



POWER SECTOR OPPORTUNITIES FOR REDUCING CARBON DIOXIDE EMISSIONS: ARKANSAS

MICHAEL OBEITER, KRISTIN MEEK, AND REBECCA GASPER

CONTACT

Michael Obeiter

Senior Associate
Climate and Energy Program
mobeiter@wri.org

Kristin Meek

Associate
Climate and Energy Program
kmeek@wri.org

Rebecca Gasper

Research Analyst
Climate and Energy Program
rgasper@wri.org

President Obama announced the first-ever National Climate Plan for the United States in June 2013. Under the plan, the U.S. Environmental Protection Agency (EPA) will set carbon pollution standards for power plants. In September 2013, EPA introduced emissions standards for new power plants and is expected to announce standards for existing plants in June 2014. Once EPA establishes those standards, states will develop and implement their own plans to achieve the necessary emissions reductions. In this fact sheet, WRI examines how Arkansas can use its existing infrastructure and clean energy potential to reduce power plant emissions.

WRI analysis finds that Arkansas can reduce its CO₂ emissions 39 percent below 2011 levels by 2020. These reductions could meet moderately ambitious standards for existing power plants in the near- to medium-term.

FUTURE STANDARDS

Although EPA has not yet announced what its power plant emissions standards will look like, WRI based its analysis on two hypothetical standards. Under these scenarios, Arkansas would be required to reduce its CO₂ emissions in the range of 35 to 54 percent below 2011 levels by 2020.¹

Disclaimer: *This Fact Sheet contains preliminary research, analysis, findings, and recommendations. It is intended to stimulate timely discussion and critical feedback and to influence ongoing debate on emerging issues. Its contents may eventually be revised and published in another form.*

¹ One scenario comes from a Natural Resources Defense Council proposal, which would require Arkansas to reduce its CO₂ emissions 35 percent below 2011 levels by 2020. The second is based on the “go-getter” scenario from WRI’s *Can the U.S. Get There from Here?*, which would achieve a 38 percent reduction from the power sector nationally between 2005 and 2020. For Arkansas, this is equivalent to a 54 percent reduction from 2011 levels.

FIVE WAYS TO REDUCE POWER SECTOR EMISSIONS IN ARKANSAS

CO₂ reduction opportunities using available infrastructure include:

- **Increasing use of existing natural gas plants.** Arkansas' most efficient natural gas plants generated much less electricity than they were capable of producing in 2012. *Running these plants at 75 percent can reduce CO₂ emissions by 30 percent in 2020 compared to 2011 levels.*
- **Using more combined heat and power (CHP).** Arkansas can build more CHP systems at existing facilities—which use waste heat to generate electricity more efficiently than the average power plant—at sites like universities and farms. *Increasing the use of CHP by 33 percent above 2012 levels can reduce CO₂ emissions by 2 percent in 2020 compared to 2011 levels.*
- **Increasing existing coal plant efficiency.** Existing coal plants could save energy by upgrading their equipment and making other operational improvements. *Increasing coal plant efficiency by 2.5 percent could reduce CO₂ emissions by 1 percent in 2020 compared to 2011 levels.*

CO₂ reduction opportunities using clean energy include:

- **Meeting energy efficiency targets.** The state's energy efficiency standard requires investor-owned utilities to implement programs that help customers

save energy. *If all of Arkansas' utilities meet the state's 2015 savings goal each year going forward, the state can cut power sector CO₂ emissions by 7 percent in 2020 compared to 2011 levels.*

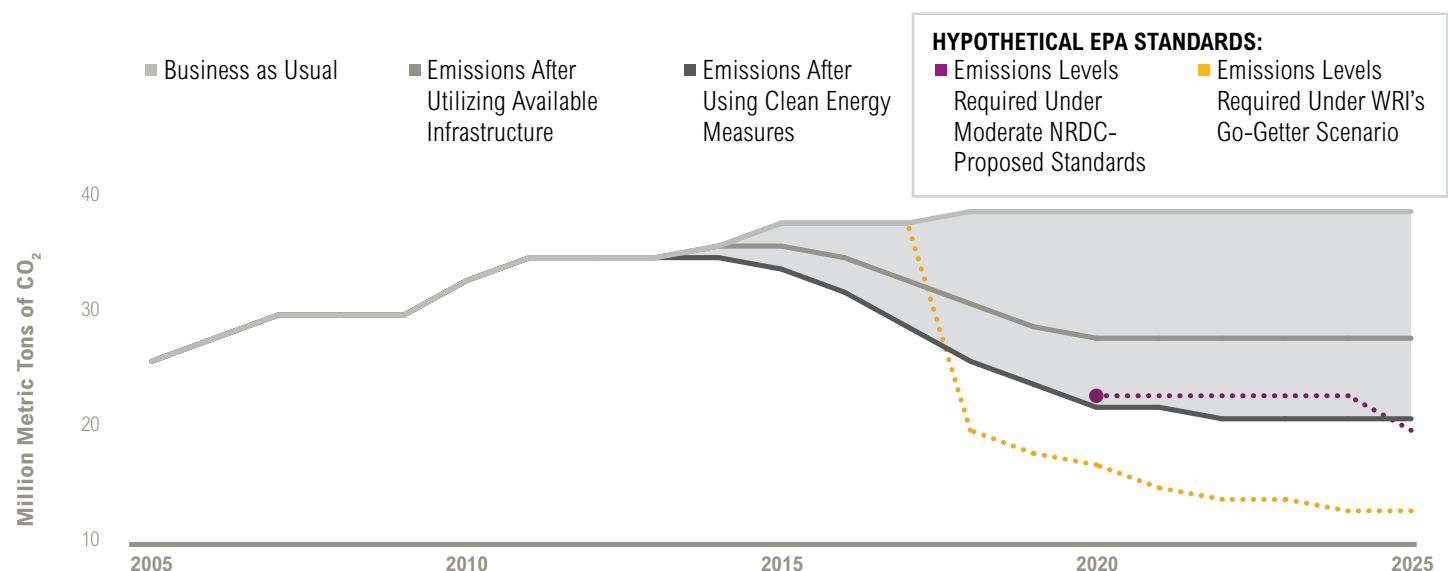
- **Increasing use of renewable energy.** Arkansas has the opportunity to encourage further development of renewable resources, including wind and solar power, by implementing new strategies (e.g., tax credits or renewable energy standards). *If 15 percent of the state's electricity came from renewable sources by 2020, it could cut power sector CO₂ emissions by 9 percent compared to 2011 levels.*

CONCLUSION

While Arkansas' energy efficiency policies are a good first step toward reducing emissions in the near-term, the state has the opportunity to go further. By implementing additional strategies to reduce emissions, Arkansas can place itself in a better position to comply with forthcoming EPA standards for existing power plants. In fact, by continuing to improve efficiency, encouraging growth of renewable energy, and taking advantage of underutilized resources, Arkansas can meet moderately ambitious standards in the near- to mid-term.

For details on the measures Arkansas can take, see: <http://wri.org/publication/power-sector-opportunities-for-reducing-carbon-dioxide-emissions-arkansas>.

Figure 1 | **Arkansas Carbon Dioxide Reduction Opportunities for Power Sector Compliance Under The Clean Air Act**



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