

ARIZONA

This paper provides information regarding the importance of coal-fired electricity and coal production to Arizona.

COAL-FIRED ELECTRICITY

- There are five (5) coal-fired power plants (14 individual coal-fired electric generating units) located in Arizona. Together, these plants represent some 5,700 megawatts (MW) of electric generating capacity.ⁱ Arizona's largest coal-fired power plants are owned by Arizona Public Service Company (Pinnacle West Capital), Tucson Electric Power Company, Salt River Project, Tri-State Generation and Transmission, and Arizona Electric Power Cooperative.ⁱⁱ
- Coal-fired electricity is estimated to support 17,000 jobs in Arizona and is responsible for \$4.1 billion in economic output.ⁱⁱⁱ
- During the first four months of 2016 (latest data available), coal ranked third among electricity sources for Arizona, providing one quarter of the state's power.^{iv} Nuclear power provided 36% of Arizona's electricity, with natural gas providing 26%, coal 25%, hydroelectric power 8%, and other renewables 4%.^v In 2014, three of the ten largest power plants in Arizona were coal-fired.^{vi}
- Arizona's coal-fired power plants will have invested \$2.8 billion in air pollution control technologies by 2020.^{vii} Arizona power plants have reduced emissions of major air pollutants by 71% since 1995.^{viii}
- Four coal-fired electric generating units (totaling 822 MW) in Arizona have shut down or will be shutting down due to EPA policies.^{ix}

COAL PRODUCTION

- Arizona's only mine, the Kayenta coal mine, supplies the Navajo Generating Station and produced 6.8 million tons of coal in 2015.^x The mine produced 8

million tons of coal in 2014.^{xi}

- The Kayenta mine has a 430-person workforce, more than 90% of whom are Native Americans.^{xii}

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ⁱ SNL Energy data.

ⁱⁱ *Ibid.*

ⁱⁱⁱ Estimates of the total jobs and economic output attributable to coal-based generation were derived from electric 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.

^{iv} EIA, *Electric Power Monthly*, June 2016.

^v *Ibid.*

^{vi} EIA, *State Electricity Profiles*, Arizona, Table 2, Ten Largest Plants by Generation Capacity, 2014.

^{vii} 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.

^{viii} EPA Air Markets Program Division Database Query (July 14, 2016). The U.S. coal-fired electric generating fleet has reduced its emissions of conventional air pollutants by 92% per kWh since 1970. Nationwide, owners of coal-fired power plants had invested \$111 billion through 2015 to achieve these emission reductions, and they are projected to invest an additional \$16 billion through 2020.

^{ix} ACCCE, *Coal Unit Retirements as of June 13, 2016*. Retirements are based on public announcements by the coal unit owners.

^x EIA, *Quarterly Coal Report, October – December 2015*, released April 2016.

^{xi} EIA, *Coal Data Browser*. <http://www.eia.gov/beta/coal/data/browser/>

^{xii} Peabody Energy, *Kayenta Mine*, peabodyenergy.com.