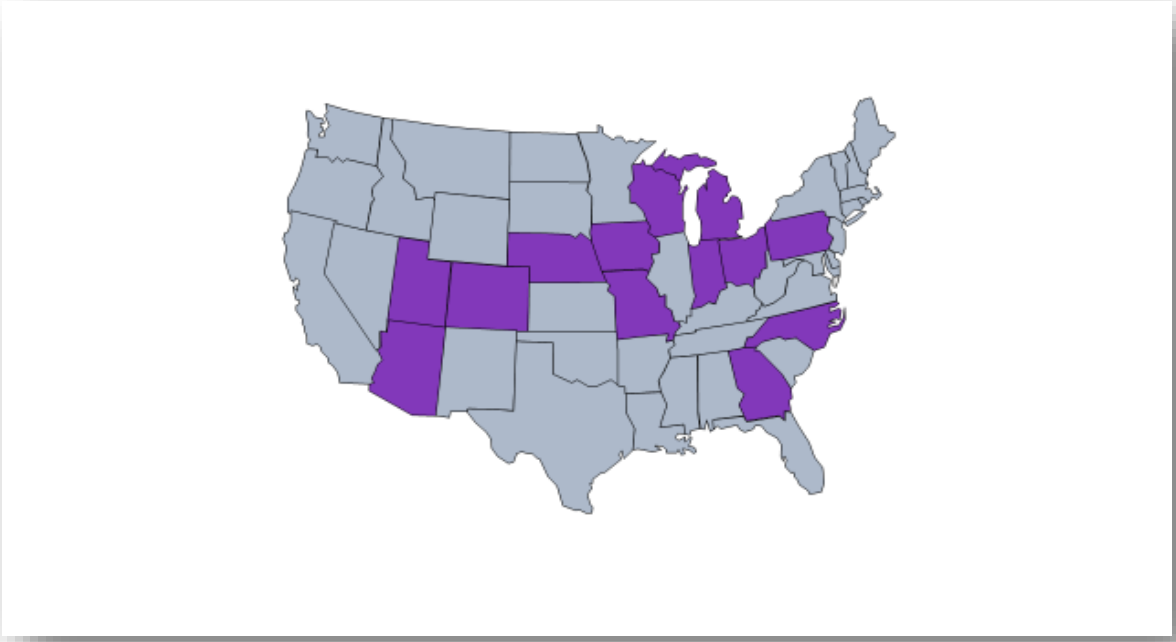
THE IMPORTANCE OF COAL-FIRED ELECTRICITY AND COAL IN THE 2016 BATTLEGROUND STATES

Battleground states refers to states where the contest between Trump and Clinton is very close. (Battleground states are sometimes called swing states.) Typically, political analysts point to a small handful of states as being battleground states. However, as of mid-July, there were as many as 17 states that are considered tossups or are leaning for either Trump or Clinton.[i] In other words, political experts are uncertain about as many as 17 states. These key states are Arizona, Colorado, Florida, Georgia, Indiana, Iowa, Michigan, Missouri, Nebraska, Nevada, New Hampshire, North Carolina, Ohio, Pennsylvania, Utah, Virginia, and Wisconsin.

Coal-fired electricity is important to 13 of these 17 states (see 13 purple states in the map below).[ii] These states are Arizona (11 electoral votes), Colorado (9), Georgia (16), Indiana (11), Iowa (6), Michigan (16), Missouri (10), Nebraska (1)[iii], North Carolina (15), Ohio (18), Pennsylvania (20), Utah (6), and Wisconsin (10). Collectively, they represent 149 electoral votes, more than half the 270 votes necessary to be elected president.



- Overall, coal is responsible for 48% of the electricity produced in these 13 states.[iv] The percentage of electricity from coal ranges from 30% in Pennsylvania to 78% in Missouri.[v]
- Currently, these states have 353 coal-fired electric generating units, representing 44% of the U.S. coal fleet.[vi]
- Coal-fired electricity supports 370,000 jobs and $90 billion in economic activity in these 13 states.[vii]
- The owners of coal-fired electric generating units in these states will have invested $58.5 billion by 2020 to install controls to reduce air emissions.[viii]
- Six of these states are significant coal producers. Collectively, they produced 142 million tons of coal in 2015.[ix]
- Two hundred (200) coal-fired electric generating units in these states have shut down, so far, because of EPA policies. Another 46 units are expected to shut down in the near future because of EPA policies.[x]

In addition, coal-fired electricity generation is important for the U.S. as a whole because it —

- Is responsible for 25% or more of the electricity in 28 states;
- Supports (directly and indirectly) 740,000 U.S. jobs;
- Helps keep electricity prices affordable;
- Helps maintain the reliability of the electricity grid;
- Avoids risks due to over-reliance on other electricity sources; and
- Is necessary for the continued development and deployment of carbon capture and storage.

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[i] These 17 states are based on The Cook Political Report, "2016 Electoral College Ratings for May 27, 2016;" Washington Post, "The 2016 election is still Hillary Clinton's to lose in our new electoral map," Chris Cillizza, July 6, 2016; Larry Sabato's Crystal Ball, "The Crystal Ball's 2016 Electoral College Rankings," The University of Virginia Center for Politics, updated July 22, 2016; and the Rothenberg & Gonzales Political Report, Presidential Rankings, July 1, 2016.

[ii] Coal-fired electricity does not play a major role in FL, NH, NV, or VA. Coal is responsible for less than 25% of overall electricity generation in these states.

[iii] NE has five electoral votes. However, these votes are not winner-take-all like almost every other state. It is likely that NE would cast four votes for Trump; one NE vote is viewed as a toss-up by Cook Political and as "leans R" by Sabato's Crystal Ball.

[iv] EIA "Electric Power Monthly, with data for December 2015," February 2016.

[v] *Ibid*.

[vi] SNL Energy data and "EIA Electric Power Monthly," July 2016.

[vii] Estimates of the total jobs and economic output attributable to coal-fired generation were derived from electricity generation and electric utility sales revenue data published by EIA, and state-specific economic multipliers for the electric power industry developed by the U.S. Department of Commerce, Bureau of Economic Analysis. Direct jobs include workers in the generation, transmission, and distribution segments of the electric power industry. Indirect jobs include jobs in supporting industries, including coal mining, coal transportation, and jobs in other industries and communities that benefit from the purchases, wages, and taxes paid by the coal-fired power sector.

[viii] Energy Ventures Analysis, "Capital Investments in Emission Control Retrofits in the U.S. Coal-fired Generating Fleet through the Years, 2016 Update," January 26, 2016.

[ix] EIA, *Quarterly Coal Report, October – December 2015*, released April 2016.

[x] ACCCE, "Coal Unit Retirements as of June 13, 2016." Retirements are based on public announcements and official filings by the owners of the retiring coal-fired generating units.