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**BEFORE THE  
SURFACE TRANSPORTATION BOARD  
Washington, DC 20423**

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In the Matter of: )  
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RAIL CAPACITY AND INFRASTRUCTURE )  
REQUIREMENTS )  
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STB Ex Parte No. 671

**SUPPLEMENTAL COMMENTS OF  
ARKANSAS ELECTRIC COOPERATIVE CORPORATION**

**I. INTRODUCTION**

Pursuant to the Board's decision dated April 16, 2007, this document contains the supplemental comments of Arkansas Electric Cooperative Corporation (AECC) regarding rail capacity and infrastructure requirements. AECC's interests in rail capacity and infrastructure issues were described in AECC's Written Submission dated April 4, 2007. AECC appreciates this opportunity to further contribute to the record in this proceeding.

**II. RAIL CAPACITY AND INFRASTRUCTURE ISSUES**

The information developed to date in this proceeding has helped to clarify the issues of concern to different stakeholders, to dispel misconceptions, to identify areas where stakeholders are largely in agreement, and to highlight inconsistencies that the Board should consider carefully in taking any specific position on capacity/infrastructure issues. Important conclusions that can be drawn include the following:

1. The infrastructure of Class I freight railroads has not been neglected, and is not in substandard physical condition. Obviously, many rail lines have been abandoned

since the Staggers Act; and many other low-density lines have been converted to shortlines, some of which still face serious infrastructure challenges.

Notwithstanding the concerns of ASCE and the maintenance practices on the commuter rail line described by Vice Chairman Buttrey, the infrastructure of the Class I freight railroads has benefited from massive investment and renewal since the Staggers Act.<sup>1</sup> While at one time it would have been accurate to characterize the freight railroads as physically decrepit, the Class I's and the AAR have demonstrated that this no longer is the case.

2. The current infrastructure is generally adequate for current volume conditions.

While some parties have noted decreases in railroad system velocities that have occurred since 2000, the Board should give no weight to the proposition that such decreases reflect the existence of significant capacity problems. As documented in extensive research conducted by the AAR (and made available to its member railroads), the fuel used in a given train movement tends to increase as a function of the velocity at which the train moves.<sup>2</sup> In response to the dramatic increase in fuel prices that has occurred since 2000, it is economically rational, all else being equal, for the railroads to decrease operating speeds somewhat to conserve on fuel use.<sup>3</sup> In the context of observed fuel price increases, some degree of reduced

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<sup>1</sup> The railroads, by their own claims, have " . spent more than \$370 billion...on capital expenditures and maintenance expenses related to infrastructure and equipment" between 1980 and 2006. See <http://www.aar.org/PubCommon/Documents/AboutTheIndustry/Overview.pdf> .

<sup>2</sup> This occurs due to aerodynamic resistance, which increases with the square of velocity. Further detail and references can be seen in Lai, Yung-Cheng and Christopher P. L. Barkan, Options for Improving the Energy Efficiency of Intermodal Freight Trains, *Transportation Research Record No. 1916*, Transportation Research Board of the National Academies (Washington, DC; 2005) at pages 47-55

<sup>3</sup> This would have the effect of substituting other resources (crew and locomotive time, etc.) to reduce the use of more-expensive fuel. This reflects the economic principle that " ..a firm will distribute its expenditure among inputs to equalize the marginal product per dollar of spending." See Samuelson, Paul A. and William D. Nordhaus, Economics (Eighteenth Edition), McGraw-Hill (New York; 2005) at page 145.

velocity should be expected, and does not indicate a capacity shortage. Indeed, at least as of 2006, the AAR reported that the major railroads were making the infrastructure investments needed to “keep pace” with projected volume growth.<sup>4</sup>

3. For the foreseeable future, volume growth and new infrastructure needs are likely to be driven primarily by intermodal traffic. Coal volume growth is projected to be relatively slow, steady and comparable to ongoing productivity improvements. Similarly, there is no indication that grain, chemicals or other carload traffic volumes will grow at abnormally high rates. The only type of traffic for which there is a consensus expectation of substantial volume growth is intermodal. This may include both international trade and domestic (truck-oriented) freight.
4. Uncertainties associated with future intermodal volumes may tend to inhibit some carrier investments in intermodal facilities, but reasonable investments are still being made. Future intermodal volumes are difficult to predict reliably because of the volatility of the factors that give rise to such flows. For example, high fuel prices currently provide a strong economic incentive for truck traffic to divert to intermodal, but that component of intermodal demand may come and go with future swings in fuel prices. Similarly, the size and geographic distribution of container traffic flows may change dramatically based on future changes in international trade patterns that are difficult or impossible to reliably predict. These considerations may introduce an irreducible element of risk for some potential intermodal infrastructure investments. However, testimony at the hearing showed the strong general commitment of the Class I's to provide needed

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<sup>4</sup> See [http://www.aar.org/ViewContent.asp?Content\\_ID=3581&gclid=CIT89puW2YsCFQkmZQodsy-FaO](http://www.aar.org/ViewContent.asp?Content_ID=3581&gclid=CIT89puW2YsCFQkmZQodsy-FaO).

intermodal infrastructure, complemented effectively by public/private partnerships, private investment in terminals, etc.

5. The railroad proposal to rely on replacement costs is riddled with inconsistencies and does not support changes in existing Board procedures. The railroads have advanced a somewhat ill-defined general proposition that the Board should place greater reliance on replacement costs and lesser reliance on historical costs. In part, this proposal is redundant, since the Stand-Alone Cost (SAC) test used to establish limits on differential pricing in major rate cases already relies on the current costs of needed infrastructure. Computationally, it would be impossibly burdensome for the Board to maintain reliable information regarding the replacement cost of every piece of rail infrastructure, and would require the Board to materially modify computation of the market rate of return.<sup>5</sup> Logically, it is inconsistent with the railroad practice of treating maintenance activities as infrastructure investments. While this practice causes consternation for some parties because of the way it inflates reported investments relative to actual capacity expansions, it reflects the reality that resources must be put into renewing worn assets if such assets are to be available for future traffic. As long as rail management retains an ability to liquidate, abandon, spin-off or defer maintenance on the infrastructure it has in place, there is no rationale for allowing a return predicated on an assumption that all assets will have to be replaced. Ultimately, the situations described by the railroads suggest that they may want to

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<sup>5</sup> The market rate of return established under current methodology implicitly incorporates the market's expectations regarding the effect of price inflation on the value of future returns. If the Board allows the railroads to compensate for price inflation by "writing up the rate base", it must eliminate the double-count that would exist if the inflation component were left in the rate of return.

reconsider the risk management strategies they employ when conducting rail operations on flammable bridges and/or in flood plains. They do not provide any type of credible basis for changes in Board practices.

6. Past PRB experiences should guide the Board's general expectations on infrastructure and capacity issues. While PRB coal is now well-recognized as one of largest single rail freight movements in the world, it has been in existence only for about the past 30 years. The creation and rapid expansion of the rail capacity used to serve this market provides important insights regarding several capacity issues. First, construction of the entire PRB Joint Line was funded through private investment based only on the expectation that the line would be needed to move traffic. The substantial initial investment was made despite the poor overall financial condition of the rail industry at the time. Subsequently, the Joint Line and related infrastructure has repeatedly been expanded to provide additional capacity, again on the basis of private investment. Second, the movement of PRB coal has become much more efficient as a result of several productivity improvements. For example, with trains up to 150-cars long made up of 286,000-lb. GWR aluminum cars, current PRB coal trains make much more efficient use of crews, locomotives, fuel, train slots, etc. than did their predecessors. Such improvements have increased the effective throughput capability of existing infrastructure. At the same time, they have reduced the number of required train movements and variable cost levels, contributing to a long-term downward trend in competitive rate levels even in the face of ongoing capacity expansion needs. The PRB experience demonstrates how, in the face of robust volume growth,

productivity improvements have been able to deliver the trifecta of improved capacity, improved service and lower rates cited as an ideal by NS witness Moorman. The Board's general expectation should be that productivity improvements – not rate increases - will play the central role in accommodating future volume growth that may occur.

7. The railroads' own testimony rebuts the proposition that higher rates will be needed to handle future volume increases. Several rail witnesses described how their primary strategy for improving capacity stems from making the most efficient possible use of existing assets "before any new iron is put in the ground". They specifically described ongoing initiatives involving Positive Train Control (PTC) and electronically-controlled pneumatic (ECP) brakes that are expected to produce tangible capacity increases. When considering possible investment in these types of productivity improvements, the railroad is faced with a trade-off between the cost of introducing the refinement and the stream of cost savings it will produce.<sup>6</sup> For any given volume level, the savings either will or will not justify the cost of introducing the refinement. **This computation is not affected by the level of rates on the subject traffic.** If the railroad were hypothetically able to double its rates overnight, it would not alter the railroad's evaluation of the refinement. However, if the volume at issue were to increase, the stream of savings would be increased and the value of the investment to the railroad would correspondingly be increased. In the end, the railroad claims that they need more

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<sup>6</sup> For existing traffic, the primary impact would be operating cost savings. For a railroad facing capacity constraints, additional savings would result from any avoidance of capital costs the railroad would otherwise need to incur to accommodate the increased volume level

revenue in order to accommodate volume increases are baseless. It is volume levels and cost savings – not rates and revenues – that drive the adoption of the efficiency improvements that the railroads have identified as the preferred source of capacity improvements.

8. Ongoing productivity enhancements corroborate AECC's comments on economic issues. AECC's Written Submission highlighted the disconnect in economic theory between (a) the railroad argument that higher volumes lead to higher rates and (b) the theoretical underpinnings of important Board (and ICC) precedents, including the existence of excess capacity and economies of scale. That portion of AECC's Written Submission provided the starting point for further discussion at the hearing among Commissioner Mulvey, AECC witness Voigt and WCTL witness Crowley. That discussion did not raise any issues that would alter the original conclusion, which has been validated by the railroad testimony regarding ongoing productivity enhancements. AECC's Written Submission observed that important ICC/STB precedents were developed in an environment characterized by excess capacity and with a belief that the railroads possessed economies of scale. It was not stated or assumed that scale economies depend upon the existence of excess capacity. Instead, AECC's earlier comments rested on the simple but pivotal defining principle that "...if there are economies of scale a firm can decrease its average cost by expanding its output."<sup>7</sup> The testimony of the railroad parties indicates that identifiable improvements in technology, like PTC, are still available that will increase capacity faster than they increase total

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<sup>7</sup> Economics, *supra*, at p. 170.

investment (e.g., a systemwide 20% increase in capacity for far less than a 20% increase in investment base) while simultaneously reducing variable costs per unit. Mathematically, this indicates that the railroads are still operating on what economists would refer to as the “downward-sloping portion of the long-run average cost curve.” The good news for the railroads is that this provides an element of economic support for the highly concentrated market structure that has evolved under the Staggers Act. The bad news is that it removes any shred of justification for volume-driven price increases, and leaves no option but to view them as resulting from an anti-competitive increase in the exercise of railroad market power.

9. The railroads’ observation that “pricing power has come back” is not intrinsically related to volume, and is contrary to the public interest. The Board should view substantial, non-transitory increases in rail rates relative to variable costs as an indication of reduced competitive pressure. It should demonstrate that it is prepared to respond to such developments with the types of actions itemized in AECC’s Written Submission. Such actions would introduce measured amounts of competition to counteract anti-competitive conduct while enhancing effective capacity by better enabling market forces to guide commodity flows based on the availability of capacity.
10. Board action to counter anti-competitive conduct would support rail management in taking a needed long-term focus. UP’s testimony included a very candid observation regarding the pressures for short-term results generated by the investment community, and the conflict between those pressures and the long-

term perspective needed to ensure the health and proper performance of the industry. AECC agrees wholeheartedly with UP on this, and made the same basic point in a letter to former Chairman Nober that addressed the role of short-term pressures as a central cause of the management decisions that precipitated the Joint Line service disruptions that began in May 2005.<sup>8</sup> If the Board shows it will respond to myopic and anti-competitive rail actions with meaningful changes in the competitive environment, it will counteract some of the undesirable pressure for short-term results exerted by the investment community, and empower rail management to take the longer-term perspective that is needed.

11. The Board has already explained why it cannot rely on product or geographic competition to protect coal shippers. Coal from the Wyoming portion of the PRB has a unique combination of attributes, including very low mine prices and sulfur content. As a result of its attributes, Wyoming PRB coal has grown in the past 30 years from essentially zero volume to the largest single source of coal in the U.S. This growth reflects both the demand for coal with these attributes, and the fact that coal with comparable attributes is not available from any other source. At the public hearing, there was discussion of the possibility that utilities would diversify fuel sourcing to mitigate the impacts of disruptions in PRB coal supply. However, the fact that utilities might be able to physically burn other fuels doesn't mean that it is rational from a business or a public policy perspective for utilities to be compelled to do so. In the decision in Market Dominance Determinations – Product and Geographic Competition, Ex Parte No. 627, 3 S.T.B. 937 (1998), the

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<sup>8</sup> See Written Submission of Arkansas Electric Cooperative Corporation (April 4, 2007) at Exhibit 2.

Board plainly articulated the problems associated with attempts to rely on alternative sources or substitutes for commodity movements in major rate cases (i.e., coal moving to powerplants). To do so, the Board would have to interject itself into "...industrial operations that are far removed from the transportation industries [the Board regulates]." *Id.* at 947. Moreover, investigation of the roles of geographic and product competition for a given movement requires the development and analysis of an extensive factual record. The Board specifically acknowledged that the burden on the parties and on its own staff to draw any valid conclusions regarding the relevance of such factors in specific situations is "inordinate". *Id.* at 948. Such factors cannot be assumed to be effective in any given situation simply because they can be hypothesized. In the case of PRB coal, use of substitute fuels only appears to be reasonable if the alternative is to curtail or cease generation from the plant. It is not in AECC's economic interest to use substitute coal; it is not in the railroads' interests for AECC to burn Arkansas lignite, wood chips, tires, RDF, etc.; and it is not in the interest of national energy independence for AECC to barge imported coal up the Arkansas River. The Board should apply its efforts towards empowering railroad management to take a long-term view, and resist the types of short-term pressures that precipitated the PRB rail throughput problems of 2005. It should not assume that fuel substitution will provide meaningful protection for coal shippers who experience service degradations and/or anticompetitive pricing on PRB coal movements.

12. The Board also cannot meaningfully rely on aggregate rate level comparisons. At the public hearing, Vice Chairman Buttrey posed some specific questions

regarding comparative aggregate rate and markup levels for different commodity movements. While perhaps interesting, such measures do not provide a valid basis for the Board to disregard or subordinate rate/service issues that may be relevant to individual shippers or groups of shippers within larger commodity flows. Revenue and R/VC levels vary widely across specific movements, reflecting differences in cost as well as differences in the degree of differential pricing.<sup>9</sup> For example, any measure of average rates for coal shippers almost certainly blends rates for captive shippers with rates for shippers who benefit from some degree of competition. As discussed above, competitive shippers have a valid right to expect protection from anticompetitive rate increases advanced under the guise of “capacity constraints”. On the other hand, captive shippers have a right to expect that under the Staggers Act, differential pricing will be compressed as traffic volumes increase.<sup>10</sup> The fact that different aggregate commodity flows represent different mixes of circumstances and issues does not provide a basis for shippers or the Board to refrain from addressing legitimate concerns.

13. To support future infrastructure needs, strong federal pre-emption should be maintained. There was considerable discussion at the hearing regarding the role of federal pre-emption in addressing future infrastructure needs. To the extent

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<sup>9</sup> Because of this, it would not be surprising to find that coal ranks below other commodities on measures like revenue per ton-mile. Unit coal trains have very low unit costs on a ton-mile basis, which also is affected by the frequent practice of shippers supplying the trainsets of rail cars.

<sup>10</sup> For an illustration of this, the Board need look no further than the recent joint stipulation by UP and KCPL that a SARR serving the KCPL Montrose plant (primarily using core main lines of the UP system) would earn a market return with a rate at or below the jurisdictional threshold. See Docket No. 42095, *Kansas City Power & Light Company v Union Pacific Railroad Company*, “Joint Stipulation and Procedural Schedule” (April 18, 2007). This echoes an analogous result found previously in the WPL Edgewater case (STB Docket No. 42051).

that new infrastructure is needed to accommodate future demand levels, the Board should ensure that its practices fully implement the letter and intent of Sections 10102, subparts (6) and (9), and, ultimately, Article I, Section 8, Clause 3 of the U.S. Constitution. For the Board to fully serve the long-term public interest associated with the national rail network – including valid environmental, historical and other issues - it must not allow its authority to be eroded by “NIMBY” considerations. That said, the Board should not restrict the process through which spur track may be constructed under some circumstances outside federal authority.

14. Utility vs. railroad comparisons reinforce the central importance the competitive standard should have in rail regulation. At the public hearing comparisons were made between the utility industry and the railroad industry regarding such considerations as rates of return and service guarantees. While utilities are permitted to earn a regulated rate of return, this does not provide any type of rationale for the Board to even consider placing undue reliance on utilities to shoulder the burdens of the railroads. The return earned by a utility occurs in the context of careful scrutiny and oversight of the utility’s management and performance. Particular attention is devoted to ensuring reliable service delivery, an outcome that is generally achieved in all but the most extraordinary circumstances. Impeccable service goes with a market rate of return in the sense that both are hallmarks of a competitive marketplace. In a competitive market, customers are generally able to obtain good service because they can simply divert their business to suppliers who perform to acceptable standards.

Unfortunately, customers of railroads have little practical ability to do this – especially in the face of increasing volumes, and regulatory standards regarding rail service reliability are largely nonexistent. Poor railroad service performance produces many significant burdens on the economy, including those associated with unnecessarily large railcar fleets, coal stockpiles and use of substitute fuels. Poor rail service performance has been producing such problems since long before capacity concerns became an issue. Given that tightening capacity can be expected to exacerbate these problems, it is appropriate for the Board to increase regulatory pressure and/or unleash market forces to move towards a competitive level of service quality.

### **III. CONCLUSION**

The Board and its predecessor presided over a series of mergers that eliminated a great deal of pre-existing rail infrastructure. With the focus of the industry now changing to issues surrounding projected future volume growth, it is appropriate and commendable for the Board to give careful consideration to its role.

In general, the changes that the Board needs to make are not “revolutionary”, but rather have the effect of reaffirming some of the bedrock principles upon which the industry has depended since the Staggers Act:

- the railroads have demonstrated a strong ability to identify and invest in needed capacity and infrastructure improvements, and should continue to do so;
- the railroads, with considerable support from shippers, have demonstrated a consistent ability to improve capacity and reduce costs through productivity improvements, and should continue to do so;

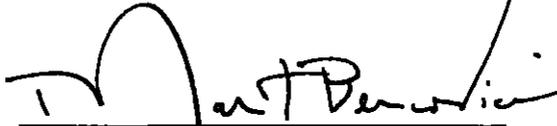
- because of economies of scale, railroads benefit from volume increases in ways that are different from most other industries; and,
- systematic increases in pricing, degradations of service and/or restraint of needed investments represent competitive problems that justify and necessitate remedial action by the Board.

By maintaining a proper role for competitive market forces, the Board can most effectively lead the industry into the new environment in a manner that is consistent with Staggers Act principles.

AECC appreciates this opportunity to participate further in the Board's consideration of rail capacity and infrastructure issues.

Respectfully submitted,

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