Although rail coal shipments have declined in recent years, coal is still an essential part of the nation’s industrial economy and a key rail market. Well over 90% of U.S. coal consumption is for electricity generation, while some coal is used to produce coke and for other industrial purposes. U.S. coal is also exported to countries all over the world for steelmaking and power generation.

**Energy markets have been changing.**

According to the Energy Information Administration (EIA), U.S. coal production in 2021 was 578 million tons, up 8% from 2020 but down 51% from the all-time high of 1.17 billion tons in 2008.

U.S. coal consumption in 2021 was 546 million tons, up from 477 million tons in 2020 and 52% lower than the 2007 peak of 1.13 billion tons. Because electricity generation accounts for so much U.S. coal consumption, the electricity market is key to coal’s fortunes. For decades, total U.S. electricity generation rose steadily, more in less in tandem with economic growth.

Because electricity generation accounts for so much U.S. coal consumption, the electricity market is key to coal’s fortunes. For decades, total U.S. electricity generation rose steadily, more in less in tandem with economic growth. Over the past 15 years, though, total U.S. electricity generation has been roughly flat while coal’s share has plunged.

Concerns about the environmental impact of coal have played a major role in its decline, but market forces have been even more important. Rapid increases in natural gas production brought about by technological advances in natural gas extraction, especially hydraulic fracturing, or fracking, has meant that natural gas is much more plentiful and cheaper for electricity producers than it used to be.

**Key Takeaways**

- Just five states account for more than 70% of U.S. coal production, but coal is consumed all over the country — a feat made possible by freight railroads.
- Rail coal volumes have fallen in recent years, but coal is still a crucial commodity for U.S. freight railroads and the larger economy. In 2021:
  - U.S. railroads moved 3.3 million carloads of coal, with each rail car carrying enough coal to power 20 average homes for a year.
  - Coal accounted for 27% of originated tonnage for U.S. railroads, more than any other commodity.
  - Coal accounted for 11% of revenue for railroads, behind only intermodal and chemicals.
Through technological advances, responsive service, competitive rates and massive private investments, railroads continue to provide safe, reliable high-value transportation service to their coal customers.

U.S. coal production happens in a few states, but large amounts of coal are consumed all over the country.

According to EIA data, 69% of U.S. coal shipments in 2021 were delivered to their final destinations by rail, followed by water (12%, mainly barges on inland waterways); conveyor belts (10%, mainly at minemouth plants); and truck (9%).

As coal’s share of U.S. electricity generation has fallen, so have rail coal volumes. In 2008, U.S. Class I railroads originated a record 7.71 million carloads of coal. In 2020, coal carloads were down to 3.03 million, down 61% from 2008, before rebounding to 3.34 million in 2021. Rail coal tonnage peaked at 879 million tons in 2008, was down 60% to 354 million tons in 2020, then rose to 391 million tons in 2021. Coal accounted for 27% of total originated tonnage for U.S. Class I railroads in 2021, far more than any other commodity.

Coal accounted for $7.9 billion in gross revenue for Class I railroads in 2021, equal to 11% of total revenue. Only intermodal and chemicals accounted for more revenue among rail traffic categories than coal in 2021. The vast majority of coal transported by rail moves in highly productive unit trains, which often operate around the clock, use dedicated equipment and generally follow direct shipping routes.