

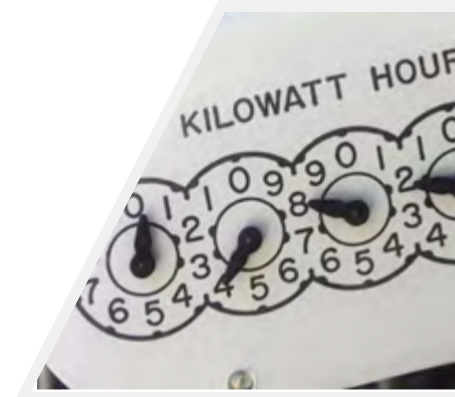
THE VALUE OF COAL

AND THE NATION'S COAL FLEET

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FAST FACTS

- The 545 coal-fueled electric generating units that make up the nation's coal fleet provide electricity to homes and businesses in 47 states.
- The coal fleet was responsible for one-quarter of the electricity generated in the U.S. last year.
- Electricity consumers in 24 states relied on coal for 20 percent or more of their electricity. Eleven states relied on coal for 40 percent or more.
- The coal fleet totaled approximately 225,000 MW of electric generating capacity last year, down from 317,000 MW in 2010. Approximately two-thirds of the coal fleet is located in RTO/ISO electricity markets.
- Owners of coal-fueled power plants will have invested over \$100 billion to install advanced emission control technologies during 2000-2020.
- This investment has reduced SO₂, NO_x, and particulate matter emissions by 93 percent for each kilowatt-hour of electricity generated by coal-fueled power plants. Advanced technologies have also reduced other pollutants such as mercury.
- In 2019, coal was mined in 23 states. U.S. coal reserves total slightly more than 253 billion tons. At projected consumption rates, U.S. coal reserves would last for roughly 500 years.



RELIABILITY, RESILIENCE, and FUEL SECURITY

- The coal fleet plays a vital role in keeping the electricity grid reliable, resilient, and fuel secure.
- Coal-fueled power plants were the most resilient source of electricity during the bomb cyclone of 2017/18, according to the National Energy Technology Laboratory.
- The coal fleet provides fuel security by storing coal on site. Over the last five years, the average subbituminous coal-fueled power plant had a coal stockpile that could last 73 days; the average bituminous coal-fueled power plant had a stockpile of 80 days. This means the average coal-fueled power plant could generate electricity for more than two months without requiring additional coal supplies.
- In 2000, fuel-secure electricity sources comprised nearly 70 percent of the nation's electricity generating capacity. By 2020, the percentage has fallen to 32 percent.



AFFORDABILITY

- On average, the levelized cost of electricity for existing coal-fueled generation averages \$41/MWh compared to the higher cost of new natural gas combined cycle (\$50/MWh), new wind (\$56/MWh), and new solar (\$60/MWh).
- Natural gas prices can be volatile and cause electricity prices to spike. For example, gas prices exceeded \$96/MMBtu during the 2018 polar vortex, compared to \$4 to \$5/MMBtu before and after the storm.
- On the other hand, the price of coal is relatively stable. Over the past several years, the monthly average price of coal delivered to power plants has ranged from \$1.92 to \$2.17/MMBtu. EIA projects that the price of coal will average slightly less than \$2.00/MMBtu for the next several years.



FUEL DIVERSITY

- The coal fleet is essential to maintaining a fuel-diverse electricity grid. A less diverse mix of electricity sources than we have today could lead to cost increases of \$114 billion per year and increase the average retail price of electricity by 27 percent.
- However, retirements will have reduced the coal fleet from more than 30 percent of the nation's electricity generating capacity in 2010 to 12 percent by 2025.



CARBON

- The U.S. coal fleet emits less than 2 percent of global greenhouse gas emissions.
- Coal is the number three source of energy-related CO₂ emissions in the U.S. economy. Petroleum is number one and natural gas is number two.
- The Chinese coal fleet is five times larger (and still growing) than the U.S. coal fleet.
- If proven to be cost-effective, carbon capture, utilization, and storage technology could be used to reduce CO₂ from fossil fuel-fired power plants.



*For more information and references, visit www.AmericasPower.org to view **Coal Facts, The Value of Coal and the Nation's Coal Fleet**, and other papers and reports.*

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