

## IMPACTS OF EPA'S CARBON PROPOSAL ON SOUTH DAKOTA

### BACKGROUND

- In 2013, coal provided 29% of South Dakota's electricity, with hydropower providing 39%, other renewables 26%, and natural gas the remaining 6%.<sup>i</sup> South Dakota's average electricity price of 8.83 cents/kWh last year was 12% below the national average.<sup>ii</sup>
- Currently, coal is responsible for almost 900 direct and indirect jobs in South Dakota.<sup>iii</sup>
- Despite below-average electricity prices, many South Dakota families are struggling with high energy costs. Low-income and middle-income families in South Dakota -- 52% of the state's households -- spend 18% of their after-tax income on energy.<sup>iv</sup> In addition, 29% of South Dakota households receive Social Security.<sup>v</sup> Lower income families and Social Security recipients are especially vulnerable to increases in energy prices.<sup>vi</sup>

### EPA'S CARBON PROPOSAL

- In June, EPA proposed its "Clean Power Plan" (CPP) to reduce carbon dioxide (CO<sub>2</sub>) emissions from existing coal-fired and natural gas-fired power plants in 49 states, including South Dakota. EPA plans to finalize the proposal in June of next year.
- Under the EPA proposal, South Dakota will be required to reduce the CO<sub>2</sub> emissions rate of its electric generating fleet by 17%.<sup>vii</sup> EPA's proposal will force South Dakota to change the way the state generates electricity, reduce the amount of electricity used by South

Dakota consumers, and increase the price of electricity.

- EPA *assumed* the following in setting South Dakota's emissions rate:
  - The efficiency of existing coal-fired units can be improved by 6%;<sup>viii</sup>
  - Electricity generation from natural gas can be increased by over 7,000%;<sup>ix</sup>
  - Electricity from coal can be reduced by 67%;<sup>x</sup> and
  - South Dakota consumers can reduce electricity use by nearly 11%.<sup>xi</sup>
- The South Dakota Attorney General signed a "white paper" last year opposing EPA approach.<sup>xii</sup> South Dakota is one of 13 states that have joined litigation challenging EPA's proposal.<sup>xiii</sup> In addition, the South Dakota legislature passed House Concurrent Resolution No. 1022, which urges the Obama Administration to adopt an energy policy that ensures that electricity is affordable and reliable and that respects state authority. In total, over 30 states have expressed opposition to the approach EPA included in its proposal.

## SERIOUS ECONOMIC AND RELIABILITY IMPACTS

- Modeling by NERA Economic Consulting projects that the CPP will cause a 14% increase in electricity prices for South Dakota consumers, with a peak year increase of 17%. Under another scenario (what will happen if South Dakota consumers do not significantly reduce their electricity use), electricity prices in South Dakota could increase by 26%, with a peak year increase of 29%.<sup>xiv</sup>
- Another independent study conducted for the National Mining Association estimates similar impacts, including a peak year wholesale electricity price increase of 20.1% for South Dakota consumers.<sup>xv</sup>
- 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 will have to spend to reduce their electricity use.<sup>xvi</sup>

- 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 Midcontinent Independent System Operator (MISO), which is responsible for grid reliability in a 15-state region that includes most of South Dakota.<sup>xvii</sup>

## NO BENEFITS

- In 2013 the U.S. electric sector emitted 2.05 billion metric tons of CO<sub>2</sub>, representing approximately 4% of global anthropogenic greenhouse gas emissions.<sup>xviii</sup>
- Analysis based on another EPA rulemaking shows that the climate effects of the EPA proposal are meaningless. For example, the atmospheric CO<sub>2</sub> concentration would be reduced by less than 0.5%; the global average temperature increase would be reduced by less than 2/100<sup>ths</sup> of a degree Fahrenheit; and sea level rise would be reduced by 1/100th of an inch (the thickness of three sheets of paper).<sup>xix</sup>
- To justify the EPA proposal, its supporters argue that the U.S. must show global leadership in reducing CO<sub>2</sub> emissions. However, other countries are abandoning pledges to reduce emissions or are increasing emissions regardless of their pledges. According to the *Washington Post*, many industrialized countries are not expected to meet their commitments to reduce CO<sub>2</sub> emissions.<sup>xx</sup>

November 4, 2014

---

<sup>i</sup> U.S. Energy Information Administration, *Electric Power Monthly*, February 2014.

---

<sup>ii</sup> *Ibid.*

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

<sup>iv</sup> Eugene M. Trisko, *Energy Cost Impacts on South Dakota Families*, June 2014.

<sup>v</sup> *Ibid.*

<sup>vi</sup> *Ibid* and The 60 Plus Association, *Energy Bills Challenge America's Fixed-Income Seniors*, 2014.

<sup>vii</sup> The percentage reduction is relative to emission rates in 2012. The South Dakota 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>.

<sup>viii</sup> 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%.

<sup>ix</sup> 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.

<sup>x</sup> *Ibid.*

<sup>xi</sup> 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.

<sup>xii</sup> *Perspective of 18 States on Greenhouse Gas Emission Performance Standards for Existing Sources under § 111(d) of the Clean Air Act*, signed by 17 Attorneys General and the Commissioner of the Indiana Department of Environmental Management, September 11, 2013.

<sup>xiii</sup> 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).

<sup>xiv</sup> 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.

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

<sup>xvi</sup> NERA Economic Consulting, *Potential Impacts of the EPA Clean Power Plan*.

<sup>xvii</sup> 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.

<sup>xviii</sup> 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.

<sup>xix</sup> ACCCE, *Climate Effects of EPA's Proposed Carbon Regulations*, June 2014.

<sup>xx</sup> 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/>