The mix of energy sources used to generate electricity across the country has changed significantly in the last decade as coal, while still the largest single source of fuel, has lost its share of the generation market to natural gas and renewables like wind and solar. States’ electricity generation includes such sources as coal, natural gas, nuclear power, hydropower, and renewables. The electricity generation mix varies significantly from region to region and even state to state, depending on available resources and regional market prices.
The changes in fuel use for electricity generation across all 50 states and the District of Columbia reveal the following:

**Coal is declining.** Coal was once the dominant source of the nation’s electricity generation and as recently as 2008, coal was the source of roughly half the electricity generated in the United States. In 2016, coal’s share fell to 30 percent. However, coal is still expected to represent a significant percent of the nation’s generating capacity through 2035. It continues to play a big role in several states including West Virginia, Wyoming, Kentucky, Missouri, Indiana, and North Dakota where coal accounts for over 70 percent of the state’s net electricity generation.

**Natural gas is growing.** Natural gas-fired electricity is fast becoming the fuel of choice for power generation. Natural gas
accounted for only 16 percent of the country’s electricity generation in 2000. By 2016, that share had more than doubled to 34 percent. Two trends have fueled the growth in natural gas generation: the steady retirement of older coal-fired power plants and low natural gas prices. Natural gas fueled 96 percent of Rhode Island’s, 89 percent of Delaware’s, 79 percent of Mississippi’s, and 73 percent of Nevada’s net electricity generation in 2016.

Click to enlarge Natural Gas’ State-by-State Electricity Generation. [5]

Renewables are surging. Wind in particular has become the fuel of choice across many states. In 2016, wind accounted for more than 10 percent of electricity generation in 14 states. In Iowa, the share stood at whopping 37 percent while wind accounted for 30 percent of electricity generation in South Dakota and Kansas. New technologies have decreased the cost of producing electricity from wind, and growth in wind power has been encouraged by federal and state incentives. Solar is also beginning to make its presence felt, though starting from a small base. Nationally solar accounted for a little less than 1 percent of net electricity generation in 2016. However, states like California (10 percent in 2016), Nevada (6 percent), Vermont (4 percent), Arizona and North Carolina (3 percent each) are beginning to derive more power from solar.

Click to enlarge Wind’s State-by-State Electricity Generation. [6]

Nuclear is still a significant source. In 2016, nuclear power accounted for 20 percent of the nation’s electricity generation, even though its share hasn’t changed much over the years. States that have the highest share of emission-free power from nuclear include South Carolina (58 percent in 2016), New Hampshire (56 percent), Illinois (53 percent), and Connecticut (46 percent). Having said that, the U.S. nuclear power industry is in a state of upheaval, with many nuclear plants losing money and utilities continuing to retire old plants. Lower cost natural gas and renewable plants are displacing nuclear power plants from retail competition.

Click to enlarge Nuclear’s State-by-State Electricity Generation. [7]

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