

IMPACTS OF EPA'S CARBON PROPOSAL ON MISSOURI BACKGROUND

- In 2013, coal provided 83% of Missouri's electricity, with nuclear providing 9%, natural gas 5%, and renewables providing the remaining 3%.ⁱ Missouri's average electricity price of 8.96 cents/kWh last year was 11% below the national average.ⁱⁱ
- Currently, coal is responsible for more than 7,400 direct and indirect jobs in Missouri.ⁱⁱⁱ
- Despite below-average electricity prices, many Missouri families are struggling with high energy costs. The 1.3 million low-income and middle-income families in Missouri -- 54% of the state's households -- spend 20% of their after-tax income on energy.^{iv} In addition, nearly one-third of Missouri households receive Social Security.^v Lower income families and Social Security recipients are especially vulnerable to further increases in energy prices.^{vi}
- Missouri utilities have announced the retirement or conversion of 11 coal units (totaling 1,033 MW) due to EPA policies. Nationwide, utilities have announced the retirement or conversion of 381 coal units (totaling 60,104 MW) in 36 states due to EPA policies.^{vii}

EPA'S CARBON PROPOSAL

- In June, EPA proposed its "Clean Power Plan" (CPP) to reduce carbon dioxide (CO₂) emissions from existing coal-fired and natural gas-fired power plants in 49 states, including Missouri. EPA plans to finalize the proposal in June of next year.

- Under the EPA proposal, Missouri will be required to reduce the CO₂ emissions rate of its electric generating fleet by 21%.^{viii} EPA's proposal will force Missouri to change the way the state produces electricity, reduce the amount of electricity used by Missouri consumers, and significantly increase the price of electricity.
- EPA *assumed* the following in setting Missouri's emissions rate:
 - The efficiency of existing coal-fired units can be improved by 6%;^{ix}
 - Electricity from natural gas can be increased by 163%;^x
 - Electricity from coal can be reduced by more than 11%;^{xi}
 - Electricity from renewable energy sources can be increased by 113%;^{xii}
 - None of the state's nuclear capacity will retire;^{xiii} and
 - Missouri consumers can reduce electricity use by more than 10%.^{xiv}
- EPA's proposal conflicts with Missouri law (House Bill No. 1631) requiring that CO₂ standards for the state must be based on measures that can be implemented at fossil-fueled power plants ("inside the fence" measures). In total, officials from 30 states, including Missouri, have expressed opposition to the approach EPA included in its proposal. In addition, 13 states have joined in litigation challenging EPA's proposal.^{xv}

SERIOUS ECONOMIC AND RELIABILITY IMPACTS

- Modeling by NERA Economic Consulting projects that the CPP will cause a 14% increase in retail electricity prices for Missouri consumers, with a peak year increase of 20%. Under another scenario (what will happen if Missouri consumers do not significantly reduce their electricity use), electricity prices in Missouri would increase by 23%, with a peak year increase of 26%.^{xvi}

- Another independent study conducted for the National Mining Association estimates similar impacts, including a peak year wholesale electricity price increase of 19.9% for Missouri consumers.^{xvii}
- NERA also projects double digit electricity price increases in 42 other states, as well as nationwide costs averaging \$41 billion to \$73 billion per year. NERA's projections include \$560 billion that consumers nationwide must spend to reduce electricity use.^{xviii}
- EPA acknowledges that electricity generation from coal will decline by nearly 30% nationwide.^{xix} NERA also projects that electricity generation from coal will decline by at least 29%. As a result, domestic coal consumption will decline by 240 million tons or more by 2020.^{xx} EPA also estimates that coal prices will decline by as much as 18%.^{xxi}
- Grid operators and electric utilities in many parts of the country are expressing serious concerns about the threat of EPA's proposal to electric reliability. Those concerned include the Southwest Power Pool, which is responsible for grid reliability in a nine-state region that includes western Missouri, as well as the Midcontinent Independent System Operator (MISO), which is responsible for grid reliability in a 15-state region that includes eastern Missouri.^{xxii}

NO BENEFITS

- In 2013 the U.S. electric sector emitted 2.05 billion metric tons of CO₂, representing approximately 4% of global anthropogenic greenhouse gas emissions.^{xxiii}
- Analysis based on another EPA rulemaking shows that the climate effects of the EPA proposal are meaningless. For example, the atmospheric CO₂ concentration would be reduced by less than 0.5%;

global average temperature increase would be reduced by less than 2/100^{ths} of a degree Fahrenheit; and sea level rise would be reduced by 1/100th of an inch (the thickness of three sheets of paper).^{xxiv}

- To justify the EPA proposal, its supporters argue the U.S. must show global leadership in reducing CO₂ emissions. However, other countries are abandoning pledges to reduce emissions or increasing emissions regardless of their pledges. According to the *Washington Post*, many industrialized countries are not expected to meet their commitments to reduce CO₂ emissions.^{xxv}

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ⁱ U.S. Energy Information Administration, *Electric Power Monthly*, February 2014.

ⁱⁱ *Ibid.*

ⁱⁱⁱ National Mining Association, <http://www.countoncoal.org/states/>.

^{iv} Eugene M. Trisko, *Energy Cost Impacts on Missouri Families*, December 2013.

^v *Ibid.*

^{vi} *Ibid* and The 60 Plus Association, *Energy Bills Challenge America's Fixed-Income Seniors*, 2014.

^{vii} ACCCE, *Coal Unit Shutdowns as of October 23, 2014*. Retirements and conversions are based on public announcements by the coal unit owners.

^{viii} The percentage reduction is relative to emission rates in 2012. The Missouri emissions rate goal is from Table 8, pages 346 – 348, of EPA’s proposal, and 2012 emission rates are found in EPA’s *Goal Computation Technical Support Document*, June 2014. <http://www2.epa.gov/sites/production/files/2014-05/documents/20140602tsd-goal-computation.pdf>.

^{ix} EPA, *GHG Abatement Measures* technical support document, June 2014. EPA assumes the heat rate of every coal-fired electric generating unit can be improved by 6%.

^x EPA, *Technical Support Document (TSD) for the CAA Section 111(d) Emission Guidelines for Existing Power Plants: Goal Computation Technical Support Document*, June 2014, Appendix 1.

^{xi} *Ibid.*

^{xii} EPA, *Technical Support Document (TSD) for the CAA Section 111(d) Emission Guidelines for Existing Power Plants: GHG Abatement Measures*, June 2014, Table 4.9.

^{xiii} EPA, *Technical Support Document (TSD) for the CAA Section 111(d) Emission Guidelines for Existing Power Plants: Goal Computation Technical Support Document*, June 2014, page 14.

^{xiv} EPA, *Regulatory Impact Analysis for the Proposed Carbon Pollution Guidelines for Existing Power Plants and Emission Standards for Modified and Reconstructed Power Plants*, June 2014, Table 3.3.

^{xv} Petition for Review, *West Virginia v. EPA*, Case No 14-1146 (D.C. Cir. filed Aug. 1, 2014); Brief of the States of West Virginia, Alabama, Alaska, Kentucky, Nebraska, Ohio, Oklahoma, South Carolina, and Wyoming as *Amici Curiae* in Support of the Petitioner, *In Re: Murray Energy Corporation v. EPA*, Case No. 14-1112, (D.C. Cir. filed June 25, 2014).

^{xvi} NERA Economic Consulting, *Potential Impacts of the EPA Clean Power Plan*. An annual average increase of 14% means that electricity prices are projected to be 14% higher each year, on average, under EPA's proposal than electricity prices would be in the absence of the proposal.

^{xvii} *EPA Clean Power Plan: Costs and Impacts on U.S. Energy Markets*, Energy Ventures Analysis, August 2014 <http://www.countoncoal.org/states/>

^{xviii} NERA Economic Consulting, *Potential Impacts of the EPA Clean Power Plan*.

^{xix} EPA, *Regulatory Impact Analysis for the Proposed Carbon Pollution Guidelines for Existing Power Plants and Emission Standards for Modified and Reconstructed Power Plants*, June 2014.

^{xx} NERA Economic Consulting, *Potential Impacts of the EPA Clean Power Plan*.

^{xxi} EPA, *Regulatory Impact Analysis for the Proposed Carbon Pollution Guidelines for Existing Power Plants and Emission Standards for Modified and Reconstructed Power Plants*, June 2014.

^{xxii} Southwest Power Pool, *Grid Reliability and Transmission Buildout Issues*, presentation to Arkansas DEQ Stakeholder Meeting, October 1, 2014; Midwest Independent System Operator, *Clean Power Plan: MISO Analysis Update for ADEQ/APSC Stakeholder Meeting*, October 1, 2014; and American Electric Power, *Transmission Challenges with the Clean Power Plan*, September 2014.

^{xxiii} IPCC, *Climate Change 2014: Mitigation of Climate Change: Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*; EIA, *Monthly Energy Review*, February 2014.

^{xxiv} ACCCE, *Climate Effects of EPA's Proposed Carbon Regulations*, June 2014.

^{xxv} Steven Mufson, *All over the planet, countries are completely missing their emissions targets*, (September 23, 2014) <http://www.washingtonpost.com/blogs/wonkblog/wp/2014/09/23/all-over-the-planet-countries-are-completely-missing-their-emissions-targets/>