



Quadrennial Energy Review Recommends Improved Understanding of Rail Congestion Impacts

A Federal government review of the nation's energy infrastructure acknowledges the impact of railroad congestion on energy and agricultural commodities. It recommends that the Surface Transportation Board (STB) improve its understanding of how rail congestion impacts the delivery of coal and ethanol.

The first-ever [Quadrennial Energy Review](#) (QER), released April 21, 2015 by the U.S. Department of Energy, examines how to modernize the Nation's energy infrastructure in an effort to promote economic competitiveness, energy security, and environmental responsibility.

This report focuses on energy transmission, storage, and distribution (TS&D) infrastructure -- the networks of pipelines, wires, storage, waterways, railroads, and other facilities that form the backbone of our energy system. The QER identifies opportunities these systems provide for a clean and secure energy future, as well as some growing and potential vulnerabilities of these systems. The report also proposes policy recommendations and investments to replace, protect, expand, and modernize TS&D infrastructure.

The QER recognizes that "changes in U.S. energy production and use are stressing and transforming the way that energy and other commodities are transported in the United States." The growing utilization of rail, barge, and truck for oil transport, as well as for other energy supplies and materials, exacerbates underlying issues in these shared transport infrastructures and underscores the need for an expanded infrastructure investment as proposed by the Administration.

Specifically:

- **Limited infrastructure capacities are intensifying competition among commodities, with some costs passed on to consumers.** Typically, rail and barge service are the most cost-effective shipping methods available for moving grain and other relatively low-value, bulk agricultural commodities, and the Department of Agriculture has indicated that disruptions to agricultural shipments caused by recent unexpected shifts in supply and demand for rail services exceed even those caused by Hurricane Katrina.
- **Rail, barge, and truck transportation are crucial for ethanol shipment.** Ethanol production in the United States has increased over the last few decades. Ethanol is typically shipped from production plants by rail and then delivered by truck (or directly by rail or barge) to petroleum product terminals. Ethanol is likely to rely on shared infrastructure for its transport for the foreseeable future.
- **The ability to maintain adequate coal stockpiles at some electric power plants has been affected by rail congestion.** The Surface Transportation Board (STB) recently acted to require weekly reports of planned versus actual loadings of coal trains.

The review discusses concerns by agricultural product shippers that oil and coal shipments will crowd out their commodities on the already constrained rail network through the Plains States.

According to the review, "The growing imbalance between supply and demand for rail service was manifested as backlogged grain shipments and higher-than-average prices for empty grain cars sold in the secondary auction markets. The current rail service problems have exceeded previous events in terms of both magnitude and duration, including Hurricane Katrina, which caused major disruptions throughout the entire agricultural transportation network."



The QER also states that the ***Staggers Rail Act of 1980*** has been successful in improving the financial health of the railroads, in part because carriers have become more efficient, eliminating excess capacity and redundancy, and streamlining operations.

Over the last 30 years (from 1980 to 2011), the number of ton-miles transported by rail has doubled, while Class I revenues per ton-mile have declined almost 40 percent in real terms. The last several years, however, tell a different story. According to USDA, “Even though a recession started in December 2007, railroads continued to raise rail rates, partly to support record railroad capital investments and higher costs. Average real rail rates per ton-mile for all commodities increased 36 percent between 2004 and 2011. Real rail costs adjusted for railroad productivity increased 29 percent during the same. This indicates that most of the increase in rail rates was due to increased rail cost, but the increased rail rates also contributed to record rail profits. In comparison, real truck rates have increased 27 percent since 2004.”

Protecting rail consumers from service disruptions is another prime factor in passage of the ***Staggers Act***; a more streamlined rail system with limited excess to capacity can, however, become overburdened when demand spikes, as it did in 2013 to 2014, which can leave shippers vulnerable to service deficiencies.

The QER proposes, among things:

Further analyze the effects of rail congestion on the flow of other energy commodities, such as ethanol and coal. DOE, STB, and the Federal Energy Regulatory Commission should continue to develop their understanding of how rail congestion may affect the delivery of these energy commodities.

Analyze the grid impacts of delayed or incomplete coal deliveries. In assessing these issues, DOE and other relevant agencies should examine whether a minimum coal stockpile for electricity reliability should be established for each coal-fired unit.

Address critical energy data gaps in the rail transport of energy commodities and supplies. Congress should fund the President’s FY 2016 Budget Request for the EIA (Energy Information Administration) to address critical energy transportation data gaps and continued data sharing with the STB.