forego the spending on ELG compliance and, instead, retire the Mitchell Plant by the end of 2028.

Q9: How would the economic impacts to Marshall County and surrounding communities differ if AEP proceeds with Option 1 versus Option 2?

A: In the near term, there would be relatively little difference, as under either option the Mitchell Plant is expected to continue operating for seven more years. There would be a difference in impacts between the two options from 2028 through 2040, however, as under Option 2, there would be a loss of jobs and tax base after the Mitchell Plant closed at the end of 2028. The difference in impacts, however, is tempered by the fact that under Option 1, AEP's own analysis projects that the Mitchell Plant would serve "primarily as a capacity resource,"[13]which the Companies define as operating at a "capacity factors of 10-15% or lower,"[14] from 2031 until retirement of the plant in 2040.[15] As a result, and as detailed in

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[10] Attachment SL-5 AEP Response to CAG 1-37 Attachment 1.
[11] Attachment SL-6 AEP Response to CAG 1-37 Attachment 9.
[12] Direct Testimony of James F. Martin (Company Exhibit JFM-D), revised January 7, 2021 ("Martin Direct Test.") 4:19-21. Half of that $98 million would be incurred by WPCo, while the other half would be incurred by Kentucky Power Company, another AEP affiliate that owns half of the Mitchell Plant. Only the WPCo half of that spending is at issue in this proceeding, though it is my understanding that the Kentucky Public Service Commission is reviewing Kentucky Power's request for authorization of the other half of that spending.
[13] Martin Direct Test. at 19:8-9.
[14] Attachment SL-7 AEP Response to CAG 1-16(a).
[15] Confidential Attachment SL-8 AEP Response to CAG 4-26(a).

Section V below, the amount of coal that AEP would purchase from Marshall County would drop precipitously, and the jobs at the plant would also decline, even if the plant continues operating until 2040.

Q10: Can steps be taken to promote an economic transition that could help prevent or offset the job and tax base losses from retirement or significantly reduced operation of the Mitchell Plant?

A: Yes. As described in the next section of my testimony, specific steps can be taken, starting well in advance of the Mitchell plant's retirement that will, first, have the effect of expanding business opportunities for local merchants and leading to the creation of new jobs. Second, these steps will provide workers and families from throughout Marshall, Ohio, and Wetzel Counties and the state with resources and educational benefits with which they can pursue education, develop job skills, and find new opportunities. Third, these steps will fund clean energy upgrades to residences as well as private and public buildings that will result in significant bill savings and improved health for residents and workers. Finally, these steps will fund enhancements to local public and private institutions that will improve the community's quality of life making it a more appealing place to workers, families, and businesses as a place to locate and grow. In my opinion, this is a superior outcome for Marshall County and the surrounding counties to a scenario in which the spending of $49 million by WPCo (plus $49 million from AEP's Kentucky affiliate) to achieve ELG compliance would still result in significant declines in employment and coal purchases at Mitchell and would, according to AEP's own testimony, be more costly to West Virginia customers.

III. An Economic and Energy Transition Model for Marshall County

Q11: On what facts do you base your assertion that the economic and energy transition program developed for Centralia, Washington is relevant to the situation in Marshall County and the surrounding counites, should the Mitchell plant be retired in 2028?

A: There are three compelling similarities: the populations of the communities; the power plants' size, employment levels, and the role the plants play economically in the regions; and the decision on whether to spend one retrofits comply with environmental standards.

First, there are important similarities between the communities. The areas surrounding Moundsville and Centralia have about the same population – the Centralia micropolitan area, as defined by the US Census Bureau, has a population of 80,000.[16] Marshall, Ohio, and Wetzel Counties in West Virginia have a combined population of 87,000[17]. Both communities are in the outer orbits of major metropolitan areas – in the case of Moundsville, Pittsburgh lies seventy miles to the northeast, and in the case of Centralia, Portland, Oregon and Seattle, Washington are about ninety miles distant.

Second, the two plants also have key similarities. Both went online in 1971. The Centralia plant's nameplate capacity is 1,466 MW as compared to 1,633 MW at the Mitchell plant. Although the Centralia plant once employed 370 workers, as of December of last year, it was down to between 185 and 190 workers. Similarly, Mitchell once employed 282 workers, but was down to 214 employees by 2020.[18] Then in January 2021, when the first generating unit closed, Centralia laid off 69 workers. Also, the Centralia plant formerly sourced its coal locally, until the Centralia mine was shut down in 2006, displacing 600 coal miners. Following that, the

[16] U.S. Bureau of Econ. Analysis, Interactive Data Tables: Regional Data, GDP & Personal Income, https://apps.bea.gov/iTable/iTable.cfm?reqid=70&step=1&acrdn=5 (last accessed May 4, 2021).
[17] *Id.*
[18] Attachment SL-9 AEP Response to CAG 2-4 Attachment 1

power plant began acquiring coal from mines in Wyoming and Montana. Mitchell currently sources a majority of its coal locally, but Mitchell's coal purchases will decline precipitously after 2031, even if the plant continues operating.[19]

A final similarity is that in 2011 the Centralia plant's owner, TransAlta Corporation, like Mitchell's owners today, faced a choice of either investing in retrofits to the plant in order to maintain regulatory compliance or adopting a plan to retire the coal-burning units. The company chose the latter and the retirement of the plant at Centralia will be complete in December 2025.

Q12: Please summarize the key elements of the economic and energy transition plan that was developed for Centralia, the surrounding area, and other places in Washington.

A: In December 2011, a Memorandum of Agreement[20] was finalized between TransAlta Corporation and the office of the Governor of the State of Washington, setting forth terms for the plant's retirement by December 31, 2025. The Agreement specified that the Company would make annual payments of $4,583,000.00 between January 1, 2012, and December 31, 2023, into independent accounts established for the purpose of providing financial assistance for economic development and the funding of weatherization and clean energy technologies to residents, employees, businesses, non-profit organizations and local governments within Lewis County, South Thurston County, and the State of Washington.[21] The total contributions of $55 million would be made to three funds from which grants would be issued by boards established with the state:

[19] *See* Attachment SL-10 AEP Response to CAG 5-2(b) ("Coal purchases would likely decline from current levels at the same rate of decline as the capacity factor.").

[20] Attachment SL-11 Centralia Mem. of Agreement between the State of Washington and TransAlta Centralia Generation, LLC (Dec. 23, 2011), https://ecology.wa.gov/DOE/files/85/858591f6-dd25-47be-ba1d-0f58264ca147.pdf.

[21] *Id.* at 2-3.

- The "Weatherization Fund" would receive contributions of $833,000 annually and an aggregate amount of $10 million over its life, to support residential energy efficiency and weatherization measures for low-income and moderate-income residents. At least $1 million of the $10 million that would eventually be deposited in this fund would be dedicated to weatherization measures for low-income residents in two surrounding counties.
- The "Economic and Community Development Fund" would receive $1,666,667 annually and an aggregate amount of $20 million over its life and would allocate funds to "education, retraining and economic development specifically targeting the needs of workers displaced from the Facility."[22] This fund also makes investments to enhance economic opportunities and community partnerships within the two surrounding counties.
- The "Energy Technology Fund" would receive at least $2,083,000 annually and an aggregate amount of $25 million over its life in annual contributions and would fund "energy technologies with the potential to create considerable energy, air quality, haze or other environmental benefits located in or otherwise to the benefit of the State of Washington."[23]

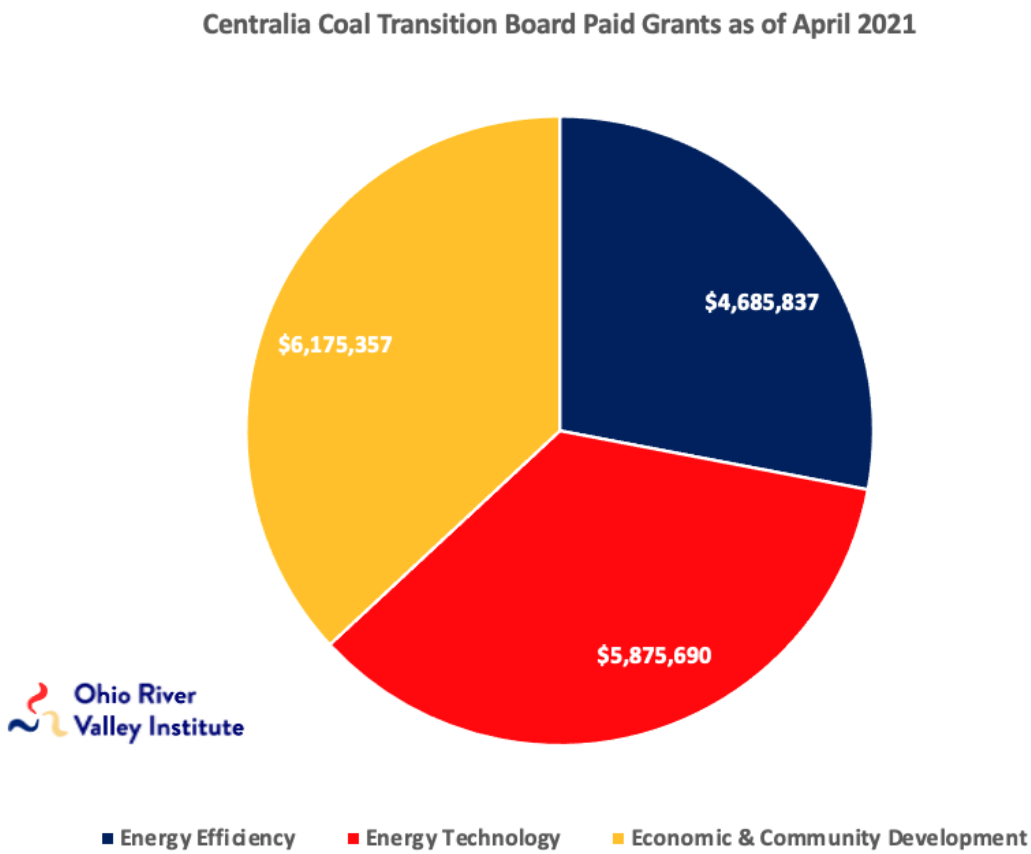
Q13: Please summarize the grants that have been made under the Centralia economic and energy transition plan to date.

A: Since grant activity started in March of 2016 and, as of April 2021, forty-two grants totaling $17,492,102 had been issued.[24] An additional $8 million had been set aside to

[22] *Id.* at 3.
[23] *Id.*
[24] Centralia Coal Transition Funding Board, Account Balances Tracking Sheet (last updated April 20, 2021) (unpublished) (on file with author). *See generally*, *Grant Recipients*, Centralia Coal Transition Grants, https://cctgrants.com/category/grant-recipients/ (last accessed May 4, 2021).

compensate workers who would be laid off from the Centralia plant, and another $1 million has been set aside to fund training and education for workers and their families.

Fig. SL-1 Centralia Coal Transition Board Paid Grants as of April 2021



Source: Centralia Coal Transition Fund, Account Balances Tracking Sheet

The Weatherization Fund has disbursed $6,175,357. The largest recipients have been the Lewis County Public Utility District's energy efficiency program, which has received three grants totaling $3,122,250 and the Community Action Council of Lewis, Mason, and Thurston Counties, which has received two grants totaling $1,427,433.

The Economic and Community Development Fund has disbursed $4,685,837. The major recipients have been the Centralia Community Foundation, which received a grant of $2 million and the Centralia College Foundation, which received two grants totaling $2.5 million. The first grant of $1.3 million was for the construction of a building to house worker and employer training programs. The second grant of $1.2 million is being used to prepare high school students for post-secondary college and vocational education.

The Energy Technology Fund has disbursed $5,875,690. Ten local governments and school districts have received grants from the Energy Technology Fund totaling $2.1 million for the construction of solar arrays on schools and public buildings. A Renewable Hydrogen Pilot Project managed by the Bonneville Environmental Foundation received a $1.9 million grant. And the NW Seaport Alliance, the port development authority for the ports of Seattle and Tacoma, received a $1 million grant to electrify the freight terminal so that container ships will not have to burn diesel fuel while in port. The remaining Energy Technology Fund grants have gone to support public transportation electrification and a feasibility study for the development of a long-duration battery storage facility in Lewis County.

It should also be noted that, over and above the Centralia Coal Transition Grants Program, TransAlta is proposing a 180 MW utility-scale solar array near Centralia on the site of the closed coal mine.[25] And the company has become a minority owner of a 136 MW wind farm in the county.[26]

[25] *See* Associated Press, Major Solar Project Proposed for Former Washington Coal Mine, *Seattle Times* (Mar. 15, 2018), https://www.seattletimes.com/seattle-news/major-solar-project-proposed-for-former-washington-coal-mine/.
[26] *See* TransAlta renewables, *Skookumchuck Wind Project*, https://www.transaltarenewables.com/plants-operation/skookumchuck-wind-project/ (last accessed May 4, 2021).

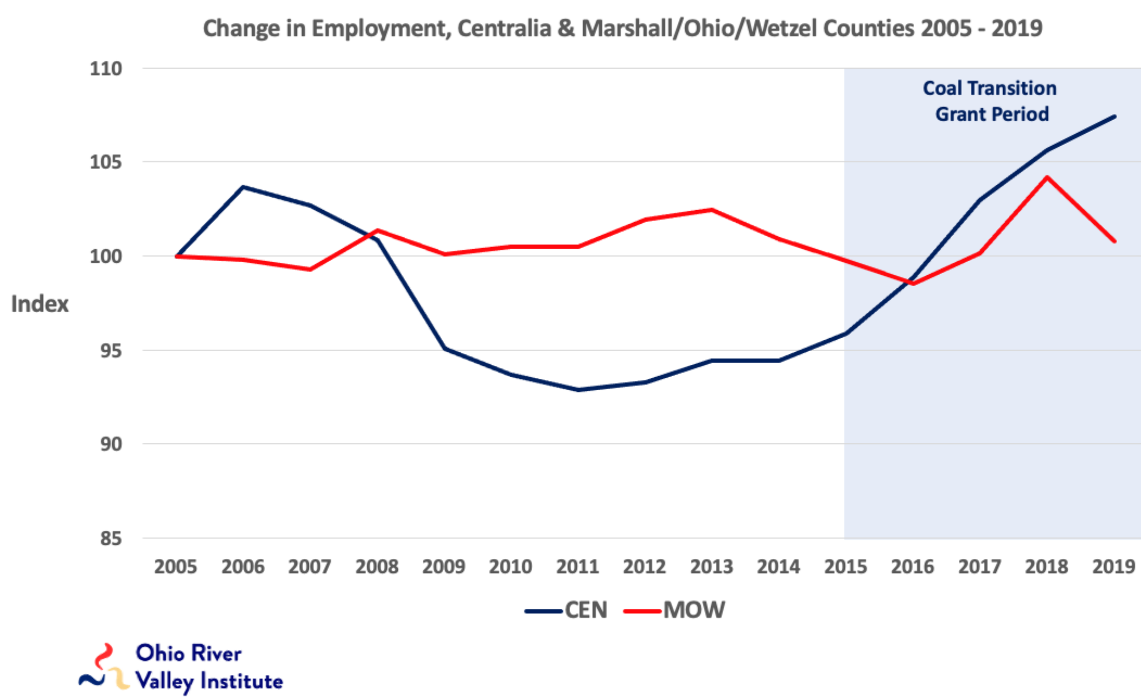
IV. The Economic Impacts Associated with the Centralia Transition Program

Q14: What were economic conditions like in the Centralia area before the transition grant program began distributing funds, and how are they now?

A: As a consequence of the closure of the Centralia coal mine at the end of 2006 and the Great Recession that followed in 2008, Centralia experienced a major loss of jobs. Significant recovery from the recession coincided with the launch of the TransAlta Coal Transition Grant program, which in 2016 began disseminating grants in the areas of economic development, energy efficiency, and energy technology.

As seen in Figure SL-2, from 2015 through 2019, prior to the onset of the COVID-19 pandemic, the rate of job growth in Centralia was strong enough to shoot past pre-recession levels. During this same period, job growth in Marshall, Ohio, and Wetzel Counties was generally flat.

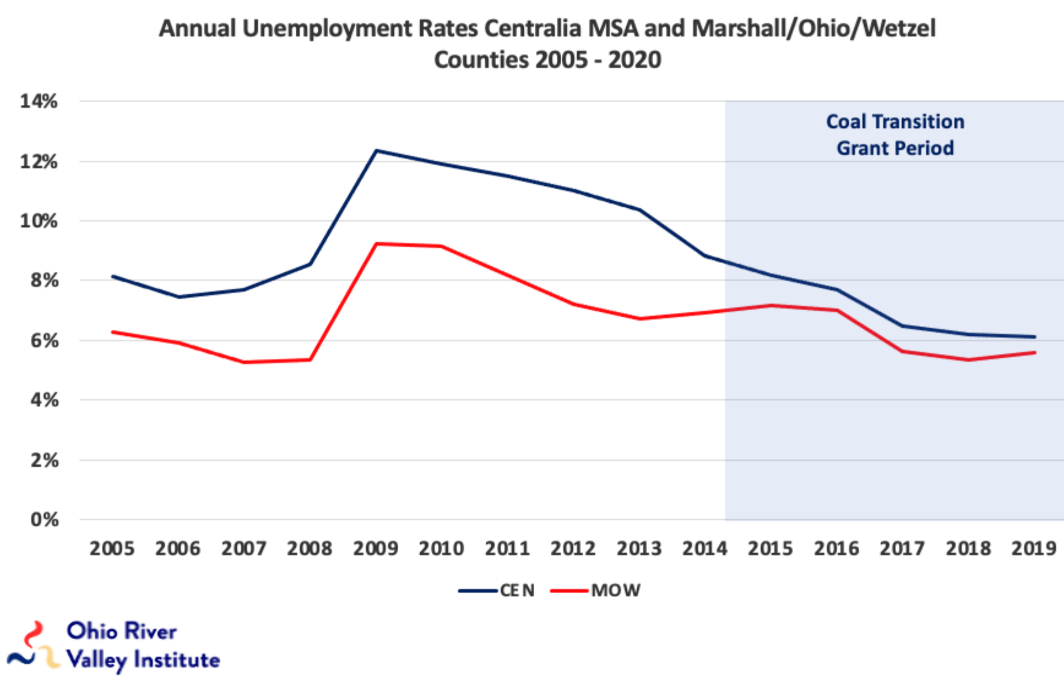
Fig. SL-2 Change in Employment, Centralia & Marshall/Ohio/Wetzel Counties 2005-2019



Source: Quarterly Census of Employment and Wages (QCEW) employment data, U.S. Bureau of Labor Statistics, https://www.bls.gov/cew/downloadable-data-files.htm

This dynamic is also reflected in the evolution of unemployment rates in the two areas, as detailed in the chart below. Traditionally, Centralia had a higher unemployment rate than the three counties in West Virginia, and the difference was exacerbated when the Centralia coal mine closed in 2006, resulting in the layoffs of 600 workers. But, between 2009 and 2016, Centralia closed the gap to a single percentage point. And, between 2016 and 2020, the gap vanished almost entirely.

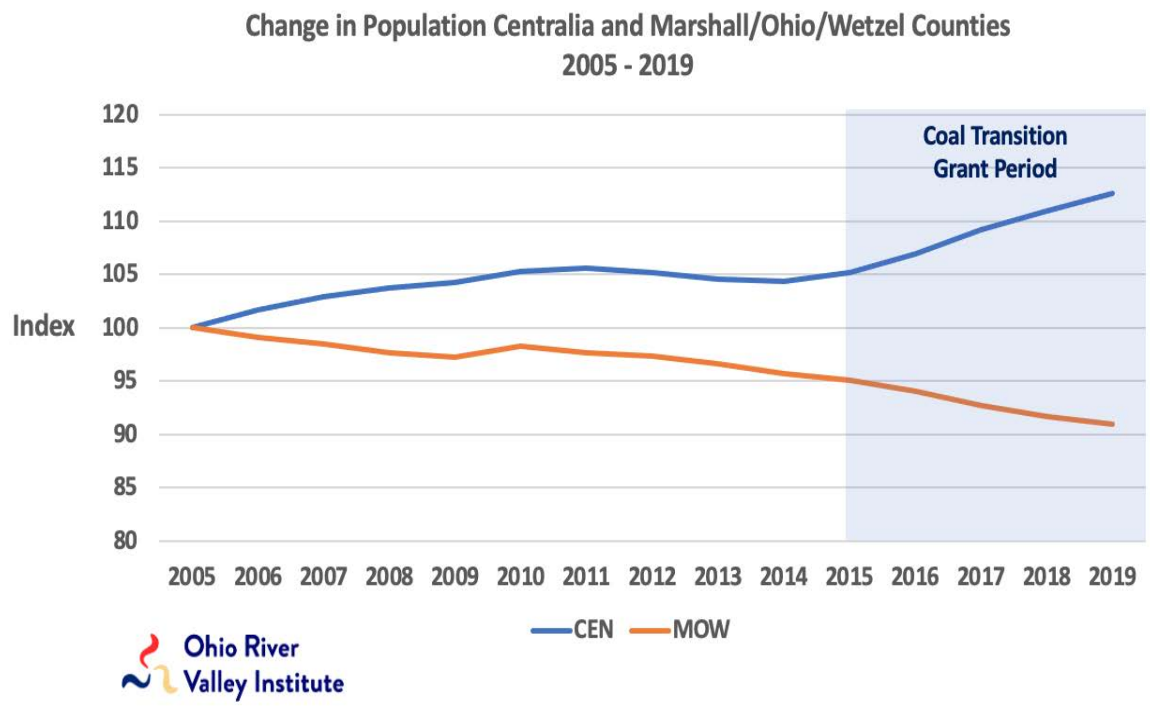
Fig. SL-3 Annual Unemployment Rates Centralia MSA and Marshall/Ohio/Wetzel Counties 2005-2020



Source: U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics https://www.bls.gov/lau/home.htm

The population in the Centralia micropolitan areas has seen a marked increase in conjunction with the Coal Transition Grant period.

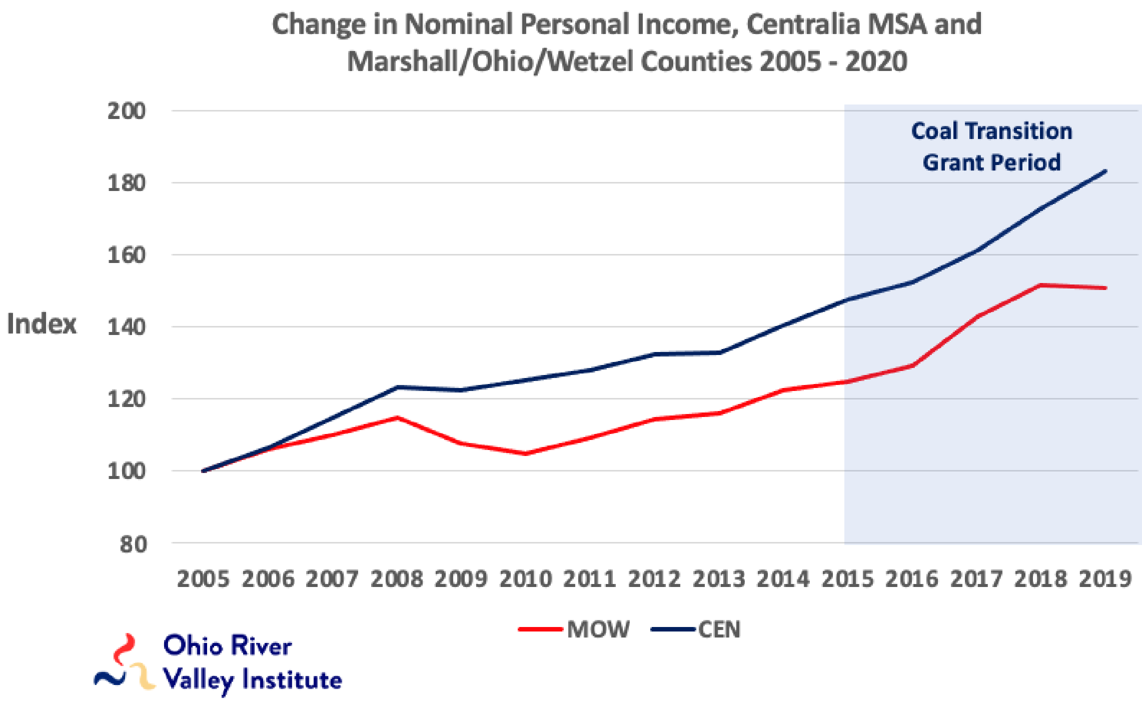
Fig. SL-4 Change in Population Centralia & Marshall/Ohio/Wetzel Counties 2005-2019



Source: U.S. Bureau of Economic Analysis, Regional Data, Personal Income and GDP Tables, *https://apps.bea.gov/iTable/iTable.cfm?reqid=70&step=1&acrdn=5*

Personal income grew strongly in Centralia between 2016 and 2019 during the Coal Transition Grant period.

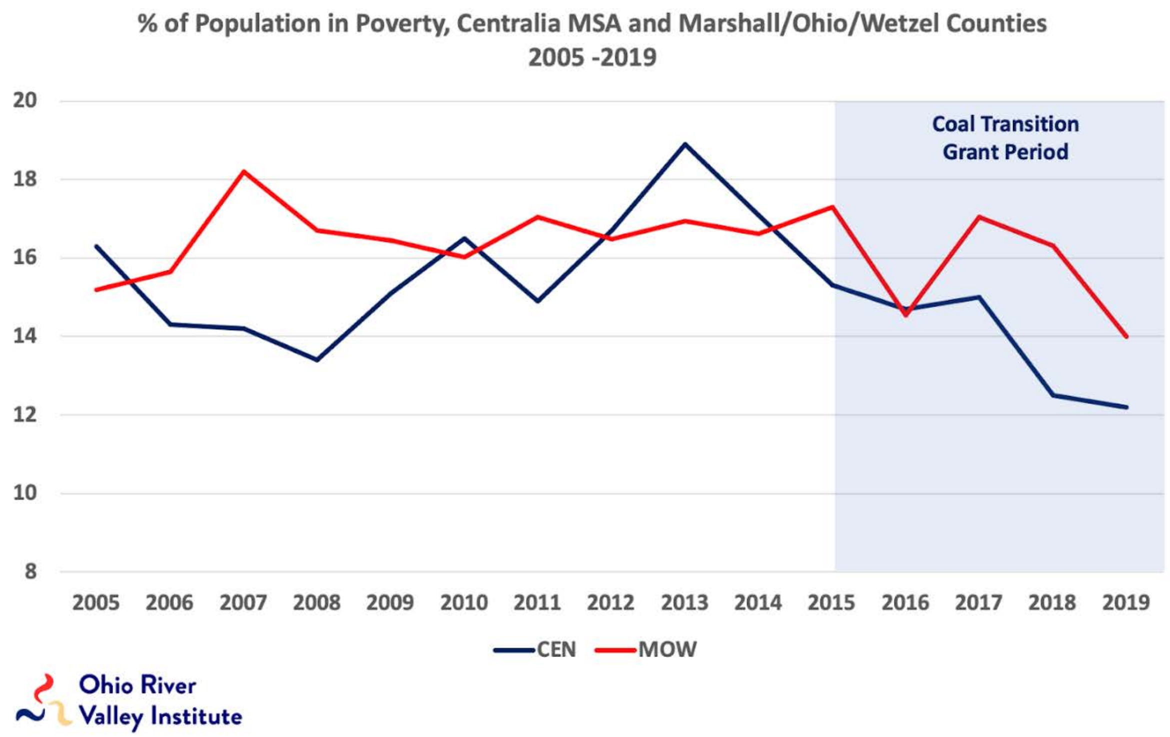
Fig. SL- 5 Change in Nominal Personal Income, Centralia MSA & Marshall/Ohio/Wetzel Counties 2005-2020



Source: U.S. Bureau of Economic Analysis, Regional Data, Personal Income and GDP Tables, *https://apps.bea.gov/iTable/iTable.cfm?reqid=70&step=1&acrdn=5*

The poverty rate is a more volatile indicator, but it, too. has shown a persistent downward trend during the grant period in Centralia.

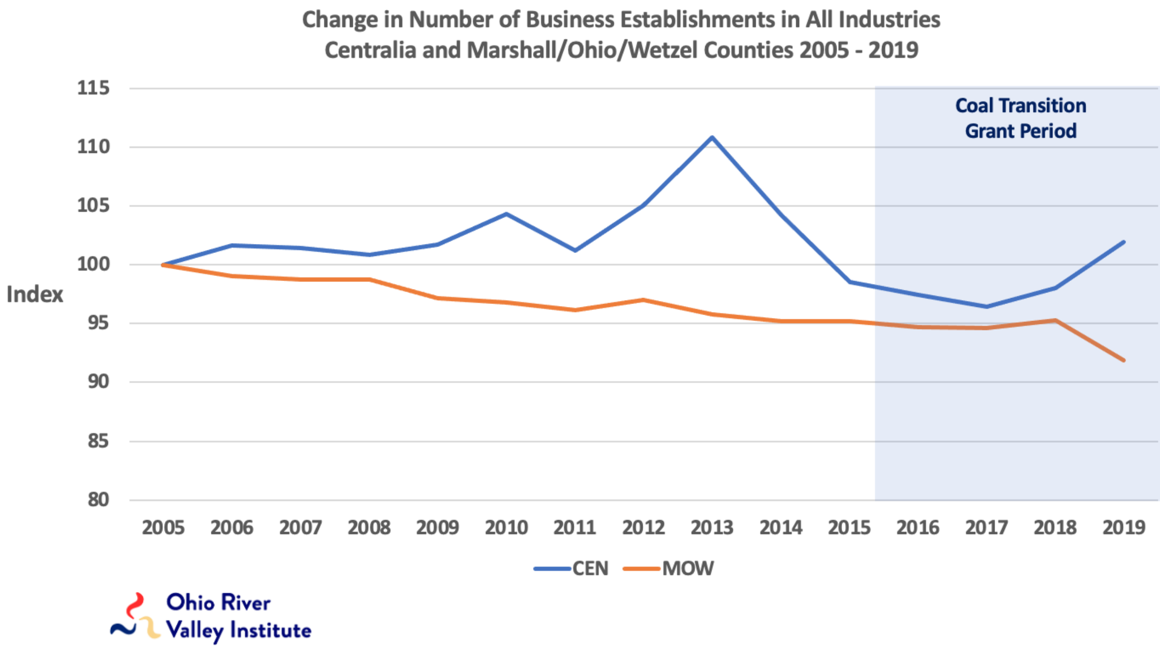
Fig. SL-6 Percentage of Population in Poverty, Centralia MSA & Marshall/Ohio/Wetzel Counties 2005-2019



Source: U.S. Census Bureau, American Community Survey, https://www.census.gov/programs-surveys/acs

The number of business establishments has also been a volatile variable in Centralia, but in the aftermath of the Coal Transition Grant program, is on the rebound.

Fig. SL-7 Change in Number of Business Establishments in All Industries Centralia and Marshall/Ohio/Wetzel Counties 2005-2019



Source: U.S. Bureau of Labor Statistics, BLS Data Finder 1.1,
[https://beta.bls.gov/dataQuery/search.](https://beta.bls.gov/dataQuery/search)

Q15: Has it been shown that the job gains and other improvements in Centralia's economy are specifically attributable to the Coal Transition Grant program?

A: Not enough time has passed, nor has there been sufficient analysis to establish causality. At present, we can only observe the correlation between the beginning of grant activity and accelerated job creation. We can also observe that the growth in jobs in Centralia has been organic, meaning that it has arisen principally from within the pre-existing economy and without the addition of any major new manufacturers or facilities to the area.

Q16: Please describe the reasons why it is likely that the grant activity is contributing to a significant growth in jobs and incomes.

A: A substantial portion of the funds is being invested in economic sectors, such as energy efficiency, that have unusually strong multiplier effects with respect to jobs and commerce.[27] Energy efficiency includes improvements in areas such as heating, ventilating, and air conditioning; lighting; insulation; and home and building appliances and systems, most of which are captured by the Bureau of Labor Statistics under the Construction and Durable Goods sectors in figure SL-6. Many more of the dollars earned in these sectors are allocated to jobs and wages than in the utility and mining sectors, which are among the least jobs-intensive in the nation's economy.

[27] See, e.g., Marilyn Brown, et al, Estimating Employment from Energy Efficiency Investments, Methods X, Vol. 7 (2020), available at https://www.sciencedirect.com/science/article/pii/S2215016120301758?via%3Dihub; E4 the Future and Environmental Entrepeneurs, Energy Efficiency Jobs in America (Sept. 2018), available at https://e4thefuture.org/wp-content/uploads/2018/09/EE-Jobs-in-America-2018.pdf

Fig. SL-8 Table 1. Employee-only Labor Share, Nonfarm Business Subsectors, 1997 to 2014

Table 1. Employee-only labor share, nonfarm business subsectors, 1997 to 2014

Sector	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Change, 1997 to 2014
Mining	0.37	0.44	0.41	0.33	0.31	0.31	0.26	0.25	0.21	0.21	0.20	0.18	0.22	0.21	0.20	0.22	0.21	0.22	-0.15
Utilities	.24	.26	.26	.28	.29	.30	.28	.27	.28	.26	.27	.28	.27	.25	.26	.27	.27	.26	.02
Construction	.67	.66	.66	.67	.67	.66	.64	.61	.59	.60	.62	.66	.64	.64	.64	.63	.63	.64	-.04
Durable goods	.62	.64	.66	.66	.70	.66	.64	.63	.62	.61	.61	.62	.62	.57	.58	.57	.57	.57	-.06
Nondurable goods	.49	.49	.48	.48	.46	.46	.45	.42	.41	.39	.38	.39	.35	.34	.34	.34	.34	.34	-.15
Wholesale trade	.50	.51	.52	.52	.53	.53	.52	.51	.50	.50	.50	.50	.49	.47	.48	.48	.47	.47	-.03
Retail trade	.58	.57	.58	.58	.58	.58	.57	.57	.56	.56	.58	.58	.56	.55	.56	.55	.55	.55	-.03
Transportation and warehousing	.65	.65	.66	.67	.68	.68	.65	.63	.62	.59	.62	.60	.61	.58	.58	.59	.58	.58	-.07
Information	.43	.44	.45	.52	.49	.42	.41	.38	.38	.38	.37	.35	.36	.34	.36	.37	.36	.37	-.06
Finance, insurance, real estate, rental and leasing	.23	.24	.24	.25	.24	.24	.23	.24	.24	.25	.25	.26	.23	.23	.23	.23	.23	.23	.00
Educational services, health care, and social assistance	.41	.40	.39	.38	.34	.34	.36	.39	.38	.38	.39	.39	.38	.38	.40	.42	.41	.42	.01
Professional and business services	.70	.72	.72	.75	.73	.71	.70	.70	.70	.71	.71	.70	.70	.70	.71	.72	.73	.74	.04
Arts, entertainment, recreation, accommodation, and food services	.56	.58	.58	.57	.59	.58	.58	.58	.58	.57	.58	.59	.58	.58	.58	.59	.58	.59	.03
Other services (except government)	.39	.39	.38	.38	.41	.39	.44	.43	.41	.39	.42	.43	.44	.40	.44	.42	.44	.44	.05

Source: U.S. Bureau of Labor Statistics.

Second, energy efficiency work is often performed by local companies and contractors, which means the added jobs and wages help local business owners and workers.[28] Third, energy efficiency grants leverage existing community action agencies and utility-sponsored energy efficiency programs, such as those already in operation at Wheeling Power and Appalachian Power. Leveraging existing agencies and programs minimizes administrative costs and maximizes impact. Finally, energy efficiency investments produce annuity benefits. They

[28] Amer. Council for an Energy-Efficient Economy, *ACEEE State Policy Toolkit: Guidance on Measuring the Economic Development Benefits of Energy Efficiency*, 1 (2019), https://www.aceee.org/sites/default/files/Jobs%20Toolkit%203-8-19.pdf ("[I]nvesting in energy efficiency itself increases demand for local businesses that implement the investments; it can thus create a cluster of economic activity in efficiency and related industries that further contribute to local economic development and job creation.").

permanently reduce customers' utility bills resulting in ongoing savings, much of which is spent in other areas of the local economy. Plus, by reducing aggregate demand for electricity and natural gas and mitigating peaks in demand, they reduce utilities' capital spending requirements, which result in additional savings for customers over the long run. Investments in education and new energy technologies such as distributed solar and battery storage also share many of these efficiencies and multiplier effects.

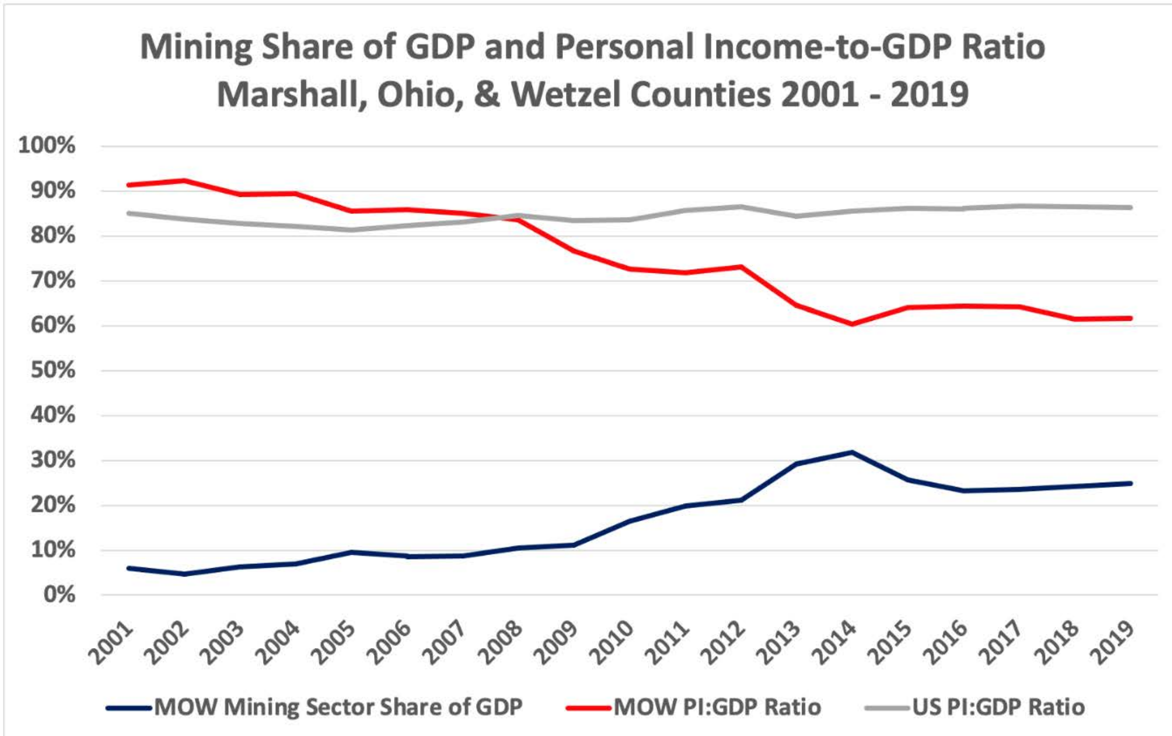
Such investments also help make communities more appealing as a place for businesses and for families to locate and expand by enhancing the talent pool and adding amenities that improve quality of life, factors which have been shown by the University of Akron economist Amanda Weinstein and others to be primary drivers of economic development in successful micropolitan areas.[29]

Q17: What has increasing dependence on the Mining sector meant for the economy and for incomes in Marshall, Ohio, and Wetzel Counties?

A: Because the mining sector allocates comparatively little earned income to salary and wages, growth in the coal and natural gas industries in Marshall, Ohio, and Wetzel Counties has been accompanied by a severe deterioration in the share of economic output (GDP) that is realized as personal income by residents of the three counties.

[29] Amanda L. Weinstein, unpublished paper citation. *See also* Sean O'Leary, *Quality of Life-Drive Prosperity for Small Cities and Towns*, Ohio River Valley Inst. (Sept. 23, 2020), https://ohiorivervalleyinstitute.org/quality-of-life-driven-prosperity-for-small-cities-and-towns/..

Fig. SL-9 Mining Share of GDP and Personal Income-to-GDP Ratio, Marshall, Ohio, & Wetzel Counties 2001-2019



Ohio River Valley Institute

Source: U.S. Bureau of Economic Analysis, Regional Data, Personal Income and GDP Tables (https://apps.bea.gov/iTable/iTable.cfm?reqid=70&step=1&acrdn=5)

As a consequence, even though the GDP generated by Marshall, Ohio, and Wetzel Counties grew at two and a half times the rate of GDP nationally between 2008 and 2019, personal income grew at only one-third the national rate, and there was zero jobs growth while the nation's job count grew by 10%.

In summary, because the Mining and Utilities sectors are poor foundations upon which to try to build job growth, and considering the reduced level of operations between 2028 and 2040 anticipated by AEP, spending $98 million on ELG compliance at Mitchell so that the plant could operate primarily as a capacity resource throughout the 2030s would be a suboptimal economic result for Marshall, Ohio, and Wetzel Counties.

V. The Value of a Marshall County Transition with a Strong Energy Efficiency Component

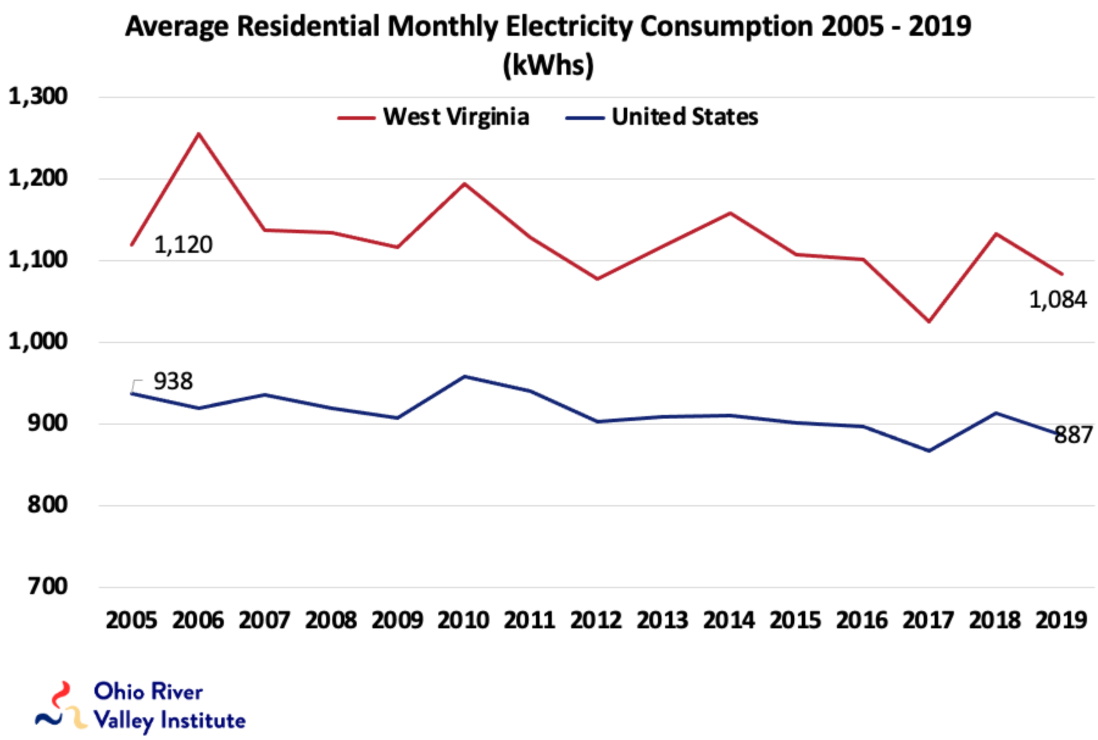
Q18: Which of AEP's options regarding the Mitchell plant would be the best option for Marshall County?

A: I find that the best course of action for Marshall County, from the perspective of economics and jobs, would be for AEP to forego the Mitchell ELG Compliance Work, allow Mitchell to retire in 2028, and invest part of the savings in an Economic Transition Plan. As with the Centralia example, that would include an Energy Efficiency/Weatherization Fund, an Economic and Community Development Fund, and an Energy Technology Fund.

Q19: How much impact could a major effort to improve energy efficiency have for West Virginia customers?

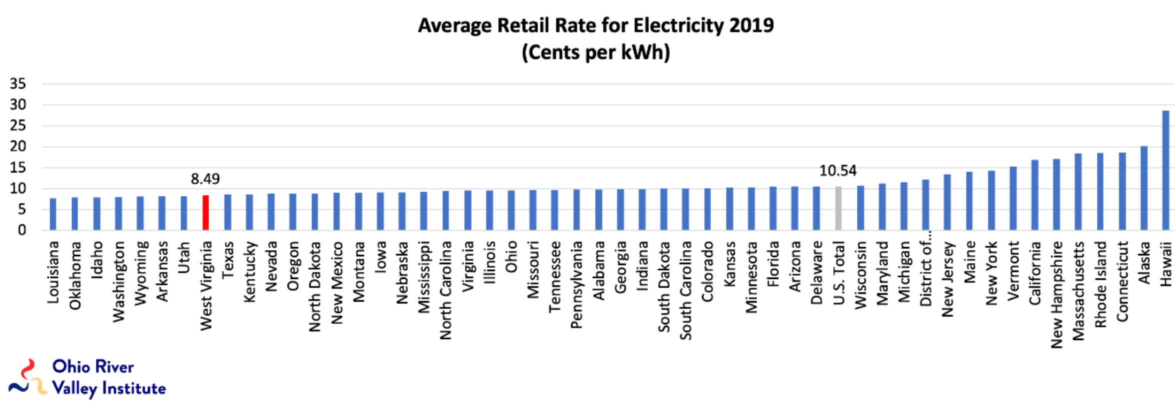
A: Average household energy consumption in West Virginia is 20% greater than that of the nation as a whole. That is why, despite having the nation's 8^{th} lowest average retail electric rate in 2019, West Virginians' average residential monthly electric bills were the 16^{th} highest in the nation and 5% higher than the national average.

Fig. SL-10 Average Residential Monthly Electricity Consumption 2005-209 (kWhs)



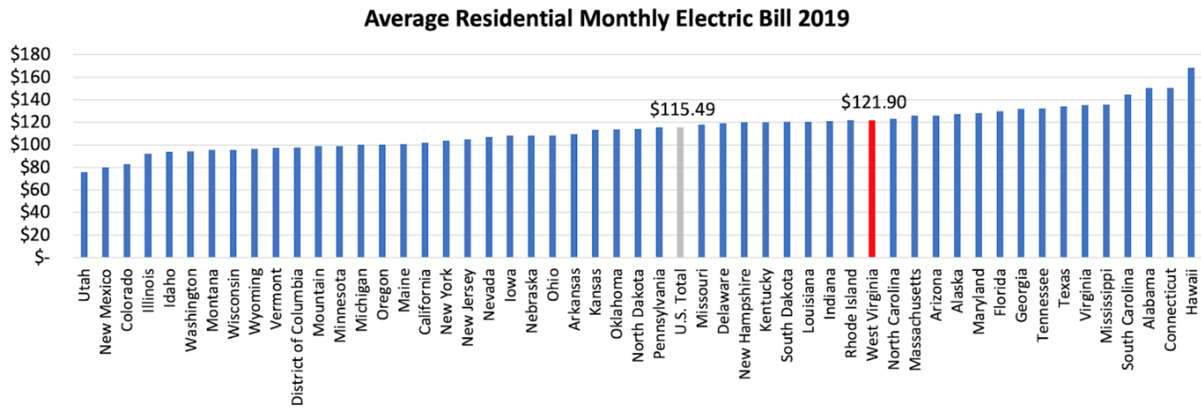
Source: U.S. Energy Information Administration, Data from forms EIA-861- schedules 4A-D, EIA-861S and EIA-861U)

Fig. SL-11 Average Retail Rate for Electricity 2019 (Cents per KWh)



Source: U.S. Energy Information Administration, Data from forms EIA-861- schedules 4A-D, EIA-861S and EIA-861U)

Fig. SL-12 Average Residential Monthly Electric Bill 2019



Ohio River Valley Institute

Source: U.S. Energy Information Administration, Data from forms EIA-861- schedules 4A-D, EIA-861S and EIA-861U)

A concerted energy efficient effort that would bring electricity consumption by West Virginia residents more in line with electric customers nationally would both reduce customers' bills and greatly reduce the need for spending on new generating resources and, therefore, costs. Investment in energy efficiency projects, rather than the $98M in ELG Compliance Work necessary to run Mitchell past 2028,[30] would also help alleviate upward pressure on utility bills in West Virginia.

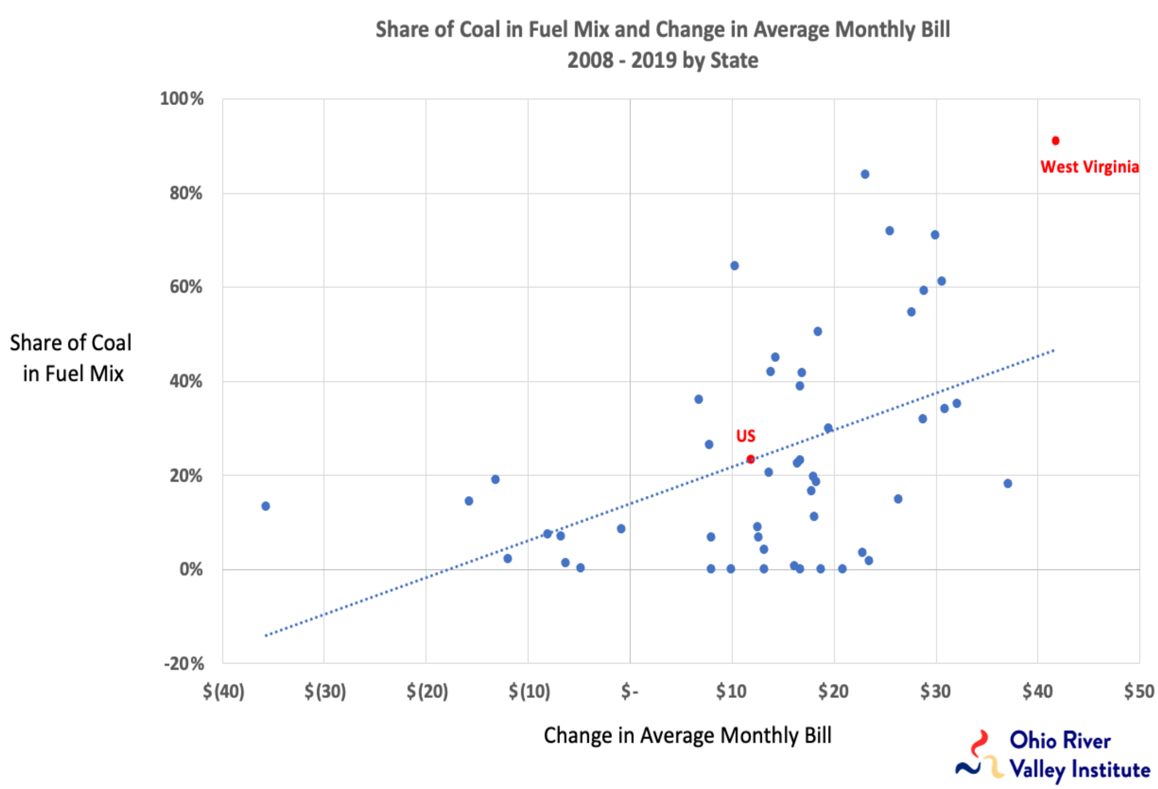
Q20: Have West Virginia utility customers been experiencing increasingly higher electric bills in recent years?

A: Yes. As in other states whose energy systems are highly dependent on coal-fired power, West Virginia utility customers have seen their electric bills increase substantially over the past decade. As illustrated in the following chart, data from the Energy Information Administration

[30] Wheeling Power's West Virginia-jurisdictional share of the cost of ELG Upgrades is $49 million.

shows strong correlation between states' level of coal dependency and increase in average monthly utility bills from 2008 to 2019. In fact, West Virginia, which has the highest coal dependency in the country, also had the highest increase in average monthly bills, with a $40 per month increase over that time period.

Fig. SL-13 Share of Coal in Fuel Mix and Change in Average Monthly Bill 2008-2019 by State

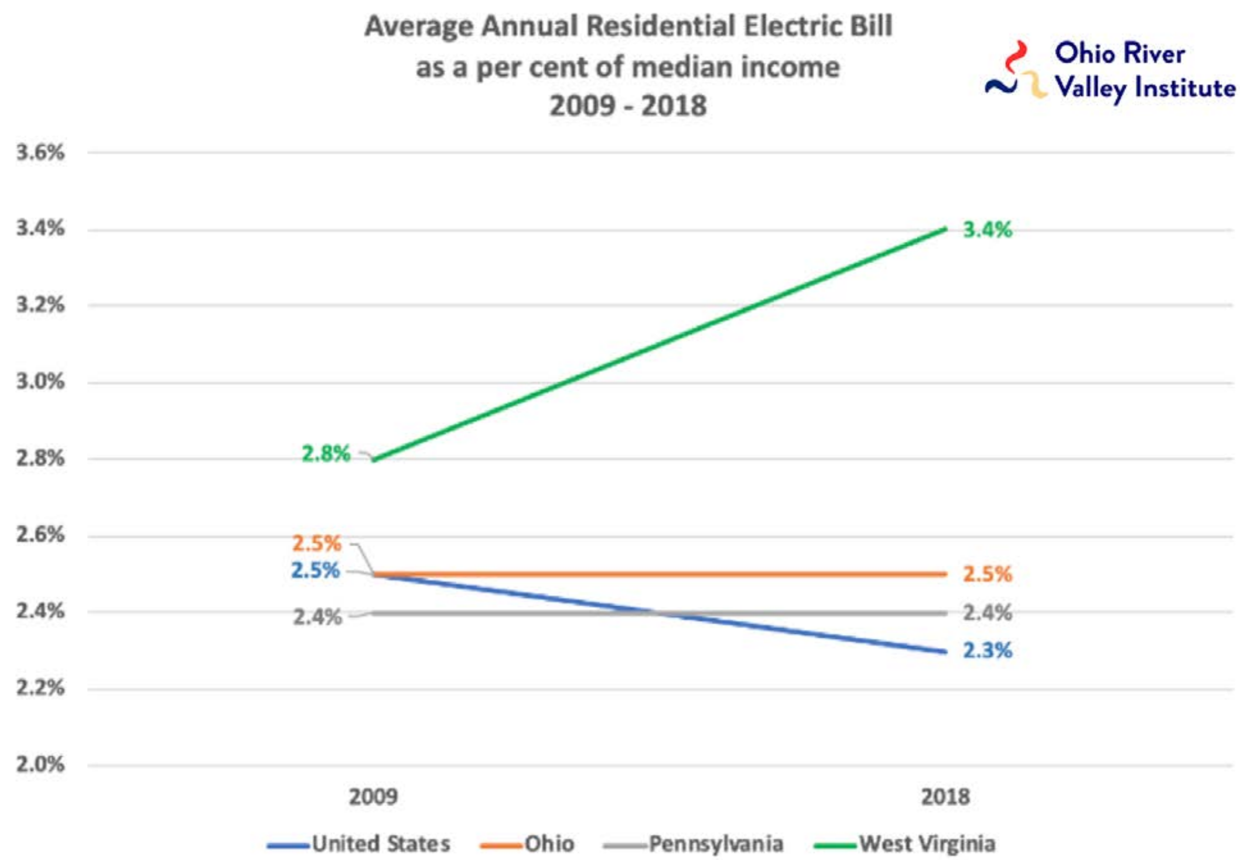


Sources: U.S. Energy Information Administration, Data from forms EIA-861- schedules 4A-D, EIA-861S and EIA-861U)

This trend is readily evident with regards to AEP's West Virginia utilities, which have seen average monthly residential bill (as measured by the residential rate for 1,000 kWh) rise from $55. 28 in 2006 to $138.57 in 2021: an increase of 150%.[31]

Because the median income of West Virginia households is lower than the national average, the impact of these increases is felt more acutely. The share of West Virginians' incomes that is consumed by residential electric bills is nearly 50% greater than the national average.

Fig. SL-14 Average Annual Residential Electric Bill as a Percent of Median Income 2009-2018



[31] Comparison of Growth in West Virginia Residential Utility Rate to Changes in the Consumer Price Index (CPI), Special Report of the West Virginia Public Service Commission for 2021, http://www.psc.state.wv.us/Special_Reports/ratecomp_2021.pdf.

Source: U.S. Energy Information Administration, Data from forms EIA-861- schedules 4A-D, EIA-861S and EIA-861U)

In addition to bill savings and reduced demand on the energy system, adoption of a concerted energy efficiency effort in Marshall County and the surrounding counties would also yield important non-energy benefits, principally in the form of improved health of residents and workers, and consequent reductions in medical costs and absenteeism at work and school. In 2001, the U.S. Department of Energy reported that weatherization returns $2.78 in non-energy benefits for every $1 invested.[32] The Office of Energy Efficiency & Renewable Energy reported that, "After weatherization, families have homes that are more livable, resulting in fewer missed days of work (*e.g.*, sick days, doctor visits) and decreased out-of-pocket medical expenses by an average of $514. The total health and household-related benefits for each unit averages $14,148."[33]

Q21: What effect would the Mitchell plant's retirement in 2028 have on coal employment in Marshall and Ohio Counties?

A: Even if operations at Mitchell continue beyond 2028, coal consumption is likely to drop precipitously throughout the decade of the 2030s based on AEP capacity factor forecasts.[34]

[32] Office of Energy Efficiency & Renewable Energy, U.S. Dep't of Energy, *Weatherization Assistance Program* 2, https://www.energy.gov/sites/default/files/2021/01/f82/WAP-fact-sheet_2021_0.pdf.
[33] *Id.*
[34] AEP CONFIDENTIAL Response to CAG 1-38 Attachment 2

Confidential Fig. SL-15 AEP Capacity Factor Forecast for Mitchell Units One 1 and 2

[[BEGIN CONFIDENTIAL INFORMATION]

[redacted]

[[END CONFIDENTIAL INFORMATION]]

Source: Confidential Attachment SL-11 AEP CONFIDENTIAL Response to CAG 1-38 Attachment 2

Assuming that current demand expectations are met, AEP predicts that capacity factors for Mitchell's two units will go into serious decline starting in 2030 and fall [[[redacted]]] by 2032. But, if demand turns out to be lower than expected or if carbon pricing is introduced either at the federal level or at the regional level as a result of Pennsylvania's possible participation in the Regional Greenhouse Gas Initiative, demand for power from Mitchell may [[[redacted]]]. Even the base case – the best scenario for coal consumption – will result in a significant decline.

Confidential Fig. SL- 15 Mitchell Coal Consumption 2021-2040 Based on AEP Capacity Factor Forecast

[[BEGIN CONFIDENTIAL INFORMATION]]

[redacted]

[[END CONFIDENTIAL INFORMATION]]

Source: Based on Capacity Factors Forecast in Confidential Attachment SL-11 AEP CONFIDENTIAL Response to CAG 1-38 Attachment 2

In 2019, the last pre-pandemic year, Mitchell ran at 36.8%[35] of capacity and took delivery of [[[redacted]] tons of coal,[36] which was approximately [[[redacted]]]% of the combined 25,649,000 tons produced by mines in Marshall and Ohio Counties.[37] It was equivalent to about

[35] Attachment SL-12 AEP Response to Staff 1-17 Attachment 1 (net capacity factor for Mitchell 1 in 2019 is 35.97% and Mitchell 2 is 37.38%; average is 36.7%).

[36] Confidential Attachment SL-3 AEP Response to CAG 2-15 Confidential Attachment 1.

[37] U.S. Energy Information Administration, *Annual Coal Report*, Table 2 (Oct. 5, 2020), https://www.eia.gov/coal/annual/pdf/table2.pdf (sum of 18, 319 (Marshall County) and 7,330 (Ohio County) thousand short tons; Wetzel County does not produce any coal).

[[redacted]]% of all the coal mined in West Virginia that year.[38] But, as capacity factors for the Mitchell Plant fall significantly starting in the early 2030s and remain low throughout that decade, coal consumption at Mitchell would likely drop at a similar rate and never recover.[39] Consequently, most of any impact that retiring Mitchell may have on coal mining jobs in the region is likely to be felt regardless of whether the plant retires in 2028 or continues operating until 2040, albeit in the latter scenario the impact may perhaps be delayed by a couple of years.

VI. Prospective Supplemental Funding Sources

Q22: If a transition plan similar to the Centralia plan were developed for Marshall County and the surrounding region, are there other possible sources of funding in addition to funds potentially provided by the Mitchell plant owners?

A: Yes, there are other notable potential sources of supplemental funding from both public and private sources if a Centralia-like economic transition program was developed for Moundsville and the surrounding region.

In April 2021, the Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization issued its *Initial Report to the President on Empowering Workers Through Revitalizing Energy Communities*.[40] The report identified geographic areas that are likely to experience coal mine and power plant closures and prioritized them for assistance from existing programs and funds and also from programs and funds that may become available, if the proposed American Jobs Plan is enacted. The Wheeling Metropolitan Statistical Area (MSA),

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[38] *Id.*
[39] Attachment SL-9 AEP Response to CAG 5-2.
[40] Interagency Working Grp. on Coal and Power Plant Communities and Econ. Revitalizaton, *Initial Report to the President on Empowering Workers Through Revitalizing Energy Communities*, https://netl.doe.gov/sites/default/files/2021-04/Initial%20Report%20on%20Energy%20Communities_Apr2021.pdf.

which includes Ohio, Marshall, and Wetzel Counties in West Virginia, as well as Belmont County, Ohio, was prioritized #3 among the twenty-five ranked areas.[41]

[41] *Id.* at 10.

Fig. SL-16 The top 25 BLS Areas Associated with Key Coal Occupations

RANK	BLS AREA NAME
1	Southern West Virginia non-metropolitan area
~~2~~	~~East Kentucky non-metropolitan area~~
3	Wheeling, West Virginia-Ohio
4	Southwest Virginia non-metropolitan area
5	Alaska non-metropolitan area
6	West Kentucky non-metropolitan area
7	Bremerton-Silverdale, Washington
8	Eastern Wyoming non-metropolitan area
9	Western Wyoming non-metropolitan area
10	Arizona non-metropolitan area
11	Northern West Virginia non-metropolitan area
12	South Illinois non-metropolitan area
13	Central Utah non-metropolitan area
14	Southern Indiana non-metropolitan area
15	California-Lexington Park, Maryland
16	Farmington, New Mexico
17	Northeast Virginia non-metropolitan area
18	West North Dakota non-metropolitan area
19	Greeley, Colorado
20	College Station-Bryan, Texas
21	Southwest Alabama non-metropolitan area
22	Grand Junction, Colorado
23	Beckley, West Virginia
24	Charleston, West Virginia
25*	Western Pennsylvania non-metropolitan area

** Added for geographic diversity.*

Figure 4. The top 25 BLS areas associated with key coal occupations. Ranking is shown in order of % of total direct coal jobs relative to all employees for each BLS area.

Source: Interagency Working Grp. on Coal and Power Plant Communities and Econ. Revitalizaton, Initial Report to the President on Empowering Workers Through Revitalizing Energy Communities, at 10.

This designation enhances the ability of Marshall, Ohio, and Wetzel Counties to compete successfully for funding from a number of federal government grant and loan programs, which provide funds for economic development, energy transition, environmental remediation and worker education. These programs include the Appalachian Regional Commission’s Partnership for Opportunity and Workforce Economic Revitalization (POWER) program, which has current funding of $55 million, and the U.S. Department of Labor’s Workforce Opportunity for Rural Communities (WORC), which provides grants of up to $29.2 million for the worker training and education programs that align with economic development and diversification strategies.

Numerous private philanthropic foundations are also providing funding to local governments and non-governmental organizations that are engaged in just transition and/or clean energy transition projects. Because concern for the development of effective economic and energy transition models in Appalachia is widely shared in both government and the private philanthropic sector, a commitment to transition in Marshall County and the surrounding counties would be viewed by many prospective funders as an important and worthy project.

Q23: Are there steps that can be taken to help alleviate the impact to Marshall County of the decline in tax payments that would result from the retirement of the Mitchell Plant?

A: Yes. While a full evaluation of the impacts to tax revenues for Marshall County from the retirement of the Mitchell Plant was beyond the scope of my analysis here, there are a few relevant points that I can make. First, to help avoid a sudden drop in tax revenues, AEP and Marshall County could evaluate entering into an agreement to create a "glide path" over which tax payments would gradually decline over a period of years. For example, in Michigan, DTE Electric has taken that approach with the City of River Rouge over the upcoming retirement of the River Rouge power plant.[42] Second, AEP could consider providing Payments in Lieu of Taxes ("PILOTs") for a few years to further help reduce the tax revenue impact of the closure of the Mitchell Plant. Third, it is important to note that the Economic Transition plan described in my testimony should generate new sources of tax revenues by promoting localized economic development. Finally, AEP could prioritize placing new generation resources, such as new wind, solar, and storage, within Marshall County, which would provide new sources of tax revenues and jobs for the county.

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[42] DTE Electric Co., River Rouge Power Plant Community Transition Plan (Sept. 2020), filed in Mich. Pub. Serv. Comm'n Case No. U-20561, https://mi-psc.force.com/sfc/servlet.shepherd/version/download/068t000000Ei6G0AAJ.

Q24: Does this complete your testimony?

A: Yes, it does.

SEAN O'LEARY
seanholeary@gmail.com
603-661-3586

OHIO RIVER VALLEY INSTITUTE, Senior Researcher AUGUST 2020 – PRESENT

At ORVI I study energy and petrochemical markets and public policy as it relates to economic development in the greater Ohio Valley and the states of Ohio, Pennsylvania, and West Virginia. The Ohio River Valley Institute is an independent, nonprofit research and communications center—a think tank—founded in 2020. We equip the region's residents and decision-makers with the policy research and practical tools they need to advance long-term solutions to some of Appalachia's most significant challenges.

NW ENERGY COALITION, Director of Communications SEPTEMBER 2016 – AUGUST 2020

Managed all public-facing communications in digital, broadcast, and print media for NWEC, a 40 year-old public policy think tank based in Seattle, Washington. NWEC plays a critical role in developing energy transition policies in Washington, Oregon, Idaho, and Montana. Among many major achievements, NWEC drove adoption of Washington's renewable portfolio and energy efficiency standards in 2006, the Clean Energy Transformation Act in 2019, and the Centralia Coal Transition Funds, which are helping workers, families, businesses, and organization successfully adapt to the retirement of a major coal-fired power plant.

MARKETLAB/OMNIPROSE, Founder & President SEPTEMBER 1997 – SEPTEMBER 2016

MarketLab is a marketing analytics and communications consulting company that provides strategic, creative, and market modeling services to leading healthcare companies including Johnson & Johnson, Bayer, and Pfizer. Under the Omniprose banner, we provided content for consumer and professional marketing campaigns, corporate communications, and employee training programs. Selected major client relationships follow.

- **JOHNSON & JOHNSON**

Created a digitally-based engagement model for J&J's Global Professional Group that promotes J&J and McNeil Labs products to professionals including Physicians, Nurses, Nurse Practitioners, Midwives, and Pharmacists in over sixty countries. Developed the "All That's Healthy" digital consumer marketing communication program that served a community of 4 million registered members through a communications mix that included web sites, social media, outbound communications, and an interactive market research platform.

- **BAYER DIABETES CARE**

Facilitated the establishment of BDC's global presence in more than 40 countries by redesigning BDC's intranet to give employees access to division and company news, training and enrichment opportunities. Developed digital marketing training programs and workshops. Created the Bayer Diabetes Care Marketing Center that housed and disseminated all approved marketing materials. Devised a new product development process Generated "Best in Class" reports on digital innovations in healthcare marketing and related markets.

- **PFIZER CONSUMER HEALTHCARE**

Created the Pfizer Advisor marketing communications program. Pfizer Advisor integrated digital and offline media to serve over four million consumers with a mix of communications that provided health information, entertainment, offers, and opportunities to participate in the development of new products and promotional campaigns. Created the Pfizer Idea Exchange, a global digital platform that Pfizer colleagues used to suggest and collaborate on new ideas for products, marketing tactics, and internal business processes.

CONSUMER PROFILES, INC, Director Strategic Marketing March 1995 – September 1997
Developed an information automation business that focused on the consumer packaged goods and pharmaceutical industries. The initiative produced the ZeroBase Strategic Planning Model and a new consumer profiling and segmentation technique used to plan marketing strategies for Rx products. ZeroBase was licensed by Nabisco and by Warner-Lambert to analyze brand performance and plan promotional strategies for 11 Nabisco brands and 17 Warner-Lambert brands. The profiling and segmentation techniques developed as part Zerobase were used to conduct research for the launch of major prescription medications including two of the largest selling drugs in history, Lipitor and Celebrex.

EPSILON, Director, Consumer Packaged Goods March 1987 – March 1995
Now a major digital media company, Epsilon was at the time the preeminent database management and marketing communications provider to the not-for-profit community of fundraisers and membership organizations as well as commercial clients in consumer products and financial services. After starting as Director of Production Services, I was promoted to the position of Director of the Consumer Packaged Goods vertical market, a role in which I developed and managed accounts including Quaker Oats, Bausch & Lomb, Warner-Lambert, DowBrands, PepsiCo, Anheuser-Busch, and Chanel.

EARLE PALMER BROWN, Director, DR Production May 1985 – March 1987
EPB was a mid-size regional ad agency with aspirations of being a “total communication company”. I was brought in to expand EPB’s direct response marketing capabilities to complement the agency’s existing print, broadcast, and promotional capabilities. Clients included AARP, Scudder Investments, Amtrak, and Roy Rogers Restaurants.

COMMUNICOLOR, Manager, Marketing Services May 1980 – May 1985
Communicolor was the largest printer and personalizer of direct mail in the world. Responsible for client and sales services including pricing, scheduling, project management, and sub-contracting for database, file hygiene, lettershop, and non-web printing services. Primary accounts were Publishers Clearing House, American Family Publishers, Readers Digest, Time-Life Books, Time Publishing, and Allstate Insurance.

WRITING:

- **Playwright:** The author of six professionally produced plays including POUND, which ran Off Broadway in 2018. My plays have received recognition from the National Endowment for the Arts, the National Arts Club, and the West Virginia Department of Culture.
- **Columnist & Commentator:** From 2010 to 2013 I wrote The State of My State column for the Journal in Martinsburg, West Virginia focusing on economic and public policy issues relating to the state of West Virginia. Many of the columns from that period were captured in a book of the same title. Today, The State of My State continues as a blog.

EDUCATION
BA, Philosophy, Bethany College, Bethany, West Virginia

APPALACHIAN POWER COMPANY &
WHEELING POWER COMPANY
WEST VIRGINIA CASE NO. 20-1040-E-CN
THIRD REQUEST FOR INFORMATION - CAD

Request 3-9

Please provide the following information for each power plant:
i. 2020 Headcount and Payroll
ii. 2020 State and Local Taxes

Response 3-9

i. Through the end of Dec 2020 headcounts for 2020 are - Mitchell (186), Amos (238) and Mountaineer (161). This represents only APCo or KPCo employees assigned to the plant department. The payroll for 2020 for each plant is - $26,872,646 (Mitchell), $35,503,980 (Amos), and $23,146,705 (Mountaineer). This includes Straight-time Labor, Overtime, Incentives, Lump Sum Payments, and Fringes.

ii- State and Local Taxes are not assessed by power plant, except for property taxes. 2020 Property Taxes paid by plant are the following: Mitchell Plant $3,094,045 (Wheeling Power Company) and $3,094,045 (Kentucky Power Company), Amos Plant $5,746,600 (Appalachian Power Company), and Mountaineer Plant $3,559,100 (Appalachian Power Company). 2020 WV Business and Occupation Taxes paid for generating companies are the following: Wheeling Power Company $10,552,369, Kentucky Power Company $6,284,980, and Appalachian Power Company $3J,285,913. All other State and Local Taxes are not assessed by plant or by generating company.

APPALACIDAN POWER COMPANY &
WHEELING POWER COMPANY
WEST VIRGINIA CASE NO. 20-1040-E-CN
FIRST REQUEST FOR INFORMATION - STAFF

Request 1-4

Please define the estimated long term cost of coal for each plant under each case, whether the coal cost is for compliance coal, or high sulphur, high ash coal. Also please indicate which coal source is the most likely to be selected with complete coal chemistry and the mines where the desired coal source is located and the comparison of coal cost and quality on the environmental control strategies selected.

Response 1-4

The CCR and ELG rules are not anticipated to impact the plants' current blend of fuels. All coals produce some amount of ash· when burned. Possible differences in the volume or chemical composition of the ash from different coals would not impact the technology selected for compliance with the CCR and ELG ash-handling and disposal requirements. The type of coal burned is largely driven by the design of Flue Gas Desulphurization (FGD or scrubber) system that is in use at each plant. The Mountaineer plant will continue to burn Northern Appalachian (NAPP) coal, which is typically high sulfur, high ash coal. Amos and Mitchell will continue to burn a blend of NAPP and Central Appalachian (CAPP) coal. CAPP coal is lower in sulfur but slightly higher in ash than NAPP coal.

In the future, the Company will continue its practice of competitively sourcing coal through contracts and spot market purchases to provide reliable supplies at the lowest reasonable cost. Because the type of coal is not anticipated to change as a result of the CCR and ELG Rules, there is no anticipated impact on the cost related to the fuel type or the quality of coal that will result from the CCR and ELG Rules.

The projected cost of coal per ton for NAPP and CAPP coal have been provided in Company witness Trecazzi's- fundamental forecast workpapers, which were supplied in the Company's response to WV Staff 1-2. The price varies with each fundamental case. The high sulfur coal at all three plants was priced at the NAPP 12,500 BTU/lb 6 pound S02 High sulfur curves. The low sulfur forecasted to be used at Mitchell and Amos was priced at the CAPP NYMEX/12000/1.67 pound S02 Low sulfur curve.

The forecast for Amos is based· on: a blend of 55% 12500/6.0 lb S02 high sulfur and 45% NYMEX/12000/1.671b low sulfur for units 1 and 2, and 60% 12500/6.0 lb S02 high sulfur 40% NYMEX/12000/1.67lb low sulfur for unit 3. For Mitchell, the forecast is based on a blend of 60% 12500/6.0 lb S02 high sulfur and 40% NYMEX/12000/1.67lb low sulfur. Mountaineer is 100% 12500/6.0 lb S02 high sulfur.

Confidential Attachment SL-3 AEP Response to CAG 2-15, Attach. 1

REDACTED

Attachment SL-4

Year	CAG 2-4a - # People Employed			x	CAG 2-4b - % Residence of West Virginia			x
	Amos	Mitchell	Mountaineer		Amos	Mitchell	Mountaineer	
2016	390	282	238		99.74%	98.94%	99.16%	
2016								
2017	383	287	246		98.96%	98.61%	99.19%	
2017								
2018	355	266	244		99.44%	98.12%	99.18%	
2018								
2019	315	236	219		99.37%	97.46%	100%	
2019								
2020	296	214	212		99.66%	97.66%	99.53%	
2020								

Year	CAG 2-4c - % Residence of Plant's County			x	CAG 2-4d - Total Compensation			x
	Amos (Putmam Co WV)	Mitchell (Marshall Co WV)	Mountaineer (Mason Co WV)		Amos	Mitchell	Mountaineer	
2016	40.51%	34.40%	24.79%		$41,148,906	$30,715,201	$22,970,892	
2016								
2017	40.21%	34.15%	23.58%		$39,699,801	$30,055,070	$23,176,367	
2017								
2018	40.28%	35.34%	24.18%		$41,852,116	$31,878,379	$25,327,282	
2018								
2019	42.86%	35.59%	24.66%		$39,226,336	$30,579,068	$24,437,844	
2019								
2020	43.24%	35.05%	25.47%		$35,503,980	$26,872,645	$23,146,705	
2020								

Year	CAG 2-4e - Total Hours Paid (ST-OT)			x	CAG 2-4f - % Covered by Bargaining Unit			x
	Amos	Mitchell	Mountaineer		Amos	Mitchell	Mountaineer	
2016	665,511	507,337	366,231		64.87%	67.73%	10.92%	
2016								
2017	641,399	508,046	369,528		64.49%	66.90%	14.63%	
2017								
2018	613,591	478,193	368,818		64.23%	66.54%	14.34%	
2018								
2019	530,891	428,330	326,785		66%	69.49%	15.53%	
2019								
2020	496,240	387,955	316,578		67.91%	69.16%	16.04%	
2020								

Year	CAG 2-4g - Average/Median Hourly Wage			x	CAG 2-4h - Average/Median Age			x
	Amos	Mitchell	Mountaineer		Amos	Mitchell	Mountaineer	
2016	Average : $37.494	Average : $38.176	Average : $37.784		Average: 47	Average: 48	Average: 48	
2016	Median: $35.980	Median: $36.480	Median: $36.480		Median: 48	Median: 52	Median: 48	
2017	Average : $39.428	Average : $40.397	Average : $39.461		Average: 47	Average: 49	Average: 48	
2017	Median : $37.420	Median : $37.920	Median : $37.920		Median: 48	Median: 52	Median: 49	
2018	Average : $40.720	Average : $41.718	Average : $40.553		Average: 47	Average: 48	Average: 49	
2018	Median : $38.370	Median : $38.870	Median : $38.870		Median: 47	Median: 51	Median: 50	
2019	Average : $41.630	Average : $42.956	Average : $42.009		Average: 47	Average: 48	Average: 48	
2019	Median : $39.340	Median : $39.840	Median : $39.840		Median: 48	Median: 49	Median: 48	
2020	Average : $42.989	Average : $44.430	Average : $43.618		Average: 46	Average: 48	Average: 48	
2020	Median : $40.840	Median : $40.840	Median : $40.840		Median: 48	Median: 50	Median: 49	

Net Generation (mwh)

	2016	2017	2018	2019	2020
Amos1	4,199,063	3,997,481	2,921,341	2,762,956	2,194,748
Amos2	4,362,481	3,782,429	3,747,589	3,026,665	2,941,993
Amos3	5,750,626	6,112,939	6,315,791	4,007,927	5,316,638
Mitchell I	3,521,877	3,136,303	2,571,251	2,426,553	1,517,099
Mitchell 2	4,162,822	4,551,593	2,932,042	2,614,728	2,096,032
Mountaineer 1	7,809,899	7,147,242	5,710,017	8,256,474	5,276,124

Fuel cost by type ($)

	2016	2017	2018	2019	2020
Amos 1 Coal	92,342,992	84,056,487	60,531,022	58,508,187	48,792,461
Amos 1 #2 Oil	1,254,039	711,651	2,255,518	2,730,005	2,460,007
Amos2Coal	95,506,100	83,508,112	78,690,487	65,761,164	66,930,741
Amos 2 #2 Oil	1,238,022	1,025,146	2,869,399	1,721,307	2,011,253
Amos 3 Coal	124,897,404	130,640,487	130,253,874	84,612,936	114,534,768
Amos3#20il	2,508,724	2,561,110	4,839,934	3,151,784	2,677,686
Mitchell 1 Coal	88,561,269	73,257,635	62,546,472	55,470,011	35,951,217
Mitchell 1 #2 Oil	1,439,469	1,360,887	2,391,618	3,163,841	1,756,457
Mitchell 2 Coal	96,844,611	100,045,318	71,726,270	60,860,632	48,356,847
Mitchell 2 #20il	843,395	1,144,132	2,271,095	2,422,409	1,103,099
Mountaineer 1 Coal	161,417,313	133,332,883	101,962,748	139,942,805	96,251,420
Mountaineer 1 #2 Oil	2,915,541	3,266,024	3,333,423	2,499,417	3,432,069

Fuel cost per Mmbtu ($/mMMbtu)

	2016	2017	2018	2019	2020
Amos 1 Coal	2.22	2.19	2.13	2.20	2.20
Amos 1#20il	11.78	12.82	16.81	15.54	13.09
Amos2 Coal	2.22	2.21	2.12	2.19	2.22
Amos2#20il	11.49	12.82	16.25	15.59	13.61
Amos 3 Coal	2.18	2.18	2.03	2.11	2.16
Amos3 #20il	11.38	13.34	16.62	15.55	12.71
Mitchell 1 Coal	2.39	2.26	2.26	2.17	2.22
Mitchell 1 #2 Oil	12.38	12.56	16.61	17.17	13.16
Mitchell 2 Coal	2.38	2.39	2.28	2.17	2.22
Mitchell 2 #20il	11.77	12.38	16.59	16.19	13.46
Mountaineer 1 Coal	2.07	1.91	1.77	1.70	1.83
Mountaineer 1 #2 Oil	14.44	13.28	15.15	14.93	12.95

APPALACHIAN POWER COMPANY &
WHEELING POWER COMPANY
WEST VIRGINIA CASE NO. 20-1040-E-CN
FIRST REQUEST FOR INFORMATION – WVCAG

Request 1-16

Refer to the Direct Testimony of James F. Martin page 19 lines 1-10.
a. Please identify approximately what capacity factor would qualify the Amos, Mitchell, or Mountaineer plants as operating "primarily as a capacity resource" as that phrase is used in the referenced testimony.
b. Please provide an estimate in the reduction of annual O&M costs for the Amos, Mitchell, and Mountaineer plants that would occur if any of those plants were to operate "primarily as a capacity resource."

Response 1-16

a. The term "primarily a capacity resource" would imply a capacity factor similar to that experienced at gas-fired peaking facilities, such as APCo's Ceredo plant. The capacity factor would depend on the underlying power and gas prices. Higher power prices would equate to higher output. Facilities which operate at capacity factors of 10-15% or lower could be thought of as primarily capacity resources.

b. A high level estimate is that up to 25% of the fixed O&M at these plants could be avoided if the Company made a conscious decision to limit the hours that units are available to run and operate them primarily as capacity resources at some time in the future. That could be in the form of taking units out of service in certain months, or placing an outright limit on operating hours, for example. The actual reductions would depend on market conditions at the time.

SL-8 AEP CONFIDENTIAL Response to CAG 4-26(a)

REDACTED

APPALACHIAN POWER COMPANY &
WHEELING POWER COMPANY
WEST VIRGINIA CASE NO. 20-1040-E-CN
FIFTH REQUEST FOR INFORMATION – WVCAG

Request 5-2

AEP's response to CAG 1-16 states that a facility that operates at a capacity factor of 10-15% or lower can be thought of as primarily a capacity resource.

a. At the capacity factors projected in AEP's CONFIDENTIAL responses to CAG 1-38 and Sierra Club 2-1 8 after 203 1, would Mitchell be operating as primarily a capacity resource?
b. If AEP were to operate Mitchell as primarily a capacity resource, please state whether there would be a decline, compared to current levels, in each of the following factors:

i. Coal purchases?
ii. Number of Mitchell employees?
iii. Work hours?
iv. Local property tax liability?
v. The Business & Occupancy tax liability of Kentucky Power Company or Wheeling Power Company?
vi. Any other WPCo, APCo, or AEP tax liability?

c. For each of the foregoing factors for which there would be a decline, please identify the approximate amount or percent of decline.
d. For each of the foregoing factors for which there would not be a decline, please explain why not.
e. Please identify and produce any estimates or forecasts of the effect of operating Mitchell as primarily a capacity resource on any of the foregoing factors.

Response 5-2

a- Yes. Mitchell would provide valuable capacity regardless of capacity factor.
b.

i- Coal purchases would likely decline from current levels at the same rate of decline as the capacity factor.
ii and iii. Employment levels and work hours could be lower. The Company does not have an estimate of how much lower. Staffing needs would be evaluated at the time.
iv- As long as the plant is on the books, it's considered part of the unit value of both companies and would not decrease the property taxes.
v- Kentucky Power's B&O tax would be unchanged, because it is an out of state owner who pays only the capacity B&O tax. Wheeling Power B&O tax would likely increase, based on the current B&O tax formula, because the per kwh B&O tax applicable to West

Virginia utilities would likely kick in if the capacity factor is low enough and be added to the capacity tax.

vi- The income tax liability would only be impacted if pre-tax book income were impacted by operating Mitchell primarily as a capacity resource. The Company would not expect pre-tax income to be impacted by operation at lower capacity factors. The reduced fuel expense and energy revenues or possible increased market energy purchases that would result are passed through dollar for dollar through the Expanded Net Energy Cost (ENEC) rate mechanism in retail cost of service, which does not impact pre-tax income.

c. and d. See the responses to the relevant subparts of item b.

e. A West Virginia B&O tax forecast commensurate with the assumptions in this analysis was provided in Company witness Martin's workpapers submitted in Staff 1-2 in the file WPCO Mitchell FOM + Capital Cost Workpaper. See item b.i. for the expected decline in coal usage. The remaining items are unchanged.

MEMORANDUM OF AGREEMENT

This Memorandum of Agreement (this "MOA") is entered into as of December 23, 2011, effective as of the Effective Date (as defined below), by and between the State of Washington, acting through and by Governor Christine Gregoire (the "State"), and TransAlta Centralia Generation LLC, a Washington limited liability company (the "Company" and, together with the State, each a " " and together, the "Parties").

RECITALS

A. The Company owns and operates a 1,340 megawatt coal-fired baseload electric generating facility in Centralia, Washington (the "Facility"), which utilizes two coal-fired generating boilers (each, a "Boiler" and together, the "Boilers").

B. Pursuant to RCW 80.80.100, the Governor, on behalf of the State, has been directed to enter into a memorandum of agreement with owners of certain coal-fired facilities in the State of Washington, including the Facility.

C. In order to implement RCW 80.80.100, the Parties desire to memorialize their understanding with respect to certain emissions reductions, installation of selective noncatalytic reduction pollution control technology ("SNCR"), the provision of financial assistance with respect to economic development and the funding of certain energy technologies and ce1iain other matters, in each case subject to the terms and conditions set forth herein.

D. In exchange for the benefits of entering into an MOA with the State pursuant to RCW 80.80.100, the Company will, among other things, (1) at the direction of the State, make certain payments into independent accounts to be held at an appropriate financial institution (the "Account Agent"), an appropriate financial institution within the meaning of RCW 80.80.100, for the provision of financial assistance as set forth in Section 3 of this MOA, (2) pay Interest Tax Liability (as defined in Section 3(b) below), (3) establish, with the State, boards to approve grants from such independent accounts, (4) install SNCR technology and (5) permanently cease power generation operations of one Boiler in 2020 and the other Boiler in 2025, which dates are prior to the 2035 end of their expected useful lives, in each case pursuant to the terms and subject to the conditions of this MOA.

E. In exchange for the benefits of entering into an MOA with the Company pursuant to RCW 80.80.100, the State will, among other things, (1) establish air emission requirements based on the use of SNCR, (2) establish, with the Company, boards to approve grants from such independent accounts, (3) recognize investments by the Company in emissions reductions and confirm that based upon early retirement of the Boilers, Facility power is a climate responsible transition product that will substantially contribute to the state meeting its climate change policies and achieve the greenhouse gas reductions in RCW 70.235.020(1)(a),

(4) confirm that Facility power is a product that meets the greenhouse gas emissions performance standards of the State, (5) permit entry into long-term power contracts for the sale of electricity, (6) provide certainty regarding environmental requirements that affect power generation operations, and (7) provide certainty regarding sales and use tax exemptions, in each case pursuant to the terms and subject to the conditions of this MOA.

NOW, THEREFORE, in consideration of the mutual benefits to be derived herefrom, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

AGREEMENT

1. Effective Date; Tenn. This MOA shall be effective on April 1, 2012 (the "Effective Date"). Unless terminated pursuant to the terms of Section 8, this MOA shall terminate upon the later to occur of (i) December 31, 2025, or (ii) the disbursement of all amounts deposited in the Accounts pursuant to the terms of the Account Agreement and Section 4.

2. Incorporation by Reference. The provisions of RCW 80.80.040, RCW 80.80.060 and RCW 80.80.070, in each case as in effect on July 22, 2011, are hereby incorporated herein by reference.

3. Company Contribution of Financial Assistance.

(a) Beginning January 1, 2012 and ending December 31, 2023, or until the full amounts set forth in Section 3(b) have been provided, the Company shall make annual payments by wire transfer of immediately available funds to the following independent accounts maintained by the Account Agent on behalf of the Company in the following amounts (in each case, less Interest Tax Liability incurred with respect to amounts in such accounts during the previous year pursuant to the terms of Section 3(b)):

(i) $833,333.33 annually to an account established to fund energy efficiency and weatherization for the residents, employees, businesses, non-profit organizations and local governments within Lewis County and South Thurston County, Washington, from which Grants (as defined herein) are to be made pursuant to the terms of the Account Agreement and Section 4 (the "Weatherization Fund"), of which an aggregate amount of up to $1,000,000, calculated over the life of the Weatherization Fund, shall be allocated to fund residential energy efficiency and weatherization measures for low-income and moderate-income residents of Lewis County and South Thurston County, Washington;

(ii) $1,666,666.67 annually to an account established to fund education, retraining, economic development, and community enhancement, from which Grants are to be made pursuant to the temlS of the Account Agreement and Section 4 (the "Economic and Community Development Fund"), of which an aggregate amount of at least $5,000,000, calculated over the life of the Economic and Community Development Fund, shall be allocated to fund education, retraining and economic development specifically targeting the needs of workers displaced from the Facility; and

(iii) $2,083,000.33 annually to an account established to fund energy technologies with the potential to create considerable energy, air quality, haze or other environmental benefits located in or otherwise to the benefit of the State of Washington, from which Grants are to be made pursuant to the terms of the Account Agreement and Section 4 (the "Energy Technology Fund" and, together with the Weatherization Fund and the Economic and Community Development Fund, the "Accounts").

The Company shall pay such amounts for each calendar year on or before December 31 of such calendar year. Pursuant to the terms of Section 4, grants of funds from the Accounts (each, a "Grant") shall be made in accordance with the purpose for each such Account as set forth in Sections 3(a)(i) through 3(a)(iii) ("Proper Grant Purposes").

(b) In connection with the execution of this MOA and the transactions contemplated hereby, and prior to the date that any amounts are deposited in the Accounts pursuant to Section 3(a), the Company shall execute an agreement with the Account Agent governing the terms of the Accounts and disbursements therefrom (the "Account Agreement"), but only after the Company has provided the Office of the Governor the opportunity to review the Account Agreement and the Office of the Governor consents to the terms of the Account Agreement. The terms of the Account Agreement shall be consistent with and in furtherance of the terms of this MOA and RCW 80.80.100, and shall include a requirement that the disbursement of Grants from the Accounts be conditioned upon the Account Agent's receipt of a written resolution of a Supermajority of the applicable Grant Review Board in accordance with Section 4(h), a requirement that funds be invested in low-risk investment alternatives designed to preserve principal, the assumption by the Company of all Income Tax Liability associated with the Accounts in accordance with Section 3(c) and a term of years coextensive with this MOA.

(c) The Company shall assume the obligation to pay taxes on interest and gains on all funds deposited in the Accounts (the "Interest Tax Liability"). Notwithstanding anything to the contrary in this Section 3, the amount of Interest Tax Liability incurred by the Company shall reduce the amount of payments to the applicable Account required by Sections lCru.u} through 3(a)(iii), as a result of which (i) the maximum contribution to the Weatherization Fund by the Company under this MOA shall not exceed an amount equal to $10,000,000 minus any Interest Tax Liability incurred with respect to funds in the Weatherization Fund, (ii) the maximum contribution to the Economic and Community Development Fund by the Company under this MOA shall not exceed an amount equal to $20,000,000 minus any Interest Tax Liability incurred with respect to funds in the Economic and Community Development Fund, and (iii) the maximum contribution to the Energy Technology Fund by the Company under this MOA shall not exceed an amount equal to $25,000,000 minus any Interest Tax Liability incurred with respect to funds in the Energy Technology Fund. All interest and gains earned on funds deposited in any Account shall remain in such Account and shall constitute additional funds from which Grants may be made, with no corresponding offset or deduction other than as set forth in the immediately preceding sentence.

(d) All fees and expenses of the Account Agent payable pursuant to the Account Agreement or otherwise shall be paid out of funds in the Accounts. Other than payments made from the Account as set fo1ih in this Section 3, neither Party shall have any liability for fees or expenses of the Account Agent with respect to the Accounts under this MOA, the Account Agreement or otherwise.

4. Grant Review Board; Authorization of Expenditures

(a) No later than July 1, 2012, the Parties agree to establish three boards (together, the "Grant Review Boards"), each of which will have the authority to approve Grants from one Account in accordance with Proper Grant Purposes and the provisions of this Section 4.

(b) Initial Composition of Grant Review Boards. The Grant Review Boards shall initially consist of members (the "Board Members") as set f01ih below; provided that each Board Member shall have legal, financial, energy or other experience relevant to his or her service on such Grant Review Board, as determined by the Party authorized to designate such Board Member pursuant to this Section 4(b) in such Party's reasonable discretion:

(i) The Grant Review Board with the authority to approve Grants from the Weatherization Fund (the "Weatherization Board") shall consist of the following Board Members:

(A) one member selected by the Lewis County Economic Development Council;

(B) one member selected by the United Way of Lewis County;

(C) one elected commissioner of the Lewis County Public Utility District, selected by the District;

(D) one member selected by Centralia City Light;

(E) one member selected by the NW Energy Coalition;

(F) one employee of the Company selected by the Company; and

(G) five representatives of the Company selected by the Company.

(ii) The Grant Review Board with the authority to approve Grants from the Economic and Community Development Fund (the "Economic and Community Development Board") shall consist of the following Board Members:

(A) one member selected by the Lewis County Economic Development Council;

(B) one local elected official from Lewis County, Washington, selected by the Lewis County Commissioners;

(C) one member selected by the Centralia Chehalis Chamber of Commerce;

(D) one member selected by the Thurston- Lewis- Mason Central Labor Council;

(E) one employee of the Company selected by the Company; and

(F) four representatives of the Company selected by the Company.

(iii) The Grant Review Board with the authority to approve Grants from the Energy Technology Fund (the "Energy Technology Board") shall consist of the following Board Members:

(A) one member selected by the Lewis County Economic Development Council;

(B) one local elected official from Lewis County, Washington, selected by the Lewis County Commissioners;

(C) one member selected by the Centralia Chehalis Chamber of Commerce;

(D) one member selected by Climate Solutions;

(E) one member selected by the Thurston- Lewis- Mason Central Labor Council;

(F) one member selected by Innovate Washington;

(G) one member selected by the Southwest Clean Air Agency;

(H) two employees of the Company, selected by the Company; and

(I) six representatives of the Company selected by the Company.

(c) At any time following the third anniversary of the Effective Date, the Company and the office of the Governor of the State may jointly agree to substitute any entity authorized to designate a Board Member pursuant to Section 4(b) with another entity with a similar mission or constituency, as detennined by the Company and the office ofthe Governor of the State in their sole discretion in accordance with the requirements ofRCW 80.80.100(4)(b).

(d) Each Board Member shall have one vote. The affirmative vote of a number of Board Members equal to a majority of Board Members on any Grant Review Board plus one shall constitute a "Supermajority".

(e) The entity authorized to designate a Board Member pursuant to Sections 4(b) and ±c0 shall have the authority to remove such Board Member, with or without cause, by written notice to such Grant Review Board and the Board Members thereof. In the event that any Board Member ceases to serve as a Board Member for any reason, the resulting vacancy on such Grant Review Board shall be filled by a replacement Board Member designated by the entity authorized to designate such member pursuant to Sections 4(b) and 4(c) by written notice to such Grant Review Board and the Board Members thereof.

(f) Each Board shall select its own chairperson.

(g) Subject to the terms of Section 5, the Weatherization Board shall, no later than January 1, 2013, adopt by a Supennajority (i) the process by which persons may submit applications for Grants to be made from the applicable Account, including the procedure for preliminary review of applications, (ii) the criteria and standards by which Grants may be made and (iii) a non-binding schedule of anticipated Grants by category (clauses (i), (ii) and (iii), collectively, the "Grant Procedures"). Subject to the terms of Section 5, the Economic and Community Development Board and the Energy Technology Board shall, no later than January 1, 2015, adopt by a Supermajority of its Board Members Grant Procedures with respect to each of the Economic and Community Development Fund and the Energy Technology Fund, respectively. The Grant Review Boards will jointly establish and maintain a single website to make such Grant Procedures and announcements relating to solicitations of proposals and awards of bids readily available to the public and shall further publicize such solicitations in a manner which the Grant Review Boards deem appropriate in its reasonable discretion, with all reasonable costs and expenses incurred as a result of the establishment or maintenance of such website and any such publicity to be payable from the applicable Account in accordance with the terms of Section 4(1).

(h) A Grant shall be made from an Account only following the affirmative written consent of a Supermajority of the Board Members of the applicable Grant Review Board, which consent must set forth the amount of such Grant, the recipient of such Grant, the date or dates upon which such Grants are to be made and any conditions to which the payment of Grant proceeds is subject; provided, however, that all Grants shall be made only for Proper Grant Purposes. No Grants may be authorized from the Weatherization Fund prior to the later to occur of (i) the execution by the Company or an affiliate of a Qualified Power Purchase Agreement (as defined in Section 8(c) below) and (ii) July 1, 2013. No Grants may be authorized from the Economic and Community Development Fund or the Energy Technology Fund prior to December 31, 2015.

(i) Following the affirmative written consent of a Supermajority of the Board Members of a Grant Review Board, the member or members of such Grant Review Board appointed by the Company shall be authorized to deliver to the Account Agent a letter of direction, in accordance with the terms of the Account Agreement, authorizing the Account Agent to make such Grants from the Accounts as have been authorized pursuant to Section 4(h).

U) Meetings of each Grant Review Board shall be held quarterly, except that a Supermajority of the Board Members of any Grant Review Board may call special meetings of such Grant Review Board. Board Members may participate in a meeting of a Grant Review Board by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, with such participation constituting presence in person at such meeting. Written or oral notice of regular or special meetings of each Grant Review Board shall be given at least two days prior to the date of the meeting. A Board Member may waive notice of a meeting either before or after the meeting by written waiver or attendance at the meeting. Board Members may vote at any meeting either in person or by proxy executed in writing.

(k) Board Members shall not be entitled to any remuneration for their service on any Grant Review Board.

(l) Costs associated with administering the grant process, the Accounts or the Grant Review Boards, including without limitation reasonable costs relating to accounting, establishment of systems for payment of Grants and expenses incurred by Board Members, shall be payable from the applicable Accounts. Board Members shall be entitled to be reimbursed for costs and expenses incurred as a result of serving on a Grant Review Board or attending meetings of a Grant Review Board to the extent such reimbursement would be permitted to be made to a person serving on a class one group board established by the State of Washington under RCW 43.03.220 and pursuant to the State Administrative and Accounting Manual, as published by the Washington State Office of Financial Management.

5. Publicity and Naming Rights.

(a) All press releases and other announcements regarding the solicitation, award or distribution of individual Grants shall be made in coordination with and give recognition to the Company. The State, the Grant Review Boards and the Board Members shall not, directly or indirectly, issue any such press release or make any such announcement without the prior consent of the Company, not to be unreasonably withheld.

(b) The Company shall have the authority to designate names for each Grant or series of Grants in recognition of its financial support. If the Company or TransAlta changes its name or corporate image at any time during the term of this MOA, the Company may designate related changes to the names of the Grants.

6. SNCR Installation. No later than January 1, 2013, the Company shall install SNCR equipment in each Boiler on the terms and conditions set forth in the Department of Ecology administrative order, First Revision: Order No. 6426, dated December 13, 2011, regarding the Best Available Retrofit Technology for the eligible emission units at the Facility

(the "BART Order"). The Company and the State have discussed the proper use of ammonia in this technology as required by RCW 80.80.100(2)(b), and the Company shall operate the Facility in conformance with the requirements set forth in Section 2 of the BART Order.

7. Recognition of Investments in Emissions Reductions. In the event that the Company elects to reduce greenhouse gas emissions in excess of the emission reductions required by RCW 80.80.040(3)(c) ("Additional Emissions Reductions"), the State shall recognize such Additional Emissions Reductions in applicable state policies and programs relating to greenhouse gas emissions, and shall use its reasonable best efforts to cause the Additional Emissions Reductions to be recognized for the benefit of the Company in applicable regional, national or international policies and programs relating to greenhouse gas emissions. Further, the State agrees to recognize the Company's shut-down of the Facility's boilers prior to the end of their useful lives by taking the early shut-down into consideration during future environmental regulatory processes that may adversely affect the Facility's operations. This shall entail providing TransAlta with an opportunity to consult with Department of Ecology officials prior to final promulgation of environmental rules or other regulatory requirements. Such consultation shall occur upon written request of the Company to the Department of Ecology and, at the Company's request, shall include participation of a representative of the Governor's Office.

8. Termination.

(a) This MOA may be terminated by the Company effective immediately upon written notice to the State at any time prior to or following the Effective Date upon the issuance by any governmental agency of a determination (i) that selective catalytic reduction technology must, as a matter of state or federal law, be installed on either or both of the Boilers or (ii) that conditions any rights or privileges on the installation of selective catalytic reduction technology on either or both of the Boilers.

(b) This MOA may be terminated by the Company effective immediately upon written notice to the State if any or all tax exemptions applicable to the Company and the Facility under RCW 82.08.811 or RCW 82.12.811, in either case as in effect on July 22, 2011 (the "Specified Sales and Use Tax Exemptions"), are repealed or amended in a manner that reduces or impairs the ability of the Company or its affiliates to utilize such tax exemptions.

(c) This MOA may be terminated by the Company effective upon five (5) business days' written notice to the State if, as of December 15, 2012, the Company or an affiliate has failed, despite the exercise of its commercially reasonable efforts, to negotiate and execute one or more power purchase agreements including terms and conditions relating to force majeure, outages and resupply rights, for the sale of at least 500 megawatts of the baseload electrical output of the Facility with one or more consumer-owned utilities or electrical companies as defined in RCW 80.80.010, with the Bonneville Power Administration, or with consumers located in Washington State, for a tenn of at least eight years ("Qualified Power Purchase Agreements"); provided, however, that during the five (5) business day period following notice of termination pursuant to this Section 8(c), the Parties may agree to extend the term of this MOA for an additional year, in which case this MOA may be terminated by the Company effective upon written notice to the State if, as of December 15, 2013, the Company or an affiliate has failed, despite the exercise of its commercially reasonable effmis, to negotiate and execute a Qualified Power Purchase Agreement. Subject to entry into a mutually acceptable confidentiality agreement, in connection with exercise of the termination right set forth in this Section 8(c), the Company shall provide the Governor of the State of Washington or a designee thereof the opportunity to review all provisions of such power purchase agreements that relate to quantity or duration of power sold and the location of the facility taking delivery of such power.

(d) This MOA may be terminated by the Company effective immediately upon written notice to the State if the Company (i) has reasonably determined that the cost of replacements, improvements, capital investments or additions required to continue to operate the Facility, combined with the Facility's operating costs, over the remaining life of the Facility will exceed the reasonably foreseeable financial return to the Company from continued operation of the Facility over such period and (ii) on the basis of such determination has permanently ceased power generation operations of the Facility.

9. Effect of Termination.

(a) In the event this MOA is terminated pursuant to Section 8(a) or filQ}, all amounts in the Accounts that have not been disbursed prior to the effectiveness of such tennination, including for the avoidance of doubt all interest and gains earned on funds in the Accounts, shall be immediately returned to the Company. In the event this MOA is terminated pursuant to Section 8(b) and the repeal or amendment of the Specified Sales and Use Tax Exemptions is applied retroactively, an amount of cash in the Accounts equal to the marginal tax liability resulting from such retroactive application shall be immediately returned to the Company.

(b) In the event this MOA is terminated pursuant to Sections 8(a), .filhl, or fi£}, this MOA shall become void and of no further force or effect, with no liability or obligation hereunder on the part of either Party or any of their respective affiliates, officers, managers, directors, employees, members or shareholders, except that Sections 6, .filru, lQ, 11 and 12 shall survive such termination.

(c) In the event this MOA is terminated pursuant to Section 8(d), the Company shall have no obligation to make any annual payments after notice of termination and this MOA shall terminate upon the date that all funds in any Accounts have been applied to Grants or otherwise applied as provided herein. Upon such termination, this MOA shall become void and of no further force or effect, with no liability or obligation hereunder on the part of either Party or any of their respective affiliates, officers, managers, directors, employees, members or shareholders, except that Sections 8(a), lQ, 11 and 12 shall survive such termination.

(d) Termination of this MOA pursuant to Section 8 shall not in any manner impact the validity or enforceability of contracts or agreements entered into by the Parties, other than this MOA, prior to the date of such termination, including Qualified Power Purchase Agreements or other agreements for the sale of electrical output of the Facility.

10. Records Review. The Company agrees that the State or its designated representatives shall have the right to review and, as to any non-confidential documents, to copy

any records and supporting documentation pertaining to the obligations of the Company under this MOA, including review of any records with respect to the Accounts. Prior to the termination of this MOA, the Company agrees to maintain all such records for a minimum of seven years, and following the termination of this MOA, the Company agrees to maintain all such records for a minimum of three years. The Company agrees to allow access to such records during normal business hours.

11. Enforcement.

(a) If there is a dispute between the Parties relating to or arising out of this MOA, the Parties agree to escalate the dispute for resolution by senior management of the Company and a senior advisor within the office of the Governor of the State of Washington, on behalf of the State.

(b) If the senior management of the Company and a senior advisor within the office of the Governor are unable to resolve the dispute, either Party may, by written notice to the other, submit such dispute to non-binding mediation pursuant to RCW 7.07. Mediation in accordance with this Section 11(b) will be conducted by a mediator mutually selected by the Parties; provided that if the Parties fail to mutually select a mediator within ten business days after such notice, then the Parties will follow the mediator selection procedures in accordance with the American Arbitration Association Commercial Arbitration Rules and Mediation Procedures. Each Party will bear its own costs in such mediation, and the mediator's fee will be divided evenly between the Parties.

(c) If the Parties are unable to resolve the dispute through mediation, either Party shall have the full right to seek resolution of the dispute through legal action. Any claims relating to a dispute arising out of this MOA that are not resolved in non-binding mediation as provided in Section 1I(b) must be brought in the superior court for Lewis County, Washington or, to the extent a federal court has jurisdiction over such dispute, federal court located in Tacoma, Washington.

(d) Subject to Section 11(f), each Party shall be entitled to all rights and remedies provided by law or in equity. Each Party recognizes and agrees that monetary damages may not be a sufficient remedy for breaches of this MOA, and that each Party shall be entitled, without waiving any other rights or remedies, to such injunctive and/or other equitable relief to prevent a breach of the provisions of this MOA, or any part thereof, as may be deemed proper by a court of competent jurisdiction.

(e) In the event that a court of competent jurisdiction finds that the State has materially breached any of its covenants or agreements contained herein, the Company shall be entitled to rescission or tennination of this MOA, and shall be entitled to immediate return of all amounts in the Accounts that have not been disbursed prior to the entry of the applicable court order, including for the avoidance of doubt all interest and gains earned on funds in the Accounts.

(f) Each Party acknowledges and agrees that any controversy which may arise under this MOA is likely to involve complicated and difficult issues, and therefore each

Party hereby irrevocably and unconditionally waives any right such Party may have to a trial by jury in respect of any litigation directly or indirectly arising out of or relating to this MOA, or the transactions contemplated by this MOA.

12. Miscellaneous.

(a) *No Third Party Beneficiaries.* The provisions of this MOA are intended solely for the benefit of the Parties, and this MOA shall not confer any rights or remedies upon a person other than the Parties.

(b) *Successors and Assigns.* The provisions of this MOA will inure to the benefit of, and be binding on, the Parties and their successors and assigns.

(c) *Force Majeure.* No Party shall be liable or responsible to the other Party, nor be deemed to have defaulted under or breached this MOA, for any failure or delay in fulfilling or performing any term of this MOA, when and to the extent such failure or delay is caused by or results from acts beyond the affected Party's reasonable control, including, without limitation: (i) acts of God; (ii) flood, fire, earthquake or explosion; (iii) war, invasion, hostilities (whether war is declared or not), terrorist threats or acts, riot or other civil unrest; (iv) government order or law, (v) actions, embargoes or blockades in effect on or after the date of this MOA; (vi) action by any government or agency, bureau, board, commission, court, department, official, political subdivision, tribunal or other instrumentality of any government, whether federal, state or local (each, a "Governmental Body"), or the failure by any Governmental Body to comply with statutorily mandated permitting time requirements; (vii) national or regional emergency; (viii) strikes, labor stoppages or slowdowns or other industrial disturbances; and (ix) interruption or curtailment of the transportation, distribution, storage or other delivery of coal for non-economic reasons (each, a "Force Majeure Event"); provided, that the State's obligations under this MOA may not be excused pursuant to the terms of subsections (iv) or (vi) of this Section 12(c) if the Force Majeure Event is caused by the action or inaction of the State of Washington. The Party suffering a Force Majeure Event shall give notice within seven days of the Force Majeure Event to the other Party, stating the period of time the occurrence is expected to continue and shall use commercially reasonable efforts to end the failure or delay and ensure the effects of such Force Majeure Event are minimized.

(d) *Governing Law.* This MOA shall be construed and administered in accordance with and governed by the laws of the State of Washington, and the Laws of the United States of America applicable therein.

(e) *Consent to Jurisdiction.* Subject to the provisions of Section 11, in connection with any disputes arising under this MOA, the Parties hereby submit to the jurisdiction of state court located in Lewis County, Washington.

(f) *Severability.* The Paiiies intend and believe that each provision of this MOA comports with all applicable local, state and federal laws and judicial decisions. However, if any term or other provision of this MOA other than Section 8(c) or 9(a) is found by a court of law to be in violation of any applicable local, state or federal ordinance, statute, law, administrative or judicial decision, or public policy, and if such comi should declare such term or provisions of this MOA to be illegal, invalid, unlawful, void or unenforceable as written, then it is the intent of the Parties that such term or provisions shall be given force to the fullest possible extent that they are legal, valid and enforceable, that the other conditions and provisions of this MOA shall be construed as if such illegal, invalid, unlawful, void or unenforceable term or provision were not contained herein, and that the rights, obligations and interest of the Parties under the remainder of this MOA shall remain in full force and effect, provided that enforcement of such remainder of the MOA does not materially modify either Party's burdens and benefits under the MOA. Upon such determination that any term or other provision is illegal, invalid, unlawful, void or unenforceable as written, the Parties shall negotiate in good faith to modify this MOA so as to effect the original intent of the Parties as closely as possible in a mutually acceptable manner. If the Parties cannot agree to such a modification and a Party believes that it will suffer a material adverse effect due to the severance of one or more unenforceable terms or provisions, that Party may rescind or terminate this MOA upon notice to the other Party.

(g) *Entire Agreement.* This MOA constitutes the entire agreement between the Parties with respect to the subject matter hereof and no representations, promises or agreements, oral or otherwise, between the Parties not embodied herein shall be of any force or effect.

(h) *Reopener; Modification.* The Parties agree that, if either Pmiy provides notice to the other Party requesting to meet to discuss modification of this MOA, the Parties shall meet and negotiate in good faith to modify the MOA to the mutual satisfaction of the Parties. Notwithstanding the foregoing, no provisions of this MOA may be changed, waived, discharged or terminated orally, but only by written instrument executed by both Parties.

(i) *Counterparts and Facsimile Signatures.* This MOA may be executed by the Parties through execution of identical counterpart agreements, each of which when executed shall constitute a single agreement. Facsimile signatures shall be deemed equivalent to original signatures.

G) *Notice.* Any notice required from a Paiiy under this MOA shall be written and shall be sent by personal delivery, messenger service, facsimile or nationally recognized courier service, with a separate copy of such notice to be delivered by e-mail, in each case to the address, facsimile number or e-mail address of such Party as set forth below. A Pa1iy may change its address for purposes of notice upon notice to the other Party. Any notice provided by a Party under this MOA shall be deemed received (i) on the date of delivery if delivered personally and/or by messenger service, (ii) on the date of confirmation of receipt of transmission by facsimile or (iii) one business day after being sent by nationally recognized courier service.

If to the State:	*If to Company:*
Governor's Executive Policy Office PO Box 43113 Olympia, WA 98501-3113 Attention: Keith Phillips Telephone No.: (360) 902-0630 Facsimile No.: (360) 586-8380 Email: Keith.Phillips@gov.wa.gov and Attorney General's Office, Ecology Division PO Box 40117 Olympia, WA 98502 Attention: Laura J. Watson Facsimile No.: (360) 586-6760 Email: LauraW2@atg.wa.gov	TransAlta Centralia Generation LLC c/o TransAlta USA, Inc. 724 Columbia Street NW, Suite 320 Olympia WA 98501 Attention: Lori Schmitt Telephone No.: (360) 742-3052 Facsimile No.: (360) 742-3093 Email: Lori_Schmitt@transalta.com with a copy (which shall not constitute notice to the Company) to: K&L Gates LLP 425 Fourth Avenue, Suite 2900 Seattle, WA 98104 Attention: Liz Thomas Facsimile No.: (206) 370-6190 Email: liz.thomas@klgates.com

[Signature page follows]

IN WITNESS WHEREOF, the Parties have executed this Memorandum of Agreement as of the day and year first set forth above.

THE STATE OF WASHINGTON

By: Christine O. Gregoire
Title: Governor

THE COMPANY

TRANSALTA CENTRALIA GENERATION LLC

By: Paul Taylor
Its: President

SL-11 AEP CONFIDENTIAL Response to CAG 1-38 Attachment 2

REDACTED

Net Capacity Factor (%)

	2016	2017	2018	2019	2020
Amos 1	59.75%	57.04%	41.69%	39.43%	31.23%
Amos2	62.08%	53.97%	53.48%	43.19%	41.87%
Amos3	49.22%	52.47%	54.21%	34.40%	45.51%
Mitchell 1	52.07%	46.50%	38.12%	35.97%	22.43%
Mitchell 2	59.99%	65.77%	42.37%	37.38%	30.20%
Mountaineer 1	67.36%	61.81%	49.38%	71.40%	45.50%

Net Plant Heat Rate (BTU/KWh)

	2016	2017	2018	2019	2020
Amos 1	9,841	9,642	9,668	9,801	10,157
Amos 2	9,824	10,069	10,041	10,037	10,244
Amos 3	9,825	9,911	10,054	10,157	9,954
Mitchell 1	10,617	10,382	10,485	9,757	11,135
Mitchell)	9,832	9,686	10,410	10,176	10,352
Mountaineer 1	9,842	9,617	10,299	9,690	9,933

DTE Electric Company
One Energy Plaza, 1635 WCB
Detroit, MI 48226-1279

DTE

Jon P. Christinidis
(313) 235-7706
jon.christinidis@dteenergy.com

September 29, 2020

Ms. Lisa Felice
Executive Secretary
Michigan Public Service Commission
7109 West Saginaw Highway
Lansing, MI 48917

RE: In the matter of the application of **DTE ELECTRIC COMPANY** for authority to increase its rates, amend its rate schedules and rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority
MPSC Case No. U-20561

Dear Ms. Felice:

Please find enclosed for informational purposes the DTE Electric Company's River Rouge Power Plant Community Transition Plan pursuant to the Commission's July 9, 2020 Order in Case No. U-20835. Also attached is the Proof of Service.

Very truly yours,

Jon P. Christinidis
Digitally signed by Jon P. Christinidis
Date: 2020.09.29 16:48:50 -04'00'

Jon P. Christinidis

JPC/erb
Attachments

cc: service list

River Rouge Power Plant Community Transition Plan

DTE Electric Company
September 2020

Contents

Executive Summary

- In 2016, DTE Electric announced plans to retire eight coal-fired generating units at the River Rouge, St. Clair, and Trenton Channel power plants between 2020 and 2023; these retirements are part of a fundamental transformation in DTE Electric's generation portfolio as it transitions from primarily coal to a mix of wind, solar, natural gas, and nuclear
- Upon the Company's decision to retire the River Rouge Power Plant (RRPP), DTE Electric immediately notified River Rouge Mayor Michael Bowdler; DTE Electric maintains frequent communications with City officials and other key stakeholders regarding the status of the plant
- DTE Electric has since collaborated with the City of River Rouge on many efforts:
  - **Tax Base**: DTE Electric and the City of River Rouge executed a property tax agreement in August 2019, which set the taxable values for the plant from 2017 - 2022
  - **Volunteerism**: DTE has a long-standing history of supporting the River Rouge community through volunteer efforts that benefit and enrich the community
  - **Economic Development**: DTE has collaborated with the City of River Rouge and the larger downriver area on several key initiatives, and will maintain that collaboration long after the retirement of the plant as part of DTE's aspiration to be a force for growth in the communities where we live and serve
- When River Rouge Power Plant ceased the utilization of coal as a fuel source on May 31, 2020, the plant had approximately 55 full-time employees. With the transition from coal to a combination of recycled industrial gas and natural gas, the plant will employ approximately 30 full time employees through its retirement date in May 2021; upon plant retirement, these highly skilled employees will be deployed to other DTE sites
- In August 2019, DTE Electric performed a stakeholder engagement initiative to obtain input from River Rouge officials, The Michigan Department of Treasury, and various economic development organizations regarding the future of the RRPP site; consulted stakeholders are interested in the future use of the RRPP property and the potential for positive economic development outcomes
- As the plant approaches its retirement date in May 2021, DTE Electric is focused on maintaining frequent and open dialogue with City of River Rouge officials and other relevant stakeholders while continuing collaboration efforts with the City and economic development organizations within the region

Background

I. Retirement Announcement

In 2016, DTE Electric announced plans to retire eight coal-fired generating units at the River Rouge, St. Clair, and Trenton Channel power plants between 2020 and 2023. These retirements are part of a fundamental transformation in DTE Electric's generation portfolio, as it transitions from primarily coal to a mix of wind, solar, natural gas, and nuclear. In addition to the Company's commitment to a cleaner, sustainable generation portfolio, other contributing factors into the Company's decision to retire these units includes the age of the units and investments that would be necessary to comply with environmental regulations if the units were to run beyond 2023.

II. Communication with River Rouge Officials and other Key Stakeholders

Upon the Company's decision to retire the River Rouge Power Plant (RRPP), DTE Electric immediately notified River Rouge Mayor Michael Bowdler. From there, DTE Electric officials, including the Senior Vice President of Fossil Generation and Director of Regional Relations, conducted meetings twice per year with Mayor Bowdler and his team to provide updates. Outside of these bi-annual meetings, the DTE Regional Relations team is in regular communication with City officials to address any concerns that may arise. In addition to communications with the Mayor's office, DTE met with officials from the Wayne County Economic Development Corporation and the River Rouge School Superintendent to inform them of the upcoming plant retirement.

Since the Company's announcement in 2016, DTE has made it a priority to engage in regular communications with officials within River Rouge and other key stakeholders, including State Senator Stephanie Chang, U.S. Representative Rashida Tlaib, Wayne County Executive Warren Evans, and environmental groups such as the Michigan Department of Environment, Great Lakes, and Energy, the Michigan Environmental Council and the Sierra Club.

Collaboration with the City of River Rouge

I. Tax Base

DTE Electric and the City of River Rouge executed a property tax settlement agreement in August of 2019, which set the taxable values for the plant from 2017 until 2022. This settlement agreement allowed the City to avoid an instantaneous substantial loss of revenue, and instead created a "glide-path" between 2017 and 2022 to allow the City to prepare for the tax loss related to the retirement of River Rouge Power Plant.

II. Volunteer Support

DTE has a long-standing history of supporting the River Rouge community through volunteer efforts that benefit and enrich the community. Examples include:

- Each year, River Rouge Power Plant employees help to beautify the property around City Hall by pulling weeds and preparing the grounds for flower planting
- Every September, DTE sponsors a float in the annual River Rouge Days festival, which draws hundreds to downtown River Rouge for two days of fun-filled family activities
- Each year at Christmastime, plant employees come together to wrap presents for over 300 needy children, donated through the "No Kids Without a Christmas" charitable organization

III. Economic Development

DTE has collaborated with the City of River Rouge and the entire downriver area on several initiatives. Examples include:

- DTE provided support that enabled the Downriver Community Conference to receive a $100,000 grant from the U.S. Economic Development Association that led to the creation of the 2018 study by MDB Insight entitled "An Economic Recovery Strategy for the Downriver Communities of River Rouge, Ecorse, Wyandotte, Riverview and Trenton"
- DTE participates in a monthly Wayne County Brownfield Redevelopment Authority Board meeting. DTE was an active participant in multiple community meetings that helped to formulate the Brownfield Area-Wide Plan:
    - October 2018: Community Input Meeting – This meeting provided a venue for various businesses to provide input into potential uses for future land

development in River Rouge and the surrounding area. The session was opened to the public to provide input into desired businesses/attractions to fill unmet needs in the community (walking trails, canoe launch, waterfront park, etc.)

  - October 2019: Community Meeting – In this meeting, the Brownfield Area-Wide Plan was rolled out to the community. The Plan included the consolidated recommendations and findings of the October 2018 session around potential attraction of businesses to drive economic development in River Rouge

- DTE's Economic Development Group holds bi-weekly update meetings with the River Rouge Economic Development Director and other City officials to identify economic development activities that could add to the community's tax base; these meetings are consistent with the Company's aspiration of being a force for growth in the communities where we live and serve and will continue beyond the closure of the River Rouge Power Plant
- DTE successfully collaborates with the City of River Rouge to perform energy analysis (electric & gas capacity and availability) on multiple sites that can be marketed for economic development and community growth. Energy analysis is one of the initial steps in determining if a site is viable for various types of development
- In connection with the Michigan Economic Development Corporation's (MEDC) reworking of their Site Readiness[1] and Featured Sites[2] programs, DTE hosted a workshop in August 2019 to introduce the programs to the affected communities of River Rouge and Trenton; in attendance were representatives from the City of River Rouge, the City of Trenton and the Downriver Community Conference Center
- DTE participated in the Downriver Economic Development Summit that was held on February 3, 2020 at Wayne County Community College-Taylor campus. The event included opening remarks from Congresswoman Debbie Dingell and Wayne County Executive Warren Evans, and included speakers from the Southern Wayne County Chamber, Downriver Community Conference, Hillwood Development, and Detroit Regional Aerotropolis, representing various economic development projects in the downriver region. At this event, DTE provided an update on the status of River Rouge and Trenton Channel power plants

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[1] The MEDC Site Readiness Improvement Program accepts grant applications from local and regional economic development or community partners that demonstrate a pathway to a build-ready site (a site that has appropriate planning, zoning, surveys, title work, environmental conditions, soil conditions, infrastructure is in place or preliminary engineering is completed, the property is available for sale and development and site information is ready, and up-to-date)
From their statement of work: "For Michigan to gain a competitive advantage when it comes to business attraction and expansion projects, it must assist communities or other public entities (e.g. local economic development corporations, economic development organizations, etc.) with the development/enhancement of industrial sites to make them build-ready and competitive for site selection projects"
[2] MEDC Featured Sites are sizable vacant properties available for development in Michigan and are targeted toward larger business attraction projects

IV. River Rouge Community Working Group

DTE has recently formed an internal "River Rouge Community Working Group" to coordinate organizations within DTE (Public Affairs, Economic Development, Regional Relations, Fossil Generation and others) in supporting the River Rouge community through the plant retirement and beyond. The group is developing a plan for community transformation based on community needs and is working closely with the City to regularly identify projects that will help improve quality of life in River Rouge. Some of the potential projects recently identified include:

- Belanger Park upgrades
- Beechwood Community Center upgrades
- Tree planting
- Creation of a dog park

The Community Working Group has also been working with city officials to provide resources in the wake of the COVID-19 pandemic, including the following projects:

- Partnering with River Rouge Public Schools to provide career mentoring for high school students. DTE employees will speak with high school students on the phone to discuss career opportunities, professional development, and answer questions
- Connecting River Rouge with Comcast and other service providers that can provide internet and technological assistance to city residents

Plant Employees - Retiring the Plant with Pride

When River Rouge Power Plant ceased the utilization of coal as a fuel source on May 31, 2020, the plant had approximately 55 full-time employees. With the transition from coal to a combination of recycled industrial gasses and natural gas, the plant will employ approximately 30 full time employees through its retirement date in May 2021.

I. Employee Transition Team

The Company's Fossil Generation organization has established a cross-functional "Employee Transition Team", supported by DTE's Organizational Change Management group, to establish a process for ensuring the safety and engagement of employees as operations at River Rouge Power Plant wind down and plant employees transition to new locations within the company. The team is executing a deliberate planning effort focused on retaining these highly skilled employees for deployment at other DTE sites that have a need. Focus areas include pre/post transition training, onboarding, and integration at the new site. Local 223 has representation on the Transition Team and will be engaged throughout this process.

II. River Rouge Heritage Project

To honor the plant legacy and celebrate its significance within DTE and the River Rouge community, we will be capturing stories from plant alumni and current employees with the intention of sharing through internal newsletters, the Company intranet, social media and the creation of a plant legacy book.

River Rouge Power Plant Site Future Use Planning

I. Site Considerations

Due to the waterfront location of RRPP, the property's high level of accessibility and existing supportive infrastructure, there is likely to be a measure of local optimism about planning for a new and different use for the RRPP property, with emphasis on opportunities related to waterfront access, the manufacturing industry, and/or agri-business.

However, a significant portion of the site is restricted by International Transmission Company Holdings Corporation (ITC) infrastructure and transmission line corridor easements, which may impact the scope of available future use options. Additionally, the RRPP site currently hosts an operation that provides pulverized coal for nearby AK Steel. Potential future use of the site is not only tied to the retirement of the power plant, but likely dependent upon the cessation of the pulverized coal operation as well.

II. Site Remediation

Final decisions regarding eventual reuse of the property are contingent on full environmental investigation of the facilities and property. Both building and site contamination could potentially be found at RRPP. Typically, a source of building contamination is asbestos used in pipe and boiler insulation and some bricks. Potential sources of contamination such as oil filled equipment or light ballasts with polychlorinated biphenyl (PCB) will be identified and managed appropriately. Other contaminants may include, but are not limited to fuel, chemicals and petroleum products used in plant operations.

Overall, environmental conditions at RRPP are expected to be those typical of a coal-fired power plant or other property in industrial use over a period of decades. The environmental conditions are not expected to significantly hinder commercial or industrial development. Residential re-development would require additional sampling to determine the level of effort and cost to bring the property to a condition suitable for residential use.

Major landscape features include the power plant facilities, coal storage yards, and ponds for water management, ash settlement and runoff retention. The site includes a network of roadways for access throughout the site, and various outdoor storage areas for incidental material storage and construction lay-down areas. The remaining open areas have been maintained as grass fields by occasional mowing or brush clearance.

The site's bottom ash basin was used to treat the waste water that contained bottom ash when the plant operated on coal. This basin is currently being closed following State and Federal requirements, by removal of all coal ash, and all work will be completed before the end of 2020. We will continue groundwater collection and groundwater testing beyond the basin closure and will continue to make documents available to stakeholders and the public via our publicly accessible website, and also through the Michigan Department of Environment, Great Lakes, and Energy.

III. Stakeholder Engagement

In August 2019, DTE Electric performed a stakeholder engagement initiative to obtain input from River Rouge officials, The Michigan Department of Treasury, and various economic development organizations on the future of the River Rouge Power Plant site. Meetings were held at the locations requested by the interviewees or via teleconference from August 7th through the 23rd, 2019. The following list specifies meeting attendees and times:

- **Detroit Regional Partnership** Meeting at 12:00 pm on August 8 - Barry Matherly (DRP CEO) and Gabe Rodriguez (DRP VP)
- **Wayne County Economic Development** Meeting at 2:30 pm on August 12 - Khalil Rahal and Wafa Dinaro (Wayne County)
- **Pure Michigan / MEDC** Teleconference at 4:00 pm on August 12 - Karl Dehn (MEDC) and Genna Hines (MEDC)
- **City of River Rouge** at 11:00 am on August 13 – Mayor Michael Bowdler (City of River Rouge), Karl Laub (City of River Rouge Community Development Director), and Sarah Traxler (McKenna and under contract as the City Planner for River Rouge)
- **Michigan Department of Treasury** Teleconference at 10:00 am on August 23 - Treasurer Rachael Eubanks, Joyce Parker, Rod Taylor, Heather Frick, and Larry Steckelberg (Treasury)

At the meetings, participants were eager to share information, ideas and opinions. Several common key themes emerged from the opinions shared in each meeting. These themes provide a structure for understanding stakeholder input.

Theme 1: Preservation of Revenue Stream

Community leadership is concerned with the loss of tax revenue associated with the closure of the RRPP and the impacts on the delivery of public services within the city of River Rouge. Developing alternative uses that would produce high property valuations are the primary concerns of the community leadership. While secondary, industries that support well-paying jobs are also of great interest.

Theme 2: Unique Nature of the Site

The combination of the size, zoning, access, and existing infrastructure make the RRPP site unique from a development perspective and highly attractive for potential state- and national-level major projects. The size alone makes it unique; appropriately zoned industrial properties of 100+ acres are uncommon in Wayne County. The site has the additional benefit of existing utility infrastructure.

Theme 3: Relationship to the Community

The local and regional communities are aware of the importance of the RRPP site as a potential impact to the local and regional economies but also as an opportunity to spark economic activity within the area. However, certain stakeholders in the area may prefer non-industrial or recreational uses for the site. Maintaining an open dialog throughout the process with all stakeholders – including local leadership, community members, and economic development organizations – is a top priority in determining the future of the River Rouge Power Plant site.

2019 Stakeholder Engagement Conclusion:

Consulted stakeholders are interested in the future use of the RRPP property and the potential for positive economic development outcomes. In the opinion of consulted stakeholders, interests within the community likely diverge regarding the preferred future use and development strategy of the site. Some area residents and environmental interest groups will likely advocate for recreation or similar uses while area leadership is focused on economic development that will contribute to the preservation of the tax base and job creation.

In August 2020, DTE Electric held meetings to discuss the development of the River Rouge Power Plant Community Transition Plan with stakeholders that expressed interest in previous DTE Electric regulatory filings. On August 3, DTE officials met with representatives from the Sierra Club and on August 10, DTE officials met with representatives from the Michigan Environmental Council (MEC).

The discussions centered around several topics within the Community Transition Plan:

- **Plant Employees** – Assurance that the local union officials are involved in the planning efforts for employees affected by the retirement of River Rouge Power Plant
- **Coal Ash Basin Cleanup** – Assurance that groundwater monitoring would continue after plant closure, and results made publicly available
- **Future Site Use** – Assurance that community members voices would be heard when determining the future use for the plant site
- **Impact on Local Tax Base and Funding of City Services** – Recognition that the retirement of the plant brings challenges for the City and discussion on the efforts that DTE is undertaking in collaborating with the City of several economic development fronts

Report Summary and Next Steps

Summary

In 2016, DTE Electric announced plans to retire eight coal-fired generating units at the River Rouge, St. Clair, and Trenton Channel power plants between 2020 and 2023. These retirements are part of a fundamental transformation in DTE Electric's generation portfolio as it transitions from primarily coal to a mix of wind, solar, and natural gas.

Upon the Company's decision to retire the River Rouge Power Plant (RRPP), DTE Electric immediately notified River Rouge Mayor Michael Bowdler. From there, DTE Electric officials held regular standing meetings with Mayor Bowdler and his team to provide updates and discuss redevelopment opportunities. In addition to these bi-annual meetings, the DTE Regional Relations team is in regular communication with City officials and other key stakeholders to address any concerns that may arise.

In August 2019, DTE Electric performed a stakeholder engagement initiative to obtain input from River Rouge officials, The Michigan Department of Treasury, and various economic development organizations on the future of the River Rouge Power Plant site.

Consulted stakeholders are interested in the future use of the RRPP property and the potential for positive economic development outcomes. The community is very concerned with the loss of tax revenue associated with the closure of the RRPP and the impacts on the delivery of public services within the city of River Rouge. Developing alternative uses that would produce high property valuations are the primary concerns of the community leadership. Maintaining an open dialog throughout the process with all stakeholders – including local leadership, community members, and economic development organizations – is a top priority in determining the future of the River Rouge Power Plant site.

A significant portion of the River Rouge Power Plant site is restricted by International Transmission Company Holdings Corporation (ITC) infrastructure and transmission line corridor easements, which may impact future use options. Furthermore, the timing of when the RRPP site will be available for future use is not only tied to the retirement of the power plant, but likely dependent upon the cessation of an on-site coal pulverization operation as well.

Next Steps

River Rouge Power Plant Employees

The Company's "Employee Transition Team" will continue executing its plan that enables the remaining ~30 employees at River Rouge Power Plant to operate the plant in a safe and engaged manner through the retirement date of May 2021, while ensuring that all employees will have all necessary training to integrate seamlessly into a new role within DTE upon retirement of the plant.

River Rouge Community

To assist the community with the concerns over loss of tax revenue, DTE has collaborated with the City of River Rouge and the entire downriver area on several initiatives aimed at driving economic growth to these areas, including activities that assist in the marketing of multiple vacant sites that can be utilized for development projects.

DTE's Economic Development Group will continue to hold regular meetings with the River Rouge Economic Development Director and other City officials to identify economic development activities that could add to the community's tax base. As the plant approaches its retirement date, DTE Electric is focused on maintaining frequent and open dialogue with City of River Rouge officials and other relevant stakeholders while continuing collaboration efforts with economic development organizations within the region.

The Company's "River Rouge Community Working Group" will continue to engage City officials in identifying projects that will help improve quality of life in River Rouge. Some potential projects that have already been identified include:

- Belanger Park upgrades
- Beechwood Community Center upgrades
- Tree planting
- Creation of a dog park

Future Site Use Planning

As the River Rouge Power Plant is scheduled to retire in May 2021, the Company is developing decommissioning plans for the site with a focus on safety and environmental compliance. These plans are taking into consideration that the on-site operation that pulverizes coal for nearby AK Steel could last several more years, preventing full demolition of the plant site. Potential future use of the site is not only tied to the retirement of the power plant, but likely dependent upon the cessation of the pulverized coal operation as well.

The status of the availability of the plant site for future use redevelopment will be frequently communicated through the regular standing meetings between DTE and City officials, including the Mayor, the Economic Development Director, and other key stakeholders.

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of **DTE ELECTRIC COMPANY** for authority to increase its rates, amend its rate schedules and rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority	))))))	Case No. U-20561

PROOF OF SERVICE

STATE OF MICHIGAN)
) ss.
COUNTY OF WAYNE)

ESTELLA R. BRANSON, being duly sworn, deposes and says that on the 29th day of September, 2020, she served a copy of DTE Electric Company's River Rouge Power Plant Community Transition Plan, via electronic mail upon the persons referred to in the attached service list.

Estella R. Branson
Digitally signed by Estella R. Branson
Date: 2020.09.29 16:49:21 -04'00'

ESTELLA R. BRANSON

Subscribed and sworn to before
me this 29th day of September, 2020

Karyn B. Kazyaka
Digitally signed by Karyn B. Kazyaka
Date: 2020.09.29 16:50:03 -04'00'

Karyn B. Kazyaka, Notary Public
Macomb County, Michigan
My Commission Expires: 7-21-2023
Acting in Wayne County, MI

MPSC Case No. U-20561
Service List
Page 1

ABATE
Robert A.W. Strong
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CERTIFICATE OF SERVICE

I hereby certify that on this date I caused to be served a copy of the foregoing PUBLIC VERSION of the Direct Testimony of Sean O'Leary upon the parties listed below; and (2) served a copy of the CONFIDENTIAL VERSION of the Direct Testimony of Sean O'Leary upon the Companies, and those parties that have executed an appropriate protective agreement with the Companies.

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