



ASSOCIATION OF
AMERICAN RAILROADS

Law Department
Louis P. Warchot
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July 5, 2007

Honorable Vernon A. Williams
Secretary
Surface Transportation Board
395 E Street, S.W.
Washington, D.C. 20423

Re: Ex Parte No. 672, Rail Transportation of Resources Critical
to the Nation's Energy Supply

Dear Secretary Williams:

Pursuant to Board's Notice served June 6, 2007, attached for filing with the Board in the above proceeding is the written submission of the Association of American Railroads.

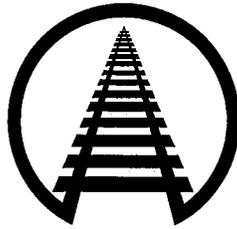
Respectfully submitted,

Louis P. Warchot
Counsel for the Association of
American Railroads

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

STB EX PARTE NO. 672

**RAIL TRANSPORTATION OF RESOURCES CRITICAL
TO THE NATION'S ENERGY SUPPLY**



**COMMENTS OF THE
ASSOCIATION OF AMERICAN RAILROADS**

EDWARD R. HAMBERGER

PRESIDENT AND CEO

JULY 18, 2007

Introduction

The Association of American Railroads (AAR) submits these comments in response to the Surface Transportation Board's request for views on issues related to the efficiency and reliability of the rail transportation of resources critical to the nation's energy supply. AAR members account for the vast majority of North American freight railroad mileage, traffic, employees, and revenue. My statement today will focus on coal and ethanol.

Efficient and reliable coal transportation has long been vital to U.S. economic health and energy security. With each passing day, the importance of having a dependable ethanol transportation capability grows as well. And while trucks and barges certainly play crucial roles, railroads today are the clear leaders in the transportation of these commodities.

Railroads are committed to working with all parties in the coal and ethanol logistical chains to help ensure that railroads remain the leaders in providing safe, cost-effective, and reliable coal and ethanol transportation service far into the future.

This can't happen if railroads are hamstrung by ill-advised laws or regulations. To be viable and effective in the years ahead, especially in the face of projected huge increases in freight transportation demand — for coal, ethanol, and just about every other commodity — railroads must be able to maintain and replace their existing infrastructure and equipment *and* build the substantial new capacity required to handle the additional traffic they will be called upon to haul.

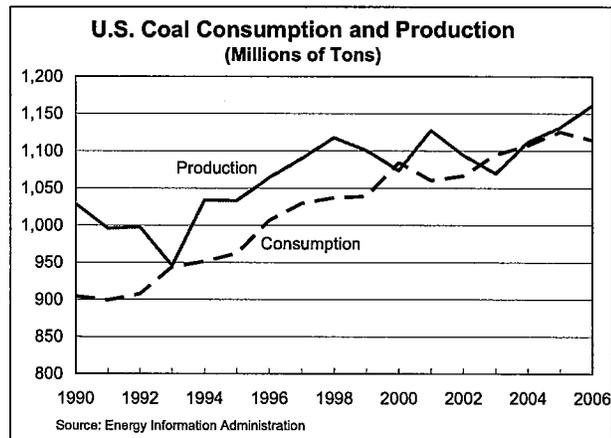
That's why laws or regulations that unduly interfere with railroads' ability to fund, build, and operate this capacity must be avoided. If counterproductive regulatory or legislative restraints restrict rail earnings, rail spending on infrastructure and equipment will shrink, the industry's physical plant will deteriorate, needed new capacity will not be added, and rail service will become slower, less responsive, and less reliable — for coal shippers,

ethanol shippers, and everyone else. Eventually, either the government will have to make up the shortfall in rail earnings in the form of major subsidies to railroads, or rail management will have to, in the words of one analyst, begin “harvesting the business” by extracting capital.

Such an outcome would be harmful at any time, but it would be especially harmful today, given that as a nation we are in dire need of *more* railroad investments and *more* coal- and ethanol-carrying capacity, not less.

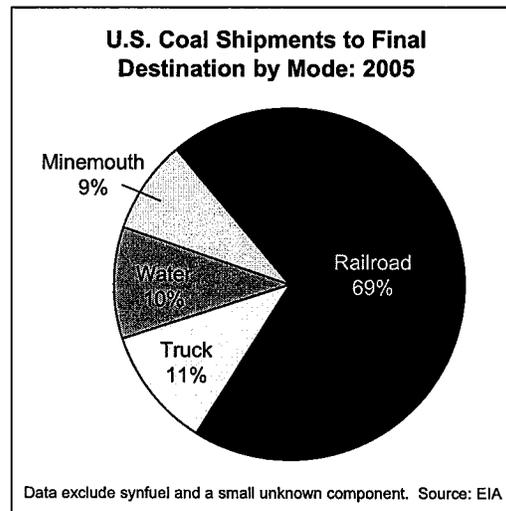
Railroads and Coal

U.S. coal production and consumption have been trending higher for decades. In 2006, production totaled 1.16 billion tons — higher than ever before and higher than any country in the world except China. U.S. coal consumption in 2006 was 1.11 billion tons, the second highest annual total ever behind 2005.



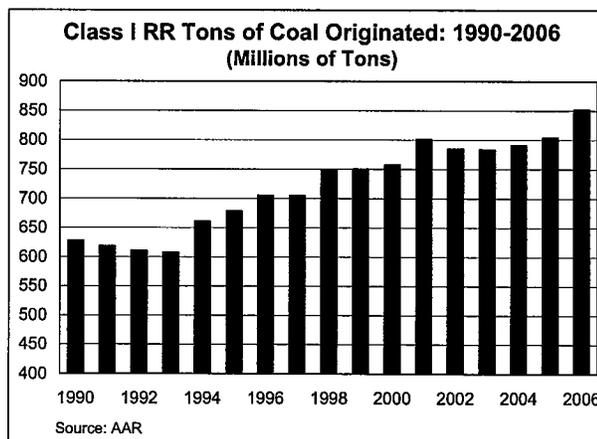
Because coal is consumed in large amounts all over the country, while most production is focused in a relatively small number of states, an efficient coal transportation system is a necessity. Thanks to railroads (and other transportation modes), coal transportation in the United States has become so sophisticated that regionally-defined markets no longer exist. Rather, coal can be transported essentially from wherever it is mined to wherever consumers want to burn it.

All major surface transportation modes carry large amounts of coal. According to the Energy Information Administration (EIA), 69 percent of U.S. coal shipments were delivered to their final domestic destinations by rail in 2005, followed by truck (11 percent); water (10 percent, mainly barges on inland waterways); and the aggregate of conveyor belts and tramways (9 percent).



The rail share has been trending higher over the past 10 to 15 years, in large part because of the growth in Powder River Basin (PRB) coal that usually moves by rail. PRB coal production more than doubled from 200 million tons in 1990 to an estimated 470 million tons in 2006.

Following declines in the early 1990s, U.S. railroad coal traffic rose steadily for a number of years before falling in 2002. Coal traffic recovered by 2005, when Class I coal tons originated set a new annual record. Last year, Class I coal tonnage again reached a new high,



rising 6 percent over 2005. In 2006, Class I carriers originated 7.57 million carloads of coal (24 percent of total carloads) and 852 million tons of coal (44 percent of total tonnage). Class I gross revenue from coal in 2006 was \$10.8 billion, or 21 percent of total gross revenue. Class I railroads as a whole derive more revenue from coal than from any other commodity

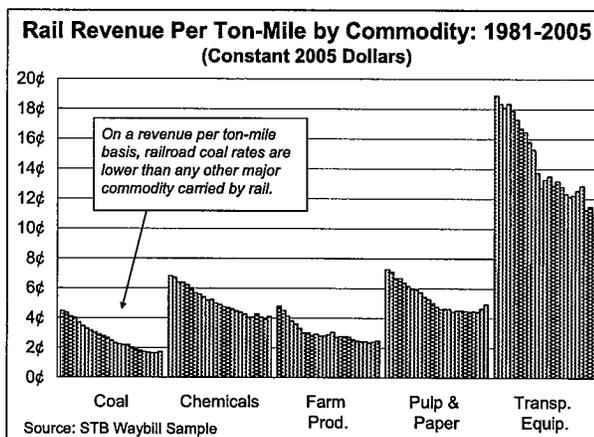
category except intermodal. Appreciable amounts of coal are also carried by dozens of non-Class I railroads.

Coal hauling on railroads has become much more sophisticated than it used to be. Most coal moves in highly-productive unit trains, which often operate around the clock, use dedicated equipment, generally follow direct shipping routes, and have lower costs per unit of coal shipped than non-unit train shipments.

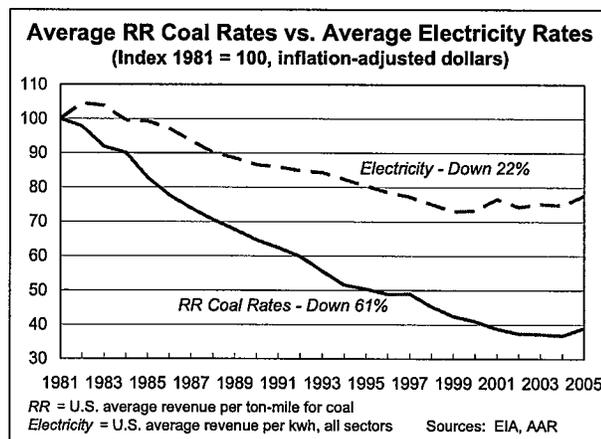
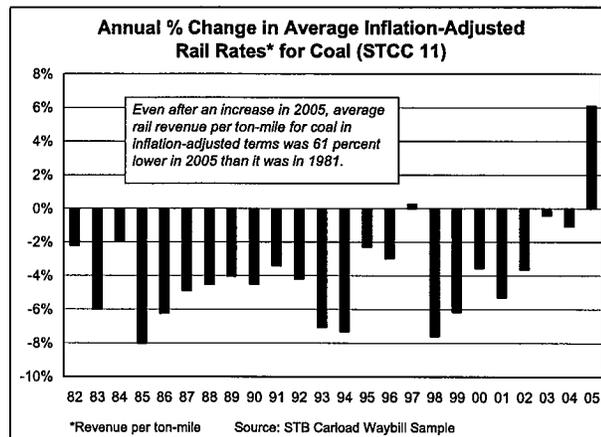
In addition, technological advances have led to more powerful and fuel efficient locomotives; improved signaling systems; stronger, more durable track; lighter, higher-capacity coal cars (in 2006 the average coal car carried 112.5 tons, up 15 percent from the 98.2 tons in 1990); and higher capacity, faster coal loading and unloading systems, to name a few. Improvements in train operations — including distributed power and more efficient dispatching and routing — have also helped railroads meet the needs of their coal customers as efficiently and cost effectively as possible.

Railroads Offer Cost-Effective Service

Since it recognizes both distance and weight, revenue per ton-mile (RPTM) is a useful surrogate for railroad rates. In 2005 (the most recent year for which RPTM data are available), average RPTM for coal was 1.73 cents, by far the lowest such figure among major rail commodities. In inflation-adjusted terms, 2005 RPTM for coal was 61 percent lower than in 1981 and 40 percent lower than in 1990.



Moreover, the general pattern of significant reductions in coal RPTM applies to coal movements in railroad-owned cars, for movements in non-railroad-owned cars, and for movements of different lengths of haul. Railroads were able to reduce their rates because they achieved enormous productivity gains (such as better asset utilization, longer trains, two-person crews, more powerful and efficient locomotives, the introduction of new technologies, and much more) that were largely passed through to shippers in the form of lower rates.



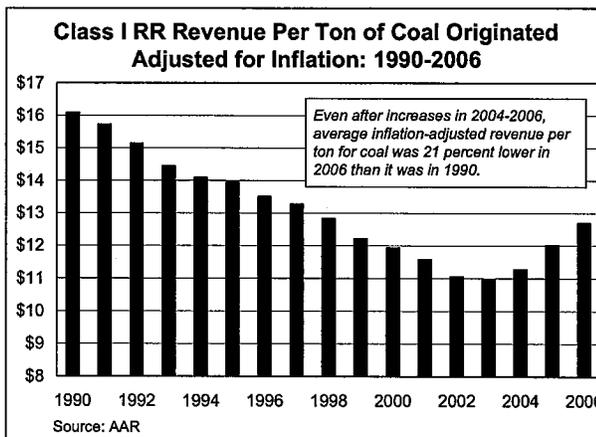
The average decline in railroad coal rates from 1981 to 2005 (down 26 percent in nominal dollars, down 61 percent in inflation-adjusted terms) is in sharp contrast to average U.S. electricity rates, which rose 48 percent from 1981 to 2005 in nominal terms and fell 22 percent in inflation-adjusted terms.

Other measurements of rail rates point to the cost-effectiveness of rail coal service. For example, coal is near the bottom among all major commodities in terms of gross revenue per carload originated. Coal’s average for 2006 (\$1,429) is 10 percent lower than the comparable inflation-adjusted figure for 1990 and 16 percent lower than the 2006 average for all commodities excluding coal. That there is any decline in this measure is remarkable, given

the increase in average length of haul for rail coal movements from 539 miles in 1990 to 754 miles in 2005.

Likewise, revenue per ton of coal originated in 2006 (\$12.70) was one-third the average for all commodities excluding coal (\$37.86). In inflation-adjusted terms, average revenue per ton for coal was 21 percent lower in 2006 than in 1990.

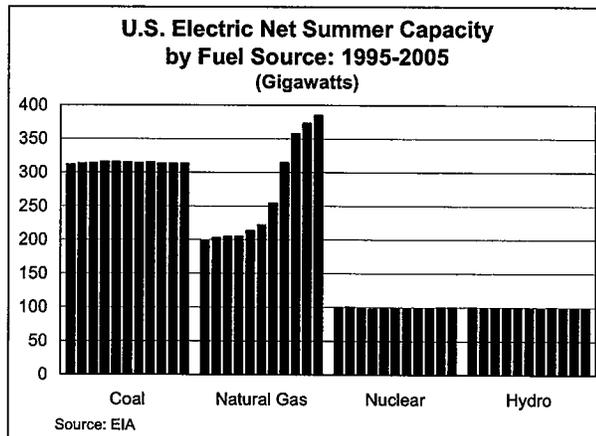
It is true that some rail coal rates have increased over the last couple of years, but as explained in more detail



below, railroads need to increase their coal revenues if they are to make the reinvestments in their systems that will be necessary for them to meet future coal transportation needs.

Electricity Generation

The vast majority of coal in the United States is used to generate electricity. The amount of electricity generated from coal rose from 1.6 billion MWh in 1990 to more than 2 billion MWh in 2005 — an increase of nearly 420 million MWh, or 26 percent — before dropping a bit in 2006. But because overall U.S. electricity generation rose 33 percent during this period, coal’s share of total generation



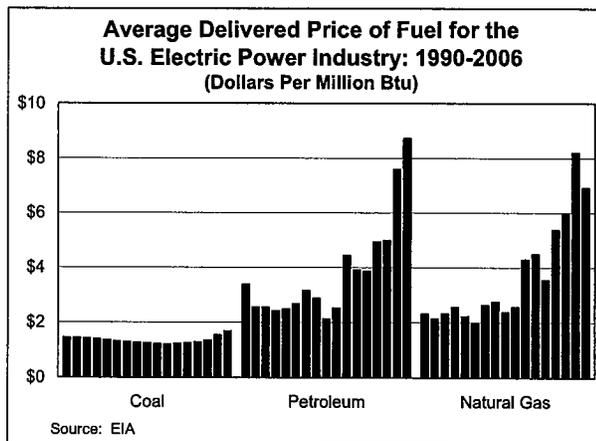
actually fell, from 52.5 percent in 1990 to 49.6 percent in 2005 and 49.0 percent in 2006. In

contrast, natural gas's share of U.S. electricity generation rose from 12.6 percent in 1990 to 20.3 percent in 2006.

The increase in natural gas generation is reflected in the huge increase in natural gas generation capacity. According to EIA data, total electricity generation capacity at coal, nuclear, and hydroelectric plants barely changed from 1995 through 2005, but capacity at power plants fueled by natural gas soared 94 percent — one reason why rail coal tonnage was actually lower in 2002, 2003, and 2004 than it was in 2001.

Natural gas was the fuel of choice for new capacity for several reasons. Gas plants could be constructed relatively quickly and enjoyed an easier permitting process, making them less expensive to build. They were also considered to be “environmentally friendly.” Perhaps most importantly, though, it was assumed that natural gas would remain cheap and plentiful.

This, of course, did not happen. Instead, natural gas prices have skyrocketed in the past few years, making gas-fired electricity generation less competitive and sparking unanticipated, sharp increases in demand for electricity generated from coal — and putting unexpected strain on coal suppliers and transporters. In contrast to the delivered price of natural gas, the



delivered price of coal to utilities has remained basically flat, and on a per-Btu basis is far below the comparable figure for natural gas. In addition, demand for metallurgical coal rose sharply because of a boom in steelmaking worldwide.

This unexpectedly strong increase in the demand for coal, which occurred at the same time that demand for rail transportation overall was rising sharply, in some cases exceeded the capability of coal producers to supply the coal, coal transporters to haul it, and destinations to unload it. That's not surprising, especially since electric utilities, by their actions, had long been disfavoring coal in favor of natural gas, and neither coal suppliers nor coal transporters have unlimited spare capacity on hand "just in case."

Nevertheless, freight railroads have been criticized for their alleged role in forcing coal-fired power plants to reduce their coal stockpiles to dangerously low levels. In a handful of cases, power plants allegedly had to curtail power production because of the unavailability of rail-delivered coal, and then had to purchase more expensive electricity on the spot market or generate electricity from more expensive fuels like natural gas.

Railroads are in constant communication with their coal customers, and make every effort to ensure adequate coal supplies. Despite railroads' best efforts, there may have been times when a particular plant had short-term acute shortages, primarily due to unanticipated problems in 2005 caused by impairment of key western rail lines. This was an extremely rare, and temporary, occurrence. Even though railroads are hauling tremendous amounts of traffic (including coal) and are facing capacity constraints on important corridors and at critical locations on the rail network, the overwhelming majority of coal customers are receiving, and always have been receiving, adequate coal supplies.

If there ever was a stockpile "crisis," it's certainly over now. After falling in 2005, coal stockpiles in the electric power sector have recovered to high levels. In April 2007, for example, utility coal stockpiles of 150 million tons were 34 million tons (30 percent) higher

than they were in April 2005 and higher than any previous April since 2002. Many factors influence stockpiles, but fluid rail operations are clearly having a powerful positive effect.

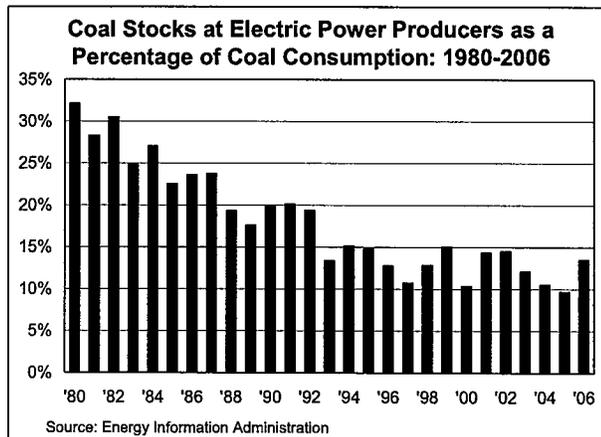
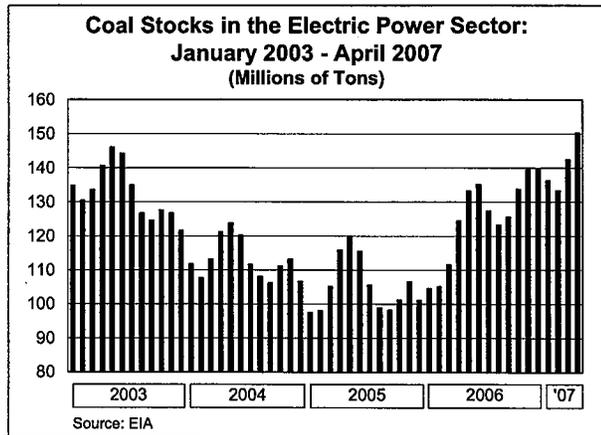
Moreover, coal-fired power plants have been reducing their coal stockpiles

since the early 1980s. A typical electric utility held nearly two months of full-load burn in the early 1980s; by the late 1990s, this had fallen to near one month.¹ According to EIA data, coal stocks at electric power producers as

a percentage of coal consumption fell from more than 30 percent in 1980 to 10 percent by 2000. The decision to reduce stockpiles was part of a deliberate utility effort to shift to just-in-time inventory practices to limit capital tied up in fuel stocks.² With inventory reduced to this

degree, utilities eliminated a traditional buffer to withstand supply disruptions (like the May 2005 PRB derailments noted below).

It is also important to point out that the rail transportation of coal was negatively affected in 2005 by especially serious weather-related problems in the western United States.



¹ Stan Kaplan, et. al., "Coal and gas prices: planning for an uncertain fuel future," *Power Engineering*, January 2003, p. 20. At the time of this article, Mr. Kaplan was a branch chief in the electric division of EIA.

² Richard Bonskowski, *The U.S. Coal Industry in the 1990's: Low Prices and Record Production*, Energy Information Administration, September 1999.

In May 2005, two coal trains derailed on the PRB Joint Line in Wyoming. Subsequent investigation found that the derailments were caused by a weakening of the roadbed due to the combination of accumulated coal dust and extraordinary rain and snow over a short time period. The derailments and subsequent comprehensive repair program disrupted the flow of trains to and from the PRB to some degree for much of the rest of the year. In early October 2005, a severe thunderstorm dumped approximately 12 inches of rain in northeastern Kansas, creating runoff that destroyed or damaged several bridges, caused extensive washouts on several major coal-carrying rail routes, and impeded rail traffic nearly all of October until the last bridge was replaced. And, of course, hurricanes Katrina and Rita wreaked havoc too.

Railroads recognize that these types of disruptions exert an enormous toll on rail customers, as well as on the railroads themselves, which is why railroads work exceedingly hard to return their operations to normal service as quickly as possible. Today, though, rail coal transportation in the United States is extremely fluid.

Railroads cannot promise that weather-related disruptions will not reoccur — after all, the rail industry is a 140,000-mile outdoor assembly line. However, future disruptions, will (like the ones in 2005) be temporary as long as policymakers do not overreact with inappropriate policy prescriptions.

The most important point is that, despite the weather- and capacity-related problems noted above, as well as periodic production disruptions at mines, railroads moved more coal in 2005 than ever before, and much more coal in 2006, when our nation's electric utilities established new load records across the country.

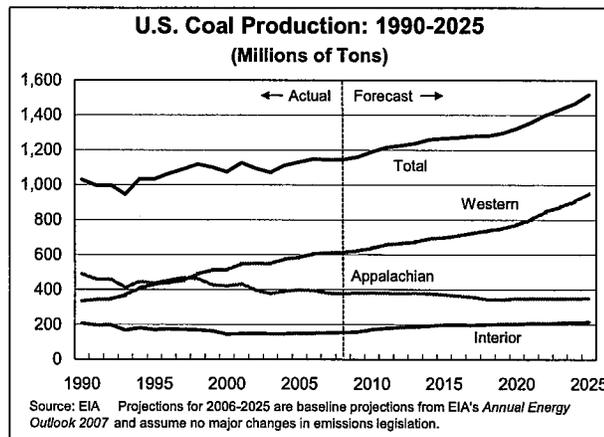
The mission of the National Electric Reliability Council (NERC), the umbrella organization for eight regional reliability councils whose members come from all segments of

the electric power industry and account for nearly all electricity in this country, is to ensure that the bulk power system in North American is reliable, adequate, and secure.

In May, NERC released its “2007 Summer Assessment” that examines the reliability of the North American bulk power system for the summer season. The NERC assessment made no mention of any anticipated problems with coal supply deliveries impacting reliability in any region.

Outlook for Coal

U.S. coal production and consumption will almost certainly continue to grow. In its *Annual Energy Outlook 2007*, released in January 2007), the EIA projects 1.5 percent average annual growth in U.S. coal production through 2025, due mainly to increasing coal use for electricity generation.³ Assuming no major changes in emissions legislation, Western coal



production is forecast to increase far more quickly than Interior production; Appalachian production is forecast to fall slightly.

DOE’s National Energy Technology Laboratory reports that, as of May 2007, some 151 coal-fired generating plants in dozens of states representing 90 gigawatts have been announced or are in development. If ultimately built, this new generation would increase annual U.S. coal requirements by several hundred million tons.

³ In its most recent forecast (the *Annual Energy Outlook 2007*), the EIA projects an increase in total electricity sales from 3.66 trillion kilowatthours in 2005 to 5.17 trillion kilowatthours in 2030, a 41 percent increase.

The main threat to coal's future is environmental challenges. Among many, coal is perceived to be a "dirty fuel" whose emissions (of carbon dioxide, particulates, sulfur dioxide, nitrogen oxides, and mercury) pollute the environment and harm public health. Coal's reputation among some as a "dirty fuel" is increasingly out of date. Moreover, coal's environmental performance will continue to improve through the use of "clean-coal" technologies. Coal-based utilities, the DOE, and others are investing billions of dollars each year on R&D projects directed toward improving the environmental performance of coal-based electricity generation.

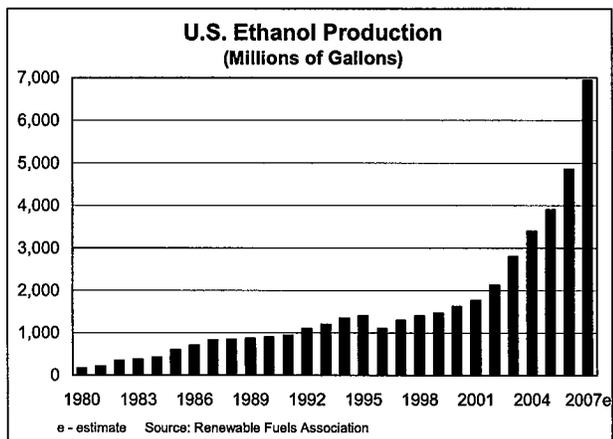
Today, the most highly-anticipated clean-coal systems are "integrated coal gasification combined cycle" (IGCC) systems, in which crushed coal is mixed with steam and oxygen under high temperature and pressure to produce a gaseous mixture that is burned in a high efficiency gas turbine to produce electricity. The exhaust heat from the gas turbine is recovered to produce steam to power steam turbines, greatly improving thermal efficiency. The main advantage of IGCC, though, is its ability to remove carbon and other impurities from coal *before* the coal is burned, rather than trying to filter the impurities out of post-combustion exhaust. Today, numerous IGCC projects are being considered at sites across the country.

Because coal offers such extraordinary promise as a source of fuel for a range of applications, it is critical that policymakers support continued clean coal research and development, and refrain from restricting the ability of coal producers, consumers, or transporters from playing their respective roles in the coal production and logistics chain. The use of coal for these purposes frees up natural gas to be used in other applications, such as

chemical production and other high-end manufacturing applications for which there is often no practical substitute.

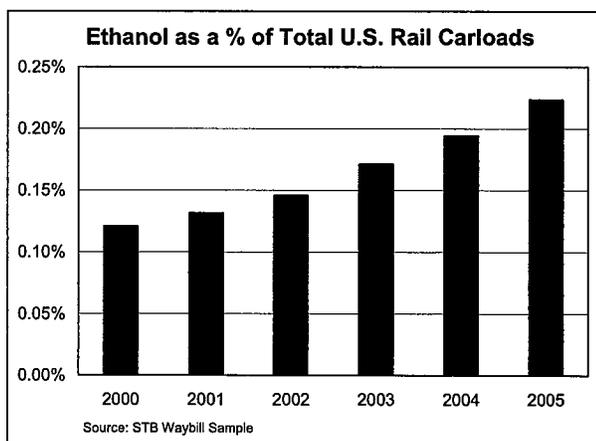
Railroads and Ethanol

U.S. ethanol production has been rising rapidly and will likely approach 7 billion gallons in 2007. Ethanol production is concentrated in the Midwest, but many of the major markets for ethanol are on the East Coast, in California, and in Texas. Thus, substantial amounts of ethanol must be transported long distances from the main production areas to principal



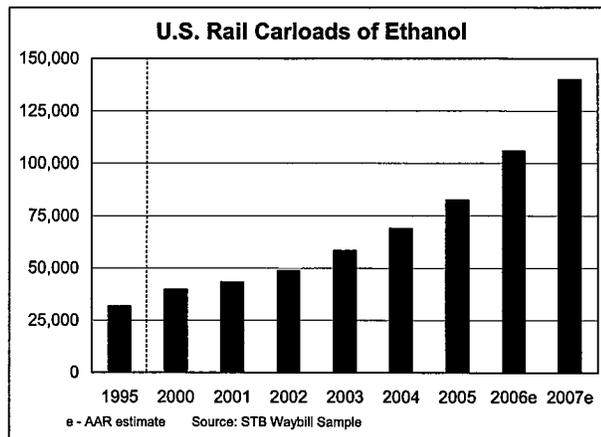
consumption areas. We estimate that railroads account for 60-70 percent of ethanol movements, with the rest moving by truck or barge.

Railroads have been moving small amounts of ethanol for decades, but ethanol is now a rapidly growing commodity for railroads. In 2005, ethanol accounted for 0.22 percent of total rail carloads, up from 0.11 percent in 1995, and 0.46% of rail ton-miles, up from 0.18 percent in 1995.



In 2005, railroads moved nearly 82,500 carloads of ethanol, up from 31,700 carloads in 1995. Ethanol traffic data for 2006 will not be available until the 2006 STB Waybill

Sample is released, but there is no question that ethanol carloadings in 2006 significantly exceeded 2005's levels, probably exceeding 100,000 carloads. Based on an AAR survey and given the very close correlation between ethanol production and rail ethanol carloadings,



we think 2007 ethanol carloadings will exceed 140,000. Important, to be sure, but still a very small percentage of total rail traffic. (By comparison, in 2006 Class I carriers originated 819,000 carloads of corn, 345,000 carloads of wheat, and 192,000 carloads of soybeans, to name just a few agricultural-related commodities.)

According to the STB Waybill Sample, ethanol accounted for more than \$200 million in rail revenue in 2005, though that figure is undoubtedly much higher in 2006 and 2007.

Each Class I railroad carries ethanol, with some serving several dozen plants. However, ethanol movements are not limited to Class I railroads. An estimated 15 percent to 20 percent of ethanol rail movements start on short lines, which isn't surprising given the rural nature of many short line carriers. Railroads also move some feedstock corn to ethanol plants (though most corn is trucked to ethanol plants), as well as large amounts of dried distillers grain (DDG, a byproduct of ethanol production used as animal feed) from ethanol plants.

The vast majority of ethanol moved by rail moves in 30,000-gallon general purpose tank cars. Approximately 41,000 of these cars are in service today (up from around 31,000 just a year or so ago). Virtually all of these cars are non-railroad owned.

U.S. ethanol production is expected to grow rapidly over the next several years.

Railroads are positioning themselves to be able to handle this growth, and ethanol producers and consumers can assist them in several ways:

- Include railroads in discussions and plans at the earliest possible stage, including prior to site location and facility design, to ensure maximum coordination and design efficiencies.
- Keep in mind that because substantial cost efficiencies and better service are achieved when rail freight moves in unit trains, unit trains are preferable to single-car or multiple-car ethanol shipments. Unit trains avoid marshalling and switching delays, can be more easily “slotted” onto a railroad’s network, and result in quicker “turns” (and thus more efficient equipment utilization and greater effective capacity).

If unit trains are to be an option, smaller-capacity ethanol producers may need to store product until enough ethanol is ready to fill a unit train, or more than one producer may need to share a train. This is already happening at some locations. In addition, there should be a dedicated terminal at the receiving end that can accommodate unit trains — otherwise, unit trains have to be broken up into segments, which reduces efficiency and raises costs. Several such terminal facilities are in operation, with several more reportedly under construction or planned.

- Recognize that ethanol must compete with all other rail traffic for train slots and equipment allocation on networks with very tight capacity in some areas. Railroads must be careful not to sacrifice the fluidity of their overall operations as they assume greater and different types of traffic like ethanol.
- Remember that railroads must be adequately compensated for the service they provide so that further investments in ethanol transportation can be justified.

Capacity is a Challenge Everywhere in Transportation Today, Including Railroads

There is a tremendous amount of strength and flexibility in our nation’s transportation systems, but it is clear that all freight modes in the United States, including railroads, are facing serious capacity challenges today, and that these challenges will only worsen over time if action is not taken.

Looking ahead, the United States cannot prosper in an increasingly-competitive global marketplace if our freight railroads are unable to meet our growing transportation needs.

Having adequate railroad capacity is critical to meeting those needs. As noted earlier,

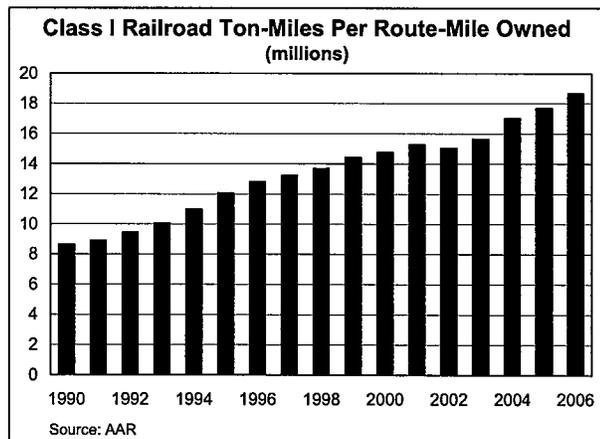
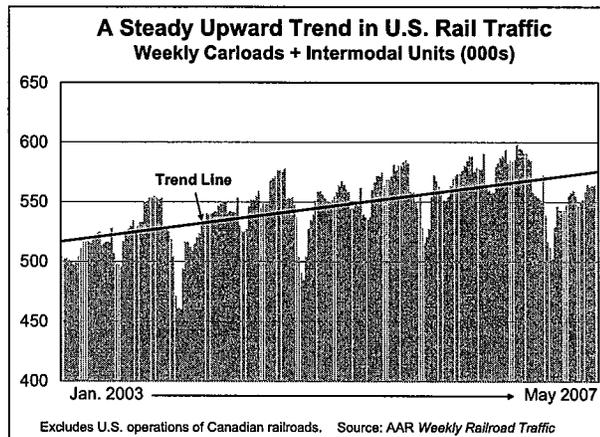
railroads must be able to maintain and upgrade their extensive *existing* infrastructure and equipment and build the substantial *new capacity* that will be required to transport the significant additional traffic our economy will generate.

In recent years, a variety of forces — including high fuel costs, highway congestion, and driver shortages in the trucking industry; booming international trade; and solid growth in the general economy (the recent slowdown in some sectors and accompanying reduction in rail traffic notwithstanding) — have pushed

more and more freight to the rails. As a result, over the past couple of years, U.S. railroads have been hauling more freight than ever before.

These traffic increases have resulted in capacity constraints and service issues at certain locations and corridors on the rail network. In fact, excess capacity has disappeared from many critical segments of the national rail system. The reality that rail assets are being used more

intensively is reflected in rail traffic density figures. From 1990 to 2006, traffic density for Class I railroads — defined as ton-miles per route-mile owned — more than doubled. (Other



measures of traffic density, such as car-miles per mile of track, have also shown substantial increases.)

Of course, rail corridors differ in their traffic density and their change in density over time, and individual railroads differ in the degree to which their capacity is constrained overall. Still, there is no question that there is significantly less room to spare on the U.S. rail network today than there was even a couple of years ago.

In light of current capacity and service issues, some shippers and others have inappropriately blamed railroads for not having enough infrastructure, workers, or equipment in place to handle the surge in traffic. To contend that railroads can afford to have significant amounts of spare capacity on hand ‘just in case’ — or that shippers would be willing to pay for it, or capital providers willing to finance it — is not realistic. Like other companies, railroads try to build and staff for the business at hand or expected to soon be at hand. “Build it and they will come” is not a viable strategy for freight railroads.

Over the past couple of decades, Class I railroads have shed tens of thousands of miles of marginal trackage. They had no choice — they could not afford to keep these marginal and unprofitable lines, and they freed resources for use on higher-priority core routes. Most of the miles that were shed were transferred to short-line operators, and most remain part of the U.S. rail network. Even if Class I carriers could have afforded to retain this mileage, most was in locations that would not help ameliorate today’s capacity constraints.

In part, this is because long-lived rail infrastructure installed long ago was often designed for types and quantities of traffic, and origin and destination locations, that are dramatically different from those that exist today. For example, only within the last two

decades has PRB coal taken on the enormous importance it currently has. Similarly, the explosive growth of rail intermodal traffic is mainly a phenomenon of the past 20 years.

As the Board knows, when business is unexpectedly strong, railroads cannot expand capacity as quickly as they might like. Locomotives, for example, can take a year or more to be delivered following their order; new entry-level employees take six months or more to become hired, trained, and qualified; and it can take years to plan and build rail expansions, especially major projects such as upgrading an entire corridor. And, of course, before investments in these types of capacity enhancements are made, railroads must be confident that traffic and revenue will remain high enough to justify the enhancements for the long term, and that the investment will produce benefits greater than the scores of alternative possible investment projects. Again, in this regard railroads are no different than their customers.

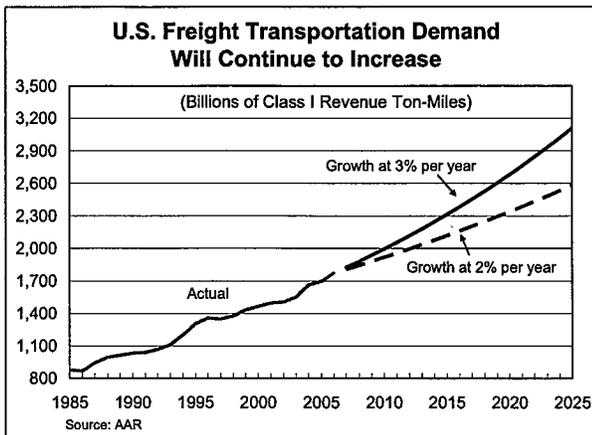
Meeting Future Coal and Ethanol Transportation Needs

As noted earlier, since 1990 railroad coal and ethanol movements have sharply increased. Demand for both commodities is expected to continue to rise for the next decade and beyond. More broadly, because of increases in population, continued globalization, and other factors, huge increases in U.S. freight transportation demand are expected in the coming years. Thus, railroads will be called upon to move much more freight than they do today.

A number of freight traffic forecasts have been produced recently, and all of them project huge increases in transportation demand over the next 10 to 20 years. To give just one indication of the kinds of traffic increases railroads might face, over the past 10 years Class I ton-miles (for all traffic) rose at an annual average rate of 2.7 percent. If ton-mile growth continued at a substantially lesser 2 percent per year, Class I revenue ton-miles would rise from 1.77 trillion in 2006 to 2.6 trillion in 2025 (a 46 percent increase). At 3 percent growth

per year, Class I revenue ton-miles would rise from 1.77 trillion in 2006 to 3.1 trillion in 2025 (a 75 percent increase).

These are huge increases. But railroads' past performance strongly suggests that they will be able to handle this increased demand, as long as the necessary investments in their networks are made.



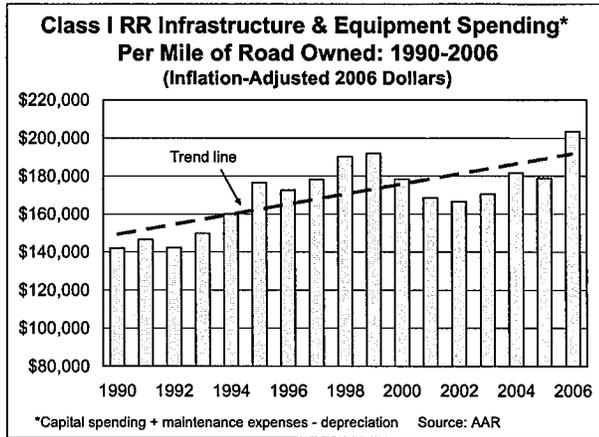
To help ensure specifically that adequate coal- and ethanol-carrying capacity is available to meet future coal transportation needs, railroads are taking a variety of actions.

For example, because it takes time to adjust to fluctuations in supply and demand of any commodity, including coal and ethanol, railroads are emphasizing the need for coordinated, timely planning with customers and suppliers of these commodities. To this end, railroads meet regularly with coal companies and electricity producers to determine how to best conform rail transportation offerings to their needs. These joint efforts include such objectives as meeting peak period demand and performing track maintenance as efficiently and unobtrusively as possible. Similar efforts are made with ethanol producers and users.

In addition to trying to balance earnings with investment needs, railroads are taking other steps to position future capital investment to support future capacity for coal, ethanol, and other traffic. For example, they are encouraging the use of public-private partnerships for rail infrastructure projects, especially in cases where a fundamental purpose of the project is to provide public benefits or meet public needs. Railroads are also advocating an investment tax credit for infrastructure projects that increase freight rail capacity. Legislation that would

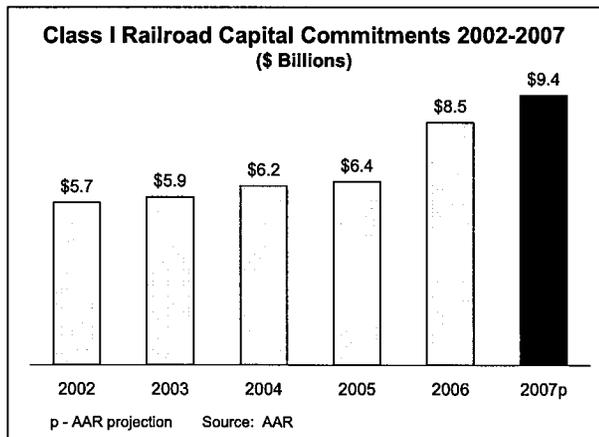
provide for such a tax credit is currently before Congress. Railroads are also continuing to aggressively seek productivity and technological enhancements to improve operations.

And railroads are spending an enormous, and increasing, amount of money on their networks. From 1980 through 2006, Class I railroads invested more than \$375 billion (and short lines spent additional billions) to maintain and improve their infrastructure and equipment, with most of this spending



indirectly or directly benefiting coal (and now ethanol) movements.⁴ After accounting for depreciation, freight railroads typically spend \$16 billion to \$18 billion per year — equal, on average, to more than 40 cents out of every revenue dollar — to provide the high quality assets they need to operate safely and efficiently.

Rail capital spending, which was already enormous, is expected to rise to around \$9.4 billion in 2007, up from around \$5.7 billion just five years earlier. This huge increase demonstrates the diligence with which railroads are



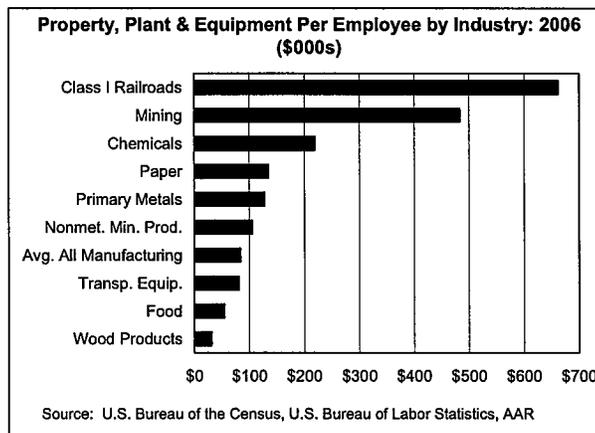
⁴ Railroading is a network business, meaning that operational improvements or investments in one location can affect rail traffic a thousand miles away. For this reason, even investments made on rail lines that do not carry substantial volumes of coal or ethanol can benefit those commodities.

responding to the capacity and service issues and positioning themselves to handle rail shippers' needs in the future.

Railroads must reinvest enormous sums back into their systems, because it takes an enormous amount of money to run a freight rail system. Railroading simply cannot be done on the cheap. The rail industry is near the top among all U.S. industries in terms of capital intensity. In fact, from 1996 to 2005 (the most recent year for which data are available), the average U.S. manufacturer spent 3.4 percent of revenue on capital expenditures. The comparable figure for U.S. freight railroads was 17.2 percent, or more than five times higher.⁵

Capital Expenditures as a % of Revenue for Various U.S. Industries: Avg. 1996-2005	
Average all manufacturing	3.4%
Food manufacturing	2.5%
Petroleum & coal products mfg.	2.7%
Machinery manufacturing	2.9%
Motor vehicles & parts mfg.	2.9%
Wood product mfg.	3.0%
Fabricated metal product mfg.	3.3%
Plastics & rubber products mfg.	4.4%
Chemicals manufacturing	4.4%
Paper manufacturing	4.5%
Computer & electr. product mfg.	4.9%
Nonmetallic mineral product mfg.	5.3%
Electric utilities	12.6%
Class I Railroads	17.2%

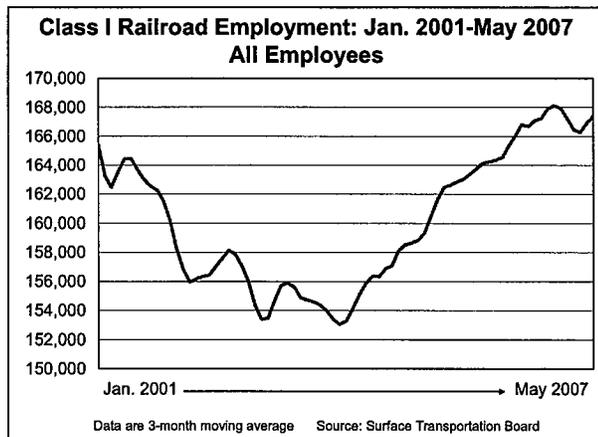
Note: Utilities are 1999-2005
Source: U.S. Bureau of the Census, AAR, EEI



⁵ At a Board hearing on April 11, 2007, the Western Coal Traffic League claimed that “[A] recent study by a New York University ... professor shows a number of other industries that are similar in structure to the railroads (e.g., trucking, maritime, network industries) that have reinvested in themselves at higher levels.” WCTL’s source appears not to be a “recent study,” but rather a database comprised of company data posted online. There are numerous problems with the WCTL data. Perhaps the most egregious is the inclusion of inappropriate firms in industry groups. For example, WCTL claims that trucking has a capital spending-to-revenue ratio of 19.2 percent. But WCTL wrongly includes as “trucking” firms several motor vehicle rental firms that have extremely high (in some cases exceeding 250 percent) capital spending-to-revenue ratios. The inappropriate inclusion of non-traditional trucking companies dramatically skews WCTL’s data. Properly calculated, trucking has nowhere near the capital intensity of freight railroads. Even if one ignores this problem, the database WCTL uses actually reinforces railroads’ relative capital intensity. The more than 7,600 firms in the WCTL database have an average capital spending-to-revenue ratio of less than 6 percent — around one-third of the comparable rail figure.

Similarly, in 2006 railroad net investment in plant and equipment per employee was \$662,000 — nearly eight times the average for all U.S. manufacturing (\$84,000).

Rail capacity is a function of personnel in addition to infrastructure, and railroads have been aggressively hiring and training crews to expand capacity. After decades of steady decline, rail employment has been on the increase since 2004, especially engineers and conductors who operate trains. Overall Class I employment in May 2007 was 8 percent higher than in May 2004.



Other steps railroads are taking to enhance capacity and improve service include examining and, where appropriate, revamping their operating plans with an eye toward improved asset utilization and enhanced fluidity. Railroads are also engaging in innovative collaborations with each other (such as finding ways to minimize delays at interchanges) and are constantly developing and adopting new technologies. For example, railroads are developing and implementing complex computer models to optimize train movements and trip planning.

Railroads are also working hard to develop ways to overcome resistance to needed expansion of their operations in certain communities. “Nimbyism” is becoming an increasingly difficult problem and is manifesting itself in longer project time frames and higher costs for those projects.

Railroads Must Be Financially Healthy to Expand Capacity

Since Congress passed the Staggers Act, railroads have only slowly made progress toward the goal of long-term financial sustainability, which is essential if railroads are to have any hope of meeting future capacity needs.

Today, nearly 27 years after the Staggers Act was passed, freight railroads are finally showing tangible signs that financial sustainability might be within reach. Rail earnings over the past couple of years, while less than average in comparison to most industries, have been significantly higher than their historical norm. This welcome development means that railroads can more easily justify and afford the massive investments and capacity enhancements that will be required if railroads are to meet the huge increase in freight transportation demand expected over the next 20 years.

Some coal shippers and their trade association representatives are among the most vocal proponents of restrictions on rail earnings, but they certainly understand the importance of long-term financial sustainability.

For example, a representative of the Edison Electric Institute (EEI – the major trade association for investor-owned utilities) recently noted:

“The U.S. electric power industry posted strong financial gains again in 2006. ... [Sustaining] these results ... is vital for attracting the capital the industry will need as it enters a long-term investment cycle... Although the price of one kilowatt-hour of electricity remains a bargain in comparison with food, gasoline, health care, and many other items, one of the major challenges facing the industry will be improving public and regulatory understanding of the need to increase electricity rates to meet the industry’s growing investment requirement.”⁶

In a similar vein, EEI not long ago defended the sometimes significant price increases electricity consumers are facing in many parts of the country. EEI writes:

⁶ Richard McMahon, Executive Director-Alliance of Energy Suppliers, Edison Electric Institute, in “Building for the Long Run,” *Platt’s Insight*, April 2007.

“Clearly, electricity is an indispensable commodity that is crucial to our daily lives and to our nation’s continued economic growth. And the costs needed to reinforce the nation’s electric power system are worthy long-term investments. The bottom line is that we are living in a rising cost environment, and electricity prices have been a great deal for many years. Even with expected rate increases, electricity prices are projected to remain below the rate trends of other goods and services. In fact, the national average price for electricity today is significantly less than what it was in 1980, adjusted for inflation.

Of course that is small comfort to customers who will be opening costlier electric bills in the coming months. And no one — utility, regulator, or customer — is eager to see electricity prices increase. The unavoidable reality, however, is that we all must address the fact that in order to ensure that electricity remains affordable and reliable, we must help shoulder the expense of reinforcing and upgrading our electricity infrastructure. It is the only way to be certain that electricity will be there when we need it, and at a price we can afford over the long term”⁷

Railroads wholeheartedly agree with the sentiment expressed in this statement. It is critical to our nation’s economy and standard of living that we upgrade and reinforce our electricity infrastructure.

We also think that EEI’s statement above is just as valid, if not more so, if the word “electricity” were changed to “freight railroading.” Looking ahead, the United States cannot prosper in an increasingly competitive global marketplace if our freight railroads are unable to meet our growing transportation needs, and increasing railroad capacity is critical in meeting these needs. Like utilities, railroads must be able to both maintain their extensive existing infrastructure and equipment and build substantial new capacity. Railroads could not do this if their earnings were unreasonably restricted, any more than utilities could.

Railroads think the Congressional Budget Office (CBO) summarized the situation appropriately when it recently noted, “As demand increases, the railroads’ ability to generate

⁷ EEI, *Rising Electricity Costs: A Challenge For Consumers, Regulators, And Utilities*, May 2006.

profits from which to finance new investments will be critical. Profits are key to increasing capacity because they provide both the incentives and the means to make new investments.”⁸

Profits, of course, come from the rates that shippers pay. The AAR has no role in railroad rate-setting, but it is true that some rail rates have increased recently. The post-Staggers steady decline in average rail rates has saved rail shippers (and, ultimately, all of us) hundreds of billions of dollars compared to what shippers would have paid had rail rates not declined. But while the vast majority of rail rates continue to be set by market forces in a competitive transportation marketplace, rate increases would help ensure that railroads have the wherewithal to meet future transportation and investment needs.

In years past some rail customers (including some coal customers) entered into long-term contracts with railroads. As those contracts expire, they are typically re-priced to reflect current market conditions. The result might be a higher rate than the shipper previously paid. This situation is analogous to electricity providers who were subject to price caps or freezes in numerous states that moved to retail electricity competition. As the EEI points out, “Now those caps are expiring in many states, during a time of significantly higher costs for utilities and generators across the board.” EEI notes that, “The result is that many customers now perceive that their rates are being ‘increased,’ when in fact they are gradually reflecting the costs already incurred by utilities.”⁹

Recent Railroad Financial Results Are a Positive Development

Without question, 2005 and 2006 were good years for railroads financially — revenue and net income were both up substantially. Frankly, railroads need more years like them

⁸ Congressional Budget Office, *Freight Rail Transportation: Long-Term Issues* (January 2006), p. 11.

⁹ EEI, *Rising Electricity Costs: A Challenge For Consumers, Regulators, and Utilities*, May 2006, pp. 12-13.

going forward. Again, improved rail earnings are a welcome development because they mean that railroads are better able to justify and afford the massive investments in new capacity and upkeep of their existing systems that need to be made.

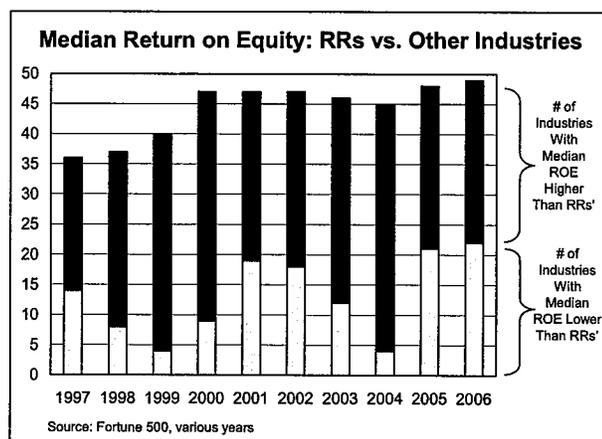
That said, no one should be confused regarding railroads' *relative* profitability. Even in 2006, when railroads hauled more freight than ever before and enjoyed "record" income, their earnings were still substandard compared to most other industries. In 2006, the median return on equity (ROE) for firms in the Fortune 500 was 15.4 percent. For the four major railroads in the Fortune 500, it was 15.0 percent.

In other words, the best financial performance in decades for railroads was no better than ordinary when compared to other industries. Thus, it is not reasonable to claim that railroads are earning excessive returns.

Industry	ROE %
Oil & Gas Equip., Services	31.8%
Petroleum Refining	30.7%
Pharmaceuticals	24.2%
Mining, Crude-Oil Prod.	21.8%
Aerospace and Defense	21.5%
Chemicals	20.9%
Beverages	18.0%
Fortune 500 Median	15.4%
Food & Drug Stores	15.4%
Railroads	15.0%
Energy	14.9%
Food & Grocery Wholesalers	14.8%
Motor Vehicles & Parts	12.6%
Utilities: Gas & Electric	10.6%
Packaging, Containers	9.6%
Telecommunications	6.4%

Source: *Fortune* (April 30, 2007)

Rail earnings have been substandard compared to other industries, including major rail customer industries, for a long time. In each of the past 20 years, for example, the median ROE for Class I railroads has been less than the median for all Fortune 500 companies. In most of those years, the median railroad ROE was in the lowest quartile among Fortune 500 industries.



Whatever may be the minimum level of earnings, profitability, or solvency considered adequate by financial analysts to declare a railroad “healthy” for short-term investment purposes, the primary question vis-à-vis those who want to impose earnings restrictions on railroads is whether a railroad’s long-term profitability has reached the point at which regulatory or legislative reactions should be contemplated. Short-term improvements in earnings, short-term attainment of adequate revenues, accumulations of cash reserves, dividend pay-outs, and other similar measures do not signal that the necessary level of long-term earnings on rail operations has been achieved. Only a return on investment exceeding the cost of capital over a *sustained* period can begin to indicate a sustainable financial environment.

Reregulation is Not the Answer to Railroad Capacity and Service Issues

As the Board is well aware, self-interested advocacy groups, including some coal shippers and some associated with ethanol, have proposed amendments to the Staggers Act, or changes to the regulatory regime it spawned, that would fundamentally alter the landscape in which railroads operate. These changes would grievously harm our nation’s transportation system and deviate sharply from Congress’s intent in passing Staggers. In the end, coal and ethanol shippers would suffer.

Most recently, some rail critics, including some coal consumers and their representatives, have wrongly seized upon railroads’ “record profits” and the coal delivery problems mentioned earlier to support their claims that the government should take a far more active role in railroad operations, both in terms of setting rates and in terms of mandating service parameters. Their proposals are bad public policy and should be rejected.

It is beyond the scope of this submission to discuss in great detail the many ways in which railroad reregulation is misguided, or the provisions of legislation that would reregulate railroads. Reregulation, however, would take railroads *away* from the financial sustainability they need. It would force railroads, through what amounts to price controls, to lower their rates to favored shippers at the expense of other shippers, rail employees, and the public at large. Rail earnings would plummet, so rail spending on infrastructure and equipment would too. The industry's physical plant would deteriorate; essential new capacity would not be added; and rail service would become slower, less responsive, and less reliable.

There would also be severe social costs. Highway gridlock, fuel consumption, and greenhouse gas and other emissions would rise as freight that otherwise would move by rail moved on the highways instead.

The primary objective of those who call for rail reregulation is lower rail rates, even though, as noted above, railroads are not earning excessive (or even adequate) profits. Lower rail rates would translate directly into lower rail earnings. But proponents of reregulation ignore the fact that needed investments, like most private investment decisions in our economy, are driven by expected returns. The hundreds of billions of dollars invested in U.S. freight railroads since Staggers would not have been provided if not for the investors' expectation of an opportunity for a competitive return.

That's why, under reregulation, rail managers could not commit, and rail stockholders would not supply, investment capital under the conditions needed to improve service and expand capacity, because the railroads considering such investments would not have a reasonable opportunity to capture the benefits of those investments. Disaster might not occur overnight, but there would be little or no capacity expansion — something that certainly

would have a near-term and significant negative effect on coal, ethanol, and all other rail shippers.

The financial community, on whom railroads depend for access to the capital they need to operate and expand, has consistently supported the view that, under reregulation, an era of capital starvation and disinvestment would return. They understand that no law or regulation can force investors to provide resources to an industry whose returns are lower than the investors can obtain in other markets with comparable risk.

Again, coal users in the electric power industry know this to be true, even if they maintain that railroads are somehow different from other industries in this regard.

For example, the National Rural Electric Cooperative Association has noted that it “believes that the best way to attract capital to transmission at reasonable rates is to give investors greater certainty that they will receive a return on their investment.”¹⁰ The rail industry can think of no better way to create *uncertainty* for their own capital providers “that they will receive a return on their investment” than legislation that would reregulate railroads.

A railroad must balance the desires of each customer to pay the lowest possible rate with the requirement that the overall network earn enough to pay for all the things needed to keep it functioning now and into the future. Simply put, no amount of rhetoric about “competition” or “fairness” or “captivity” can change the fact that if a railroad cannot cover its costs, it cannot maintain or expand its infrastructure and provide the services upon which its customers and our nation depend. Self-serving pleas to reregulate railroads must be considered within this context.

¹⁰ Comments of the National Rural Electric Cooperative Association Proposed Rulemaking Promoting Transmission Investment Through Pricing Reform,” FERC Docket No. RM06-4-000, January 11, 2006, p. 17.

Indeed, when one looks behind what proponents of reregulation are urging upon Congress and the Board to be “fair” and “balance” shippers’ needs with the railroads’ needs, it is clear that “fairness” and “balancing” are euphemisms for “subsidizing,” and that the needs of the railroads and the general public are nowhere to be seen.

Many of those who support rail reregulation wrongly claim that their proposals are consistent with the spirit of the Staggers Act. As a point of fact, proposed changes to the current railroad regulatory regime are based on a fundamental misrepresentation of what the Staggers Act was all about.

First, nothing in the Staggers Act was meant to imply that the only competitive force that matters is rail-to-rail competition, that service to a shipper by a single railroad is equivalent to monopoly power, or that all rail shippers therefore have a right to service by more than one railroad. Rather, Staggers was premised on the understanding that the market — not regulatory or legislative fiat — would determine which markets have sufficient demand to sustain multiple railroads and which do not. Staggers encourages the creation of additional competition through private investment and initiative, but it does not seek to artificially manufacture additional competition through governmental intervention. The overwhelming number of rail customer facilities (including coal fired power plants and most ethanol plants) are, and always have been, served by only one railroad, because the economics never justified service by more than one railroad. Proposals to mandate two-railroad service are an attempt by shippers to obtain from the government that which the market will not give them.

Second, Staggers did not bestow on railroads a special public service obligation, verging on the governmental, to subsidize other businesses, compensate for regional

disadvantages or characteristics, or serve as the instrument for advancing local, regional, or national objectives at the railroads' expense.

Third, Staggers was not meant to force a railroad to price one shipper's movements at the same rate as another shipper's movements, or to cap rates at some percentage of variable costs. Instead, Staggers explicitly recognized differential pricing as essential for railroads. Only by pricing in accordance with the varying demands for rail service (with reasonable regulatory protections against unreasonable rates) can railroads efficiently recover all of their costs, serve the largest number of customers, and maintain the viability of the rail system. Rail prices based only on costs devastated the rail industry prior to 1980, discouraging efficiency gains and preventing railroads from investing adequately in privately-owned rail "highways."

Of course, shippers are not always thrilled with the prices they are able to negotiate with railroads for transportation services — any more than a utility is always happy about the price it is able to negotiate with a mine for coal, or an ethanol plant is able to negotiate with a natural gas supplier for power to the plant. Virtually every purchaser of goods or services, including railroads, would like to get a better deal than they have from their suppliers. But there is no question that, since Staggers, the vast majority of railroad rates are market-based and driven by competition — just as Staggers intended.

Fourth, Staggers was not meant to be a vehicle through which one railroad could be forced to make its facilities available for use by another railroad, particularly at non-compensatory government-set prices that do not provide for the sustainability of a national rail infrastructure. Unless a railroad is found to have engaged in anti-competitive conduct, it should be able to determine for itself how to utilize its assets.

Fifth, Staggers was not intended to prevent railroads from engaging in practices that improve efficiency, or from offering incentives to shippers that make efficiency improvements themselves. Thus, for example, railroads typically offer shippers incentives (in the form of lower rates) to move their product in larger, more cost-effective shipments like unit trains. The lower rates, which reflect railroads' cost savings, result in more efficient movements and increased competitiveness in the marketplace. Under this system, the market — not railroads — decides whether investments in facilities designed to handle more efficient shipments are appropriate.

Sixth, nothing in the Staggers Act supports efforts to cast aside the fundamental tenet of the economics of competition that says that where competition exists, there should be no regulatory intervention. Because the vast majority of rail freight movements are subject to a wide array of competitive forces — including geographic competition, product competition, competition from trucks and barges, countervailing shipper power, plant siting, long-term contracts, and technological or structural changes — the vast majority of rail movements should likewise be free of governmental oversight.

Finally, Congress, through Staggers, has provided (and the Interstate Commerce Commission and the Board have implemented) remedies to protect shippers from abuse of market power or anti-competitive behavior. But Staggers was not designed to allow those unhappy with either the rates they are charged or Board decisions in rate cases to simply abandon the use of sound economic principles as a basis for rate decisions, or to ignore the fundamental principle that railroads need to earn sustainable revenues.

The bottom line remains: in order to expand infrastructure and service, railroads must — like every other business in a free market economy — obtain from their customers the resources they need to support the growth their customers want and need.

Conclusion

U.S. freight railroads do a remarkable job in meeting the needs of an extremely diverse set of shippers. Railroads move hundreds of thousands of railcars and tens of millions of tons to and from thousands of origins and destinations every day. No commodity accounts for more carloads and tons than coal, and railroads are moving more and more ethanol every day. The vast majority of these shipments arrive in a timely manner, in good condition, and at rates that shippers elsewhere in the world would love to have.

Railroads work extremely hard to keep their coal and ethanol service as responsive and productive as possible. They meet regularly with consumers and producers to help ensure that rail service conforms to customer needs. They invest billions of dollars each year in infrastructure and equipment. These investments, along with technological improvements that enable them to use their assets more productively, have allowed railroads to increase their capacity and capability as coal and ethanol demand have climbed.

Still, it is clear that the rail transportation of coal and ethanol, and the entire coal and ethanol logistical chains, can be improved. Railroads are eager to work constructively with suppliers and consumers to find reasonable ways to achieve this goal.