

**Written Testimony of Matthew K. Rose
Chairman, President and Chief Executive Officer
BNSF Railway Company**



**Before the Senate Committee on Commerce, Science, and Transportation
Subcommittee on Surface Transportation and Merchant Marine
Infrastructure, Safety, and Security
For a Field Hearing, “Addressing Surface Transportation Needs in Rural
America”**

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**BNSF Railway Company
P.O. Box 961052
Fort Worth, TX 76161-0052
Telephone: 202-347-8662**

United States Senate Committee on Commerce, Science, and Transportation
Subcommittee on Surface Transportation and
Merchant Marine Infrastructure, Safety, and Security
Field Hearing: "Surface Transportation Needs in Rural America"
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Chairman, President and Chief Executive Officer - BNSF Railway Company
Sioux Falls, South Dakota
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Good morning, Senator Thune. It is a pleasure to be in Sioux Falls with you this morning to address surface transportation needs in rural America. Railroads are an important part of South Dakota's economy and transportation network, and South Dakota is important to BNSF. BNSF has invested more than \$83 million in South Dakota for capacity expansion and maintenance, over the past three years. With rail yards in Aberdeen, Edgemont and Sioux Falls, we handle more than 1.4 million carloads within the state each year. About 100,000 carloads of wheat, soybeans, beets and other agricultural products from South Dakota are moved on BNSF each year for both export and domestic use. Signs are pointing to a pretty good year for agriculture. I hear harvest is wrapping up here with pretty good yields.

In addition to a very good business partnership with South Dakota's agricultural industry, the State of South Dakota has a unique relationship with BNSF that very few other states historically have had. We have a track record of public private partnership that goes way back, which says good things about the state's understanding of the importance of freight rail.

For those who do not know, BNSF purchased right of way from the state (called the “Core Line”) in 2005. This 368-mile line runs from Aberdeen to Mitchell to Canton to Sioux Falls and Sioux City. This has allowed BNSF to increase hauling capacity to better serve South Dakota producers and businesses.

As the top Republican on the Senate’s Surface Transportation and Merchant Marine Subcommittee, Senator Thune has begun a thorough review of the Nation’s surface transportation policies in anticipation of re-writing them soon. He and I discussed the findings of the National Surface Transportation Policy and Revenue Study Commission, to which I was appointed, when its report came out. During the Commission deliberations, a lot of time was spent discussing how to connect and protect rural America’s economy and quality of life. Senator Thune and I also recently discussed freight policy and the importance of the U.S. supply chain before his subcommittee.

It is very important that the U.S. supply chain remain a relatively low percentage of GDP. The more efficient the U.S. supply chain is, the more competitive U.S. jobs and inputs – like agricultural products – can be in the global economy. The scale of the U.S. supply chain is impressive. Its value is more than \$1.4 trillion, which is nearly three times the size of the Defense Department budget, and approaches the size of the Gross Domestic State Product of California (which is \$1.8 trillion). The role of the U.S. supply chain in global competitiveness and its size and value to the U.S. economy should make freight mobility one of the most important elements of surface transportation policy – but, to date, it has not been.

In fact, the U.S. supply chain is becoming less efficient. In the early 1980s, we recognized tremendous efficiencies through the deregulation of transportation industries. In the freight rail industry, productivity increased about 163 percent and rates went down about 53 percent. In addition, lower fuel costs, and excess capacity in all modes contributed to the cost-effectiveness of the supply chain.

However, starting in 2003, supply chain costs began to grow. As a percentage of GDP, supply chain costs have increased about 15 percent since 2003. This is due to several factors, including higher fuel costs, but it is essentially a function of diminishing capacity across modes. Between 1980 and 2005, volumes, or vehicle miles traveled on the highway grew by 96 percent and lane miles grew by only 5.7 percent. Rail revenue ton miles grew by 87 percent and rail miles decreased by 39 percent. We have been blessed for years with over-capacity on both the rail and highway networks, but now we've reached a supply/demand crossroads and, in many places, tipped over it. Basically, the economy has outgrown the infrastructure and when that occurs, costs and prices go up. The economic slow down may provide a little breathing room, but the disequilibrium between capacity and demand is systemic and long-term. Population growth will require more transportation solutions.

Continued efficiency gains across all transportation systems are an important part of the solution for the future. The railroad industry continues to make gains in productivity. For example, at BNSF, we've improved agriculture network velocity such that moving

2008 volumes at 2007 productivity levels would have required the operation of 320 more trains. Many of our customers, including agricultural businesses, have seen improved transit times. However, ultimately, capacity will have to be added – mainline, facilities and terminal expansion.

This is a challenging time for transportation policy making. The outlook is for more congestion and, therefore, increasing supply chain and other related economic costs. The Texas Transportation Institute estimates the cost of highway congestion in the nation's urban areas has increased 60 percent, from \$39.4 billion to \$63.1 billion, from 1993 to 2003. The U.S. DOT estimates that the cost of congestion across all modes of transportation could be three times as high – approaching \$200 billion per year – if productivity losses, costs associated with cargo delays, and other economic impacts are included. If you factor in all modes and forecast to 2020, it is clear that the cost of congestion will be well over \$200 billion.

At the same time, transportation revenues are down. How do you grow transportation networks for the future, which requires more investment today? Quite simply, transportation investment – and its resulting job creation and economic generation and benefit to global competitiveness – must become more of a policy and funding priority. Also, the U.S. needs a comprehensive vision for transportation that integrates its energy and environmental objectives. Other countries have understood and responded to these transportation priorities.

For example, in China, railway capital expenditure will nearly double from \$44-58 billion USD to more than \$88 billion USD. A great deal of China's stimulus package will fund rail projects aimed at China's logistics industry. Canada has targeted billions of dollars in recent years for priority freight rail corridors that serve their west coast ports, in an effort to compete with the U.S. West Coast ports and move more freight by rail.

U.S. private freight rail capital expenditures total more than \$10 billion annually, which is an impressive amount, and represents capital reinvestment of almost twenty percent, making the railroad industry one of the most capital intensive. BNSF and the Union Pacific Railroad each have annual capital expenditures that are larger than the annual highway expenditures of every state in the country except Florida, California and Texas. Public policy should recognize that a relatively small public investment in freight rail greatly leverages the proportionately larger private capital investment and yields benefits for not only the supply chain and freight mobility, but also for highway users and energy and emissions reduction goals.

In the context of surface transportation reauthorization legislation, there is an increasing call for moving more freight off of the nation's highways to reduce the carbon footprint and fuel intensity of freight movements and, potentially, improve upon the cost-effectiveness of pavement expansion and maintenance expenditures. There is a bill pending before the Senate Commerce Committee, which calls for moving 10 percent of gross ton miles off the highway (S. 1036).

It's estimated that if 10 percent of the freight that currently moves by truck were diverted to rail, fuel savings would exceed one billion gallons a year. As the Committee is aware, rail accounts for a fraction of total U.S. greenhouse gas emissions (2.6 percent, as compared to 21 percent for trucks). To give you an idea of what impact this has, in 2008, BNSF moved 4.7 million containers and trailers, reducing potential Greenhouse Gas emissions by more than 7 million metric tons. Industry-wide, rail moved 11.5 million containers and trailers, reducing potential Greenhouse Gas emissions by more than 17.2 million metric tons. The congestion benefits are substantial, as well. One BNSF intermodal train removes more than 280 long-haul trucks from the highways.

I believe S. 1036 is a good bill. It is certainly the first surface transportation reauthorization bill introduced in Congress that integrates national energy and environmental goals in a truly multimodal way. It represents the thinking of many I have spoken to in Congress who believe that freight rail can play a larger role in transportation congestion and emissions solutions. If Congress acts on the principles outlined in the bill, it will succeed in making freight a more important consideration in federal transportation policy and freight networks more robust and seamless.

This will be good for rural America. Expanding the freight rail network in this country will take pressure off the highway networks, mitigating the impact of heavy long-haul trucks on rural state transportation budgets. Shifting more freight to rail in an environment of increasing freight volumes may not reduce truck traffic, but it will certainly mean that the impact of the growth rate will be reduced. In addition, in states

like South Dakota where the agriculture freight rail network is an important part of the state's economy, strengthening the overall network to handle growing highway freight will mean a stronger Ag supply chain. Like all network businesses, capacity for all customers is only as large as the network's chokepoints.

I've been asked specifically what it will take to move more freight off the highway and onto rail. The key is what I call "mode optimization" – which is where trucks and trains divide up the nation's freight in the way that best optimizes the strengths of each mode and results in the best cost, fuel and carbon efficient outcome. If public policy is geared effectively toward mode optimization, I believe that the transportation marketplace will respond and more highway freight would migrate to the rails. It's all about price per ton, and the greatest market opportunity lies in the 500 to 1,000 mile segments. Currently, however, public policy incents freight to the highway – primarily through subsidies to the largest of trucks - and under-leveraging the substantial private investment in freight rail for the benefit of the public. I will address this shortly.

To achieve mode optimization, it's important to understand how much of the supply chain could migrate from truck to train. The supply chain is made up of the movement of more than 4 trillion ton miles of freight annually. When you eliminate from the calculation heavy haul freight that generally only goes by train (such as grain and coal) and freight in short-haul, less-than-500 mile all-truck distribution markets, there are about 2 trillion ton miles of freight of all kinds that could go on either a truck or a train. Trucks have about 65 percent of the current market; trains have 35 percent.

There is no doubt in my mind that this market share has its origins in the competitive advantage the largest trucks experience because they don't pay the full direct and indirect costs of their use of the highways. I want to qualify these remarks with the fact that BNSF supports the trucking industry. Our top customers are truckers, and over the years, we have developed strong partnerships that have improved service and allow much more intermodal freight to move via rail.

Nevertheless, it is a fact that according to the May 2000 Addendum to the 1997 Federal Highway Cost Allocation Study Final Report, FHWA estimates that combination trucks on average, pay 80 percent of their Federal highway cost responsibility through user fees, and the heaviest combinations, those over 80,000 pounds, pay only half of their cost responsibility. This modal subsidy distorts the freight economics where trucks and trains compete. Typically, railroads are better suited for long-lengths of haul, due to our advantages such as fuel economy and the fact that our core lines are less congested than major interstates. I believe any of the Class I railroads will tell you that subsidies for motor carriers increases the minimum length of haul where we can be competitive and that without the subsidy, the railroads' market share of over the road traffic would probably be higher than it is right now.

Eliminating a subsidy is always difficult. But it's equally important not to make it worse. Some in the trucking industry are calling for heavier trucks as a way to increase their productivity. If Congress changes the truck weight policy, those trucks must pay not only

the cost of their additional weight, but also make up the subsidy they receive at current weights. The question of truck weights and subsidies will no doubt come up in the context of the surface transportation reauthorization, especially if Congress considers an increase in the gas tax, and as General Funds are directed to the Highway Trust Fund. Dwindling revenues from the gas tax has required the use of General Funds for transportation funding, which means that the subsidy that other transportation users used to provide to the heaviest of trucks is now being provided by the general taxpayer.

Expanding freight rail capacity is the other significant factor in achieving mode optimization. Currently, there is no federal policy aimed at encouraging or partnering with freight railroads to expand capacity. Capacity became very tight in the freight rail industry from about 2003 until last year, and we saw some of the negative consequences of it – even with record capital expansion expenditures during that period. Railroad capital expenditure has remained relatively high, even in light of current decreased volumes. Adequate railroad capacity means increased network velocity and throughput, which allows for more volume and better service. It also improves market coverage, allowing for more truck-like service between the origins and destinations that customers want.

The National Policy and Revenue Commission wanted to determine freight rail capacity in key corridors and project its capacity requirements in the years to come. In sum, the Class I freight railroads, through capital expenditures based on expected revenues from

the marketplace and through productivity, can achieve almost all of the needed investment over the next 28 years, but there is a projected shortfall of almost \$40 billion. However, this analysis did not take into account what the freight railroads will have to do to facilitate increasing levels of passenger service on their networks, nor the expenditures necessary to comply with the Rail Safety Improvement Act of 2008 (RSIA).

This legislation mandates that positive train control (PTC) be installed on all rail main lines used to carry passengers or certain highly hazardous materials by December 31, 2015. Railroads – private freight and public passenger railroads - are responsible for nearly all of the almost \$10 billion in installation and maintenance costs for this technology. The Federal Railroad Administrator has found only \$700 million in PTC safety benefits, given the existing high level of safety that already exists in the industry. If the railroads must fully bear the cost of this mandate, it will certainly come at the expense of capacity expansion and, potentially, other maintenance or safety technology expenditures.

The National Policy and Revenue Commission also asked what level of investment would be needed to expand the freight rail market share of the growing freight volumes anticipated in the future – the goal proposed by S. 1036. The Commission found that to increase freight rail market share by 10 percent, an additional \$700 million in annual investment would be necessary. More research is being done on this question, which will look also at the impact of increasing passenger service on freight line investments.

What kind of capacity is needed for mode optimization? To succeed, railroads will need to deliver truck-like frequency, reliability, transit-times and trouble free execution. Essentially, we need to zero in on key domestic freight lanes between “megapolitan” markets, much like Canada has done. Significant up-front capacity investment is needed for railroads to execute and deliver line-capacity in targeted 500-1,500 mile lanes to facilitate expedited, high speed double-stack service on top of existing bulk, manifest and hosted passenger train network. Part of this investment will include removal of legacy chokepoints such as Tower 55 in Fort Worth, the Burlington Bridge in Iowa, and CREATE in Chicago. It will require crown clearing on various tunnels across the network, siding extensions, double tracking, and high speed cross-overs on targeted lines across the network.

It also will require facility expansion in strategic locations that support density economics required for frequent reliable service. This includes the development of new or expanded intermodal facilities in major megapolitan locations, such as one BNSF is proposing in Kansas City. It will require additional transload facilities to consolidate carload networks to make it more efficient. Transload facilities allow for the transfer of bulk or industrial products shipments between truck and rail. Rail facilities have an economic multiplier for the communities in which they are cited.

However, locating facilities in and around urban areas poses one of the single biggest challenges to realizing increased benefits of more freight rail. Transportation facilities regularly encounter permitting difficulties in the face of communities’ occasional “Not-

In-My-Backyard” responses. Our experience has been to successfully work closely with the neighborhoods and organizations representing them to implement state of the art environmental mitigation and to integrate transportation facilities as organically as possible into an area. However, permitting processes can be abused in light of citing concerns. Permitting can be improved to remain responsive to community interests while ensuring that project costs and timelines are not unduly attenuated. In addition, I believe local governments, with the encouragement of federal policy if necessary, should be aggressive in developing land use regulations and utilizing community planning to ensure siting of needed transportation facilities in the future, and that facilities are not encroached upon by incompatible development.

On the trucking side of the equation, construction or improvement of an extensive network of the intermodal connectors that serve these facilities will be required, along with fuel efficient, high service, dray-networks. In addition, it’s important that freight distribution be a part of metromobility. Without enough road capacity in urban areas to distribute freight, the intermodal model is not as effective. Freight must be planned for, accommodated, and not discriminated against in urban areas.

The timing of the railroad investments needed, and the magnitude, to modally optimize 10 percent of the highway freight makes 100 percent private investment too risky to accomplish without the partnership of the public. Public investment that leverages focused private investment can bring sufficient capital to the table, accomplishing national goals more quickly. One of the key proposals offered by the freight rail industry

is the Investment Tax Credit (ITC), which provides a 25 percent tax credit for expansion investment in the freight rail network by railroads or their customers. This incentive would help worthwhile projects get built sooner, but would not be enough to cause economically-unjustified projects to go forward. It would help fund investment, like PTC implementation, for which the benefits are predominantly public benefits. It's also significant to note also that each \$1 billion of new rail investment induced by the tax incentive would create 20,000 jobs. As Congress considers how to leverage the freight railroad's extensive private investment to achieve mode optimization, the ITC should be carefully considered.

The use of Public Private Partnerships (PPPs) on freight railroads is an important tool in achieving a modally optimized freight network. For years, states have partnered with freight railroads to complete projects that benefit both the railroad and the public, as Senator Thune knows from personal experience as South Dakota State Railroad Director. The benefits that the public can realize from freight rail projects include economic development, reduced vehicular congestion and emissions at grade crossings, reduced truck traffic and related impacts, and improved commuter or intercity passenger rail service. However, there has not been an appreciable federal role in these PPPs, except for Congressional earmarks. The transportation spending in the recently-passed American Re-Investment and Recovery Act (ARRIA) provided states the flexibility to use the General Funds provided under the Act on freight rail and port projects.

ARRIA also established a grant program at DOT for projects of national significance, for which freight rail projects are eligible. A program of this nature, which is adequately funded and performance-based, can substantially contribute to reducing chokepoints and expanding freight rail capacity for the benefit of the public. These efforts point the way to increased use of PPPs, which the long-term reauthorization legislation should build upon.

In sum, the Commission developed a policy roadmap of what an authorization bill needs to create a balanced, multi-modal transportation system in which “mode optimization” is possible. Below is a high-level overview of what the Commission found is required of Congress to achieve it, from a freight rail perspective:

- a national transportation vision that encompasses the benefits of multimodal freight projects for planning, funding and permit approval;
- rational economic regulation that permits freight railroads to continue to invest sufficiently to meet market share goals;
- leveraging and incentivizing private freight rail expenditures, through a tax credit which will pull forward expansion spending sooner;
- federal public private partnerships for freight rail projects; and
- freight mobility in metropolitan areas – including freight planning and capacity in urban areas.

I’d like to make two additional policy points. First, freight railroads will not be able to achieve the expansion necessary to increase their market share if the economic regulatory

system is not also in sync with this goal. Railroad regulation must allow the industry to achieve the returns necessary to make the investments that I have outlined in my testimony. Our record of reinvestment is a good one; as revenues have increased, so has investment. Therefore, maintaining freight railroad profitability is a key part of meeting the policy goals that Congress seeks to achieve in surface transportation policy.

Second, I'd like to comment on carbon policy. It can incentivize use of freight rail and freight rail investment. Whether carbon is priced, capped, or off-set, there will be pressure on the supply chain to become more fuel and emissions efficient. However, Congress specifically will need to consider how to encourage more use of freight rail to achieve mode optimization to meet environmental goals.

Having said that, my belief is that the most important factor for Congress to consider is the economic calculus of what a carbon policy will do to the economy and all of our customers. Whatever Congress votes to do, or not to do, freight rail will be an important part of managing carbon emissions and reducing energy dependence in the future.

If Congress focuses on desired outcomes – lower costs, energy efficiency, environmental mitigation, reduced highway congestion and enhanced global competitiveness – public partnerships with privately funded freight railroads will be a more significant policy option for optimizing the nation's surface transportation network. I look forward to continuing the dialogue we at BNSF have with you, Senator Thune, and your colleagues

in the Commerce Committee and across Congress as you work to enact a reauthorization bill that moves America, and it's Supply Chain, forward.

I welcome the opportunity to respond to your questions.