TESTIMONY OF DAVID WILKS
XCEL ENERGY
ON BEHALF OF THE EDISON ELECTRIC INSTITUTE
AND
CONSUMERS UNITED FOR RAIL EQUITY

BEFORE THE COMMITTEE ON ENERGY AND NATURAL RESOURCES
U.S. SENATE

HEARING ON
COAL-BASED GENERATION RELIABILITY

MAY 25, 2006

Mr. Chairman and Members of the Committee:

My name is David M. Wilks, and I am President of Energy Supply for Xcel Energy. Xcel Energy is a major electric and natural gas company, with annual revenues of $10 billion. Based in Minneapolis, Minnesota, Xcel Energy operates in ten Western and Midwestern states. The company provides a comprehensive portfolio of energy – related products and services to 3.3 million electricity customers and 1.8 million natural gas customers, all of whom are directly affected by the important issues being raised in this hearing. I appreciate the opportunity to testify today on coal-based generation reliability issues, especially those related to rail deliveries of coal.

I am testifying today on behalf of the Edison Electric Institute (EEI). EEI is the association of U.S. shareholder-owned electric utilities and industry affiliates and associates worldwide. Richard Kelly, Chief Executive Officer of Xcel Energy, chairs an EEI CEO Task Force on Rail Issues, which provides leadership and guidance to the association on rail policy matters.

I am also appearing before you today on behalf of Consumers United for Rail Equity (CURE), a multi-industry coalition of captive rail customers focused on federal policies to help achieve reliable customer service at reasonable rates in the freight rail industry through effective competition and other means. CURE members include major electric utility associations such as EEI, the American Public Power Association (APPA) and the National Rural Electric Cooperative Association (NRECA), in addition to individual shareholder-owned, cooperative and government-owned utilities with coal-based generation. The coalition also includes representatives of a broad array of other vital industries, including chemical manufacturers and processors; paper, pulp and forest products; agricultural commodities producers and processors; cement and building materials suppliers; and many more. All of these industries are also concerned about the price and reliability of rail service.

The Importance of Coal-Based Generation and Reliable Coal Transportation

The United States has been called "the Saudi Arabia of coal." The U.S. has about twenty five percent of the world's total coal reserves, with domestic coal resources sufficient to meet our energy needs for more than 250 years. Coal continues to be a critically important fuel for electricity generation, especially baseload plants important to maintaining adequate electricity supply. Developing clean coal technologies and maintaining coal's ability to compete on costs are two key drivers to the future use of coal. It is also critical that electric utilities be able to depend on reliable, affordable coal deliveries in order to meet their own legal obligation to provide reliable electric service. Thus, reliable rail coal movement to utility plants is an integral part of the broader issues associated with electric reliability.

Coal and electricity are inextricably linked to the economic health of the nation. Coal is the fuel for more than half of our country's electric generation, and electric generation drives economic growth. Coal is an affordable and abundant domestic fuel with substantial national security benefits that, with today's technology, is burned more cleanly and efficiently than ever. Thanks to the Energy Policy Act of 2005, which this committee helped to craft, we expect to see even greater development and deployment of clean coal technology in the coming years. Electric demand, coal-fired generation and GDP growth are all projected to grow at a steady pace to 2025 and beyond.

Because of its bulk nature, coal generally is transported from mines to power plants by rail (or sometimes by rail and water) – which is the only feasible and economic means of delivering the fuel. Mine-mouth power plants could potentially avoid the need to transport some coal, but they usually require the construction of long-distance electricity transmission lines to deliver electricity to customers. Siting and constructing new electricity transmission lines, as Senators on this committee are well aware, present their own set of challenges.

Today, most coal moves in unit trains between the mines and the power plants. These trains typically consist of 100-130 cars owned or provided by the utility, with 100-120+ tons of coal per car, which shuttle continuously from the coal mine to the power plant without ever being uncoupled. Until recently, this coal transportation service has been contracted between the railroad and the power company, although the two coal hauling western carriers have each implemented new non-competitive public pricing programs that they are seeking to impose on all new coal business. Often, particularly in

the West, the utility owns or leases the coal cars used; the railroad provides the track, the engine, the crews and the fuel.

Xcel Energy generates 78.6 GWhs of electricity annually. Of that, 72 percent is derived from coal-fired generation, and 100 percent of such coal-fired generation is supplied by rail. Without the energy that these coal-fired plants produce, Xcel would be unable to meet its obligation to provide reliable energy to its customers.

With the development of competitive wholesale electricity markets, and often at the urging—and with the approval—of state regulatory commissions which oversee utility rates, electric utilities have sought to reduce their costs and conserve capital by more efficiently managing their coal stockpiles at leaner, but responsible levels. Thus, over recent years, the industry norm for coal piles has been reduced from 60-day supplies of coal on site to 30 days of coal on site, in order to reduce the cost of maintaining large fuel inventories. A critical component of prudent inventory management is maintaining an efficient and reliable coal supply chain, including the railroads. Most utilities, like Xcel, work extensively with their coal suppliers and rail providers to keep them informed of their plant requirements on an annual and monthly basis, and utilities usually communicate with their rail service providers daily about individual plant requirements.

Recent Coal Delivery Challenges

Unfortunately, it has become increasingly difficult to maintain adequate coal stockpiles, especially over the last couple of years. Regulated electric utilities like Xcel Energy have a strict legal "obligation to serve" their customers. So do railroads, who have a common carrier obligation under 49 U.S.C. Section 11101(a) to "provide transportation or service on reasonable request" with regard to coal and other

commodities. Unfortunately, by most accounts, the railroads in recent years have been failing to provide reliable and timely service in transporting coal to utility power plants. Because of recent rail delays and other rail service problems, many utilities have been forced to reduce outputs from coal-fired generating plants—requiring greater reliance on natural gas-fired generation—and some have even resorted to importing coal from overseas sources as far away as Indonesia, in order to meet the demand for electricity.

Like most utilities in the West and Midwest, Xcel receives most of its coal by rail from the Powder River Basin (PRB) coal seam of Wyoming and Montana. The PRB is the most significant coal producing region in the United States, with approximately 40 percent of all U.S. coal production mined there. PRB coal has been particularly attractive to electric utilities because of its relatively lower price and low sulfur content.

Coal companies, railroads, and utilities have cooperated closely in the past to ensure that adequate supplies of coal are delivered from the PRB and other coal mining regions, and normally this would be our preferred approach to solving transportation problems. However, utilities have seen a marked deterioration in rail service in recent years, particularly for coal deliveries from the PRB. Our discussions about this problem with our rail providers have been unsatisfactory so far, and we continue to receive insufficient coal to meet our demands, let alone replenish depleted stockpiles.

Two railroads, the Burlington Northern Santa Fe (BNSF) and the Union Pacific (UP), move all of the coal out of the PRB, much of it over a Joint Line they operate together. In the spring of 2005, two derailments occurred on the Joint Line, significantly reducing rail deliveries of coal by 15 to 20 percent. While significant repairs have been underway for months and are scheduled to be completed by the end of the year, train

speeds remain reduced to avoid further derailments. Delivery levels have not yet recovered, and some utility coal stockpiles remain significantly lower than desired levels. In the case of Xcel, we have several plants that are struggling to maintain even 10 days of coal on the ground. At a minimum, the situation appears to bring into serious question whether the carriers are meeting their common carrier obligation to provide service to the public.

The shortfall in rail coal deliveries has had many far-reaching consequences. Over the past year, numerous utilities were forced to invoke coal conservation programs under which they burned natural gas to replace coal-fired generation or purchased additional power—much of it from gas-fired plants—in the wholesale market, often at dramatically higher prices than the cost of their own coal-fired resources. Xcel alone has incurred tens of millions of dollars in additional power costs due to coal conservation programs at our plants. Forcing utilities to take coal-fired plants off-line or reduce electric generation output to conserve coal stockpiles presents a situation of enormous potential consequence—especially given the amount of time the service lapses have been continuing. The significant additional costs resulting from rail service failures have put additional upward pressure on consumers' electricity rates.

In order to replace an estimated 20 million ton shortfall in PRB coal deliveries in 2006, electric generators may be forced to use approximately 340 billion cubic feet of natural gas, costing at least $2 billion more than the coal that will not be delivered this year. The additional use of natural gas to generate electricity in place of coal comes at a particularly inopportune time, as the price of natural gas across the country remains at near record levels, causing additional pain not just for electricity consumers but also

those using natural gas as a feedstock for manufacturing products or as a home heating fuel. Restriction in the supply of PRB coal also has likely contributed to a doubling of the coal spot market price, increasing those prices from roughly $7 per ton to more than $14 per ton in 2005.

In some cases, the situation has become so bad that utilities have found it necessary to sue the railroads for damages resulting from delivery shortfalls. For instance, Entergy Arkansas is involved in litigation against the Union Pacific over the failure of the rail carrier to meet its coal delivery obligations last year. The utility had to cut back production from two coal-fired plants, forcing it to increase its power purchases in the wholesale market. Also, Entergy is one of a handful of utilities that have taken the extraordinary step of importing foreign coal—in this case from Colombia—due to the inability of the railroads to move adequate amounts of domestic coal in a timely manner.

Some EEI member companies report they have been able to restore their coal stockpiles close to desired levels in recent weeks during scheduled maintenance outages at their coal plants. As the Senators on this committee know, many generating plants are normally taken off line in the spring for maintenance prior to the summer air conditioning season. However, coal-dependent utilities remain concerned about the potential for a recurrence of problems if faced with a particularly hot summer, new delays on PRB rail lines, or other unforeseen circumstances that could suddenly trigger new pressures on coal stockpiles.

It is important to note that the North American Electric Reliability Council (NERC) is taking very seriously the potential impact that coal delivery problems could

have on electric reliability. According to NERC's *2006 Summer Assessment*, released this month:

> PRB deliveries are increasing, but not enough to restore coal inventories to pre-curtailment levels. Coal delivery limitations do not appear to present a reliability problem for this summer. However, some utilities will need to purchase electricity or use alternate fuels to conserve their coal supplies to ensure that the coal generating units will be available at peak. If coal delivery problems worsen, the ability of some entities to continue to meet electricity demand might be reduced.[1]

As a result of these concerns, NERC has placed the PRB issue on its "Watch List" and will continue to monitor developments, both for the coming summer and for the longer term.

EEI, APPA and NRECA expressed similar reliability-related concerns in a May 1, 2006, letter to the Federal Energy Regulatory Commission (FERC). A copy of that letter is attached. The Electric Power Supply Association (EPSA) sent a similar letter to FERC. Later, the Association of American Railroads (AAR) sent its own letter expressing an interest in participating in a FERC inquiry into these issues. FERC's Office of Enforcement only last week reported that: "Railroad disruptions and strong coal demand for generation in the face of high natural gas prices have driven lower stockpile levels for the past few years."[2] We look forward to working with FERC and interested stakeholders as the Commission further examines this issue.

Individual states are also taking note of coal shipping problems, prompting concerns about coal stockpiles. For instance, the Public Service Commission of Wisconsin announced in March 2006 plans to investigate the impacts of increasing rail

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[1] *2006 Summer Assessment: Reliability of the Bulk Power System in North America*, North American Electric Reliability Council, May 2006, pages 5-6.
[2] *Summer Energy Market Assessment 2006*, Office of Enforcement, Federal Energy Regulatory Commission, May 18, 2006, slide 22.

coal shipping rates and reliability problems on electricity generation and costs in that state. In its announcement, the PSCW estimated that Wisconsin utilities incurred nearly $50 million in costs from higher-priced natural gas-fired generation as part of coal conservation programs invoked due to reduced shipments of PRB coal. Arkansas is another state where these issues have come under scrutiny by the state utility regulatory commission.

Reliable rail service from the Powder River Basin obviously is a critical necessity, particularly as the nation increases its use of PRB coal. According to data from Global Energy Decisions, 14,330 MW of additional coal-fired capacity utilizing non-mine mouth PRB coal is expected to be brought online in the U.S. between now and 2010, with an additional 2650 MW of capacity currently scheduled to come online by 2013. Much of this new capacity will be owned by TXU, which only last month announced plans to build 6,400 MW of new coal-fired generation in Texas by 2009, all of it projected to rely on PRB coal as a primary fuel. Other states where this new capacity will be added include Arizona, Iowa, Nevada, Wisconsin, Missouri, Colorado, Louisiana, Arkansas, Oklahoma, South Dakota, and Kansas.

One obvious answer to the problem of moving coal out of the PRB is additional rail capacity out of the PRB. The two incumbent railroads have announced plans to expand capacity along their existing lines, which should help. But in the long term, that will not be enough.

Another rail route out of the PRB, preferably using its own new line rather than burdening the current Joint Line, is needed in order to provide additional capacity, redundancy in the event of future catastrophic failures like those which occurred last

spring, and price competition. EEI supports the Dakota, Minnesota & Eastern (DM&E) railroad's plans to build such a line, including its application for loan assistance from the Federal Railroad Administration under the Railroad Rehabilitation and Improvement Financing (RRIF) program. Our expectation is that the DM&E will be operated in a pro-competitive manner, especially if it receives federal assistance.

Additional Coal Delivery Challenges

Rail delivery challenges are not only the result of capacity limitations or train delays coming from the PRB. Since passage of the Staggers Rail Act in 1980, the number of major railroads has dwindled from over forty to seven, with four of the major railroads moving over 90 percent of the nation's rail traffic. This massive consolidation has resulted in many coal shippers becoming "captive" to a single railroad. While there are two railroads that can pick up coal in the PRB, generally only one railroad or a short line railroad under its control can deliver the coal to the electric generating facility. Due to lack of competition at the delivery end of the coal movement, these movements generally become "captive" to a single railroad for the entire length of the movement from the PRB to the generator.

Under the Staggers Act, the Interstate Commerce Commission (now the Surface Transportation Board, or STB) was charged with ensuring that the railroads do not abuse their monopoly power over individual rail customers and individual rail movements. However, the STB has been largely ineffective in protecting captive rail customer interests. The result is that captive rail customers for years have been forced to pay higher rates, while receiving lower quality service. Our industry literally is paying more—often much more—for railroad transportation and getting less.

What Congress Can Do to Address Coal Delivery Problems

There are several steps that Congress can take to help improve rail service for coal-dependent electric utilities and other captive rail customers who ship critical freight products such as chemicals, forest and paper products, and agricultural goods.

First, Congress should continue to exercise appropriate oversight over the operation and regulation of the railroads, especially with regard to critical infrastructure and economic issues like electric reliability. This committee should be commended for responsibly exercising its oversight authority in a manner that compliments FERC's examination of these issues in response to letters from the electric utility industry referenced earlier in this testimony.

Congress should clarify that the railroads have an obligation to serve and that the STB has both the authority and the responsibility to enforce this obligation. Congress could direct the STB to develop and enforce mandatory reliability standards for the railroads. EPAct 2005 imposes a similar requirement on the electric utility industry, which we fully and enthusiastically support. The concept of reliability standards for the nation's railroads was endorsed in a resolution approved by the National Association of Regulatory Utility Commissioners (NARUC) at its Winter 2006 meeting. A copy of the NARUC resolution is attached.

Congress should enact the comprehensive STB reforms contained in S. 919, introduced by Senator Burns and cosponsored by Senators Thomas, Craig, Dorgan and Johnson of this committee, among others. The bill furthers the deregulatory goals of the Staggers Act by providing access to rail competition for more rail customers. The bill also requires the STB to revisit its failed process for protecting rail customers from

monopoly rates and directs the STB to develop actual cost-based rates. Under current law, the STB keeps revising how it applies its "stand-alone cost" test, making it more difficult for a rate to be successfully challenged. EEI is participating in a legal action that seeks to correct this particular problem, but overall reform is needed going forward.

In addition, while the railroads were largely deregulated by Congress in 1980, the railroads also remain largely exempt from federal antitrust laws. These exemptions were granted by Congress when the railroads were tightly regulated. Given the concentration in the industry and the lack of effective restraint of railroad monopoly power by the STB, the railroad antitrust exemptions are no longer justified. Congress should remove all of the railroad industry's exemptions from antitrust law. Legislation already has been introduced in the House to achieve this goal, and we would support similar legislation if introduced in the Senate.

Finally, the railroads reportedly are seeking legislation to provide them with a 25 percent tax credit (ITC) for investments in railroad infrastructure. As indicated by today's hearing, some incentives for infrastructure investment may be warranted, but only as part of a comprehensive solution to rail delivery problems. Consideration of a railroad tax credit could give Congress, for the first time in decades, an opportunity to address both the concerns of the major railroads and the legitimate concerns of rail customers in a manner that will result in a strengthened national rail system. To be effective, any railroad ITC must be focused and must be coupled with provisions that address the concerns of rail customers, including coal-dependent electric utilities. We can provide you with more specific proposals, which we would be happy to discuss with you.

While the nation's railroads do not fall directly within the jurisdiction of the Energy and Natural Resources Committee, the reliability issues as well as the impacts on natural gas supply raised in this hearing and other aspects of this debate clearly suggest that this Committee should be concerned about the reliability and cost of rail coal movements.

Conclusion

More than ever before, electric utilities that supply significant amounts of coal-fired generation depend heavily on the railroads for reliable and affordable long-distance shipments of coal. In the wake of recent coal delivery challenges, utilities will need to work even more closely with the railroads to ensure that an effective coal supply chain is maintained. Every day, Xcel Energy and other electric utilities must meet a strict obligation to serve our customers. Congress can help make the railroads more responsive to their customers, as well, through needed oversight and legislative reforms.

Thank you again to this Committee for allowing me the opportunity to testify today on this critical national issue.

Attachments:

1. EEI-APPA-NRECA joint letter to FERC (May 1, 2006)
2. NARUC resolution on rail rates and service quality (February 2006)

May 1, 2006

Hon. Joseph Kelliher
Chairman
FERC
888 First Street, N.E
Suite 11-A
Washington, DC 20426

Hon. Nora Mead Brownell
Commissioner
FERC
888 First Street, NE
Washington, DC 20426

Hon. Suedeen G. Kelly
Commissioner
FERC
888 First Street, NE
Washington, DC 20426

Dear Chairman Kelliher, Commissioner Brownell and Commissioner Kelly:

We are writing to call to your attention, and seek your help in addressing, a problem that we believe poses a serious challenge to the overall reliability of the interstate power grid in regions of the country heavily dependent on coal-fired generation.

Each of us has received reports from our respective members with coal-fired generation regarding significant, sustained railroad coal-delivery problems. Specifically, for some coal-fired generators, rail coal delivery has not been keeping pace with coal use. Some existing on-site coal stockpiles are seriously depleted. Moreover, the problems have existed for a long time, with little, if any, improvement. We are concerned about the cost and reliability risks of operating under this reduced coal-delivery situation. A minor railroad mishap or equipment failure at a coal mine—events that would not cause any disruption in power generation when stockpiles are more robust—could have serious consequences today.

The reduced deliveries of coal are already pushing some coal-fired generators to the point of curtailing generation. The cost consequences of curtailments are obvious. If generation is curtailed, the owners of these power plants will be forced into the market in order to meet customer demand. Power purchased in the wholesale market may be more expensive than power from these coal-fired plants, pushing up rates for consumers; and power from the wholesale market is likely to be generated, at least in part, from natural gas.

In addition to increased costs for consumers and added pressures on natural gas prices and availability, we also are concerned about the adverse effect that generation curtailments could have on grid reliability. Large, base-load coal-fired power plants help support the overall reliability of the electric grid; and it is, therefore, important that these plants remain on line. As you know, grid reliability is critically important to our industry and the nation's economy.

We would appreciate the opportunity to meet with you to discuss these important matters. In particular, we would like to discuss the possibility of FERC holding a public workshop to focus on these railroad coal-delivery challenges and the impact of continued coal-delivery disruptions on electric reliability.

On behalf of our associations and our members, we appreciate the Commission's consideration of this request, and we look forward to meeting with you soon to discuss further this significant concern.

Sincerely yours,

Alan H. Richardson
President & CEO
American Public Power Association

Glenn English
Chief Executive Officer
National Rural Electric Cooperative Association

Thomas R. Kuhn
President
Edison Electric Institute

EL-3 Resolution Urging Legal and Regulatory Reform to Improve Railroad Shipper Rates and Quality of Service

WHEREAS, The Staggers Rail Act of 1980 provided for the deregulation of competitive rail traffic and directed the Interstate Commerce Commission (now superseded by the Surface Transportation Board under the Department of Transportation) to continue to maintain reasonable rates where there is an absence of effective competition for rail traffic within the Board's jurisdiction; *and*

WHEREAS, Today, 25 years after passage of the Staggers Rail Act, over half of the electric energy in the United States is generated using coal, the majority of which is transported to electric utilities under non-competitive conditions, by no more than two railroad companies serving any coal region, which charge unjustifiably high monopoly prices for unreliable service, even though they are presumably subject to regulatory supervision by the Surface Transportation Board; *and*

WHEREAS, This body, the National Association of Regulatory Utility Commissioners (NARUC), passed a resolution in March of 1984, almost 22 years ago, voicing similar concerns about the lack of appropriate regulatory standards and alternatively the lack of competitive market conditions within the rail industry; *and*

WHEREAS, Today, 20 years after the last NARUC resolution on this issue, the railroad industry has consolidated to such a great extent that there are only 4 Class I railroads providing over 90% of the nation's rail transportation; *and*

WHEREAS, Today, in 2006, the nation is experiencing record high prices for natural gas, which has dramatically increased the cost of both natural gas and electricity service to the millions of business and residential customers in this country; *and*

WHEREAS, The cost of producing electricity with a gas-fired plant is several times higher than the cost of producing electricity with a coal-fired plant; *and*

WHEREAS, This economic statistic means that existing coal-fired electric generation should be used as much as possible in lieu of gas-fired generation in order to produce electricity more economically and to avoid upward pressure on natural gas prices; *and*

WHEREAS, Coal plants in the United States are dependent on reliable rail delivery and sufficient capacity to carry coal supplies coming out of the Powder River Basin in Montana and Wyoming, the Illinois Basin and the Appalachian region, yet only two railroad companies are available to ship coal out of any of these regions; *and*

WHEREAS, The 4 Class I railroads have had significant reliability and capacity problems and have reduced their coal deliveries to firm contract customers in numerous States by 10 - 25%, thereby dramatically reducing the amount of coal inventory available for current and future electricity production; *and*

WHEREAS, These reduced coal shipments have resulted in a substantially diminished ability of many electric utilities to rely on lower-cost electricity production from their existing coal plants, thereby necessitating the substitution of much higher priced gas-fired production or market purchases of gas-fired generation to make up the difference; *and*

WHEREAS, These higher costs of substitute gas-fired electricity have resulted in significant rate increases to customers of rural electric cooperatives, public power authorities, and investor-owned utilities all across the country, totaling billions of dollars, and have placed upwards pressure on natural gas market prices; *and*

WHEREAS, These billions of dollars in higher energy bills have contributed to a higher manufactured product cost for many industries, lower net business earnings, less disposable household income, and diminished economic productivity across the country; *and*

WHEREAS, This problem could be alleviated through legislative and regulatory reform at the federal level that would ensure more reliable rail service, more railroad capacity, more rail carrier options for shippers, and more equitable rates for affected rail shippers; *now therefore be it*

RESOLVED, That the Board of Directors of the National Association of Regulatory Utility Commissioners (NARUC), convened in its February 2006 Winter Meetings in Washington, D.C., urges Congress to immediately address and resolve these issues by enacting legislation which would empower the Surface Transportation Board to develop and enforce quality of service standards and implement a more equitable rate-setting process, and to interpret the existing deregulation law to promote competition as well as to ensure reasonable rates in a competitive market, and to also remove the railroad industry's exemption from the federal antitrust laws; *and be it further*

RESOLVED, That NARUC urges the development of specific federal legislation that would create mandatory reliability standards for the nation's railroad system, enforced by the Surface Transportation Board, along with rate reform to ensure just and reasonable rates, particularly in the absence of true competition, since this nation is no less dependent on a reliable and reasonably-priced rail system than we are on a reliable and reasonably-priced electric transmission system; *and be it further*

RESOLVED, That NARUC calls upon the members of the Surface Transportation Board to exercise their existing regulatory authority to protect rail customers and consumers in this country, and to support Congressional efforts to pass the additional legislation necessary to ensure reliable rail service at just and reasonable rates, and enhance additional competition within the rail industry.

Sponsored by the Committee on Electricity
Adopted by the NARUC Board of Directors February , 2006