OVERVIEW:

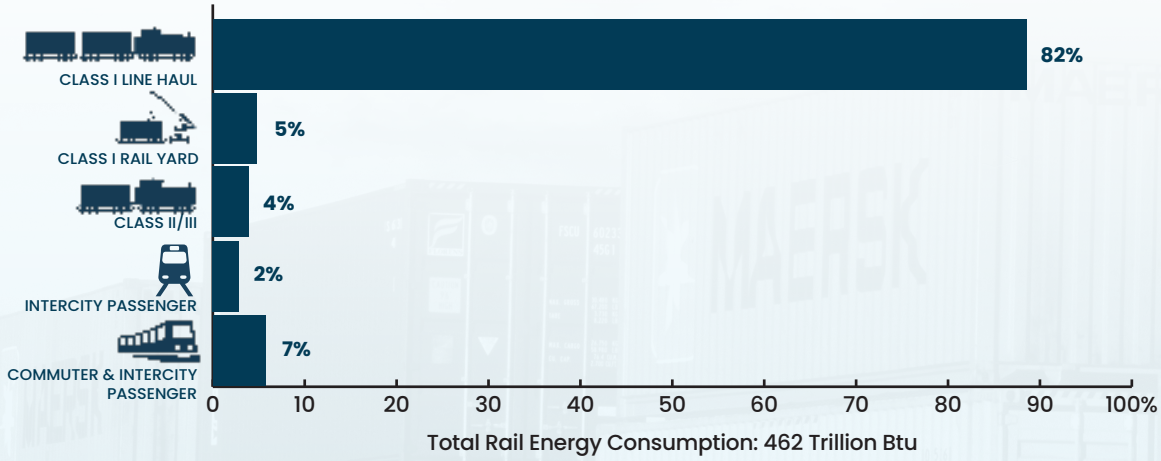
AN ACTION PLAN FOR RAIL ENERGY AND EMISSIONS INNOVATION

The Rail Action Plan builds on the U.S. National Blueprint for Transportation Decarbonization to define actions that demonstrate and scale affordable low- and net-zero-emission technologies to reduce costs and achieve substantial emissions reductions in the rail sector in the United States.

Read more
bit.ly/transportation-decarb-rail

ENERGY CONSUMPTION IN 2020 BY RAIL MARKET SEGMENT

Class 1 line-haul rail represents 82% of energy consumption in the U.S. rail sector. Combustion of fuels from the rail sector contribute to harmful air pollution that can lead to heart disease, asthma, and premature death.



Total Rail Energy Consumption: 462 Trillion Btu

KEY ACTIONS

- Establish a **U.S. Rail Partnership** to develop affordable and reliable solutions for the next generation of locomotive technologies and to demonstrate efficient technologies for routes and rail yard operations.
- Support **Rail-to-Grid Integration** to increase grid resilience for the rail sector.
- Conduct feasibility studies for electrification infrastructure on a **National Low- and Net- Zero-Emission Freight Rail Corridor Network.**
- **Prioritize locations with the largest public health impacts** for deployment of zero-emission locomotives and equipment.

Near-Term Actions for Achieving Substantial Emissions Reductions in the Rail Sector by 2050

Deploy Low- and Net-Zero-Emission Reductions for the Technologies

- Support development of battery electric and hydrogen fuel cell locomotives for line-haul operations.
- Immediately deploy transitional technologies to reduce emissions from locomotives that still have many years of use.

Cut Pollution From Rail Yard Operations

- Identify rail yards to quickly deploy zero-emission locomotive and idling-reduction measures to improve public health.

Support Feasibility and Economic Studies for Rail Electrification

- Study the feasibility of catenary and discontinuous catenary electrification on high-potential routes, including necessary electric grid planning.

Expand Access and Opportunities for Passenger Rail Service

- Expand intercity and intracity passenger service and initiate new, electrified high-speed options.

Improve Freight Rail System Efficiency

- Support options to increase locomotive energy efficiency, reduce bottlenecks in the rail system, and identify locations for potential freight rail expansion.

Supporting U.S. Workers and Communities

This action plan prioritizes strategies that will benefit rail workers, communities located near rail yards, and Indigenous peoples who have been impacted by construction and operations on the U.S. rail network.

Rail Workforce

Actions: Build a domestic supply chain to retrofit, build, and maintain zero-emission locomotives that will create good jobs while reducing emissions. Fund and support workforce development, training programs, and technical assistance for zero-emission locomotives.

Communities Near Rail Yards

Action: Collaborate with communities and stakeholders to support implementation of low- and net-zero-emission rail yard operations.

Indigenous Peoples

Action: Engage with Tribal Nations on infrastructure planning and community needs.

The Rail Action Plan is part of a set of action plans that implement the U.S. National Blueprint for Transportation Decarbonization to realize a clean, safe, accessible, and affordable transportation system. Scan the QR code to learn about the other action plans.

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