ACCCE
AMERICAN COALITION FOR CLEAN COAL ELECTRICITY

IMPACTS OF EPA'S CARBON PROPOSAL ON TEXAS

BACKGROUND

- In 2013, coal provided 34% of Texas' electricity supply, with natural gas providing 47%, nuclear 9%, renewables 9%, and other sources providing the remaining 1%.[i] Texas' average electricity price of 8.77 cents/kWh last year was 13% below the national average.[ii]

- Currently, coal is responsible for over 41,000 direct and indirect jobs in Texas.[iii]

- Despite below-average electricity prices, many Texas families are struggling with high energy costs. The 4.4 million low-income and middle-income families in Texas -- 49% of the state's households -- spend 20% of their after-tax income on energy.[iv] In addition, one-fourth of Texas households receive Social Security.[v] Lower income families and Social Security recipients are especially vulnerable to increases in energy prices.[vi]

- Texas utilities have announced the retirement of three coal units (totaling 1,399 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 (CO_2) emissions from existing coal-fired and natural gas-fired power plants in 49 states, including Texas. EPA plans to finalize the proposal in June of next year.

- Under the EPA proposal, Texas will be required to reduce the CO_2 emissions rate of its electric generating fleet by 38%.[viii] EPA's proposal will force Texas to change the way the state generates electricity, reduce the amount of electricity used by Texas consumers, and significantly increase the price of electricity.

- EPA *assumed* the following in setting Texas' emissions rate:

  - The efficiency of existing coal-fired units can be improved by 6%;[ix]
  - Electricity from natural gas can be increased by 56%;[x]
  - Electricity from coal can be reduced by 52%;[xi]
  - Electricity from renewable energy sources can be increased by more than 150%;[xii]
  - None of the state's nuclear capacity will retire;[xiii] and
  - Texas consumers can reduce electricity use by over 10%.[xiv]

- Texas officials have expressed concern about the CPP proposal. For example, Texas Public Utility Commissioner Kenneth Anderson testified before Congress that there are questions as to whether compliance with EPA's proposal "is even physically possible."[xv] Officials from 30 states have expressed opposition to the approach EPA included in its proposal. In addition, 13 states have joined litigation challenging EPA's proposal.[xvi]

SERIOUS ECONOMIC AND RELIABILITY IMPACTS

- Modeling by NERA Economic Consulting projects that the CPP will cause a 10% increase in electricity prices for Texas consumers, with a peak year increase of 17%. Under another scenario (what will happen if Texas consumers do not significantly reduce their electricity use), electricity prices in Texas could increase by 63%, with a peak year increase of 95%.[xvii]

- Another independent study conducted for the National Mining

Association estimates similar impacts, including a peak year wholesale electricity price increase of 15.1% for Texas consumers.[xviii]

- 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. [xix]

- 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 (SPP), which is responsible for grid reliability in a nine-state region that includes parts of northern Texas, as well as the Midcontinent Independent System Operator (MISO), which is responsible for grid reliability in a 15-state region that includes parts of eastern Texas.[xx]

NO BENEFITS

- In 2013 the U.S. electric sector emitted 2.05 billion metric tons of CO_2, representing approximately 4% of global anthropogenic greenhouse gas emissions.[xxi]

- Analysis based on another EPA rulemaking shows that the climate effects of the EPA proposal are meaningless. For example, the atmospheric CO_2 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).[xxii]

- To justify the EPA proposal, its supporters argue that the U.S. must show global leadership in reducing CO_2 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_2 emissions.[xxiii]

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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 Texas 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 Texas 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] *Testimony before the Energy and Power Subcommittee of the House Energy and Commerce Committee*, Texas Public Utility Commissioner Kenneth W. Anderson, Jr., September 9, 2014.

[xvi] 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).

[xvii] NERA Economic Consulting, *Potential Impacts of the EPA Clean Power Plan*. An annual average increase of 10% means that electricity prices are projected to be 10% higher each year, on average, under EPA's proposal than electricity prices would be in the absence of the proposal.

[xviii] *EPA Clean Power Plan: Costs and Impacts on U.S. Energy Markets*, Energy Ventures Analysis, August 2014 http://www.countoncoal.org/states/

[xix] NERA Economic Consulting, *Potential Impacts of the EPA Clean Power Plan*.

[xx] 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.

[xxi] 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.

[xxii] ACCCE, *Climate Effects of EPA's Proposed Carbon Regulations*, June 2014.

[xxiii] 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/