With freight demand expected to double over the next 40 years, it's more important than ever to consider the impact of freight transportation on the environment. This policy brief examines the opportunities for state government to enact policies, get behind federal initiatives and support industry efforts to make freight transportation greener.

Executive Summary:

- Investment in the transportation system is not keeping pace with the expected growth in freight transportation in the coming decades. That is leading to rapid increases in congestion and delays along freight corridors as well as increases in transportation-related emissions that contribute to climate change.
- State governments have many opportunities to enact policies and support federal initiatives as well as industry efforts to make freight transportation greener.
- Freight transportation accounts for 9 percent of total greenhouse gas emissions. In terms of transportation-related greenhouse gas emissions, freight trucks account for 19.2 percent, marine vessels 5 percent and freight rail 2 percent. Over the last 20 years, greenhouse gas emissions from medium- and heavy-duty trucks increased 77 percent.
- Truck idling consumes nearly 1 billion gallons of diesel fuel annually and produces 11 million tons of CO₂.
- A train can haul as much freight as 280 trucks and move a ton of freight an average of 457 miles on one gallon of diesel fuel. But, primarily due to decades of freight rail industry consolidation and the abandonment of rail lines, trucks are still the only available method for delivering freight for 80 percent of American communities.
- The U.S. currently lacks a national strategic freight program to provide dedicated federal funding to states, regions or ports to solve freight bottlenecks and improve freight operations. The American Recovery and Reinvestment Act with its TIGER (Transportation Investment Generating Economic Recovery) competitive grant program did fund nine freight rail projects, which will help get thousands of freight trucks off the road.
- Key strategies for reducing freight transportation's contribution to greenhouse gas emissions include: reducing the rate of fuel consumption to enhance vehicle efficiency, reducing congestion and delay, reducing the carbon content of fuel, managing travel demand and expanding travel options.
- Strategies to reduce congestion and delay include: eliminating bottlenecks, improving traffic management, improving signal timing, implementing electronic toll collection and providing real-time traffic information.
- Freight-specific strategies for reducing growth in travel include: providing more modal options such as increased use of freight rail, coastal barge and short-sea shipping; alleviating freight-specific bottlenecks such as those near seaports and airports; reducing truck idling through anti-idling ordinances and truck stop electrification; and reducing the number of empty backhauls by trucks.

- Twenty-eight states and Washington, D.C., have maximum idling times for trucks. State government agencies can also help to promote and provide education on anti-idling practices. A number of federal and state programs also offer incentives and funding for idling reduction projects.

- Biodiesel blends and electricity will likely prove to be the most viable renewable and alternative fuels for the freight sector.

- Web-based tools that measure congestion on freight routes, electronic tolling and truck-only toll lanes could increase freight mobility and limit emissions.

- The U.S. will need to move 88 percent more freight by rail by 2035. That means railroads will have to expand and upgrade facilities to increase capacity and eliminate bottlenecks. Governments can assist with tax incentives for expansion projects and by forming public-private partnerships to share the risks.

- Although freight rail is much less of a contributor to greenhouse gas emissions than other modes, rail companies are replacing older equipment and experimenting with alternative fuels.

- Under a new federal regulation, regional transportation officials will now be able to apply to have specific waterways and individual projects designated as marine highways if they meet certain criteria. The Maritime Administration is working to identify rivers and coastal routes that could carry cargo and help establish a short-sea transportation network. They are also helping to identify potential freight and passenger markets along the routes.

- Other shipping and trucking initiatives include a voluntary truck replacement program at the Port of Charleston, a coalition formed in support of federal legislation to raise heavy truck weight limits, and a series of measures recommended by the American Trucking Associations.

- The U.S. Department of Transportation’s proposed strategic plan and the proposed FREIGHT (Focusing Resources, Economic Investment, and Guidance to Help Transportation) Act under consideration in Congress could bring the country closer to a national strategic freight program. The multimodal approach of last year’s American Recovery and Reinvestment Act could serve as a model.

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