



POWER SECTOR OPPORTUNITIES FOR REDUCING CARBON DIOXIDE EMISSIONS: OHIO

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WHAT WILL CO₂ STANDARDS MEAN FOR OHIO?

President Obama announced a national climate plan in June 2013, and directed the U.S. Environmental Protection Agency (EPA) to set carbon pollution standards for the power sector. Once EPA establishes those standards, states will implement their own plans for achieving those reductions. In this fact sheet, WRI examines existing tools Ohio can use to reduce power plant emissions.

HOW OHIO CAN REDUCE POWER SECTOR EMISSIONS

According to new WRI analysis, in the near-term, Ohio can meet and possibly exceed forthcoming emissions standards for existing power plants.¹ Ohio has a renewable portfolio standard (RPS) and an energy efficiency resource standard (EERS) in place, which if successful will achieve significant reductions in CO₂ emissions from the power sector.

WRI analysis finds that Ohio can reduce its CO₂ emissions 27 percent below 2011 levels by 2020 using existing state policies and infrastructure opportunities. These reductions would meet or exceed potentially stringent federal standards by the EPA for existing power plants.

¹EPA has not yet proposed a national emissions standard for existing power plants. To illustrate the possible stringency of the future standards, this analysis shows emissions reductions for two scenarios. (1) Natural Resources Defense Council's proposed standards for existing power plants, which would require CO₂ emissions reductions in Ohio of 22 percent below 2011 levels in 2020 (see <http://www.nrdc.org/air/pollution-standards/files/pollution-standards-report.pdf>); and (2) WRI's go-getter scenario for national power sector emissions applied to Ohio (see <http://www.wri.org/publication/can-us-get-there-from-here>).

- CO₂ reduction opportunities using existing policies include:
 - **Reductions from the RPS:** Ohio's Renewable and Advanced Energy Portfolio Standard requires 12.5 percent of the electricity sold by each utility or electric services company to come from renewable energy sources by 2024. *WRI analysis finds that by meeting the RPS, Ohio will reduce its CO₂ emissions by 7 percent below 2011 levels in 2020.*
 - **Reductions from the EERS:** Ohio utilities are required to implement programs that achieve electricity savings of 22 percent between 2009 and 2025. *WRI analysis finds that by meeting the EERS, Ohio will reduce its CO₂ emissions by 10 percent below 2011 levels in 2020.*
- CO₂ reduction opportunities using available infrastructure include:
 - **Increasing combined heat and power (CHP) capacity at commercial and industrial facilities.** Ohio has 9.8 gigawatts of technical potential for new CHP and is currently utilizing about 5 percent of this potential. *WRI analysis finds that by increasing its use of CHP to 25 percent of its technical potential, Ohio can reduce its CO₂ emissions by 3 percent below 2011 levels in 2020.*

- **Fully utilizing existing combined cycle natural gas (NGCC) capacity.** The operating capacity of Ohio's NGCC fleet was 47 percent in 2011. Increasing the operating capacity of all existing units to 75 percent would reduce the state's reliance on coal. *WRI analysis finds that by fully using existing combined cycle natural gas capacity, Ohio can reduce its CO₂ emissions by 7 percent below 2011 levels in 2020.*
- **Increasing the efficiency of existing coal-fired power plants.** Existing coal plants' efficiency can be improved through refurbishment and improved operation and maintenance practices, among other options. *WRI analysis finds that by increasing efficiency in power plants, Ohio can reduce its CO₂ emissions by 2 percent below 2011 levels by 2020.*

CONCLUSION

The President is using his executive authority as part of a national response to climate change. Ohio is in a strong position to comply with upcoming EPA standards for existing power plants. Through federal and state-level actions, the United States can meet its commitment to reduce emissions 17 percent below 2005 levels by 2020.

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

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

