Privately owned freight railroads are the most sustainable way to move freight over land. Moving freight by rail instead of truck lowers greenhouse gas emissions by 75%.

U.S Environmental Protection Agency data show freight railroads account for only 0.6% of total U.S. greenhouse gas emissions and only 2.0% of the transportation-related sources, while accounting for well over one-third of intercity freight ton-miles.

Government and businesses must work together to innovate and enact policies that address sustainability — including incentivizing shippers to move freight by rail.

**Fuel Efficient Mode:** Freight rail is ahead of other land modes of surface transportation when it comes to limiting its carbon footprint. U.S freight railroads, on average, move one ton of freight 479 miles per gallon of fuel.

**Sustainable Choice:** If just 10% of the freight moved by the largest trucks moved by rail instead, fuel savings would be more than 1.5 billion gallons per year and annual greenhouse gas emissions would fall by more than 17 million tons — equivalent to removing 32 million cars from the highways for a year or planting 400 million trees.

**Holistic Approach:** From advanced locomotive technology to zero-emission cranes, freight railroads leverage technology in all aspects of their operations to limit their impact on the environment. In 2017 alone, U.S. freight railroads consumed 732 million fewer gallons of fuel and emitted 8.2 million fewer tons of carbon dioxide than they would have if their fuel efficiency had remained constant since 2000.

• **Fuel management systems** have cutting-edge software that provides real-time recommendations to engineers on how to operate the locomotive to maximize fuel efficiency.

• **Tier 4 locomotives** use hundreds of sensors to produce data that help railroads prioritize maintenance, minimize the impact of poor locomotive performance and emit less emissions.

• **Anti-idling technologies** reduce the amount of fuel wasted during down periods and limit pollution. Stop-start idling systems automatically power down idling locomotives.

• **Enhanced operating practices** and rail car components minimize fuel usage by improving aerodynamics and reducing overall weight, friction between wheels and rail, and total horsepower required for moving the train.

• **Zero-emission cranes** transfer goods between ships, trucks and trains in ports and rail facilities. The electric cranes recharge their own batteries each time they lower a load.

• **Redesigned railcars** have helped increase average tonnage. In 2017 the average freight train carried 3,630 tons, up from 2,923 tons in 2000.