

**BEFORE THE
SURFACE TRANSPORTATION BOARD 233251**

Ex Parte No. 715
RATE REGULATION REFORMS

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Joint Opening Comments of

**The American Chemistry Council, The Fertilizer Institute,
The National Industrial Transportation League, Arkema, Inc., The Dow Chemical
Company, Olin Corporation, and Westlake Chemical Corporation**

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Table of Contents

- I. STATEMENT OF INTEREST. 1
- II. BACKGROUND AND SUMMARY. 2
- III. THE BOARD’S PROPOSED LIMITS UPON CROSS-OVER TRAFFIC ARE CONTRARY TO SAC PRINCIPLES, UNNECESSARY, AND BIASED. 4
 - A. The Proposed Limits Upon Cross-Over Traffic Would Improperly Reverse 20 Years Of Well-Established SAC Precedent. 4
 - 1. The proposed limits upon cross-over traffic would violate fundamental SAC principles. 4
 - 2. The Board’s proposals would deny shippers effective access to regulatory remedies for unreasonable rates. 6
 - B. The Proposed Limits Upon Cross-Over Traffic Are Unnecessary. 9
 - 1. There is not supposed to be a “connection” between ATC and SARR operations, and to require a “connection” now would be an unexplained departure from precedent. 10
 - 2. There is no disconnect between the cost of handling carload traffic and the cross-over revenue allocation methodology. 14
 - C. The Proposed Limits Upon Cross-Over Traffic Would Severely Bias The SAC Analysis. 16
 - 1. The proposed cross-over traffic limits are overbroad. 16
 - 2. The proposed cross-over traffic limits would severely under-allocate cross-over revenue to the SARR using either Modified-ATC or Alternate-ATC. 19
- IV. MODIFIED-ATC IS SUPERIOR TO ALTERNATE-ATC. 21
- V. THE BOARD SHOULD REMOVE THE SSAC RELIEF CAPS EVEN WITHOUT CHANGES TO THE RPI CALCULATION. 24
 - A. The Board Should Remove The Relief Cap And Extend The Rate Prescription Period. 24
 - B. The Board Should Not Require A Full-SAC Showing For RPI Costs. 26
- VI. THE BOARD SHOULD REMOVE THE THREE-BENCHMARK RELIEF CAP. ... 27
- VII. THE BOARD’S PROPOSAL TO RAISE THE INTEREST RATE FOR REPARATIONS PAYMENTS IS LONG OVERDUE, BUT FALLS SHORT OF WHAT IS NEEDED TO MAKE SHIPPERS WHOLE. 30
 - A. The Board Should Raise The Interest Rate For Reparations Payments. 30
 - B. The Board Needs To Do More Than Just Raise The Interest Rates On Reparations To Make Shippers Whole. 31

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The American Chemistry Council (“ACC”), The Fertilizer Institute (“TFI”), The National Industrial Transportation League (“NITL”), Arkema, Inc. (“Arkema”), The Dow Chemical Company (“Dow”), Olin Corporation (“Olin”), and Westlake Chemical Corporation (“Westlake”) (collectively “Joint Chemical Companies”) hereby submit these Joint Opening Comments in response to the Board’s Notice of Proposed Rulemaking in this proceeding served on July 25, 2012 (“Notice”). These opening comments are supported by the Joint Verified Statement of Thomas D. Crowley and Robert D. Mulholland, President and Vice President, respectively, of L.E. Peabody & Associates, Inc. (“Crowley/Mulholland V.S.”). Messrs. Crowley and Mulholland have extensive knowledge and experience to address all of the proposals in the Notice.

I. STATEMENT OF INTEREST.

The Joint Chemical Companies either represent, or are, shippers of chemicals and plastics that move extensively, and in some cases exclusively, by rail. ACC, NITL and TFI are trade associations that represent a multitude of member companies which engage in the foregoing activities. NITL also represents many interested shippers in other industries. Arkema, Dow, Olin and Westlake are individual companies, some of which are also members of ACC and/or NITL.

II. BACKGROUND AND SUMMARY.

In the Notice, the Board requested comments on six proposed reforms to its rail rate regulation procedures for small (“Three-Benchmark”), medium (“Simplified-SAC” or “SSAC”), and large (“SAC” or “Full-SAC”) rate cases. Each proposal is briefly described in this Part II.

First, the Board has proposed to restrict the type of cross-over traffic that complainants may include on their stand-alone railroad (“SARR”) in a Full-SAC analysis. The Board has articulated its suspicion that the inclusion of certain carload and multi-carload cross-over traffic has a distorting impact upon the SAC analysis because the Board alleges that the Average Total Cost (“ATC”) methodology for allocating cross-over revenue appears to allocate more revenue to the SARR for handling this type of traffic than is warranted by the SARR’s costs. Therefore, the Board has opined that SARR access to cross-over traffic should be limited in Full-SAC cases and has solicited comments upon two alternative proposals for restricting the inclusion of certain cross-over traffic in the Full-SAC analysis. The Joint Chemical Companies strongly oppose this proposal as a violation of SAC principles and well-established precedent, unnecessary, and biased.

Second, the Board has proposed to replace the “Modified-ATC” cross-over revenue allocation methodology with a substantially modified “Alternate-ATC” methodology. The Board believes that Alternate-ATC may be superior because it gives greater weight to the relative densities of SARR and residual incumbent line segments. This proposed change would apply to both Full-SAC and SSAC cases. The Joint Chemical Companies disagree that Alternate-ATC is superior, and thus, support the continued use of Modified-ATC.

Third, the Board has proposed to remove the relief cap that currently exists for SSAC cases, because of its significant similarity to Full-SAC. However, the Board has tentatively conditioned this proposal upon the adoption of its next proposal, which would make SSAC even

more like a Full-SAC case in terms of complexity and cost. The Board has requested comment upon this proposed linkage. The Joint Chemical Companies support removal of the relief cap but oppose any attempt to link it to adoption of the next proposal regarding road property investment (“RPI”) costs.

Fourth, the Board has proposed to remove the simplification in SSAC cases for the calculation of RPI costs, which are based on historical averages from recent Full-SAC cases under the current rules. Instead, complainants would be required to develop and submit the same type of RPI evidence as required in a Full-SAC case. The purpose of this proposal appears to be to justify the Board’s third proposal, to remove the SSAC relief cap. Because an ample basis for removing the relief cap already exists independent of that proposed change, the Joint Chemical Companies oppose this fourth proposal as an unnecessary complexity.

Fifth, the Board has proposed to increase the Three-Benchmark relief cap from \$1.2 million to \$2 million in order to reflect the higher cost of SSAC cases due to adoption of the fourth proposal, regarding the calculation of RPI costs. The Joint Chemical Companies support an increase in the relief cap to reflect changes in the SSAC litigation costs if the fourth proposal is adopted, but do not believe that there is any rational basis for retaining a relief cap at all on Three-Benchmark cases.

Sixth, the Board has proposed to change the interest rate owed on rate case reparations from the T-Bill rate to the U.S. Prime rate, which would have the effect of raising the current interest rate from 0.1% to 3.25%. The Joint Chemical Companies strongly support this proposal and ask the Board to consider an additional proposal, outlined below, to further level the playing field between shippers and rail carriers.

In summary, the Joint Chemical Companies strongly oppose the Board's proposal to limit the use of cross-over traffic in Full-SAC cases because it violates fundamental SAC principles and is based on false presumptions regarding the supposed disconnect alleged by the Board. The Joint Chemical Companies also oppose the Board's proposal to replace Modified-ATC with Alternate-ATC. While the Joint Chemical Companies support some of the Board's proposals for Three-Benchmark and Simplified-SAC cases, those proposals do not go far enough. Finally, the Joint Chemical Companies support the Board's proposal to increase the interest rate used to calculate reparations in all three types of rate cases.

III. THE BOARD'S PROPOSED LIMITS UPON CROSS-OVER TRAFFIC ARE CONTRARY TO SAC PRINCIPLES, UNNECESSARY, AND BIASED.

The Board has proposed to place limits upon the use of certain types of cross-over traffic in Full-SAC cases. The Joint Chemical Companies adamantly oppose any restriction upon cross-over traffic as contrary to stand-alone cost ("SAC") principles, unnecessary, and biased.

A. The Proposed Limits Upon Cross-Over Traffic Would Improperly Reverse 20 Years Of Well-Established SAC Precedent.

The use of cross-over traffic in the SAC analysis has been well-established precedent for nearly 20 years. It was founded upon basic SAC principles and the need to ensure effective access to regulatory remedies through a manageable SAC process. The Board's proposals to limit cross-over traffic in future SAC cases would violate these SAC principles and would exacerbate the cost and complexity of the SAC process, effectively placing regulatory relief beyond the reach of most shippers.

1. The proposed limits upon cross-over traffic would violate fundamental SAC principles.

The Board first approved the use of cross-over traffic in *Bituminous Coal – Hiawatha, UT To Moapa, NV*, 10 I.C.C.2d 259, 265, n. 12 (1994) ("*Nevada Power II*"), because excluding

cross-over traffic “would weaken the SAC test” by “depriv[ing] the SARR of the ability to take advantage of the same economies of scale, scope and density that the incumbents enjoy over the identical route of movement.” The SAC analysis attempts to replicate a contestable market rate, *id.* at 266, which is one of two economic theories that are central to the principle of constrained market pricing that is at the core of the SAC analysis. *Coal Rate Guidelines—Nationwide*, 1 I.C.C.2d 520, 525, 528-29 (1985) (“*Guidelines*”). “A contestable market is one into which entry is absolutely free and exit absolutely costless where the new entrant suffers no disadvantage relative to the incumbent.” *Nevada Power II* at 266, *citing Guidelines* at 528. If the SARR may not select from the same traffic that is available to the incumbent, including cross-over traffic, then the SAC analysis cannot truly replicate a contestable market because the SARR suffers a disadvantage relative to the incumbent.

In *Guidelines*, at 544, the ICC described the importance of traffic selection to the SAC analysis:

The ability to group traffic of different shippers is essential to [sic] theory of contestability.... Without grouping, SAC would not be a very useful test, since the captive shipper would be deprived of the benefits of any inherent production economies.

As described in detail by Messrs. Crowley and Mulholland, the Board’s proposals to limit cross-over traffic would have the same weakening effect on the SAC analysis that the Board noted in *Nevada Power II*, by denying a shipper the ability to include all the same traffic on its SARR that the incumbent railroad actually handles over the same rail lines. *Crowley/Mulholland V.S.* at 36-44. The exclusion of cross-over traffic was contrary to contestable market theory in 1994, and remains contrary to contestable market theory today.

2. **The Board's proposals would deny shippers effective access to regulatory remedies for unreasonable rates.**

The Board's proposals to limit the use of cross-over traffic are a complete reversal of nearly 20 years of a consistently applied and well-established practice of using cross-over traffic as an essential tool in making the SAC analysis manageable. If the Board adopts limits upon cross-over traffic, it will place shippers in a "no-win" position. Either they must expand their SARRs to such a degree that Full-SAC cases will become overly complex, unmanageable, and expensive; or, in order to keep their SAC case manageable, shippers must forego the use of cross-over traffic, which would place them at a significant disadvantage vis-à-vis the defendant railroad, which would be contrary to basic SAC principles. *Crowley/Mulholland V.S.* at 36-44. Both options are untenable.

In 2004, ten years after *Nevada Power II*, the STB observed that "[t]he use of cross-over traffic to simplify the SAC presentation is a well-established practice." *Pub. Serv. Co. of Colo. v. Burlington N. & Santa Fe Ry.*, 7 S.T.B. 589, 601 (2004) ("*Xcel*") [citations omitted] [underline added]. The STB identified multiple reasons why cross-over traffic is both necessary and desirable, which remain true today and which would be undermined by the proposed limits on cross-over traffic.

First, the Board observed that "[p]ermitting [the complainant] to use cross-over traffic in its SAC presentation...keeps the SAC analysis properly focused on the core inquiry—whether the defendant railroad is earning adequate revenues on the portion of its rail system that serves the complaining shipper." *Id.* "Creating a SARR to serve the same traffic group without using the cross-over traffic device would dramatically enlarge the geographic scope of a SARR" by requiring a complainant to build a SARR capable of handling the cross-over traffic from its origin to its destination, thus including far more facilities than those needed to handle the issue

movement. *Id.* The Board's proposed limits upon cross-over traffic would completely undermine this benefit of cross-over traffic by requiring the very expansion of a SARR that the Board previously has determined to be undesirable. Instead of focusing upon the portion of the defendant's rail system that handles the issue traffic, a SARR would become many multiples larger. *E.g., id.* (the 400 mile Xcel SARR would need to be 10 times larger to serve the destinations); *Nevada Power II* at 263 (the 1400 mile SARR would double to 2800 miles).

Second, the Board correctly observed that expanding the SARR will not eliminate cross-over traffic, but simply create new groups of cross-over traffic. *Xcel* at 602. Because each extension of the SARR to originate and/or terminate one group of cross-over traffic would create a new group of cross-over traffic over the added line segments, a shipper would have to extend its SARR even further in order "to generate the same economies of density" that the defendant railroad enjoys over the newly-extended SARR. This quickly becomes a "cascading analysis [that] could result eventually in a complainant having to replicate almost all of [the defendant's] system. The scope and complexity of the proceeding would expand exponentially." *Id. See also, Crowley/Mulholland V.S.* at 40-42.

This leads to the third and final observation of the Board, which is that:

[t]he use of cross-over traffic thus provides a reasonable measure of simplification that allows SAC presentations to be more manageable. Curtailing the geographic scope of the SARR greatly simplifies the operating plans that must be developed, thus limiting the complexity of what is nevertheless still a dauntingly large and detailed task. Without cross-over traffic, captive shippers might be deprived of a practicable means by which to present their rate complaints to the agency."

Xcel. at 603. In *Xcel*, the Board observed the following consequences from expanding a SARR to originate and/or terminate cross-over traffic:

While the WCC is a relatively small and straight-forward SARR, the parties had to produce, and the Board analyze, dozens of

volumes of evidence on the costs associated with acquiring the land, designing, building, and operating this short SARR (approximately 400 route-miles). It is difficult to imagine the amount of materials that would have to be produced and analyzed to put together the evidence needed to design a railroad 10 times larger. The number of disputed issues would also escalate, and the operating plans and computer simulation models would become so complicated as to risk being intractable.

Id. Based upon these prior Board observations, an inevitable consequence of the Board's proposed cross-over limits would be to increase SARRs exponentially, or to deny a shipper any regulatory remedy at all because the cost and complexity of the SAC analysis will have become so overwhelming that it would not be practical for a shipper to pursue its remedies.

The Board very recently held that both of these consequences are unacceptable. In *Western Fuels Assoc., Inc. v. BNSF Ry. Co.*, Docket No. 42088, slip op. at 11 (served Sept. 10, 2007) ("*Western Fuels I*"), the Board reaffirmed its rationale for using cross-over traffic as a modeling device:

[T]his device has become an *indispensable* part of administering a workable test. Without cross-over traffic, the SARR would need to replicate the entire service provided by the defendant railroad for all of the traffic included in the SAC analysis.... *Such an expanded SAC analysis, however, could be impracticable and would not allow us to meet our regulatory objectives, and we must guard against the SAC process becoming so complex and expensive as to deny captive shippers meaningful access to the rate review provided for under Guidelines.* [italics added] [footnote omitted]¹

¹ The omitted footnote in the foregoing quote is to the following concurring opinion in the court decision that affirmed *Guidelines*:

Although I join the majority in upholding the Commission's adoption of Stand Alone Cost modeling within its guidelines, I also write separately to identify the serious problems that I see developing if the Commission does not effectively minimize the costs incurred by shippers in challenging the carrier's rates (either through a Stand Alone Cost model or through any other Constrained Market Pricing constraint) and maximize the discovery available to them when doing so. The shippers argue forcefully that rate challenges will be frustrated by the complexity of the Commission's inhospitable rules and procedures. Because I agree that rules and regulation that produce such futility would violate the shipper's statutory right to challenge rates, I write to note my belief that future

In, *Xcel* at 16, the Board similarly noted that:

Without cross-over traffic, captive shippers might be deprived of a practicable means by which to present their rate complaints to the agency. This would be contrary to the policy directives set by Congress in 49 U.S.C. 10101(2) (to require fair and expeditious regulatory decisions when regulation is required), 10101(6) (to maintain reasonable rates where there is an absence of effective competition), and 10101(15) (to provide for the expeditious handling and resolution of all rail proceedings required or permitted to be brought before the Board).

This precedent demonstrates that the Board's proposed limits upon cross-over traffic will leave shippers with a choice between two impermissible options that would violate SAC principles and deny captive shippers meaningful access to the regulatory process.

B. The Proposed Limits Upon Cross-Over Traffic Are Unnecessary.

The fundamental premise of the Board's proposals to limit cross-over traffic is that there may be a disconnect, when handling a certain type of cross-over traffic, between the cross-over revenue allocation methodology (which the Board also has proposed to modify in this proceeding, but for different reasons) and the SARR's costs of handling such cross-over traffic, which disconnect creates a bias in favor of shippers.² Notice at 16. The Joint Chemical Companies reject the notion that there is any such bias that makes cross-over traffic limits necessary or desirable.³

courts may have to set aside the rules if the Commission does not resolve these problems.

Consolidated Rail Corp. v. U.S., 812 F.2d 1444, 1457-58 (3rd Cir. 1987) (Becker, J. concurring in part and dissenting in part).

² As explained by Messrs. Crowley and Mulholland, the alleged "disconnect" is really imprecision caused by differences between the incumbent's actual movement-specific costs and the URCS Phase III program's use of system averages to estimate variable costs for individual movements. *See* Crowley/Mulholland V.S. at 25-31. This imprecision would exist regardless of the SARR's operations. This is neither inappropriate nor a problem, because such imprecision exists in all aspects of URCS when used in the SAC analysis. Moreover, if it were a problem, there are far less intrusive ways to address it than to restrict a SARR's access to cross-over traffic. *Id.* at 31-35.

³ The Board also suggests, without affirmatively concluding, that there is no means of correcting or minimizing this bias. Notice at 16. If such a bias truly exists, the Board first must demonstrate that the bias cannot be corrected or

Historically, the Board has noted that the use of cross-over traffic, as with any simplifying assumption, “necessarily introduces some degree of imprecision into the SAC analysis.” *Xcel*. at 604 [underline added]. But, as discussed in Part III.A above, the Board has consistently held that “the value of this modeling device—both in keeping the analysis focused on the facilities and services used by the complainant shipper, and in streamlining and simplifying already complicated undertakings—outweighs the concerns raised by [railroads].” *Id.* In this rulemaking, the Board mistakenly equates “imprecision” with “bias” in proposing to reverse two decades of “well-established” precedent. There is no bias in the current use of cross-over traffic; but there will be bias if the Board adopts its proposed restrictions on the use of cross-over traffic.

1. There is not supposed to be a “connection” between ATC and SARR operations, and to require a “connection” now would be an unexplained departure from precedent.

After nearly 20 years of Board support for the use of cross-over traffic and its rejection of railroad arguments that cross-over traffic creates a bias in the SAC analysis, the Board suddenly proposes to limit cross-over traffic based upon a newly-perceived “disconnect” between the SARR’s cost of providing service to certain carload and multi-carload cross-over traffic and the revenue allocated to the SARR. Notice at 16. But this perceived “disconnect” does not justify the Board’s proposed cross-over traffic restrictions because the Board never intended any connection between ATC revenue allocations and the SARR’s operations. The Board’s attempt to create a connection now is an unacknowledged and unexplained departure from precedent.

The Board attributes this newly-perceived disconnect to the increased use of carload and multi-carload cross-over traffic in Full-SAC cases.

minimized through the revenue allocation methodology or modifications to URCS before imposing broad limits upon cross-over traffic.

There is a disconnect between the hypothetical cost of providing service to these movements over the segments replicated by the SARR and the revenue allocated to those facilities. When the proposed SARR includes cross-over traffic of carload and multi-carload traffic, it generally would handle the traffic for only a few hundred miles *after* the traffic would be combined into a single train. As such, the “cost” to the SARR of handling this traffic would be very low. In recent cases, litigants have proposed SARRs that would simply hook up locomotives to the train, would haul it a few hundred miles without breaking the train apart, and then would deliver the train back to the residual defendant. All of the costs of handling that kind of traffic (meaning the costs of originating, terminating, and gathering the single cars into a single train heading in the same direction) would be borne by the residual railroad. However, when it comes time to allocate revenue to the facilities replicated by the SARR, URCS treats those movements as single-car or multi-car movements, rather than the more efficient, lower cost trainload movements that they would be. As a result, the SAC analysis appears to allocate more revenue to the facilities replicated by the SARR than is warranted.

Notice at 16 [*italics in original*]. By this reasoning, the Board would attribute a purpose to ATC that it never intended and previously disavowed.

Specifically, the Board is using ATC to judge the fairness of cross-over revenue divisions based upon the SARR’s costs, rather than the incumbent railroad’s costs. The Board previously rejected such comparisons in *Major Issues*⁴ and *Western Fuels II*.⁵ In *Major Issues*, at 34, the Board explained that ATC estimates the incumbent’s cost of service over each line segment, and allocates revenues to those segments based on the incumbent’s relative costs for each segment. In *Western Fuels II*, slip op. at 13, the Board clarified that ATC should use the incumbent’s traffic density over each line segment, not the SARR’s density and that “the objective of ATC is to reflect the *defendant carrier’s* relative costs of providing service over the relevant segments of its network.” [*italics added*]

⁴ *Major Issues in Rail Rate Cases*, Ex Parte No. 657 (Sub-No. 1) (served Oct. 30, 2006).

⁵ *Western Fuels Assoc., Inc. v. BNSF Ry. Co.*, Docket No. 42088 (served Feb. 27, 2009).

Consistent with this precedent, the Board also does not consider the SARR's costs when the SARR contains internal reroutes of cross-over traffic. For example, assume a cross-over movement of three equidistant 300 mile segments from origin A, to intermediate stations B and C, and then to destination D. Now, assume that the SARR constructs a different route between stations B and C that is 350 miles long and reroutes the cross-over traffic over that longer route. ATC allocates the cross-over revenue based upon the actual 300 mile route rather than the SARR's longer and more expensive 350 mile route. Although this is proper because the ATC divisions are intended to reflect the incumbent's costs rather than the SARR's, the Board's new logic would contradict this policy. *Crowley/Mulholland V.S.* at 7.

The Board's attempt to align the ATC revenue divisions with the SARR's operations also is at odds with the long-held view that the SARR does not need to be another railroad. *See Guidelines*, 1 I.C.C.2d at 543. This understanding was one of three explanations that the Board provided in *Western Fuels II*, at 14, for using the incumbent's densities rather than the SARR's. Because the SARR does not need to be another railroad, however the SARR runs its operations should be immaterial to the division of cross-over revenue under the ATC methodology. *Crowley/Mulholland V.S.* at 6.

ATC works as the Board intended. In *Major Issues*, at 31, the Board stated that the purpose of ATC is to reflect, to the extent practicable, the incumbent's relative average costs of providing service over the on-SARR and off-SARR segments. ATC does in fact capture the terminal costs for originating and terminating cross-over traffic and assigns them to the line segments where that activity occurs, which makes the Board's explanation for imposing cross-over limits puzzling. *Crowley/Mulholland V.S.* at 31-33. The Board's concern actually seems to be with inter and intra-train ("I&I") switching costs, which URCS assigns on a system average

basis in 200 mile increments, rather than to the actual line segments where such switching occurs, based upon the assumption that I&I switching occurs on average every 200 miles. This was the issue in *AEPCO*, which the Board cites as the basis for its concern. Notice at 16, n. 10. While this assumption creates imprecision, it does not create bias, because this imprecision can work equally in favor of the SARR or the incumbent. *Crowley/Mulholland V.S.* at 33-34. Moreover, as Messrs. Crowley and Mulholland demonstrate, I&I switching has a minimal impact upon ATC allocations. *Id.* at 34-35. Thus, the Board has no basis to conclude that the ATC methodology fails to allocate sufficient revenue to the residual incumbent for the tasks that it performs.

Rather than demonstrate that ATC allocates insufficient revenue to the incumbent line segments, the Board argues that ATC appears to allocate more revenue to the SARR than is warranted for the tasks that the SARR performs. Notice at 16. But this comparison is not relevant under previous Board analysis. Moreover, even if it were relevant, the proper remedial action would be to revisit how the URCS Phase III program allocates terminal and switching costs, not to restrict the use of cross-over traffic. *Crowley/Mulholland V.S.* at 31, 33.

The Board's logic for adopting cross-over traffic restrictions is inconsistent with the foregoing precedent, because the ATC methodology for allocating cross-over revenue has nothing to do with the SARR's operations, but is entirely linked to the incumbent's real-world operations. The Board cannot have its logic both ways. If the Board uses the SARR's operations to determine the fairness of cross-over revenue allocations, it must use the SARR's operations for all other elements of ATC. On the one hand, if there is a connection, the Board must use the SARR's density rather than the incumbent's in the ATC methodology, which it currently does not do. On the other hand, if there is no intended connection, any alleged

“disconnect” discussed in the Notice cannot provide the rationale for limiting the use of cross-over traffic.

Inexplicably, the Board now appears to be abandoning this precedent by claiming that there is a problem caused by a “disconnect” between revenue allocations and the SARR’s cost of providing service when no such “connection” was ever intended. The Board either must adhere to its precedent, or recognize its reasoning as a departure from precedent and provide a rational justification for its departure. *Assoc. of the United States v. State Farm Mutual Automobile Ins. Co.*, 463 U.S. 29, 48 (1983) (An agency that departs from its own precedent must “cogently explain why it has exercised its discretion in a given manner.”).

2. There is no disconnect between the cost of handling carload traffic and the cross-over revenue allocation methodology.

Putting aside the Board’s unexplained departure from its own precedent described in the preceding section, the logic underlying the conclusion that the use of carload and multi-carload cross-over traffic creates a bias in the allocation of cross-over revenue is fundamentally flawed. This flaw, which is explained by Messrs. Crowley/Mulholland at pages 7-11 of their verified statement, is summarized below.

The Board’s goal as articulated in *Major Issues* and recent rate case decisions is to achieve a fair and unbiased allocation of cross-over revenue. In order to achieve this goal, the Board asserts that the objective of ATC should be to allocate cross-over revenue to each segment of a movement such that all revenue divisions reflect the relative cost of providing service over each segment. This inexorably leads to the following two axioms:

1. The revenue allocated to each segment must be additive across the entire route.
2. The sum of the revenue allocated to each segment must equal the revenue for the entire route.

Crowley/Mulholland V.S. at 8. If the goal of fairness is achieved, it will not matter which segment of the incumbent's rail line the SARR replicates, because all segments are assured of receiving a "fair" revenue allocation.

The Board's logic in the Notice, however, leads to the conclusion that the exact same divisions that are "fair" when a SARR replicates one segment of a cross-over route are not "fair" when the SARR replicates a different segment of the same route. Messrs. Crowley and Mulholland have illustrated this paradox through a hypothetical example. The example reflects a 900 mile incumbent rail network divided into three equidistant 300 mile segments. Each segment has a different traffic density and a different mix of local and cross-over traffic. *Id.*

Messrs. Crowley and Mulholland then hypothesize two scenarios involving this hypothetical incumbent. *Id.* at 9-11. In Scenario 1, SARR1 replicates the origin segment; in Scenario 2, SARR2 replicates the bridge segment. Both SARRs share the same 20 MGT of cross-over traffic, which accounts for half of the total traffic on SARR1 and two-thirds of the total traffic on SARR2. In both Scenario 1 and Scenario 2, the origin segment receives a revenue allocation for the cross-over traffic reflective of the costs allocated for the terminal services performed on that movement segment. In both Scenario 1 and Scenario 2, the bridge segment receives a revenue allocation for the cross-over traffic that reflects the fact that no terminal costs were performed on the bridge segment. Under the Board's stated logic supporting its first proposed cross-over traffic restriction, it would accept the revenue divisions in Scenario 1 as reflective of the movement operations and costs, but it would reject the same revenue divisions in Scenario 2 based on the false premise that the same revenue divisions are somehow not reflective of the movement operations based on the portion of the incumbent's movement replicated by the SARR. The SARR in Scenario 1 would be granted access to the cross-over

traffic, but the SARR in Scenario 2 would be denied access to the same traffic whose revenues were allocated using the same formula as in Scenario 1. In other words, ATC would allocate the *same* revenue to the same segments in both Scenarios, but the Board would only allege a “disconnect” exists in one of the two scenarios.

The Board’s logic would label this result “fair” in Scenario 1 and “unfair” in Scenario 2. Specifically, the Board has concluded that ATC shortchanges the origin segment in Scenario 2, but not in Scenario 1, even though the origin segment receives exactly the same revenue allocation. This paradox demonstrates that the Board’s logic is fundamentally and fatally flawed.

C. The Proposed Limits Upon Cross-Over Traffic Would Severely Bias The SAC Analysis.

As demonstrated in Part III.B., above, ATC does not produce biased revenue allocations for carload and multi-carload cross-over traffic. However, the Board’s proposed restrictions upon cross-over traffic in order to address this alleged bias actually would create a significant pro-railroad bias. First, the proposed restrictions would eliminate far more cross-over traffic than just the traffic that the Board believes to be problematic. Second, the proposed restrictions would significantly under-allocate cross-over revenue to the SARR using either Modified-ATC or the proposed Alternate-ATC.

1. The proposed cross-over traffic limits are overbroad.

There is a tremendous disconnect between the perceived problem that the Board has identified and its two proposals to address that problem. Both proposals would eliminate not only the perceived “problem” traffic, but also a significant amount of traffic that does not possess the problem characteristics. *Crowley/Mulholland V.S.* at 50-53.

In the Notice, at 16, the Board explains that its newly-expressed concern with cross-over traffic has arisen due to a shift in recent cases from cross-over traffic that is predominantly trainload service to cross-over traffic that includes large amounts of carload and multi-carload movements. The Board, however, is not concerned with *all* carload and multi-carload cross-over traffic. Rather, the Board is concerned with SARRs that construct a short segment over a high-density line and primarily serve as a bridge carrier that handles most of its traffic (a significant portion of which is single car and multiple car traffic) in so-called “hook-and-haul” overhead trainload service, leaving the residual incumbent to perform more costly terminal activities.⁶ Notice at 16. Therefore, the Board has solicited comments on two options for restricting this type of cross-over traffic. Both options, however, are so broad that they would eliminate significant amounts of cross-over traffic that the Board has not identified as a “problem.”

The first option would exclude all cross-over traffic unless the SARR either originates or terminates that traffic.⁷ *Id.* at 17. The Board’s presumption seems to be that a SARR that does not originate or terminate a movement will not perform any “costly” switching and handling services, such as I&I switching. Although such cross-over traffic would not move in the “hook-and-haul” service that concerns the Board, the first proposal nevertheless would exclude all such

⁶ This concern appears to be based specifically, if not exclusively, upon the SARR in *Ariz. Elec. Power Coop., Inc. v. BNSF Ry*, NOR 42113, slip op. at 35 (served Nov. 22, 2011). *See* Notice at 16, n. 10. In that case, the vast majority of the non-coal traffic was intermodal and other traffic not considered “unit train” by URCS. That traffic moved in “hook-an-haul” overhead service on the SARR. Although ATC allocated revenue to this traffic as if it were carload traffic, the SARR’s operations more closely resembled unit trains because the SARR did not perform any I&I switching of the cars. Therefore, the Board was concerned that the SARR received more of the cross-over revenue than was warranted by the service it actually would provide. *Crowley/Mulholland V.S.* at 27-28. As discussed in Part II.B.1., above, this is not an over allocation of revenue to the SARR, but a misinterpretation of the Board’s logical requirement to use the incumbent’s operating inputs when developing the variable costs used in the ATC revenue allocation formula.

⁷ Although the Notice identifies only carload and multi-carload traffic as a “problem,” a literal reading of the first option would eliminate all cross-over traffic that the SARR does not originate or terminate, not just carload and multi-carload traffic.

traffic. Messrs. Crowley and Mulholland provide a hypothetical example of this over breadth in their verified statement. Crowley/Mulholland V.S. at 51.

The Board's first proposal also would exclude cross-over traffic that the incumbent itself handles in "hook-and-haul" service. Messrs. Crowley and Mulholland also provide a hypothetical example of this scenario. *Id.* at 52. Because the incumbent railroad also is providing service as an overhead carrier, it does not perform costly terminal operations at either the origin or destination. Therefore, the SARR also should be allowed to handle that same traffic in overhead service without any restrictions.

The substantial over breadth of the first option is best exemplified, in the real world, by the pending rate case in Docket No. NOR 42130, *SunBelt Chlor Alkali Partnership v. Norfolk Southern Ry. Co.* On October 11, 2012, SunBelt filed its reply to the "Motion to Hold Case in Abeyance Pending Completion of Rulemaking," filed by Norfolk Southern ("NS") on September 21, 2012 ("*SunBelt Reply*"). NS has estimated that the Board's first proposed restriction would eliminate 63% of the SARR's traffic.⁸ *SunBelt Reply* at 19. The SunBelt SARR, however, includes significant volumes of overhead cross-over traffic for which NS either is not the origin/destination carrier, or for which the SunBelt SARR performs I&I switching on the traffic, thereby incurring comparable costs to those incurred by NS for intermediate handling. In other words, the SunBelt cross-over traffic is not predominantly hook-and-haul overhead movements that are originated/terminated by the residual incumbent. *Id.* at 18. In all, less than 1% of the SunBelt SARR's cross-over traffic constituted the type of "hook-and-haul trainload" about which the Board has expressed concern. *Id.* Yet according to NS, the Board's first proposal would eliminate 63% of the SunBelt SARR's cross-over traffic.

⁸ SunBelt revised this estimate to 36% after correcting errors in the NS calculation. *Id.* at 19-20.

The second option would exclude all cross-over traffic except for trainload movements. Notice at 17. In other words, the only cross-over traffic that would be allowed on the SARR would be real-world unit train movements. This would eliminate all carload and multi-carload cross-over traffic, even if the SARR actually originated or terminated that traffic. Messrs. Crowley and Mulholland illustrate the over breadth of the second option through a hypothetical example in their verified statement. Crowley/Mulholland V.S. at 53.

For the reasons presented in Parts III.A. and B., above, the Board may not, and should not, impose any limits upon cross-over traffic. However, even assuming *arguendo* that the Board has identified a problem with cross-over traffic that should be addressed, both of its proposed solutions would eliminate far more than just the alleged “problem” traffic.

2. The proposed cross-over traffic limits would severely under-allocate cross-over revenue to the SARR using either Modified-ATC or Alternate-ATC.

The Board’s attempt to avoid the misperception that ATC over-allocates revenue to the SARR would in practice substantially under-allocate revenue to the SARR. This is because, although ATC allocates cross-over revenue to the on-SARR and off-SARR line segments based upon the real-world traffic densities of the incumbent, the proposed restrictions upon cross-over traffic will restrict the SARR from achieving the traffic density of the incumbent. The result would be a significant “disconnect” between the high per-unit fixed costs the SARR would need to recover over those lines and the incumbent’s low per-unit fixed costs reflected in the ATC divisions. Crowley/Mulholland V.S. at 45-47. This is true for both Modified-ATC and Alternate-ATC, although the under allocation is magnified by Alternate-ATC.

Traffic density is the central tenet of ATC. *Major Issues*, at 33-34. “The ATC method calculates the average total cost per ton associated with the segments at issue,” *id.* at 34, which will be higher on light density segments than on high density segments. As a result, ATC will

allocate more revenue to lighter-density line segments based on the segments' relative fixed cost components. *Id.* at 35.

Because the SARR will have much lower traffic density than the incumbent over the same line segment due to the cross-over traffic restrictions, it will have a higher average total cost per ton for that segment. This means that the SARR requires more revenue to cover that higher cost. However, because ATC allocates cross-over revenue on the basis of the incumbent's higher real-world traffic density, ATC would not allocate sufficient revenue to the SARR under the Board's proposed cross-over restrictions. Therefore, despite its lower density, the SARR will receive less cross-over revenue even though it in fact needs more revenue to cover its average total cost per ton. *Crowley/Mulholland V.S.* at 46-47.

Messrs. Crowley and Mulholland have illustrated this ill effect upon the SARR using both the Modified-ATC and Alternate-ATC methodologies. *Id.* at 47-50. Both of their examples are based upon the same assumptions to which they then apply each methodology. The assumptions are:

- A 900 mile incumbent divided into three equidistant 300 mile segments.
- Segment densities of 80, 100, and 80 MGTs, respectively.
- A SARR that replicates the bridge segment.
- 80% of the traffic on the SARR (*e.g.* 80 MGTs) is cross-over traffic that would be excluded by the Board's proposed limits.
- 20% of the traffic on the SARR (*e.g.* 20 MGTs) is a combination of the issue traffic, other local traffic, and cross-over traffic that would not be excluded by the Board's proposed limits.

The per-unit fixed cost requirement is based on densities five times greater than those available to the SARR. Because ATC allocates revenue based on the much higher density of the incumbent, which includes the cross-over traffic that is not available to the SARR, the revenues will not cover the total costs over the lighter density SARR under either Modified-ATC or Alternate-ATC. *Id.* at 48-49. If the SARR moved all 20 MGTs of the traffic available to it after

applying the cross-over traffic restrictions, both Modified and Alternate-ATC would allocate fixed costs to the traffic sufficient to cover only 20% of the total fixed costs of the SARR segment. *Id.* at 49-50.

The Joint Chemical Companies do not contend that there should be any connection at all between ATC and the operations of the SARR. As explained in Part III.B.1, above, because the Board never intended for there to be a connection between ATC and the SARR's operations, there is no need for any cross-over traffic restriction. However, if the Board suddenly were to justify such restrictions based upon a "disconnect" between SARR operations and the revenue allocated to the SARR, it must apply that logic consistently so as to avoid the creation of an even larger "disconnect" between the SARR's traffic density and the revenue allocated to the SARR.

IV. **MODIFIED-ATC IS SUPERIOR TO ALTERNATE-ATC.**

The Board's proposal to replace Modified-ATC with Alternate-ATC will produce the same sort of illogical results that initially prompted the Board to replace Original-ATC with Modified-ATC. Because this would be a step backwards, the Board should not adopt Alternate-ATC. Messrs. Crowley and Mulholland explain this in detail at pages 16-27 of their Verified Statement.

In *Major Issues*, the Board adopted Original-ATC in order to equitably distribute cross-over revenue to the on-SARR and off-SARR segments in relation to the costs incurred by the incumbent to move the traffic that generates those revenues in the real world. Original-ATC captured the effect of the economies of density inherent in the rail industry while also reflecting the diminishing incremental economies as density increases. However, Original-ATC also had a critical flaw. It produced illogical and biased results by allocating revenue to a segment that was insufficient to cover that segment's variable costs, while allocating revenue to other segments

that more than covered their variable costs. Crowley/Mulholland V.S. at 14-15. The Board quickly discovered this flaw in the very first case to apply Original-ATC.

In *Western Fuels I*, the Board adopted Modified-ATC to fix the illogical and biased results produced by Original-ATC. Specifically, the Board recognized that a reasonable cross-over revenue allocation methodology must account for more than density; it also must allocate sufficient revenue to cover all of a line segment's variable cost of service before any segment receives a contribution to fixed costs and profits. Modified-ATC addressed this problem by ensuring that cross-over revenue first is sufficient to cover each segment's variable costs before allocating any revenues in excess of variable costs to defray fixed costs and/or contribute to profits. Crowley/Mulholland V.S. at 14-15.

The Board has proposed Alternate-ATC as a possible middle ground between Original-ATC and Modified-ATC. Although Alternate-ATC still ensures that each segment is allocated sufficient revenue to cover their respective variable costs, it would in some cases allocate all of the contribution from an entire movement in excess of variable costs to only a portion of the movement. This will continue to produce illogical results, similar to Original-ATC.

In addition, both Original and Alternate-ATC produce absurd results by making low density lines more profitable on a per-ton basis than high density lines. Although Modified-ATC correctly considers economies of density, Original and Alternate-ATC systematically deprive high density lines of the benefits derived from economies of density and arbitrarily reallocate those benefits to low density line segments. Crowley/Mulholland V.S. at 16. Because high density lines are in fact more profitable on a per-unit basis than low density lines, the revenue allocation methodology should reflect this fundamental economic principle. Messrs. Crowley and Mulholland present two examples that compare the Modified-ATC and Alternate-ATC

results when applied to the same hypothetical facts to demonstrate how Alternate-ATC will make movements over the lower density segment more profitable than the same movements over the higher density segment. *Id.* at 17-19.

Messrs. Crowley and Mulholland also demonstrate that Alternate-ATC actually caps revenues at levels well below the market rates that the incumbent earns on the traffic on high density segments, while inflating the revenues to levels well above the rates the market will bear on low density segments. Crowley/Mulholland V.S. at 20-22. They consider three scenarios where movement revenues equal 100% of variable costs, 100% of total costs, and 125% of total costs. They then apply Original, Modified, and Alternate-ATC to all three scenarios and examine the impact upon each segment's R/VC ratios. These examples demonstrate the flaw in Original-ATC. Both Original and Alternate-ATC cap the high density segment R/VC well below the total movement R/VC, and the low density segment R/VC increases at a far greater rate than the rate at which the overall R/VC increases. This trend becomes more pronounced the greater the movement's revenue. Thus, Alternate-ATC shares another Original-ATC flaw by restricting the ability of the high density segment to benefit from real-world high R/VC ratios, and improperly diverting revenue to low-density segments.

Such a result is contrary to fundamental economic principles that economies of scale should lead to greater, not less, profitability. Because Original-ATC and Alternate-ATC both suffer from this fundamental flaw, and Modified-ATC does not, the Board should continue to use Modified-ATC to allocate cross-over revenue.

V. THE BOARD SHOULD REMOVE THE SSAC RELIEF CAPS EVEN WITHOUT CHANGES TO THE RPI CALCULATION.

The Board has proposed two modifications to the SSAC approach. First, it has proposed to remove the existing \$5 million relief cap. Notice at 13. Second, it has proposed to remove the simplifying assumptions for calculating RPI costs. *Id.* The first proposal, however, is linked to adoption of the second proposal. *Id.* Therefore, in addition to soliciting comment on each proposal, the Board also asks whether adoption of the first proposal should be contingent upon adoption of the second. *Id.* at 14. Although the Joint Chemical Companies support the first proposal and oppose the second proposal, they do not believe the two proposals should be linked.

A. The Board Should Remove The Relief Cap And Extend The Rate Prescription Period.

The Joint Chemical Companies support the Board's proposal to remove the relief cap in cases involving the SSAC approach. However, they do not believe that removal of the cap should be contingent upon adoption of the proposed change to calculating RPI costs, because ample basis for removing the relief cap already exists independent of that proposed change. Moreover, the Board also should extend the SSAC rate prescription to 10 years for all the same reasons that justify removal of the relief cap.

By placing limits on the relief available using the SSAC approach, the Board intended to discourage shippers "from using a cruder methodology than the value of the case warrants." Ex Parte 646 (Sub-No. 1), *Simplified Standards for Rail Rate Cases*, slip op. at 28 (served Sept. 5, 2007) ("*Simplified Standards*"). The Board was concerned that "an overly simplified approach should not be applied to a case when the amount in dispute justifies the use of a more robust and precise approach." *Id.* at 27. The Board considered the Three-Benchmark method to be less robust and precise than SSAC and SSAC to be less robust and precise than Full-SAC.

The very factors that make SSAC less robust and precise than Full-SAC, however, provide all the encouragement that shippers need to use Full-SAC in appropriate cases, because they ensure that a rate prescribed by SSAC will be higher than a rate prescribed by Full-SAC. Specifically, the most significant simplifying aspects of SSAC are the inability of the shipper to design a SARR that eliminates inefficiencies from the defendant railroad's existing network and operations, and the inability of the shipper to select the traffic group it wishes to serve. These factors alone are the predominant reasons why SSAC rate prescriptions will always be higher than Full-SAC prescriptions. *Crowley/Mulholland V.S.* at 54.

The only simplifying factor that does not inexorably place upward pressure on the SSAC prescribed rate is the use of a rolling average of RPI cost components from the most recent four Full-SAC cases. Although less precise than calculating RPI costs specifically for the case at hand, the Board has demonstrated that the average RPI cost per track mile typically varies less than 10% from one case to the next. *Simplified Standards* at 38. Messrs. Crowley and Mulholland have updated the Board's original analysis in *Simplified Standards* to show that this variance has remained unchanged in subsequent cases. *Crowley/Mulholland V.S.* at 56-57. Thus, the simplifying assumptions made for RPI costs in SSAC are highly unlikely to produce a lower prescribed rate than a Full-SAC analysis, because even if those assumptions produce a lower RPI cost, it will not be so much lower as to offset all of the other factors that inexorably push the SSAC prescribed rate higher.

Finally, in addition to removing the SSAC relief cap, the Board should extend the 5 year rate prescription period to 10 years for all the same reasons. Those arguments become even more compelling if the Board also adopts its proposed changes for calculating RPI costs, because

then all of the SSAC simplifying factors would exert only upward pressure on the prescribed rate.

B. The Board Should Not Require A Full-SAC Showing For RPI Costs.

Simplified-SAC is a bit of a misnomer because, although simpler than Full-SAC, it still is by no means simple. In the Notice, however, the Board has proposed to further complicate the SSAC standard by eliminating one of the most significant simplifications of Full-SAC. Notice at 14-15. Specifically, instead of calculating RPI costs based upon a 4-year average of recent Full-SAC cases, the Board would require shippers to present the same detailed evidence as Full-SAC cases. The Board acknowledges that this “will raise costs and may require extending the procedural schedule.” *Id.* at 14. But, the Board has expressed its belief that it cannot retain the RPI simplification if it is going to remove the relief cap. *Id.*

The development of RPI cost evidence is one of the most expensive and time-consuming elements of a Full-SAC case. *Crowley/Mulholland V.S.* at 60. If the Board eliminates that simplification, there will be even less incentive for shippers to choose SSAC over Full-SAC. Indeed, the Board would undermine its goal, in removing the SSAC relief cap, “to encourage shippers to use a simplified alternative to a Full-SAC analysis that is economically sound, yet provides a less complicated and less expensive way to challenge freight rates....” Notice at 3.

The Joint Chemical Companies believe that the Board has underestimated the cost of removing the RPI simplification. Messrs. Crowley and Mulholland, testify that the cost of developing RPI evidence alone could exceed \$1 million in an individual case. *Crowley/Mulholland V.S.* at 60. Because no two SARRs are alike, the resources required to develop RPI evidence depend upon multiple factors such as geography, distance, the commodities transported by the SARR, and the scale of the iterative analytical processes that must be conducted to maximize network efficiency and final configuration. *Id.* Thus, the

Board's estimate of \$800,000 is understated and the selection of a single average estimate has the high potential to grossly under-estimate the actual cost.

The Joint Chemical Companies also disagree with the Board's rationale for linking removal of the relief cap to removal of the RPI simplification. As discussed in the preceding section, the RPI simplification does not significantly detract from the robustness of the SSAC analysis. Moreover, because all of the other simplifying factors in the SSAC analysis inexorably lead to higher prescribed rates than a Full-SAC analysis, they will more than offset the small degree of imprecision associated with the RPI simplification.

VI. THE BOARD SHOULD REMOVE THE THREE-BENCHMARK RELIEF CAP.

The Board has proposed to increase the Three-Benchmark relief cap from the current inflation-adjusted level of \$1.2 million to \$2 million. Notice at 15. Because the current Three-Benchmark relief cap of \$1.2 million is expressly based upon the Board's estimated cost to pursue an SSAC case, that cap should automatically increase whenever the Board determines that SSAC litigation costs have increased and by the amount of the estimated increase. *See Simplified Standards*, slip op. at 27-28, 31. The Joint Chemical Companies, however, urge the Board to remove the relief cap on Three-Benchmark cases altogether.

The proposed increase in the Three-Benchmark relief cap will be too little, if the Board adopts its proposed change for calculating RPI costs in SSAC proceedings, because the Board has under-estimated the increased cost to calculate RPI costs. Furthermore, because no two SARRs are alike, Messrs. Crowley and Mulholland note that it is very difficult to estimate a single average cost to develop RPI costs that would be accurate for most cases. Crowley/Mulholland V.S. at 60. Nevertheless, Messrs. Crowley and Mulholland's estimate, coupled with the fact that the Board initially grossly underestimated the cost to bring a SSAC case, suggests that the Three-Benchmark relief cap should be increased at least to \$4 million. *Id.*

Although the Joint Chemical Companies support an increase to the Three-Benchmark relief cap for the foregoing reasons, they urge the Board to remove the relief cap altogether because it has no rational economic justification. As discussed in Part V, above, by placing limits on the relief available, the Board intended to encourage shippers to use the “more robust and precise approach” for the value of the case. Because the Board considered the Three-Benchmark method to be less robust and precise than either SSAC or Full-SAC, it felt that relief caps were necessary.

The Joint Chemical Companies submit that the very factors that make the Three-Benchmark method “less robust and precise” than SSAC or Full-SAC also provide all the incentive that shippers need to select the most appropriate methodology for the value of their case. Specifically, the Three-Benchmark approach calculates an average R/VC ratio for comparable potentially captive traffic (traffic with R/VC ratios above 1.80) and adjusts that average up or down based upon whether, and by how much, the defendant is revenue inadequate or revenue adequate.⁹ This formulaic approach results in a determination that the presumptive maximum reasonable rate equals the monopoly rate unless a party can quantify the impact of other relevant factors upon that rate. This comparative approach to rate regulation, along with the process for selecting comparable traffic, has a built-in bias towards higher rate prescriptions than either SSAC or Full-SAC.

In a world where rail rates have been rising significantly for nearly a decade, simply comparing the challenged R/VC ratio to the average R/VC ratio for comparable potentially captive traffic means that the benchmark will be high, because a rising tide lifts all boats. The following factors in the Three-Benchmark approach ensure that this will occur:

⁹ *Simplified Standards*, slip op. at 21-22.

- Because the comparison group is limited to potentially captive traffic,¹⁰ it comprises traffic over which the railroad also can be expected to exert market power, and thus the comparison R/VC ratios also should be high. It is not a model that compares total revenues to total revenue need as in the SSAC and Full-SAC analyses. Rather, it is simply a measure of the extent to which the railroad exerts its market power where it can. Thus, the consideration of rates paid only by potentially captive traffic in the Three-Benchmark approach influences the prescribed rate in an upward direction (it only evaluates the segment of the market paying monopoly rates) from either the SSAC or Full-SAC approach. Crowley/Mulholland V.S. at 58.
- The Board's decision to give preference to a comparison group that excludes contract traffic adds an upward bias to the Three-Benchmark rate prescription, because tariff rates tend to be higher than contract rates.¹¹ Otherwise, there would seem to be little advantage to a contract, especially when the traffic is already captive to the railroad.
- Because the average comparable R/VC ratio is adjusted upward for revenue inadequacy, and most railroads are not revenue adequate, the already high ratio is further inflated to a true monopoly rate, whether or not the market will bear it. In contrast, a railroad's revenue inadequacy is not relevant to the SSAC or Full-SAC approach.¹² Crowley/Mulholland V.S. at 58.

For the foregoing reasons, a rate prescribed pursuant to the Three-Benchmark approach will be higher than a rate prescribed by the SSAC or Full-SAC approach. Consequently, a shipper who elects to use the Three-Benchmark approach already must accept a trade-off in the form of a higher rate prescription in exchange for a less expensive and faster rate case process. These factors also warrant an extension of the five year prescription period for a Three-Benchmark case to 10 years. Thus, there is no need for the Board to impose a relief cap to discourage shippers from using the Three-Benchmark approach in inappropriate cases; the shipper already has ample incentive to use SSAC and Full-SAC when they are more appropriate.

¹⁰ *Simplified Standards*, slip op. at 17.

¹¹ *Id.* at 83.

¹² *Guidelines*, 1 I.C.C.2d at 536 (“[A] rate may be unreasonable even if the carrier is far short of revenue adequacy.”).

VII. THE BOARD'S PROPOSAL TO RAISE THE INTEREST RATE FOR REPARATIONS PAYMENTS IS LONG OVERDUE, BUT FALLS SHORT OF WHAT IS NEEDED TO MAKE SHIPPERS WHOLE.

The Joint Chemical Companies strongly support the Board's proposal to substitute the U.S. Prime Rate for the T-Bill rate for calculating the interest due on reparations in 49 C.F.R. 1141.1(a). Notice at 18. While this proposal is a substantial improvement upon the *status quo*, shippers still will remain prejudiced, albeit to a lesser degree, even by the low level of the U.S. Prime Rate. Therefore, the Joint Chemical Companies submit an additional proposal in order to foster more expeditious rate case proceedings and to mitigate the harm to shippers from protracted rate case proceedings.

A. The Board Should Raise The Interest Rate For Reparations Payments.

Because shippers must pay the challenged tariff rates while their complaint is pending at the STB, it is important that reparations include a fair and appropriate interest component. This need is magnified by the fact that the tariff rate paid almost always is higher than the railroad's best contract offer that the shipper has turned down as unreasonably high. Moreover, the length of time required to pursue SSAC cases, which are estimated to require a minimum of 18 months, and Full-SAC cases, which can require 5 years or more, means that the interest component can amount to a sizeable portion of a shipper's overall damages.

Under the current T-Bill rate of 0.1%, railroads receive a virtual interest free loan from shippers while a rate case is pending. Presumably, the railroads can invest the tariff premium and earn their cost of capital. In contrast, the railroads' cost of issuing debt obligations on the open market is much higher. For example, in Ex Parte No. 558 (Sub 15), *Railroad Cost of Capital—2011* (served Sept. 13, 2012), the railroad industry's cost of debt was 3.97%. Therefore, the U.S. Prime Rate, currently at 3.25%, is much closer to a fair and reasonable

interest rate for reparations, although the railroads still will earn a windfall on the spread between the interest paid and their cost of capital.

B. The Board Needs To Do More Than Just Raise The Interest Rates On Reparations To Make Shippers Whole.

In both Ex Parte No. 705, *Competition in the Rail Industry*, and in pending rate cases, shippers have expressed concern that the greatest cost in pursuing regulatory relief is the tariff premium that they must pay to the railroad while their case is pending. If a case lasts three years, that premium is likely to be 4-5 times the shippers' out-of-pocket litigation costs, which are estimated to be around \$5 million.¹³ This can take a substantial toll on the competitiveness of the shipper in its industry during this time. If recent rate cases involving non-coal shippers are any indication, the duration of Full-SAC cases is more likely to average 5 years, which will only magnify the tariff premium impact. Therefore, the Joint Chemical Companies propose that the Board adopt certain changes to the SAC analysis to mitigate the impact of procedural delays upon shippers.

Currently, the longer a rate case takes, a shipper must pay even more money in tariff premiums. This premium is similar to the "ante" in poker that a player must make in order to play the game and to stay in the game after each round. Unlike poker, however, the only player adding money to the pot is the shipper. The railroad makes no similar "ante" and receives a virtually interest free loan from the shipper. Furthermore, if the railroad wins the case, it keeps all of the tariff premium. Thus, while the shipper has more money at risk the longer a case takes, its reward for winning the pot will not increase at all. In contrast, the railroad's reward will increase significantly.

¹³ *Simplified Standards*, at 31.

The Joint Chemical Companies propose to level the playing field at least a little bit by modifying the SAC rules so that a shipper does earn an extra return, if it prevails in the rate case, for the added risk of an extended proceeding. Specifically, they propose to extend the rate prescription by a year for every year, or portion thereof, above three years from the filing of the complaint that a case takes to obtain a final appealable decision.

In addition to partially compensating the shipper for its enormous risk, this proposal also will give railroads an incentive not to delay a case unnecessarily. The current system rewards a railroad for delay because, if the railroad prevails in a rate case, it gets to keep the entire tariff premium paid by the shipper. Railroads also can use delay to punish a shipper and to discourage other shippers from pursuing regulatory remedies for unreasonably high rates.

The Board clearly has the authority to grant this request. Although the current rate prescription period is 10 years, it was in fact 20 years prior to the Board's decision in *Major Issues*. Thus, there is precedent for a longer prescription period.

Respectfully submitted,



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October 23, 2012

CERTIFICATE OF SERVICE

I hereby certify that this 23rd day of October 2012, I served a copy of the foregoing to the following parties by first class mail:

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BEFORE THE
SURFACE TRANSPORTATION BOARD

Docket No. EP 715

Rate Regulation Reforms

Verified Statement

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On Behalf Of

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Transportation League,
Arkema, Inc., The Dow Chemical Company, Olin Corporation,
And Westlake Chemical Corporation

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TABLE OF CONTENTS

PAGE

I. INTRODUCTION.....	1
II. IMPACT OF THE PROPOSED CHANGES IN EP 715 ON THE FULL SAC MAXIMUM RATE PROCEDURES.....	3
A. ALIGNING THE SARR OPERATIONS WITH THE INCUMBENT'S COSTS IS MISGUIDED AND INAPPROPRIATE.....	4
1. Revenue Divisions Are and Should Be “Connected” to Incumbent Operations, Not SARR Operations	5
2. There is No Reason to Evaluate Revenue Allocated to the SARR Segment Relative to Costs the SARR Incurs to Move the Traffic	6
3. The Board’s Policy With Regard To Traffic That is Internally Rerouted on the SARR Offers Further Proof that SARR Operating Costs Are Irrelevant to Revenue Divisions.....	7
B. THE PURPOSE OF ATC IS TO DIVIDE THE REVENUES AN INCUMBENT EARNS ON A PIECE OF TRAFFIC BETWEEN DISCRETE SEGMENTS ALONG THE INCUMBENT’S REAL WORLD ROUTE OF MOVEMENT.....	7
C. ALTERNATE ATC WILL PRODUCE THE SAME ILLOGICAL RESULTS AS ORIGINAL ATC.....	11
1. Modified ATC is Still Superior to Original ATC for the Reasons Articulated By the Board in <i>WFA/Basin</i>	12
2. Alternate ATC Artificially Caps R/VC Ratios on High-Density Rail Segments	20
D. THE ROLE AND LIMITATIONS OF MODELING IN ECONOMIC ANALYSIS.....	22

E. IF ANY REVENUE ALLOCATION METHODOLOGY DEFICIENCIES EXIST, THE PROPER COURSE OF ACTION IS TO CORRECT THEM, IT IS NOT TO ELIMINATE CROSS-OVER TRAFFIC FROM THE SAC ANALYSIS.....	25
1. The Board Has Not Articulated An Actual Problem.....	27
2. The Board’s Proposed Cross-Over Restrictions Are Based on New and Unsupported Presumptions.....	31
F. THE DANGERS OF RESTRICTING CROSS-OVER TRAFFIC	36
1. Cross-Over Traffic Limitations Would Undermine the SAC Test.....	38
2. A SAC Analysis Framework That Disallows Large Classes of Cross-Over Traffic Will Result in Whole-Railroad SARRs.....	40
3. Cross-Over Traffic Ensures the SARR Has Access to the Same Scale Economies The Incumbent Enjoys.....	42
4. Today’s Railroads Earn High Profits	44
G. THE PROPOSED CROSS-OVER TRAFFIC LIMITS WOULD EFFECTIVELY CREATE A DISCONNECT BETWEEN ATC REVENUE ALLOCATION AND FIXED COST RECOVERY REQUIREMENTS FOR THE ON-SARR MOVEMENT SEGMENT.....	45
H. THE BOARD’S PROPOSED RESTRICTIONS ON CROSS-OVER TRAFFIC ARE CRUDE AND OVERLY BROAD	51
III. IMPACT OF THE PROPOSED CHANGES IN EP 715 ON THE SIMPLIFIED SAC (“SSAC”) MAXIMUM RATE PROCEDURES.....	54
A. ROAD PROPERTY INVESTMENT CHANGE IS NOT NECESSARY.....	55
IV. IMPACT OF THE PROPOSED CHANGES IN EP 715 ON THE THREE BENCHMARK (“3BM”) MAXIMUM RATE PROCEDURES.....	58

LIST OF EXHIBITS

<u>EXHIBIT NO.</u>	<u>EXHIBIT DESCRIPTION</u>
(1)	(2)
1	Statement Of Qualifications Of Thomas D. Crowley
2	Statement Of Qualifications Of Robert D. Mulholland
3	Sample Movements, Variable Costs
4	Summary of Western SAC Case Road Property Investment (“RPI”) Costs

I. INTRODUCTION

We are Thomas D. Crowley and Robert D. Mulholland, economists and President and a Vice President, respectively, of L. E. Peabody & Associates, Inc., an economic consulting firm that specializes in solving economic, transportation, marketing, financial, accounting and fuel supply problems. Mr. Crowley has spent most of his consulting career of over forty (40) years evaluating fuel supply issues and railroad operations, including railroad costs, prices, financing, capacity and equipment planning issues. His assignments in these matters were commissioned by railroads, producers, shippers of different commodities, and government departments and agencies. Mr. Mulholland has also spent most of his career of over eighteen (18) years evaluating fuel supply issues and railroad operations, including railroad costs, prices, capacity and equipment planning issues. He has conducted this work for shippers, producers, railroads, and government departments and agencies. A copy of Mr. Crowley's credentials is included as Exhibit No. 1 and a copy of Mr. Mulholland's credentials is included as Exhibit No. 2 to this Verified Statement ("VS").

We have been requested by Counsel for The American Chemistry Council ("ACC"), The National Industrial Transportation League ("NITL"), The Fertilizer Institute ("TFI"), Arkema, Inc. ("Arkema"), The Dow Chemical Company ("Dow"), Olin Corporation ("Olin"), and Westlake Chemical Corporation ("Westlake") (collectively "Joint Chemical Companies") to review and comment on the Surface Transportation Board's ("STB" or "Board") proposal to modify its rules related to various aspects of its three maximum rate procedures as identified in *EP 715*.^{1/}

¹ STB Docket No. *EP 715, Rate Regulation Reforms*, decided July 25, 2012 ("*EP 715*").

The results of our review are summarized in the remainder of this VS and accompanying Exhibits. Specifically, our comments are organized under the following topical headings:

- II. Impact of the Proposed Changes in *EP 715* On the Full SAC Maximum Rate Procedures
- III. Impact of the Proposed Changes in *EP 715* On the Simplified SAC Maximum Rate Procedures
- IV. Impact of the Proposed Changes in *EP 715* On the Three Benchmark Maximum Rate Procedures

II. IMPACT OF THE PROPOSED CHANGES IN EP 715 ON THE FULL SAC MAXIMUM RATE PROCEDURES

The STB's *EP 715* decision invites comments on two aspects of a full stand-alone cost ("SAC") presentation. The first STB issue involves restrictions on the use of cross-over traffic and the second issue involves a change to the average total cost ("ATC") revenue divisions procedures. Our comments on these two components of a full SAC analysis are organized below under the following topical headings.

- A. Aligning the SARR Operations with the Incumbent's Costs is Misguided and Inappropriate
- B. The Purpose of ATC is to Divide the Revenues an Incumbent Earns On a Piece of Traffic Between Discreet Segments Along The Incumbent's Real World Route of Movement
- C. Alternate ATC Will Produce the Same Illogical Results As Original ATC
- D. The Role and Limitations of Modeling in Economic Analysis
- E. If Any Revenue Allocation Methodology Deficiencies Exist, The Proper Course of Action is to Correct Them, It is Not to Eliminate Cross-Over Traffic from The SAC Analysis
- F. The Dangers of Restricting Cross-Over Traffic
- G. The Proposed Cross-Over Traffic Limits Would Effectively Create a Disconnect Between ATC Revenue Allocation And Fixed Cost Recovery Requirements For The On-SARR Movement Segment
- H. The Board's Proposed Restrictions on Cross-Over Traffic are Crude And Overly Broad

**A. ALIGNING THE SARR OPERATIONS
WITH THE INCUMBENT'S COSTS IS
MISGUIDED AND INAPPROPRIATE**

The STB has consistently held that the ATC methodology for dividing cross-over traffic² movement revenue is intended to divide the incumbent's revenues among the incumbent's movement segments based on the relative costs the incumbent incurs to move the traffic over those movement segments. The Board has also consistently held that the incumbent's total costs (i.e., variable costs plus fixed costs) must be considered for each movement segment. Finally, the Board has held that the best method for estimating the variable costs incurred by the incumbent for any given movement segment is provided by the Board's unadjusted Uniform Railroad Costing System ("URCS") Phase III variable cost model, and the estimate of fixed costs should be based on system average fixed costs per route mile and the incumbent's segment densities.

The Board now indicates in *EP 715* that it perceives a disconnect between the hypothetical cost of providing SARR service and the revenue allocated to the SARR facilities based on the costs incurred by the incumbent.

[P]arties in Full-SAC cases may not use URCS to estimate the operating costs of the hypothetical SARR because the SARR is not replicating the existing facilities and existing operations of the defendant railroad, as is the case in the Simplified-SAC proceeding. Instead, the complainants develop the operating costs of the SARR based on the particular services offered to the selected traffic group, but then use URCS operating costs for purposes of the revenue allocation, which creates the disconnect between the hypothetical operating costs of the SARR and the revenue allocation. [footnotes omitted]³

² Cross-over traffic is traffic whose real world route of movement traverses the posited SARR network and segment(s) of the incumbent's network that is not constructed by the SARR.

³ See, *EP 715*, at 16-17.

There is no disconnect. The perceived disconnect arises from the fact that the Board has lost sight of the purpose of its revenue division model (i.e., to allocate the incumbent's movement revenue to the incumbent's movement segments based on the costs incurred by the incumbent to move the traffic over those segments). Therefore, the Board's attempt to align the ATC revenue allocations to the SARR's costs is misguided and inappropriate.

**1. Revenue Divisions Are and Should Be
"Connected" to Incumbent Operations,
Not SARR Operations**

In *Major Issues*,⁴ the parties offered comments that the Board carefully considered in its development and implementation of the ATC formula. One of the issues not explicitly made clear by the Board was whether the incumbent's or the SARR's densities should be included in the formula for the SARR portion of the movement.⁵ The STB resolved the issue in its decision in *WFA/Basin*⁶ when it stated that the proper approach is to use the actual densities of the incumbent railroad. The Board emphatically stated that it was appropriate to include the incumbent's densities – not the SARR's densities – in the formula *because revenue allocation has nothing to do with SARR operations*, but rather with the incumbent railroad's relative costs of service over the relevant segments of its network. Unadjusted URCS Phase III costing for the variable cost portion of the ATC formula reflects the incumbent's cost of operations, and use of the incumbent's densities for the fixed cost portion of the ATC formula reflects the incumbent's scale economies.

The STB now appears to be abandoning its position that SARR operations are unrelated to the division of the incumbent's revenues. The Board's complete reversal of its position on

⁴ STB Ex Parte No. 657 (Sub-No. 1), *Major Issues In Rail Rate Cases*, served October 30, 2006 ("*Major Issues*").

⁵ See, *Major Issues*, at 34.

⁶ STB Docket No. 42088, *Western Fuels Association, Inc., and Basin Electric Power Cooperative v. BNSF Railway Company*, served February 18, 2009 ("*WFA/Basin*").

mixing and matching incumbent and SARR operations and costs, first articulated in *AEPCO*⁷ relative to rate prescription methodologies,⁸ and now in *EP 715* regarding cross-over divisions, threatens to undermine the validity of SAC analysis.

2. There is No Reason to Evaluate Revenue Allocated to the SARR Segment Relative to Costs the SARR Incurs to Move the Traffic

The Board's attempt to align the SARR's operations with the ATC revenue divisions is at odds with the long-held view that the stand-alone replacement for the incumbent railroad *need not even be another railroad*. The Interstate Commerce Commission ("ICC") stated in *Coal Rate Guidelines*⁹ that the stand-alone replacement does not need to be another railroad, but any other (theoretically) feasible alternative. The STB affirmed this bedrock position in *WFA/Basin*, indicating "...under SAC the hypothetical competitor to BNSF does not even need to be a railroad at all."¹⁰ Given that the stand-alone replacement does not even need to be another railroad, how the SARR runs its operations is immaterial to the divisions of revenue under the ATC methodology.

⁷ STB Docket No. 42113, *Arizona Electric Power Cooperative, Inc. v. BNSF Railway Company and Union Pacific Railroad Company*, served November 22, 2011 ("*AEPCO*").

⁸ One issue the STB presented in its *AEPCO* decision but failed to address in *EP 715* regarding the mixing and matching of incumbent and SARR operations deals with what is the proper empty/return ratio to use when developing URCS Phase III variable costs. When the Board ordered the parties in *AEPCO* to develop new URCS Phase III variable costs based on unit train operating statistics, *AEPCO* relied on the URCS Phase III default empty/return ratio of 2.0 that is consistent with unit train operations. The incumbent railroads stated that movement specific adjustments should be made to the variable costs to reflect non-unit train empty/return ratios. The Board stated at page 36 of its *AEPCO* decision that it did not resolve this issue since it was immaterial to the case, but the issue had been framed for future litigants to fully brief.

⁹ STB Ex Parte No. 347 (Sub-No. 1), *Coal Rate Guidelines, Nationwide* ("*Coal Rate Guidelines*"), at 543.

¹⁰ See, *WFA/Basin*, at 14.

3. The Board's Policy With Regard To Traffic That is Internally Rerouted on the SARR Offers Further Proof that SARR Operating Costs Are Irrelevant to Revenue Divisions

Another demonstration that the Board's attempt to evaluate the revenue divisions on the incumbent movements through the prism of the SARR operations is misguided can be made by simply evaluating the Board's revenue division policy (and underlying economic theory) for cross-over traffic that is internally rerouted over the SARR segment.

For example, assume an incumbent shipment moves 300 miles from origin A to intermediate station B, 300 miles from intermediate station B to intermediate station C, and 300 miles from intermediate station C to destination D. Now assume that the SARR segment is from B to C but that the movement is rerouted offline on the SARR segment such that the B-to-C segment is 350 miles long. ATC properly allocates the SARR revenue for the B-to-C segment based on the incumbent's routing, not based on the SARR's longer and costlier alternate routing. This is the proper treatment because the divisions reflect the incumbent's relative costs, not the SARR's costs.

B. THE PURPOSE OF ATC IS TO DIVIDE THE REVENUES AN INCUMBENT EARNS ON A PIECE OF TRAFFIC BETWEEN DISCRETE SEGMENTS ALONG THE INCUMBENT'S REAL WORLD ROUTE OF MOVEMENT

In *AEPCO*, the Board perceived an issue with its revenue division methodology on cross-over traffic. In *EP 715*, the Board seeks proposals on a remedy for the problem it perceived. The Board's concerns are unwarranted – there is no problem with the revenue division methodology for cross-over traffic. Also, it is dangerous to base rule changes on a single feature of a particular case. The revenue division rules must be crafted with a single guiding principle,

i.e., to ensure that incumbent revenues are allocated to incumbent movement segments such that the relative costs incurred to move the traffic over the various segments is reflected in the divisions (i.e., revenues are “fairly” allocated) based on the incumbent’s operations.

In *Major Issues* and subsequent rate reasonableness proceedings, the Board has held that its ATC revenue division methodology is meant to allocate revenues to the segments of a shipment such that the revenue divisions reflect the incumbents’ relative costs without bias.¹¹ Two axioms arise from meeting this goal. First, revenues allocated to segments must be additive across the entire route of movement (“Additive Principle”). Second, revenues allocated to the segments must equal the revenue for the entire movement (“Totality Principle”). If the Board’s goal of fairness is achieved, then it will not matter which segments of the incumbent system a SARR replicates, because all segments are assured to receive “fair” revenue allocations when measured against the incumbent’s operations.

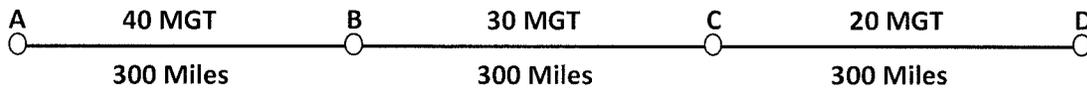
The logic behind the Board’s new proposals to limit cross-over traffic violates both of the foregoing axioms. Below we use a hypothetical example to demonstrate the problems with the Board’s proposals. Assume a 900 mile incumbent railroad network from point A to point D via points B and C with three equal length segments of 300 miles each. Also assume traffic volumes moved over the incumbent are as follows:

- 20 million gross tons (“MGT”) move from A to B,
- 20 MGT move from A to D, and
- 10 MGT move from B to C.

The above movement volumes produce line segment densities as shown in Figure 1 below.

¹¹ See: *WFA/Basin* at p. 13.

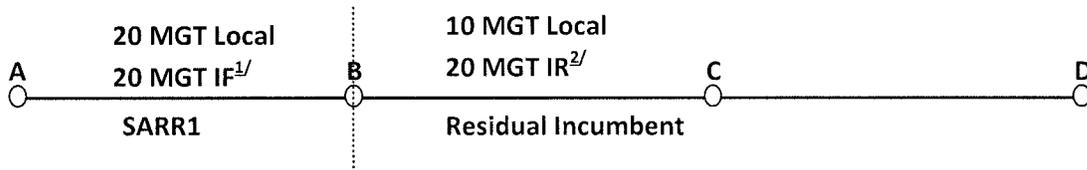
Figure 1



Below are two hypothetical SARR scenarios based on the above network.

a. **SARR Scenario 1** -- In SARR Scenario 1, a coal mine is situated at point A and a power station owned by the complainant is situated at point B. The Scenario 1 SARR (“SARR1”) segment is from point A to point B and the residual incumbent segment is from point B to point D. The SARR originates 40 MGT at point A, terminates 20 MGT at point B, and interchanges 20 MGT with the residual incumbent at point B. As shown in Figure 2 below, half of the SARR traffic is cross-over traffic, and the SARR performs terminal services on all of its cross-over traffic.

Figure 2

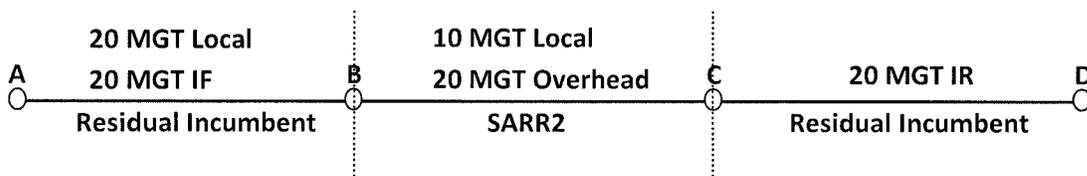


^{1/} IF = Interline Forwarded traffic

^{2/} IR = Interline Received Traffic

b. **SARR Scenario 2** -- In SARR Scenario 2, a chemical producer is situated at point B and a chemical processing plant owned by the complainant is situated at point C. The Scenario 2 SARR (“SARR2”) segment is from point B to point C and the residual incumbent segments are from point A to point B and from point C to point D. The SARR moves 10 MGT in local service from point B to point C, and 20 MGT in overhead service from point B to point C. As shown in Figure 3 below, two-thirds of the SARR traffic is cross-over traffic, and the SARR does not perform terminal services on any of its cross-over traffic.

Figure 3



c. Traffic Common to SARR1 and SARR2 -- Both SARR1 and SARR 2 propose to handle a common 20 MGT that moves from point A to point D over the incumbent in the real world.

- SARR1 proposes to originate the common traffic at point A and interchange it to the residual incumbent at point B. SARR1 would receive revenues allocated to segment A-B by ATC, and the residual incumbent would receive revenues allocated to segment B-D. (As we indicated, because of the Additive Principle, the revenue allocated to segment B-D is mathematically equivalent to the sum of the revenues allocated to segments B-C and C-D¹²) by ATC.
- SARR2 proposes to move the common traffic in overhead service and interchange it with the residual incumbent at points B and C. SARR2 would receive revenues allocated to segment B-C by ATC, and the residual incumbent would receive revenues allocated to segments A-B and C-D by ATC.

The movement revenues are allocated to the three incumbent segments on the traffic that is common to SARR1 and SARR2 using the same ATC formula and inputs. By definition, the revenues allocated to segment B-C on the common traffic between SARR1 and SARR2 must either be fairly allocated in both scenarios or unfairly allocated in both scenarios. However, under the Board's first proposed restriction on cross-over traffic:

- SARR1 would be allowed access to the 20 MGT of cross over traffic moving between points A and D because the Board believes the revenue allocation for this traffic on Segment A-B is fair in the SARR1 scenario. The implication is that because the

¹² Using URCS Phase III, Segment A-B is allocated origin terminal costs plus 300 miles of line-haul costs, segment B-C is allocated 300 miles of line-haul costs, and segment C-D is allocated 300 miles of line-haul costs plus destination terminal costs. Therefore, segment B-D would be allocated 600 miles of line-haul costs plus destination terminal costs.

revenue allocated to Segment A-B is fair, the revenue allocated to Segments B-C and C-D must also be fair.

- SARR2 would not be allowed access to the same traffic moving between points A-D because the Board believes the same revenue allocation is unfair in the SARR2 scenario. In other words, if the revenue allocated to Segment B-C is unfair in the SARR2 scenario, the revenue allocated to segments A-B and C-D must also be unfair.

The Board's logic is critically flawed at its most basic level. If the Board believes the revenue allocated to the three segments is "fair" in the SARR1 scenario, then it cannot hold the same revenue allocation is "unfair" in the SARR2 scenario. The natural extension of the Board's flawed logic would be that a different revenue allocation methodology would be required for every different SARR configuration.

The Board must decide on a revenue division methodology it believes fairly allocates revenue to all potential segments of an incumbent's movements based on the incumbent's operations. This is precisely what the Board's cost-based ATC methodology is purported to accomplish. After the Board decides on a fair revenue allocation model, it must then allow the SARR to replicate any part of the incumbent's system that is required to serve the issue traffic, and grant the SARR access to all traffic moving over the replicated segment. If the revenue divisions are inherently "fair," then a SARR could replicate the first mile, the last 500 miles, the middle 300 miles, or any other portion of any given movement and the residual incumbent would be assured of receiving a "fair" division for whatever operations it was "left to" perform.

**C. ALTERNATE ATC WILL PRODUCE
THE SAME ILLOGICAL RESULTS
AS ORIGINAL ATC**

The reason the Board switched from Original ATC to Modified ATC in *WFA/Basin* was because the Original ATC formula produced illogical results when viewed through the spectrum of the incumbent's costs of providing service, i.e., divisions must at least cover the incumbent's

variable cost before any contribution may be allocated. The Board's proposal of Alternate ATC will correct one of the critical flaws of Original ATC, but it will still produce illogical results in many instances.

**1. Modified ATC is Still
Superior to Original ATC for
the Reasons Articulated By
the Board in *WFA/Basin***

The STB held in *Major Issues* that the goal in allocating revenue from cross-over traffic to the SARR segment and residual incumbent is to ensure that revenue is equitably distributed to the movement segments in relation to the cost incurred by the incumbent to move the traffic that generates the revenues. The STB found that consideration of the incumbent carrier's relative average variable and fixed costs (i.e., ATC) incurred to move a shipment for the on-SARR and off-SARR segments was necessary to achieve its stated goal. Using ATC in the revenue division formula serves to capture the effect of the economies of density inherent in the railroad industry while also reflecting the diminishing incremental economies as density increases. Pursuant to these considerations, the STB applied its ATC division methodology by multiplying the on-SARR ATC division percentage to the incumbent's total movement revenue to develop the amount of revenue allocated to the SARR. This approach subsequently became known as the Original ATC method.

In *WFA/Basin*, the STB modified its formula to reflect a refined and expanded understanding of the practical effect Original ATC had when applied to real-world movements in SAC cases. The STB correctly acknowledged that a reasonable cross-over traffic revenue division methodology must not only capture economies of density, it must also satisfy other economic axioms, including a requirement to allocate revenues to the movement segments sufficient to cover all segments' variable costs of service before any segment receives any

contribution to fixed costs and profits. To this end, the STB modified its approach to correct for the flaws inherent in Original ATC. The corrected, new approach, Modified ATC, is a two-step approach that first calculates the variable costs of service for the On-SARR and Off-SARR portions of a cross-over movement, and then, after assuming each segment recovers its full or pro-rata portion of variable costs, allocates any contribution based on the average total costs for each portion of the move.¹³

The defendant railroad, the BNSF Railway Company (“BNSF”), argued against the Board’s logical and practical changes to its Original ATC formula, largely on procedural grounds, but also offered theoretical arguments in support of the continued use of the demonstrably flawed formula. As discussed below, the Modified ATC methodology that replaced Original ATC meets both of the Board’s criteria where the Original ATC formula clearly fails in many regards.

In *EP 715*, the STB proposed a further modified formula that it believes may offer a reasonable middle ground in the theoretical discussion regarding the validity of the two previously discussed options. The new alternate formula (“Alternate ATC”) is based largely on an alternative BNSF proposed during the lengthy debate in the *WFA/Basin* proceeding. Although the new Alternate ATC formula is clearly superior to the Original ATC formula when applied to a narrow subset of railroad movements (i.e., very low-rated traffic), it still incorporates most of the critical flaws of the Original ATC formula that make it biased and demonstrably inferior to the current Modified ATC standard used by the Board. Below we discuss the relative merits of the three formulas.

¹³ See, *WFA/Basin*, at 14.

a. **Original ATC's Critical Flaws** -- The STB originally proposed an ATC approach to cross-over revenue divisions because incorporating average total costs into the revenue division formula would help capture the economies of density that in major part define the railroad industry. The *Major Issues* decision inferred that the ATC divisions could be calculated by applying the ATC division percentage to a movement's total revenue. Upon its first application of the formula to real world movements in a rate case, the STB was confronted with an obvious critical flaw inherent to the formula that it had failed to consider. The Original ATC approach produced illogical and biased results by allocating revenue to one segment that was insufficient to cover the segment's variable costs of service while allocating revenue to the other segment that not only covered the segment variable costs, but also provided additional revenues to defray fixed costs and contribute to profits.

In fact, Original ATC served to overstate the amount of revenue in excess of variable costs ("contribution") on several movements. For example, assume a 1,000 mile movement with variable costs per ton of \$10 and revenues of \$11 per ton. This movement clearly contributes \$1 per ton in excess of variable costs to help defray fixed costs and contribute to the profits of the incumbent. Now assume the movement is split between two 500-mile segments, one over high-density lines and one over low-density lines. Assume Original ATC divided revenues such that the high-density segment was allocated \$4.75 and the low-density segment was allocated \$6.25. The high-density segment was allocated revenues insufficient to cover the railroad's variable costs (\$5), while the low-density segment was allocated revenues sufficient to cover the railroad's variable costs (\$5) and contribute \$1.25 to defray fixed costs and provide profit. The hypothetical contribution on the 500-mile low-density segment was assumed to be greater than the actual contribution on the entire 1,000 mile real-world movement.

To address this erroneous outcome, the STB developed the Modified ATC approach. Such an approach is logical because it conforms to basic economic principles, while also reflecting the scale economies that exist in the railroad industry.

It is axiomatic that for an operation to continue in the long-run, its revenues must recover its total cost of operations. It is also axiomatic that in the short-run, an operation's revenue must cover its average variable cost of operations, or else the operation would be better-off shutting down.¹⁴ This is because average variable costs by definition do not change with changes in production. While total variable costs will increase with increases in output, average variable costs per unit will remain constant across certain output ranges.¹⁵ If an operation is not recovering its variable costs from its revenues, it would lose less money by producing no products or services at all and absorbing only the loss associated with its fixed costs.

From a revenue division stand-point, any revenue allocation approach must allow each segment to recover its variable costs of service before allowing another segment to make a contribution to fixed costs. Otherwise, the segment to which revenues were over allocated would be falsely reliant on assumed contributions to fixed costs that were in reality unavailable. Modified ATC meets this bedrock economic principle by assuring in the first step that a movement's revenue at least covers each segment's variable costs prior to allocating revenues in excess of variable costs to defray any segment's fixed costs or contribute to its profits.

b. Alternate ATC's Shortcomings -- The Board's proposed Alternate ATC formula would partially correct the illogical results of applying the Original ATC formula in the example

¹⁴ See e.g., "Principles of Micro-Economics" Amacher, Ryan, C. or any other introductory economics text.

¹⁵ This is particularly the case with ATC since the variable costs used are URCS Phase III costs, which are the same regardless of the line density of the movements being costed. This point is shown by the fact that there are no density related inputs when developing variable costs using the URCS Phase III costing model. Whether a movement occurs in the heart of the Powder River Basin Joint Line or on lightly traveled branch line, the URCS Phase III model will produce the same variable costs for movements on high-density and low-density segments, holding all other factors constant.

above because it would ensure that both segments were allocated revenues sufficient to cover their respective variable costs. However, Alternate ATC would allocate all of the contribution that is spread over the entire movement in the real world to only a portion of the movement. This result is also illogical, albeit less glaring. The problems with the Alternate ATC formula become much more evident when it is evaluated with respect to its application to a wide spectrum of representative moves.

Both Original and Alternate ATC produce absurd results by making low density lines more profitable on a per ton basis than high density lines. In contrast, Modified ATC produces reasonable results that reflect basic economic principles. Modified ATC appropriately considers economies of density, but Original and Alternate ATC serve to systematically restrict high-density lines from the benefits of economies of density. Scale economies provide systems that enjoy them with greater profitability per unit than those that do not. Similarly, within a system, scale economies are not universal across all operations. For freight railroads, the greatest per-unit profitability on a movement is enjoyed on the highest density segments, all else being equal. Assuming equal revenues, a 100-mile unit coal train movement over a high-density line is more profitable than the same 100-mile unit coal train movement over a low-density line, specifically because less of the revenues on the high-density line are needed to defray joint and common costs. This fundamental principle is the very incentive railroads have to invest their capital strategically to maximize utility and by extension, scale economies. Application of Original and Alternate ATC strips the benefits of scale economies from high-density lines and reallocates them to low-density lines.

Economies of density reflect how per-unit profits for a network of a given size initially increase with increases in output. Railroads strategically invest to accommodate growth on high-density lines to leverage scale economies and *maximize profit on the traffic moving over those*

lines. Original and Alternate ATC transfer the profitability associated with traffic moving on high-density lines to traffic moving on low-density lines, in effect robbing the high-density lines of the very scale economies that incited the railroads to invest in capacity enhancements on those high-density lines in the first place.

High-density lines *are* more profitable on a per-unit basis than low-density lines. A revenue allocation methodology should reflect that fundamental economic principle. In a hypothetical example, the Alternate ATC allocation would be as follows:

- A 1,000-mile movement is split between a 500-mile segment over a 50-million-ton line and a 500-mile segment over a 25-million-ton line.
- The variable costs for each 500-mile segment are \$5.00 per ton.
- The fixed costs are \$1.25 per ton for the high-density segment and \$2.50 per ton for the low-density segment.
- The total costs are $(\$5.00 \times 2) + \$1.25 + \$2.50$, or \$13.75 per ton.
- The rate for the movement is \$15.00 per ton.
- Under Original and Alternate ATC, the high-density segment revenue allocation is $\$6.25/\13.75 , or 45.5%.
- When applied to the movement revenue (\$15.00), the resulting high-density segment revenues are \$6.82 per ton.
- The high-density segment profit per ton is $\$6.82 - \6.25 , or \$0.57 per ton.
- The revenues allocated to the low-density segment are \$8.18 per ton.
- The low-density segment profit is $\$8.18 - \7.50 , or \$0.68 per ton.

The move on the low-density segment is therefore more profitable, after total costs are subtracted, than the move on the high-density segment. This is an economically illogical result.

Under Modified ATC, the allocation would be as follows:

- \$5.00 is allocated to both the high-density and low-density segments to cover the variable costs of service of both segments.
- The remaining \$5.00 in revenue is allocated based on the percentage calculated above, 45.5% to the high-density segment and 54.5% to the low-density segment.
- The high-density segment receives $\$5.00 + (.455 \times \$5.00)$, or \$7.27 per ton.
- The high-density segment profit on the move is $\$7.27 - \6.25 , or \$1.02 per ton.
- The low-density segment receives $\$5.00 + (.545 \times \$5.00)$, or \$7.73 per ton.
- The low-density segment profit is $\$7.73 - \7.50 , or \$0.23 per ton.

The move on the high-density segment is therefore more profitable, *after total costs are subtracted*, than the move on the low-density segment. This is an economically logical result.

Original and Alternate ATC produce per-unit profits that do not comport with actual railroad economics. The problem is even more evident when a relatively high-rated move is evaluated. Table 1 below assesses the impact of applying Original ATC to a move with a revenue-to-variable cost ratio (“R/VC”) of 2.20.

<u>Item</u> (1)	<u>Original and Alternate ATC</u> (2)	<u>Modified ATC</u> (3)
1. Rate per Ton	\$22.00	\$22.00
2. High-Density Segment Total Costs per ton	\$6.25	\$6.25
3. Low-Density Segment Total Costs	\$7.50	\$7.50
4. High-Density Segment Division	\$10.00	\$10.45
5. Low-Density Segment Division	\$12.00	\$11.55
6. High-Density Segment Profit	\$3.75	\$4.20
7. Low-Density Segment Profit	\$4.50	\$4.05
8. Result	Illogical	Logical

As Table 1 above indicates, Original and Alternate ATC produce even more biased results on high revenue movements.

Finally, as a reminder of the reason why the STB properly introduced Modified ATC in the first place, it is helpful to consider a move with an R/VC of 1.00, as depicted in Table 2 below.

Table 2
Comparison of Revenue Division
Methodologies Movement R/VC = 1.00

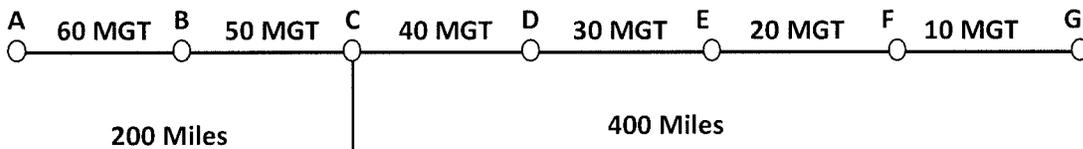
<u>Item</u> (1)	<u>Original ATC</u> (2)	<u>Modified and Alternate ATC</u> (3)
1. Revenue	\$10.00	\$10.00
2. High-Density Segment Total Costs	\$6.25	\$6.25
3. Low-Density Segment Total Costs	\$7.50	\$7.50
4. High-Density Segment Division	\$4.55	\$5.00
5. Low-Density Segment Division	\$5.45	\$5.00
6. High-Density Segment Profit	(\$0.45)	\$0.00
7. Low-Density Segment Profit	\$0.45	\$0.00
8. Result	Antithetical to rate- setting procedures: SARR does not recover incremental costs, Residual Incumbent recovers incremental costs and contribution to joint and common costs	Reflective of rate- setting procedures: SARR and Residual Incumbent recover incremental costs, no contribution to joint and common costs for either entity

In each of the examples above (R/VC=1.00 and R/VC=2.20), it is clear that Original ATC allocates far too much revenue to the low-density segment, making the low-density more profitable on a per-unit basis after all costs (variable and fixed) are covered for movements where revenues are greater than total costs, and turning the high-density segment into a money loser (allocated revenues are less than variable costs) while allocating variable costs plus contribution to the low-density segment on movements where revenues are less than total costs. Alternate ATC only corrects the most glaring problem on the movement where R/VC = 1.0, but it incorporates the critical flaws inherent to Original ATC when allocating revenues on movements with R/VC greater than 1.0.

**2. Alternate ATC Artificially Caps
R/VC Ratios on High-Density
Rail Segments**

The newly-proposed Alternate-ATC will not fairly allocate incumbent revenues between incumbent segments, but rather it will cap high-density segment revenues at levels well below the market rates the incumbent earns on the traffic. In Table 3 below, we examine the allocation of revenues to high- and low-density line segments on a hypothetical system. The system consists of a 200-mile high-density segment and a 400-mile low-density segment. The system becomes ever lower in density in a graduated manner at 100-mile increments as it moves away from the high-density segment. Figure 4 below depicts the system described above.

Figure 4



Fixed costs for the system are assumed to equal \$125,000 per route mile over the entire system, and variable costs for the traffic on the system are assumed to equal \$0.01 per ton-mile per 100 miles. All traffic is assumed to originate at point A and flow towards point G, with 10 million gross tons terminating at the other six points on the network.

We evaluate the impact of applying Original, Alternate, and Modified ATC to all of the traffic that moves over both portions of the system under three hypothetical scenarios where movement revenues are assumed to equal: (1) 100% of variable costs, (2) 100% of total costs, and (3) 125% of total costs.

Table 3
Demonstration of Problems with Original and Alternate ATC Allocations at Various Revenue Levels

<u>Item</u> (1)	<u>High-density segment Portion of Total Costs</u> (2)	<u>% Original ATC Revenue</u> (3)	<u>% Modified and Alternate ATC Revenue</u> (4)	<u>Total Movement R/VC</u> (5)	<u>Original ATC High-density segment R/VC</u> (6)	<u>Original ATC Low-density segment R/VC</u> (7)	<u>Modified and Alternate ATC High-density segment R/VC</u> (8)	<u>Modified And Alternate ATC Low-density segment R/VC</u> (9)
<u>Revenues = Variable Costs</u>								
1. Moves A-D	65%	65%	67%	100%	98%	104%	100%	100%
2. Moves A-E	47%	47%	50%	100%	95%	105%	100%	100%
3. Moves A-F	36%	36%	40%	100%	90%	107%	100%	100%
4. Moves A-G	27%	27%	33%	100%	81%	109%	100%	100%
<u>Item</u> (1)	<u>High-density segment Portion of Total Costs</u> (2)	<u>% Original and Alternate ATC Revenue</u> (3)	<u>% Modified ATC Revenue</u> (4)	<u>Total Movement R/VC</u> (5)	<u>Original and Alternate ATC High-density segment R/VC</u> (6)	<u>Original and Alternate ATC Low-density segment R/VC</u> (7)	<u>Modified ATC High-density segment R/VC</u> (8)	<u>Modified ATC Low-density segment R/VC</u> (9)
<u>Revenues = Total Costs</u>								
5. Moves A-D	65%	65%	66%	126%	123%	131%	125%	127%
6. Moves A-E	47%	47%	49%	130%	123%	136%	128%	131%
7. Moves A-F	36%	36%	39%	136%	123%	145%	133%	139%
8. Moves A-G	27%	27%	31%	151%	123%	165%	142%	156%
<u>Item</u> (1)	<u>High-density segment Portion of Total Costs</u> (2)	<u>% Original and Alternate ATC Revenue</u> (3)	<u>% Modified ATC Revenue</u> (4)	<u>Total Movement R/VC</u> (5)	<u>Original and Alternate ATC High-density segment R/VC</u> (6)	<u>Original and Alternate ATC Low-density segment R/VC</u> (7)	<u>Modified ATC High-density segment R/VC</u> (8)	<u>Modified ATC Low-density segment R/VC</u> (9)
<u>Revenues = 125% of Total Costs</u>								
9. Moves A-D	65%	65%	66%	157%	154%	164%	156%	160%
10. Moves A-E	47%	47%	49%	162%	154%	171%	159%	165%
11. Moves A-F	36%	36%	38%	170%	154%	181%	163%	175%
12. Moves A-G	27%	27%	30%	189%	154%	206%	172%	197%

As shown in Table 3 above, substantial problems arise when Original and Alternate ATC are applied in most situations. First, in the system where revenues equal variable costs for all

movements (Line 1 through Line 4), Original ATC clearly under-allocates revenue to the high-density segment, as the segment is allocated less than its variable costs while the low-density segment is allocated its full variable costs plus some contribution to joint and common costs *that in the real world does not exist*. This is precisely the reason why the STB instituted Modified ATC in the first place.

Second, in the system where revenues equal 100% of total costs for all movements (Line 5 through Line 8), Original and Alternate ATC results are clearly nonsensical. Under this scenario, the R/VC ratios for the full movements increase steadily as the movements increase in length (fixed costs account for a larger portion of total costs). However, under Original and Alternate ATC, the high-density segment R/VC is capped at a level well below the total movement R/VC while the low-density segment R/VC increases at a far greater rate than the rate at which the overall R/VC increases. The trend is even more pronounced on a system where revenues equal 125% of total costs for all movements (Line 9 through Line 12). The application of Original and Alternate ATC clearly has the effect of restricting the high-density segment from access to real-world high-R/VC movements, and improperly diverting the revenues on those movements to low-density segments.

D. THE ROLE AND LIMITATIONS OF MODELING IN ECONOMIC ANALYSIS

The Board perceives a problem with its ATC revenue division model. The ATC model is based in part on the URCS Phase III variable cost model, which does not precisely reflect the operations of each individual movement over each movement segment over the incumbents' railroad systems. Thus, according to the Board, the ATC formula may in some cases allocate "too much" or "too little" revenue to certain movement segments that may or may not be included in a SARR system. Rather than addressing this perceived problem in its URCS variable

cost program, the Board proposes to restrict all SARRs from carrying cross-over traffic that may possess some characteristics the Board believes may not be accurately captured by the URCS program. This overreaction threatens to undermine the validity of the SAC test and the economic theory on which SAC is based.

In evaluating the validity of the Board's current URCS model framework, it is important to remember two modeling axioms:

Axiom No. 1: *All models are wrong. However some are useful.*¹⁶

A model is a selective abstract of reality. Stated in a different way, every model is an idealized and simplified representation of what actually occurs in the real world. The fact that the Board's URCS variable costing model does not precisely reflect the variable costs actually incurred over every movement segment is neither surprising nor troubling. Because of the inherent difficulties in assigning attributable costs to individual units, no variable costing model can ever be totally precise in all instances. To hold any variable costing model to that unattainable standard would doom the entire modeling exercise before it even began.

On the contrary, the proper standard for a variable costing model, particularly one used to determine the reasonableness of rates in a regulatory proceeding, is whether the model is rooted in basic economic principles and reliably produces unbiased results. For reasons clearly articulated in *Major Issues*, URCS variable costs, while imprecise, reliably meet the standard for producing unbiased results in the regulatory rate-setting framework in which they are used. URCS variable costs are and have long been the industry and regulatory standard for assigning variable costs to individual railroad movements. No better model currently exists, and no perfect model can ever exist.

¹⁶ Sussman, Joseph, "Introduction to Transportation Systems," "*Modeling Concepts*," Artech House, Boston, 2000, p. 142.

The Board now seems to believe that, since no perfect costing model exists, the results produced by the best available costing model are biased simply because they are not perfect. The Board has lost sight of the purpose of its model. The model is a tool to be used to determine the best estimate of the variable costs for an individual movement based on system-average statistics. It must be accurate (e.g., consistent reproducible results that are not systematically different than the population), but it may not always be precise. URCS produces accurate results.

Axiom No. 2: Our model does not work in practice because it is true; rather we hold our model to be true because it works in practice.¹⁷

Whether each movement's variable costs are precisely reflected in the URCS Phase III output is irrelevant, so long as the model produces results that are reasonable and are not demonstrably biased in any way (i.e., accurate). For years, shippers and railroads alike argued that variable costs assigned to individual movements by the URCS program should be adjusted to reflect parameters specific to the movements being studied. The reason cited in support for such adjustments were precisely the reasons the Board has cited in *EP 715*. Specifically, the parties believed that there were disconnects between the system-average variable costs assigned by the URCS program and the operations of individual movements at issue. For decades, the Board allowed the parties to make such adjustments in their presentations of evidence supporting their arguments in rate reasonableness proceedings.

In *Major Issues*, the Board decided to end the practice of making movement specific adjustments based principally on its experience and observations over the preceding decades. Specifically, the Board believed manual movement-specific adjustments to URCS variable costs

¹⁷ Sussman, Joseph, "Introduction to Transportation Systems," "*Modeling Concepts*," Artech House, Boston, 2000, p. 143.

simply had not proven to produce results that were demonstrably more reliable than those produced by the URCS Phase III costing program. In short, the Board found that, while the model results were not perfect, they were unbiased, and more importantly, they worked in practice for their intended purpose. The Board now seems to aspire to some level of costing precision that is neither achievable nor necessary.

**E. IF ANY REVENUE ALLOCATION
METHODOLOGY DEFICIENCIES EXIST,
THE PROPER COURSE OF ACTION IS
TO CORRECT THEM, IT IS NOT TO
ELIMINATE CROSS-OVER TRAFFIC
FROM THE SAC ANALYSIS**

The Board has stated that it perceives a “disconnect” between SARR operations and cross-over traffic revenue divisions based on incumbent costs. The Board apparently believes that the “disconnect” is unavoidable, and therefore proposes to severely limit the use of cross-over traffic in future SAC cases. In *EP 715*, the Board outlined the following two proposed options that would limit the use of cross-over traffic in a SAC presentation in two very different and unrelated ways.¹⁸ The Board asked the parties to comment on which of the two alternatives is superior or to offer alternative solutions.

1. The first proposed option would restrict the SARR’s use of cross-over traffic to movements for which the SARR would either originate or terminate the rail portion of the movement.¹⁹
2. The second proposed option would restrict the SARR’s use of cross-over traffic to movements where the entire service provided by the defendant railroad in the real world is in trainload service.²⁰

¹⁸ See, *EP 715*, at 16-17.

¹⁹ The Board does not describe in detail what it means to “originate,” or “terminate” the rail portion of a movement in *EP 715*. We assume that the originate or terminate rules would include where the SARR replaces an incumbent that is forwarding or receiving a movement in interchange with another real-world railroad, but this point would need to be clarified in any filing.

²⁰ The STB did not include in *EP 715* a definitive description of what constitutes “trainload service.” For example, under URCS Phase III costing, a movement of 50 or more cars is considered trainload service. However, we

The Board, however, never really pinpointed any specific flaw it meant to address through either of its two proposed restrictions in *EP 715*, which is evidenced by the fact that it is proposing two vastly different cross-over traffic restrictions that clearly are not designed to address the same perceived “problem.”

Rather, it appears that the Board has broadly identified two possible deficiencies in the URCS Phase III costing program and suggested very crude cross-over traffic limitations under which it can avoid the issue of revenue division “fairness” in future rate cases rather than attempting to identify and address any costing deficiencies that it believes may lead to “unfair” revenue divisions. Although it did not explicitly say so, the Board seems to believe that there must be a “problem” with the terminal, interchange, and switching costs assigned to movement segments under URCS: either the terminal and interchange costs must be understated, or the inter- and intratrain (“I&I”) switching costs must be overstated, or both.²¹

In actuality, no deficiencies exist. Even assuming for the sake of argument that deficiencies do exist, limiting access to cross-over traffic is not the proper means by which to address the problem. If the Board perceives a problem with the revenues allocated to the SARR and incumbent through its revenue allocation methodology on cross-over traffic, the Board should review its revenue allocation methodology, it should not eliminate the use of cross-over traffic. The Board’s perceived problem is avoided – not solved – by eliminating cross-over traffic.

have seen many instances where railroads have built and moved trains of well under 50 railcars between origins and destinations.

²¹ In *EP 715*, the Board presents the issue as the SAC analysis allocating more revenue to the facilities replicated by the SARR than is warranted. See, *EP 715*, at 16. While not explicitly stating that the terminal or interchange costs are under allocated, this is the logical extension of the Board’s claim that the SARR is over allocated revenue.

**1. The Board Has Not Articulated
An Actual Problem**

The Board indicates in *EP 715* that it perceives a disconnect between the hypothetical cost of providing SARR service and the revenue allocated to the facilities.

There is a disconnect between the hypothetical cost of providing service to these movements over the segments replicated by the SARR and the revenue allocated to those facilities. When the proposed SARR includes cross-over traffic of carload and multi-carload traffic, it generally would handle the traffic for only a few hundred miles after the traffic would be combined into a single train. As such, the “cost” to the SARR of handling this traffic would be very low. In recent cases, litigants have proposed SARRs that would simply hook up locomotives to the train, would haul it a few hundred miles without breaking the train apart, and then would deliver the train back to the residual defendant. All of the costs of handling that kind of traffic (meaning the costs of originating, terminating, and gathering the single cars into a single train heading in the same direction) would be borne by the residual railroad. However, when it comes time to allocate revenue to the facilities replicated by the SARR, URCS treats those movements as single-car or multi-car movements, rather than the more efficient, lower cost trainload movements that they would be. As a result, the SAC analysis appears to allocate more revenue to the facilities replicated by the SARR than is warranted.²²

There is no disconnect. The perceived disconnect is merely a recognition that the Board’s URCS Phase III costing model develops individual movement costs based on unit costs that reflect the incumbent’s system-average operations.

The origins of the Board’s concern appear to be the *AEPCO* case. The vast majority of the non-coal traffic on the *AEPCO* SARR was intermodal and other traffic not considered “unit train” traffic by URCS. Because the cars on the train were billed as individual or multi-car units by the incumbent, they were costed as single or multi-car units on both the on-SARR and off-SARR movement segments for ATC division purposes, and the movements were allocated some

²² See, *EP 715*, at 16-17.

I&I switching costs for both the on-SARR and off-SARR portions of the movement in the URCS Phase III program.

However, the Board noted that this non-coal traffic moved in so-called “hook-and-haul” overhead trainload service over the SARR, where the SARR would receive intact trains in interchange, transport the trains several hundred miles, and interchange the intact trains back to the incumbent. The SARR would not perform any I&I switching on the cars. Because URCS Phase III costs determine, in part, the revenue division the SARR receives under the ATC methodology, the Board felt the SARR was receiving “too much” revenue on these specific overhead movements as the SARR was receiving revenue to cover I&I switching costs that were not incurred on the segment replicated by the SARR.

First, the Board failed to evaluate the off-SARR portions of the movements in question to gauge the extent to which the incumbent performed I&I switching on those segments. Because much of the traffic in question was highly efficient long-haul intermodal traffic that moves in dedicated service trains that are built at the point of origin (e.g., the Ports of Los Angeles and Long Beach) and move intact over long distances, the incumbent performed little to no I&I switching on the traffic in question over any segment, on-SARR or off-SARR. Therefore, to the extent that the URCS Phase III costing program overstated the costs for the on-SARR portion of the movement, it also overstated the costs for the off-SARR portions of the movements in question to the same extent.

Second, the allocation of I&I switching costs to all movement segments (both on-SARR and off-SARR) is simply a result of using the unadjusted URCS Phase III variable costs in the ATC formula, as the Board has required since *Major Issues*. The URCS program assigns component costs to individual movements on a system average basis. This necessarily means that costs for an individual movement or movement segment may not precisely reflect the

operations specific to that movement or movement segment. If the Board now perceives this as a problem, this would constitute a complete reversal from the Board's position and supporting logic in *Major Issues*. Specifically, the Board stated:

[W]e do not believe that the use of movement-specific adjustments leads to a more accurate result than using the URCS system-wide average. There are several underpinnings to this conclusion. First, as a matter of econometric theory, piecemeal or incomplete adjustments to URCS are suspect. There are hundreds of individual expense categories that URCS uses to estimate the variable cost of a movement and the parties do not seek to adjust all of them.

Indeed, many of the expense categories could not be changed, because movement-specific information is unavailable. Yet selective replacement of system-average costs with movement-specific costs may bias the entire analysis, rendering the modified URCS output unreliable.

Also, railroads do not consistently keep certain types of information that shippers have relied on for favorable movement-specific adjustments. Such an imbalance between the accounting practices of the railroads risks biasing the result of our jurisdictional inquiry in favor of a railroad that decides not to gather or keep the information. Yet requiring all railroads to maintain the necessary information would not comport with Congress's directive to minimize the need for Federal regulation and to minimize the burden on the railroads of developing and maintaining the costing information needed to ensure accuracy in regulatory proceedings. Railroads are already required to maintain extensive cost information, which is audited by the Board and is the foundation of our annual URCS calculations.

Moreover, to account for differences in movements, the URCS program already tailors the variable cost calculation to the movement at issue. To determine the variable cost of a particular movement, the user inputs a number of operating characteristics of the shipment. Thus, numerous movement-specific operating characteristics are already incorporated into the URCS analysis. Moreover, URCS has an adjustment that reduces the

cost of unit-train shipments to reflect the efficiencies of such movements. [footnotes omitted]²³

* * *

When the ICC adopted URCS, it did indicate that alternative cost-estimating procedures would be allowed in rate reasonableness proceedings “where their superiority is proven.” We now have far more knowledge and experience as to how URCS is used in these proceedings and the kinds of adjustments advocated by both parties. As discussed above, we now know the extent to which such adjustments complicate these proceedings, and we are not persuaded that the increased cost and complexity created by these adjustments is justified. [footnote omitted]²⁴

* * *

[S]elective replacement of system-average statistics – which tend to benefit the railroads – without allowing for counterbalancing adjustments that benefit shippers – which often require information not maintained in sufficient detail or at all by the railroads – may bias the entire analysis, rendering the modified URCS output unreliable.²⁵

* * *

We have considered the various evidentiary and procedural options suggested by the parties as alternatives to total discontinuance of movement-specific adjustments. We conclude that these suggestions fail to address all the concerns we have weighed in choosing to adopt our proposal. We are guided and bound by Congress’ directive, calling for “expeditious handling of challenges to the reasonableness of railroad rates,” particularly in the discovery and evidentiary phases of such proceedings. This goal is not served by continuing a process of allowing for movement-specific adjustments that has proven to be costly, complex, and time-consuming, often resulting in a variable cost near-equal to the unadjusted URCS calculation. And in proposing to include additional inputs in URCS Phase III, or more generally, that we reexamine the entire URCS system, the carriers request a change to the URCS program. That should only be considered in a separate rulemaking proceeding, where the

²³ See, *Major Issues*, at 51-52.

²⁴ *Id.* at 55.

²⁵ *Id.* at 58.

specific proposal(s) would be subjected to public comment and, if adopted, uniform application. [footnotes omitted]²⁶

System average costs, although somewhat imprecise, meet the Board's requirements for simplicity, reliability, and fairness.

2. The Board's Proposed Cross-Over Restrictions Are Based on New and Unsupported Presumptions

Because line-haul costs are uniform under URCS Phase III, the Board seems to have concluded that the "problem" it perceives must lie in the terminal, interchange, and switching costs URCS assigns to individual movement segments. In other words, either the terminal and interchange costs must be understated, or the I&I switching costs (which are allocated on a mileage basis in the URCS Phase III model) must be overstated, or both.

a. Restriction Option 1 -- Theoretical Deficiencies (Terminal and Interchange Costs) -- The Board's first proposed restriction (forcing the SARR to build out to the incumbent's origin, destination, or interchange locations) appears to be a crude remedy designed to address the possibility that terminal and interchange costs are understated under URCS. The real remedy if terminal and interchange costs actually were understated for certain traffic types would be to revisit the URCS calculations. Specifically, the make-whole factors²⁷ designed to account for the relative efficiencies of single car ("SC"), multiple car ("MC"), and unit train ("UT") traffic could be adjusted. If the Board believes the make-whole factors are inadequate or erroneous, it should recalibrate them under a separate rulemaking proceeding.

²⁶ *Id.* at 59.

²⁷ The make-whole factors reallocate system-average terminal, switching, line-haul, and overhead costs to different movements based on the shipment type (i.e., URCS allocates higher per-unit terminal costs to shipments billed as single-car shipments than to shipments billed as multiple-car shipments, and it allocates higher per-unit terminal costs to shipments billed as multiple-car shipments than to shipments billed as trainload shipments.)

The first proposed restriction also represents a change in direction from past treatment of terminal costs. ATC was originally conceived as a means by which the incumbent's revenues could be divided to reflect the incumbent's costs along discreet segments and operations of an end-to-end movement, including origination and termination costs.

Prior to the Board's introduction of the ATC revenue division methodology, cross-over traffic revenues were allocated using the modified mileage-block prorate ("MMP") and later the modified straight-mileage prorate ("MSP") approaches. Under both methodologies, the railroad originating or terminating the traffic (either the SARR or the residual incumbent) was awarded an additional mileage credit for performing those operations. In several cases decided using the MMP/MSP methodology, SARRs presented to the Board included traffic where the SARR would originate a shipment and move it a short distance to interchange with the residual incumbent. The railroads argued, and the Board ultimately agreed, that SARRs were overcompensated for merely originating the movement and then handing off to the residual incumbent, which was undercompensated for the line-haul portion of the movement. In fact, the Board introduced the ATC methodology in part to ensure that terminal and line-haul costs would be *properly* reflected in the revenue divisions. The Board now seems to believe, based on evaluation of a SARR that included significant volumes of traffic that was originated, terminated, and/or interchanged by the residual incumbent and moved by the SARR in line-haul overhead service, that its ATC revenue division formula overcompensates SARRs for merely performing the line-haul operations, while the residual incumbent is undercompensated for the terminal operations it "is left to" perform.

Under the previous revenue division model, the Board believed originating/terminating carriers (whether the SARR or residual incumbent) were overcompensated for performing terminal operations, so it changed the model to ensure that terminal and line-haul costs were

properly weighted. Now under its current revenue division model, the Board suggests that originating/terminating carriers may be undercompensated for performing terminal operations. But rather than adjusting its revenue division methodology as it did before, the Board proposes to eliminate the use of broad classes of cross-over traffic.

The Board's perception on revenue allocation "fairness" seems to change based on the role of the SARR from case to case (i.e., if the SARR originates and terminates traffic, then terminal costs are low and line-haul costs are high, but if the SARR does not originate or terminate traffic, then terminal costs are high and line-haul costs are low.)

b. Restriction Option 2 -- Theoretical Deficiencies (I&I Switching) -- The Board's second proposed restriction (limiting the SARR to trainload traffic) appears to be a crude remedy designed to address the possibility that I&I switching costs are overstated or misallocated under URCS. The real remedy, if I&I switching costs actually are misstated for all or certain types of traffic, would again be to revisit the URCS formulae. Specifically, I&I cost allocation could be adjusted from the current standard assumption that I&I switching occurs every 200 miles on all non-UT carload traffic, or some of the I&I costs could be reallocated on some basis other than the current mileage basis.

The Board essentially has said that, if a SARR performs no I&I switching, it should not be credited with costs for I&I switching (this position is incorrect because the ATC calculation is based solely on the incumbent's costs and operations, not the SARR's). However, implicit in the Board's position is that it believes it is acceptable to assume that the residual incumbent performs I&I switching every 200 miles (the URCS system average) on the traffic over the off-SARR portions of the same movements. That is, the Board seems to think an assumption that I&I switching occurs every 200 miles on the residual incumbent segment is reasonable but the same assumption is not reasonable over the SARR segment of the same movement. If the Board

wants to evaluate whether and where I&I switching occurs it must do so on all movement segments, not just the on-SARR segment.

It is not really necessary to make any changes to URCS for I&I switching, however, because such switching has a minimal impact on the ATC revenue allocations. Using the URCS Phase III model to estimate variable costs ensures that the incumbent's costs for all types of traffic are properly and adequately reflected in the ATC formula. In Exhibit No. 3, we show four hypothetical movements over a hypothetical 900-mile incumbent system that is divided into three equal segments of 300 miles each. The four movements are:

1. One car chlorine shipment costed as an SC shipment;
2. 25-car corn shipment costed as an MC shipment;
3. 100-car coal shipment costed as a UT shipment; and
4. One car intermodal shipment costed as an SC shipment.

We calculate variable costs for each of the three segments using the Board's URCS Phase III costing program and 2010 URCS data tables for the East and West (for a total of eight studied movements).²⁸ The resulting variable costs are then used to determine the relative cost allocation for each of the movement segments.

Next, we back out the URCS I&I switching costs assigned to each of the three segments for each of the eight hypothetical movements and recalculate the relative cost allocation for each of the movement segments based on the variable costs less the I&I switching costs allocated to each segment.

We then compare the revenue allocation based on variable costs including I&I switching costs to the revenue allocation based on variable costs excluding I&I switching costs to determine the impact of I&I switching costs on the result. As shown in Exhibit No. 3, the

²⁸ We exclude the costs for the hypothetical interchange between the three segments to reflect the Board's logical and correct requirement that *only costs the incumbent actually incurs should be considered and reflected in the revenue division model.*

exclusion of I&I costs had little or no effect on the revenue divisions. The minor differences in revenue allocation based on the alternate segment variable cost calculations are shown in Table 4 below.

Table 4 Variable Cost-Based Revenue Divisions for Three 300-mile Segments Over a 900-mile System				
<u>Item</u> (1)	<u>Segment 1</u> (2)	<u>Segment 2</u> (3)	<u>Segment 3</u> (4)	<u>Total</u> (5)
<u>One-Car Chlorine Shipment, East</u>				
1. Variable Costs per Ton Including I&I	\$10.04	\$8.01	\$10.04	\$28.09
2. Variable Costs Excluding I&I Switching	\$9.66	\$7.63	\$9.66	\$26.95
3. Variable Cost Division	35.7%	28.5%	35.7%	100%
4. Variable Cost Less I&I Division	35.8%	28.3%	35.8%	100%
5. Impact of I&I on Division Percentage	-0.1%	0.2%	-0.1%	---
<u>25-Car Corn Shipment, East</u>				
6. Variable Costs per Ton Including I&I	\$7.70	\$7.08	\$7.70	\$22.48
7. Variable Costs Excluding I&I Switching	\$7.34	\$6.73	\$7.34	\$21.41
8. Variable Cost Division	34.2%	31.5%	34.2%	100%
9. Variable Cost Less I&I Division	34.3%	31.4%	34.3%	100%
10. Impact of I&I on Division Percentage	0.0%	0.1%	0.0%	0.1%
<u>One-Car Chlorine Shipment, West</u>				
11. Variable Costs per Ton	\$8.74	\$6.80	\$8.74	\$24.28
12. Variable Costs Excluding I&I Switching	\$8.29	\$6.35	\$8.29	\$22.93
13. Variable Cost Division	36.0%	28.0%	36.0%	100%
14. Variable Cost Less I&I Division	36.2%	27.7%	36.2%	100%
15. Impact of I&I on Division Percentage	-0.2%	0.3%	-0.2%	-0.1%
<u>25-Car Corn Shipment, West</u>				
16. Variable Costs per Ton	\$6.83	\$6.17	\$6.83	\$19.83
17. Variable Costs Excluding I&I Switching	\$6.40	\$5.75	\$6.40	\$18.55
18. Variable Cost Division	34.4%	31.1%	34.4%	100%
19. Variable Cost Less I&I Division	34.5%	31.0%	34.5%	100%
20. Impact of I&I on Division Percentage	-0.1%	0.2%	-0.1%	---
Source: Exhibit No. 3				

As shown in Table 4 above, the impact of I&I switching on the variable cost component of the revenue allocation formula is *de minimis*, even for SC and MC shipments.

F. THE DANGERS OF RESTRICTING CROSS-OVER TRAFFIC

The ICC adopted Constrained Market Pricing (“CMP”) principles in *Coal Rate Guidelines* as the preferred approach to regulating railroad pricing (instead of relying upon pure Ramsey pricing as a regulatory tool). Two economic theories are central to CMP: (1) differential pricing, and (2) the contestability of markets.²⁹ These two concepts provide the analytical basis for determining those costs which a shipper may properly be charged and the extent to which a shipper should bear the costs.

An important feature of CMP is that a captive shipper need not bear the costs of any facilities or services from which it does not derive benefits.³⁰ One means of ensuring that such cross-subsidization does not occur is the SAC test, which is used to compute the rate a competitor in the market place would charge a shipper or group of shippers who benefit from sharing joint and common costs.

The theory behind SAC is rooted in the concept of contestable markets. Unlike the model of pure competition (where a large number of firms operate within the market), even a monopoly can be a contestable market. Rather than hypothesizing a large number of competitors taming an incumbent’s pricing, the contestable markets model focuses on entry and exit from an industry as a measure of economic efficiency. In this way, even a monopolist’s prices can be restricted by the threat of entry from a single new entrant.

The SAC test creates a contestable market through the elimination of entry and exit barriers that exist in the real world. It would therefore be inappropriate to restrict the size and/or scope of the market being evaluated by the SAC model under contestable market theory.

²⁹ See, *Coal Rate Guidelines*, at 525.

³⁰ *Id.* at 528.

We define a perfectly contestable market as one that is accessible to potential entrants and has the following two properties: First, the potential entrants can, without restriction, serve the same market demands and use the same productive techniques as those available to the incumbent firms. Thus, there are no entry barriers in the sense of the term used by Stigler. Second, the potential entrants evaluate the profitability of entry at the incumbent's pre-entry price.³¹

By precluding an entrant from using the same productive techniques as the incumbent, the Board's proposed cross-over traffic restrictions would effectively create a barrier to entry by forcing the new entrant (the SARR) to bear a cost (manifested as an artificially high level of fixed costs per unit) not incurred by the incumbent. This creates a cost disadvantage relative to the firm already operating within the industry, which would allow the incumbent to drive the new entrant from the market in the long run by exploiting the two firm's different cost structures. If this cost advantage is baked into the SAC test, the new entrant (SARR) will never be able to effectively limit the prices charged by the incumbent railroad (i.e., the market will not be contestable.)

Without the ability to use the same productive techniques as the incumbent, the new entrant would not be able to impose strong pricing discipline on the incumbent firm, and would encounter a clear barrier to entry that is impermissible in a contestable market. As described by William B. Tye, an economist and an expert in railroad economics:

Very importantly for the theory of contestable markets, potential entrants are able to impose this strong discipline on the incumbent only if they are able to compete on equal terms with no cost or efficiency disadvantages that would impose a barrier to entry. The theory of contestability defines as "entry barriers" any cost advantage enjoyed by the incumbents but not available to potential

³¹ See, Baumol, William J., John C. Panzar, and Robert D. Willig, "*Contestable Markets and the Theory of Industry Structure*," New York, Harcourt Brace Jovanovich (1982) ("Baumol, Panzar and Willig") at 5. See also Stigler, George, "The Organization of Industry," Chicago, IL: University of Chicago Press (1968) at 67. Stigler defined a barrier to entry as a cost of producing (at some or every level of output) that must be borne by firms seeking to enter an industry but not borne by the firms already in the industry.

entrants. Such entry barriers would afford a “pricing umbrella” for incumbents and allow them to enjoy excess profits because cost disadvantages for the potential entrant would help generate immunity to the incumbent from the threat of entry.³²

Simply stated, any rule that creates a cost disadvantage for the SARR relative to the incumbent carrier (such as limiting access to cross-over traffic) creates a barrier to entry and makes the market no longer contestable. Any such action would therefore undermine the use of the SAC test.

**1. Cross-Over Traffic Limitations
Would Undermine the SAC Test**

Cross-over traffic limitations would undermine the SARRs ability to group traffic, would severely and unfairly restrict the SARR from access to the same scale economies the incumbent enjoys, and would render the SAC test incomplete. The underlying premise of a contestable market is that, if a monopolist or oligopolist fails to behave from a pricing perspective, it will lose all of its market to a new entrant.³³ The extension of this logic is that the ability to group traffic of different shippers is essential to the theory of contestability.³⁴ Without grouping, SAC would not be a very useful test, since the captive shipper would be deprived of the benefits of any inherent production economies the incumbent enjoys.

The theory of contestable markets holds that an entrant into a market need not replace the incumbent in its entirety. Rather, contestable market theory allows for an entrant into the market to replace a subset of the incumbent’s products or services. As indicated by Baumol, Panzar and Willig:

³² Tye, William B., “The Applicability of the Theory of Contestable Markets to Rail/Water Carrier Mergers,” *Logistics and Transportation Review*, Volume 21, Number 1, March 1985, 57-76, at 58.

³³ See, *Coal Rate Guidelines*, at 528.

³⁴ *Id.* at 544.

Thus, a marketing plan for a potential entrant consists of a (sub)set of the relevant products... which, including the costs of entry, can be marketed by the entrant at prices no higher than those of the incumbent. The entrant can offer to sell *any* quantities of its products no greater than the amounts demanded at the prevailing prices constituted by the effective price vector.³⁵

In terms of a SARR, the idea of serving a subset of the incumbent's markets can take two forms. First, the SARR can chose to carry any subset of the traffic moving over a particular segment of the incumbent's railroad. Second, the SARR can choose to carry a specific piece of traffic over a select portion of the movement's route without serving the movement's origin and/or destination. In both cases, the entrant is choosing to serve a subset of the incumbent's relevant market. Restricting a SARR's cross-over traffic to only the traffic that it originates or terminates (or only the traffic that moves in a particular type of service – i.e., unit train traffic), as the Board proposes to do, would violate the tenants of sustainability required for a contestable market.

The STB's proposed limitations on cross-over traffic would directly impact the SARR's ability to group traffic, and thus undermine the foundation of the SAC test. As the ICC stated in *Coal Rate Guidelines*, grouping of traffic allows the captive shipper to identify areas where production economies define an efficient subsystem or alternative system whose traffic is divertible to a hypothetical carrier.³⁶ Not allowing a shipper to include in its traffic group shipments that do not originate or terminate on the SARR system or traffic that does not move in trainload service precludes the development of an efficient system, and defeats the idea of a contestable market.

³⁵ Baumol, Panzar and Willig at 193. (emphasis in original).

³⁶ *Coal Rate Guidelines*, at 544.

2. A SAC Analysis Framework That Disallows Large Classes of Cross-Over Traffic Will Result in Whole-Railroad SARRs

As the ICC recognized in *Nevada Power II* and repeatedly thereafter, the use of cross-over traffic greatly simplifies the stand-alone analysis by allowing the shipper to take into account the economies of scale, scope, and density that the defendant enjoys over the routes replicated without unduly complicating the analysis.³⁷ In *EP 715*, the Board proposes either to categorically prevent shippers from including certain cross-over traffic in their systems or to require shippers to build SARR systems sufficiently large to reach the origin and/or destination of their system's cross-over traffic. In the former case, without access to broad classes of cross-over traffic, the issue movement, along with a severely truncated amount of qualifying cross-over traffic, would bear the burden of constructing and operating the entire length of the lines that are required to serve the issue traffic. In the latter case, the complaining shipper would be forced to expand its SARR system to encompass facilities that are not required to serve the issue traffic. If this second option were pursued, voluminous additional discovery would be required.³⁸

Once the shipper extends the SARR in order to reach a terminal for traffic it wishes to serve over the core SARR, it will in almost all cases need to include more traffic in the traffic

³⁷ See, e.g., *Bituminous Coal – Hiawatha, UT to Moapa, NV*, 10 I.C.C.2d 259, 265-68 (1994) (“*Nevada Power II*”); *Otter Tail Power Co. v. BNSF Ry.*, STB Docket No. 42071, at 12 (STB served Jan. 27, 2006) (“*Otter Tail*”) (“The modeling device of cross-over traffic has become an indispensable part of administering a workable test.”); *Pub. Serv. Co. of Colo. d/b/a/ Xcel Energy v. The Burlington N. and S.R. Ry.*, 7 S.T.B. 589, 600-603 (2004) (“*Xcel*”) (“Creating a SARR to serve the same traffic group without using the cross-over traffic device would dramatically enlarge the geographic scope of a SARR.”); *AEP Tex. N. Co. v. BNSF Ry.*, STB Docket No. 41191 (Sub-No. 1), at 18 (STB served Sept. 10, 2007) (“The use of cross-over traffic to simplify a SAC presentation is a well-established practice.”).

³⁸ See, e.g., *Otter Tail* at 12 (“Without cross-over traffic, the SARR would replicate the entire service provided by the defendant railroad for all of the traffic included in the SAC analysis, so that all capital and operating costs associated with serving the traffic group would be included in the SAC analysis”); *id.* (“We must guard against the SAC process becoming so complex and expensive as to deny captive shippers meaningful access to the rate review provided for under *Guidelines*.”).

group to generate the same economies of density enjoyed by the incumbent railroad over the newly added line. But adding this additional traffic will likely require the shipper to extend the SARR even further to include the origins or destinations of this new additional traffic. Once again, the shipper would fall into an ever escalating chase for traffic to match the incumbent's traffic densities. It is simple to see that, once a shipper is required to step outside the network footprint necessary to serve the issue traffic, it will fall into the trap of endlessly chasing traffic for the expanding SARR system.

The STB correctly indicated in *Xcel* that excluding cross-over traffic would dramatically enlarge the geographic scope of the SARR, and lead to a cascading analysis that could eventually result in a shipper replicating virtually all of the incumbent's system.³⁹ This idea of an ever-expanding SARR is not a new one, and was brought to the attention of the ICC in the 1980's during the hearings that propagated *Coal Rate Guidelines* by the railroads' cost experts.⁴⁰

The proposed restrictions on cross-over traffic would make the regulatory process more cumbersome, time consuming, and expensive to litigate, and would result in a departure from the economic theory that has been carefully formed by the preceding STB/ICC decisions over the last several decades.⁴¹

The inclusion of cross-over traffic allows the complainant to properly scope its analytical framework by focusing the analysis on the facilities and services that are used by the issue traffic and preventing the case from becoming unmanageable. From a practical perspective, requiring a

³⁹ See, *Xcel*, at 601-602.

⁴⁰ See Marion L. Hall VS No. 3 in Ex Parte No. 347, May 11, 1981 at 89-90 "[S]hippers with a multitude of route origins and destinations would soon turn the stand-alone shipper into the owner of the full railroad."

⁴¹ One of the primary reasons shippers have come to rely so extensively on cross-over traffic in Full SAC cases is the Board's institution of internal cross-subsidy tests for the SARR. Shippers in Full SAC cases have been required to add as much traffic as possible to ensure each SARR segment covers its cost of construction and operation, or else run the risk of losing the case because of perceived internal cross-subsidy. If the STB is considering limiting the amount of cross-over traffic that can move on a SARR, it also must consider limiting or eliminating the internal cross-subsidy analyses used in SAC cases.

shipper to build to a movement's origin or destination in order to serve a market subset unnecessarily complicates and diverts the exercise from its core purpose.

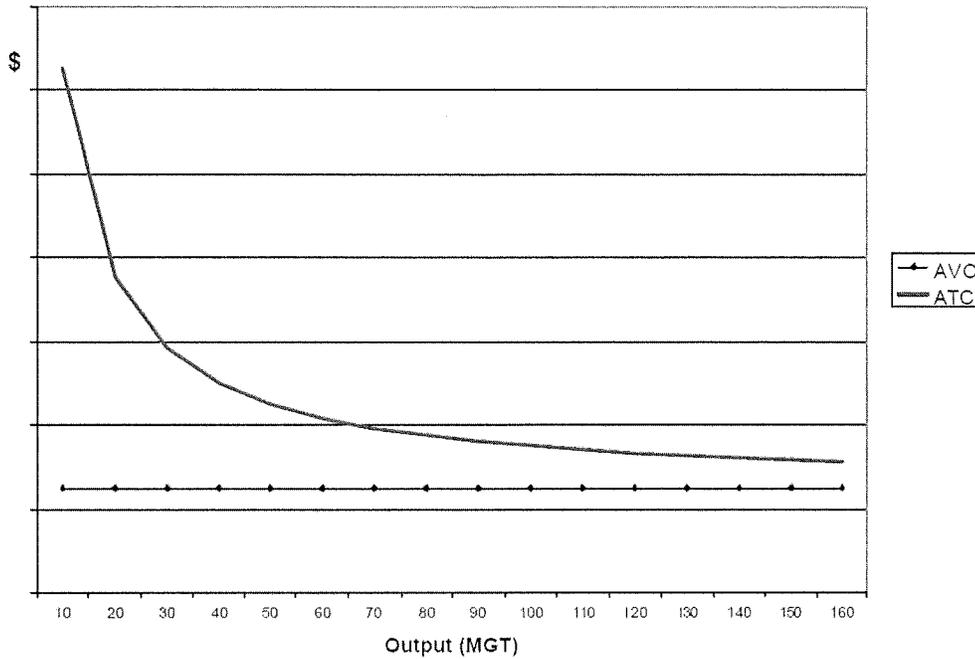
**3. Cross-Over Traffic Ensures the SARR
Has Access to the Same Scale Economies
The Incumbent Enjoys**

The STB's two proposals to restrict the use of cross-over traffic would place a SARR at a clear cost and efficiency disadvantage to the incumbent, and create a classic barrier to entry that is expressly disallowed under contestable market theory.

The STB, and its predecessor the ICC, have long recognized that significant production economies exist within the railroad industry, including economies of density. As the ICC explained in *Coal Rate Guidelines*, economies of density within the railroad industry refer to the fact that greater use of a railroad's fixed plant results in declining average cost, and thus, the marginal cost of rail service is less than the average cost, because the fixed plant is used in a progressively efficient manner.⁴² The STB clearly illustrated the economies of density inherent in the railroad industry in Figure 5 below and included in its *Xcel Reconsideration* decision.

⁴² See, *Coal Rate Guidelines*, at 526.

Figure 5
Railroad Average Variable Cost and Average Total Cost Functions



As shown in Figure 5 above, as output increases, a railroad's average total cost per unit declines as the railroad's fixed cost is spread over a greater level of output. Outside of the short run, a railroad can exploit these declining average total costs brought about by economies of density to price competition out of business as illustrated in Table 5 below.

<u>Item</u> (1)	<u>Railroad 1</u> (2)	<u>Railroad 2</u> (3)
1. Railroad Output (Million Tons)	100	50
2. Total Fixed Cost (Millions)	\$100	\$100
3. Average Fixed Cost Per Ton ^{1/}	\$1.00	\$2.00
4. Average Variable Cost Per Ton	<u>\$5.00</u>	<u>\$5.00</u>
5. Average Total Cost Per Ton ^{2/}	\$6.00	\$7.00
6. Price Per Ton	<u>\$6.50</u>	<u>\$6.50</u>
7. Profit / (Loss) Per Ton ^{3/}	\$0.50	(\$0.50)

^{1/} Line 2 ÷ Line 1.
^{2/} Line 3 + Line 4.
^{3/} Line 6 - Line 5.

As shown in Table 5 above, the two railroads have the same total fixed costs and the same average variable costs per ton. However, because Railroad 1 carries twice as much traffic as Railroad 2, Railroad 1's average fixed costs per ton are half of Railroad 2's average fixed costs per ton. This difference leads to lower average total cost for Railroad 1 and a clear business advantage. Within the short-run, Railroad 2 could continue to operate because it is covering its variable costs and making a contribution towards its fixed costs. However, if in the medium to long-term it could not reduce its fixed costs to below \$75 million,⁴³ it could not cover its total costs and would not stay in business. Railroad 1 could drive Railroad 2 from the market by setting its average price above its average total cost, but below the average total cost of Railroad 2.

The above example illustrates the impact of restricting cross-over traffic in a SAC case on the SARR. The Board's two proposals to limit cross-over traffic would remove the SARR's ability to group traffic and enjoy the productivity that allows the incumbent carrier to capture the economies of density inherent in the railroad industry. Holding all else constant, the SARR would face higher average total costs than the incumbent solely due to an artificial limitation on the size of the market available to the SARR. This is exactly the sort of barrier to entry that is disallowed in a contestable market.

4. Today's Railroads Earn High Profits

The real reason behind the Board's perception that the SARR is awarded "too much" revenue is that the incumbents are earning a substantial profit on most of their traffic. The profit is achievable in large part because the railroads enjoy significant economies of density on their

⁴³ \$75 million in fixed costs divided by 50 million tons equals an average fixed cost \$1.50 per ton. When this is added to an average variable cost of \$5 per ton, Railroad 2 arrives at a breakeven point of \$6.50 per ton.

major rail routes. Any revenue division methodology will result in “high” SARR revenues when the incumbents’ revenues are “high” to begin with. This is precisely what SAC analysis is designed to measure and quantify. If the SAC analysis reveals that the SARR is receiving “too much” revenue based on the traffic group it serves, the logical conclusion is that the incumbent is earning “too much” revenue to move that same traffic to begin with, not that there is a mechanical problem with the SAC analysis.

Conversely, a SAC analysis based on a restricted traffic group would preclude the SARR from enjoying the incumbent’s economies of density over the rail segments it replicates. Because the revenues earned by the SARR are based on the revenues earned by the incumbent in the real world, and because the incumbent’s revenues are calibrated to ensure the level of cost coverage required by the incumbent’s densities, the SARR could never be as profitable as the incumbent because more of its revenues would be needed to defray joint and common costs.

G. THE PROPOSED CROSS-OVER TRAFFIC LIMITS WOULD EFFECTIVELY CREATE A DISCONNECT BETWEEN ATC REVENUE ALLOCATION AND FIXED COST RECOVERY REQUIREMENTS FOR THE ON-SARR MOVEMENT SEGMENT

The Board’s justification for its proposal to restrict the SARR’s access to cross-over traffic is to avoid a perceived “disconnect” between ATC revenue allocation (based on incumbent costs) and SARR operating costs. First, as discussed above, there is no valid reason to evaluate the incumbent’s revenue divisions vis-a-vis the SARR’s costs. The two are completely unrelated. However, if the Board is determined to bring incumbent revenue divisions in line with SARR operations and cost requirements, it should recognize that its proposed cross-over traffic restrictions will create a far greater disconnect than the supposed disconnect it intends to address via its cross-over traffic restrictions in the first place. When viewed in light of

the faulty principle that incumbent revenue divisions should reflect SARR costs, restricting cross-over traffic volumes would result in substantial under-allocation of revenue to any SARR whose traffic group was limited by the Board's restrictions.

ATC allocates cross-over revenue to the on-SARR and off-SARR line segments based in part on the average fixed cost component of the formula. The fixed cost component is developed based on the real-world traffic densities of the incumbent over the on-SARR and off-SARR segments. For segments that are high-density segments in the real world, ATC is calibrated such that each unit of traffic need only contribute a small amount to the fixed costs it shares with the other traffic on that high-density segment. A unit of traffic on a low-density line must contribute more to fixed costs than the same unit of traffic on a high-density line, all else being equal.

The proposed restrictions on cross-over traffic would restrict the SARR from access to the traffic density of the incumbent. The result would be a significant "disconnect" between the high per-unit fixed costs the SARR would need to recover over those lines and the incumbent's low per-unit fixed costs reflected in the ATC divisions. This is true for both Modified ATC and Alternate ATC, although the under allocation is magnified by Alternate ATC.

The need to account for the incumbent's traffic density was one of the central reasons the Board initially conceived and implemented ATC. "The ATC method calculates the average total cost per ton associated with the segments at issue,"⁴⁴ which will be higher on light density segments than on high density segments. As a result, ATC will allocate more revenue to lighter-density line segments based on the segments' relative fixed cost components.

Because the SARR would have much lower traffic density than the incumbent due to the proposed cross-over traffic restrictions, it would have a higher per-unit fixed cost requirement,

⁴⁴ See, *Major Issues*, pp. 33-35.

and a higher average total cost per ton than the incumbent over the same segment. Consequently, because ATC allocates cross-over revenue on the basis of the incumbent's higher real-world traffic density, ATC would not allocate sufficient revenue to the SARR under the Board's proposed cross-over restrictions. Therefore, the SARR would receive cross-over revenue based on the false presumption that it had access to economies of density to which it would artificially be denied access.

Assume the following hypothetical example: A SARR seeks to replicate a 300-mile overhead segment of an incumbent's 900-mile system. The three segments have densities of 80, 100, and 80 MGT respectively. Eighty percent of the traffic on the SARR segment (80 MGT) would be overhead cross-over traffic that would not be available to the SARR under the Board's first proposed restriction. The SARR would carry the 20 MGT of traffic to which it was allowed access.

Table 6 below shows the effect of this cross-over restriction under Modified ATC.

Table 6
Example of Fixed Cost-Density Disconnect (Modified ATC)

<u>Item</u> (1)	<u>Source</u> (2)	<u>Incumbent Segments</u>			<u>Total</u> (6)
		<u>A-B</u> (3)	<u>B-C</u> (4)	<u>C-D</u> (5)	
1. Movement Distance - Miles	Assumed	300	300	300	900
2. Variable Cost per Ton	Assumed	\$3.00	\$3.00	\$3.00	\$9.00
3. Fixed Cost per Mile	Assumed	\$125,000	\$125,000	\$125,000	xxx
4. Segment Fixed Cost (\$Millions)	Line 1 x Line 3 ÷1,000,000	\$37.5	\$37.5	\$37.5	\$112.5
5. Real-world Density (MGT)	Assumed	80	100	80	xxx
6. ATC Fixed Cost per Ton Requirement	Line 4 ÷ Line 5	\$0.47	\$0.38	\$0.47	\$1.31
7. ATC per Ton	Line 2 + Line 3	\$3.47	\$3.38	\$3.47	\$10.31
8. ATC % Distribution	Line 7 ÷ Line 7 Total	33.6%	32.7%	33.6%	100%
9. Shipment Revenue per Ton	Assumed	xxx	xxx	xxx	\$13.50
10. Contribution per Ton	Line 9 - Line 2	xxx	xxx	xxx	\$4.50
11. ATC Revenue per Ton	Line 8 x Line 10 Total + Line 2	\$4.51	\$4.47	\$4.51	\$13.50
12. Real-world Revenue in Excess of Total Cost per Ton	Line 11 - Line 2 - Line 6	\$1.04	\$1.10	\$1.04	\$3.19
13. Restricted SARR Density (MGT)	Assumed	NA	20	NA	xxx
14. Restricted Density Fixed Cost per Ton Requirement	Line 4 ÷ Line 13	NA	\$1.88	NA	xxx
15. Fixed Cost Differential per Ton	Line 6 - Line 14	NA	(\$1.50)	NA	xxx
16. Revenue Shortfall per Ton	Line 11 - Line 2 - Line 14	NA	(\$0.40)	NA	xxx

SOURCE: "ATC Rev Division and xover restrictions.xlsx"

As shown in Table 6 above, the ATC per-unit fixed cost requirement is based on densities five times greater than those available to the SARR. The revenue allocation is based on a high-density system to which the SARR would be denied access under the Board's proposed cross-

over traffic restriction. As a result, the revenues allocated to the movement would not cover the movement's total costs over the segment assuming the lighter SARR density.

Table 7 below shows the effect of this cross-over restriction under Alternate ATC.

<u>Item</u> (1)	<u>Source</u> (2)	<u>Incumbent Segments</u>			<u>Total</u> (6)
		<u>A-B</u> (3)	<u>B-C</u> (4)	<u>C-D</u> (5)	
1. Movement Distance - Miles	Assumed	300	300	300	900
2. Variable Cost per Ton	Assumed	\$3.00	\$3.00	\$3.00	\$9.00
3. Fixed Cost per Mile	Assumed	\$125,000	\$125,000	\$125,000	xxx
4. Segment Fixed Cost (\$Millions)	Line 1 x Line 3 ÷ 1,000,000	\$37.5	\$37.5	\$37.5	\$112.5
5. Real-world Density (MGT)	Assumed	80	100	80	xxx
6. ATC Fixed Cost per Ton Requirement	Line 4 ÷ Line 5	\$0.47	\$0.38	\$0.47	\$1.31
7. ATC per Ton	Line 2 + Line 3	\$3.47	\$3.38	\$3.47	\$10.31
8. ATC % Distribution	Line 7 ÷ Line 7 Total	33.6%	32.7%	33.6%	100%
9. Shipment Revenue per Ton	Assumed	xxx	xxx	xxx	\$13.50
10. ATC Revenue per Ton	Line 8 x Line 9 Total	\$4.54	\$4.42	\$4.54	\$13.50
11. Real-world Revenue in Excess of Total Cost per Ton	Line 10 - Line 2 - Line 6	\$1.07	\$1.04	\$1.07	\$3.19
12. Restricted SARR Density (MGT)	Assumed	NA	20	NA	xxx
13. Restricted Density Fixed Cost per Ton Requirement	Line 4 ÷ Line 12	NA	\$1.88	NA	xxx
14. Fixed Cost Differential per Ton	Line 6 - Line 13	NA	(\$1.50)	NA	xxx
15. Revenue Shortfall per Ton	Line 10 - Line 2 - Line 13	NA	(\$0.46)	NA	xxx

SOURCE: "ATC Rev Division and xover restrictions.xlsx"

As shown in Table 7 above, the results are similar under Alternate ATC, and in fact are even more pronounced. If the SARR moved all 20 MGTs of the traffic available to it after

applying the cross-over traffic restrictions, ATC would allocate fixed costs to the traffic sufficient to cover only 20% of the total fixed costs of the incumbent segment replicated by the SARR. In the example movement, the traffic's rate is reflective of rates a railroad might charge over a high-density segment where it has significant volumes of traffic to defray joint and common costs (*i.e.*, the R/VC ratio is 1.5). All three incumbent segments receive revenue allocations under both Modified ATC and Alternate ATC sufficient to cover their total costs and then some, primarily because of the economies of density the incumbent enjoys in the real-world. Because the SARR does not have access to the same scale economies as the incumbent, its per-unit fixed cost requirements are much higher than are the incumbent's (five times greater in the example). The result is that the SARR is allocated revenues insufficient to cover its total costs under both Modified ATC and Alternate ATC.

To be clear, *it would be theoretically incorrect for the Board to require any connection whatsoever between ATC revenue divisions and the SARR operations and cost requirements.* As explained in detail above, revenue divisions are meant to reflect the incumbent's relative costs in a "fair" manner. Because there is no need to align ATC revenue divisions with the SARR's operations, there is no need for any cross-over traffic restriction. However, if the Board were to impose its proposed cross-over traffic restrictions based upon a supposed "disconnect" between SARR operations and the revenue allocated to the SARR, it would need to acknowledge that it will in fact create an even larger "disconnect" between (a) the SARR's restricted traffic density and artificially inflated per-unit fixed cost requirements, and (b) the revenue allocated to the SARR based on the incumbent's densities that would be inaccessible to the SARR.

H. THE BOARD'S PROPOSED RESTRICTIONS ON CROSS-OVER TRAFFIC ARE CRUDE AND OVERLY BROAD

There *is* a tremendous disconnect between the perceived “problem” about which the Board expressed concern in the *AEPCO* case, and its two *EP 715* proposals to limit the amount of cross-over traffic a shipper may include in a Full-SAC presentation. The Board’s two *EP 715* proposed options would act as hack saws, and both would serve to eliminate not only the perceived “problem” traffic, but also a significant amount of traffic that does not possess the problem characteristics the Board says it wishes to address.

Notwithstanding the fact that revenue divisions are meant to reflect the incumbent’s – not the SARR’s – relative costs over the SARR and non-SARR portions of a movement, in *EP 715* the STB is proposing to solve this perceived problem in one of two ways. The Board’s proposed solutions are so overly broad as to restrict access to traffic that does not possess the same characteristics as the traffic about which the Board expressed concern in *AEPCO*.

For example, consider a real-world box car movement that originates in Newport News, VA, moves to Atlanta, GA for switching, and terminates in Jacksonville, FL. In a SAC analysis, the SARR may receive this traffic from the incumbent railroad at a hypothetical interchange point between Newport News and Atlanta, move it to Atlanta where it would be placed in a new train for a movement to another hypothetical interchange point between Atlanta and Jacksonville for an interchange back to the incumbent railroad for ultimate delivery to Jacksonville, FL. Under the Board’s first proposed *EP 715* solution, the Board would restrict this movement from the SARR because the SARR did not originate or terminate this traffic, notwithstanding the fact that the SARR performed I&I switching on this movement and the residual incumbent did not.

In reality, the URCS Phase III costing program would have “under allocated” revenues to the on-SARR segment in this example because URCS assumes I&I switching occurs every 200 miles for this type of traffic and assigns I&I costs on a per-mile basis. In this instance, all I&I switching occurred on the segment replicated by the SARR. However, URCS would have attributed I&I switching costs to both the on-SARR and off-SARR segments. Absent reopening the door to exceedingly costly and time-consuming movement-specific adjustments to URCS, the Board must acknowledge that, while imperfect, the URCS program produces reasonable results and is the best possible means by which to estimate the incumbent’s costs over individual movement segments.⁴⁵

Now consider a real-world auto rack movement that originates in Houston, TX on a Western carrier and is placed in an auto train and delivered to an Eastern carrier (the defendant carrier) in New Orleans. Assume the Eastern Carrier moves the intact auto train to Jacksonville, FL and interchanges it to a regional railroad which terminates the train. In a SAC analysis, the SARR may receive this traffic from the Eastern incumbent railroad at a hypothetical interchange point east of New Orleans and return it intact to the incumbent at a hypothetical interchange point west of Jacksonville. Under the Board’s first proposed *EP 715* solution, the Board would restrict this movement from the SARR because the SARR did not originate or terminate this traffic, notwithstanding the fact that the Eastern incumbent did not originate or terminate the traffic either. The incumbent’s movement revenues do not reflect any costly terminal or gathering operations to begin with, so the Board’s presumption that the incumbent must have been undercompensated for its costly terminal and gathering operations would be erroneous.

⁴⁵ Even if the Board were to reconsider allowing the use of movement specific adjustments to URCS variable costs, there is no practical way it could allow this for the URCS variable costs used in ATC calculations. In recent cases, shippers have included millions of movements on their SARRs. It would be virtually impossible to make movement specific adjustments to each movement in such large cases.

Under the Board's second proposed adjustment, the Board would restrict traffic that does not move in trainload service in the real world. Consider for example a box car movement that in the real world originates in Chattanooga, TN, moves on a general merchandise train to Atlanta, GA for switching to a new train and moves to Jacksonville, FL on a second general merchandise train. A SARR may replace the incumbent railroad on the portion of the movement from Chattanooga (including origination terminal services) to Atlanta, and from Atlanta to a hypothetical interchange between Atlanta and Jacksonville, where the SARR would interchange with the incumbent railroad for delivery to Jacksonville. Despite the fact that the SARR performs most of the costly handling operations for this movement, the Board's second proposed *EP 715* restriction would not allow the SARR to carry this movement simply because it does not move in trainload service, but instead moves in single-car service.

Both of the Board's proposed, overly-broad, *EP 715* "solutions" to the supposed *AEPCO* "problem" would eliminate significant volumes of cross-over traffic based on false presumptions regarding the costs incurred and allocated to individual movement segments. Both are overly simplified and are structured to capture far more than the perceived "problem" traffic. Furthermore, as demonstrated by the hypothetical examples above, it is just as likely that the URCS Phase III costs "overstate" the off-SARR costs, and "understate" the on-SARR costs as the opposite scenario that the Board presumes (with no empirical support) is so rampant. The end result will either significantly reduce the amount of a rate prescription because of the loss in revenues, or completely reverse a winning SAC case into a losing case.

III. IMPACT OF THE PROPOSED CHANGES IN EP 715 ON THE SIMPLIFIED SAC (“SSAC”) MAXIMUM RATE PROCEDURES

The Board’s proposal to eliminate the \$5 million cap on relief available under Simplified SAC (“SSAC”) is logical and overdue. The STB believes that the “Full SAC” constraint and the SSAC constraint have similar impacts on railroad pricing because both approaches serve to restrain the railroads from exploiting their market power over shippers. The only key difference between the approaches, according to the STB, is that a Full SAC analysis also looks to identify and eliminate the costs of inefficiencies in a carrier’s investment and operations. Because both approaches identify a problem with a railroad’s pricing, there is no reason to limit the amount of relief available to the shipper.

We agree that there should be no limit on the amount of relief available under the SSAC approach. In addition, the STB should remove the 5-year time limit on the relief available under the SSAC approach.⁴⁶ The relief available under the SSAC constraint will, by default, be less than under a Full SAC case due to the continued inclusion of real world inefficiencies in the SSAC analysis.⁴⁷ Specifically, the most significant simplifying aspects of SSAC are the inability of the shipper to design a SARR that eliminates inefficiencies from the defendant railroad’s existing network and operations, and the inability of the shipper to select the traffic group it wishes to serve. These inefficiencies will act as a natural constraint on the relief available to a shipper under the SSAC analysis. There is no reason to artificially constrain the relief further through the use of arbitrary monetary and time limits on available relief. The Board should

⁴⁶ Under the standards adopted by the STB in Ex Parte No. 646 (Sub-No.1), *Simplified Standards For Rail Rate Cases*, served September 5, 2007 (“EP 646”), the maximum lawful rate will be expressed as a revenue to variable cost ratio that will be prescribed for a maximum of 5-years. See, *EP 646*, at 16.

⁴⁷ Even if a real world railroad operated a line segment at maximum possible capacity, it will still incur inefficiencies not encountered by a hypothetical SARR due to a SARR’s ability to be unconstrained by entry and exit barriers, and due to operating practices that are limited by collective bargaining agreements.

remove the 5-year relief period under SSAC and bring SSAC in line with Full SAC on the relief time period as well.

**A. ROAD PROPERTY INVESTMENT
CHANGE IS NOT NECESSARY**

The Board's proposal to replace the use of average road property investment ("RPI") costs presently used in SSAC with detailed expert testimony is illogical and unnecessary, and it will add a level of cost and complexity to the analysis without a corresponding benefit. The STB states that it cannot continue to use average RPI from prior cases as a simplifying assumption if it removes the rate relief cap on SSAC cases, but provides no demonstration of proof that the two issues are related. The STB's logic appears to be that if it allows shippers to gain more relief from the SSAC approach, then it must also increase the costs they incur to bring a case. This change appears to be more punitive than logical. More importantly, the STB assumes that the RPI under a more detailed approach will be significantly different than under use of historic averages from prior SAC cases, but it has provided no basis for that assumption.

In 2007, the Board analyzed the RPI data from recently decided Full-SAC cases and determined that "the RPI component of a Full-SAC analysis has remained fairly consistent in recent cases, even though the average investment includes a mix of heavy- and light-density lines, as well as varying yards along the route.... The average RPI cost per track mile has varied less than 10% in the last five western Full-SAC cases."⁴⁸ This analysis formed the basis for the Board's decisions to use a rolling average RPI cost based on recently decided Full-SAC cases⁴⁹ to estimate RPI in SSAC cases.

⁴⁸ See, *Simplified Standards*, Appendix A, p. 38.

⁴⁹ The Board clarified that it would only include decisions that resolved all of the disputes between the parties in its rolling averages. *Id.* p. 38.

In 2009, the Board updated its RPI tables to include two case results that were not available in 2007. We have further expanded the Board's 2009 expansion to include the recently decided *AEPCO* case. The results are shown in our Exhibit 4. Table 8 below includes a summary of the results.

Case (1)	RPI In 2009 Dollars		Rolling Average			
	Cost Per Track Mile 1/ (2)	% Difference From Average 2/ (3)	All Since Otter Tail 3/ (4)	Percent Change 4/ (5)	Five Most Recent 5/ (6)	Percent Change 6/ (7)
<i>Cases Included in Simplified Standards</i>						
1. Otter Tail	\$1,966,823	-7%	xxx	xxx	xxx	xxx
2. Xcel	\$2,209,304	4%	xxx	xxx	xxx	xxx
3. TMPA	\$2,165,647	2%	xxx	xxx	xxx	xxx
4. PPL	\$2,240,250	6%	xxx	xxx	xxx	xxx
5. WPL	\$2,257,252	7%	\$2,167,855	xxx	\$2,167,855	xxx
<i>Cases added by the STB in 2009</i>						
6. AEP Texas	\$2,012,444	-5%	\$2,141,953	-1%	\$2,176,979	0%
7. WFA	\$2,158,301	2%	\$2,144,289	0%	\$2,166,779	0%
<i>Cases decided since 2009</i>						
8. AEPCO	\$1,939,508	-8%	\$2,118,691	-1%	\$2,121,551	-2%
9. Average	\$2,118,691	xxx	xxx	xxx	xxx	xxx
<hr/> 1/ SOURCE: Exhibit No. 4 2/ (Column (2) ÷ Column (2), Line 9) - 1 3/ Average of Column (2) values from Line 1 through current case 4/ (Column (4) ÷ Column (4), previous Line) - 1 5/ Average of Column (2) values for the 5 most recent cases, including the current case 6/ (Column (6) ÷ Column (6), previous Line) - 1						

As shown in Table 8 above, the average RPI cost per track mile has continued to vary by less than 10% in the last eight western Full-SAC cases. Furthermore, the rolling average has changed by a cumulative 2% as recent cases have been added. The Board's reasons for using a rolling average RPI in SSAC cases are as valid now as they were when the Board made its

decision to do so in 2007. The data simply does not reveal a need to modify the existing rules with respect to RPI cost estimates in SSAC proceedings.

If the Board wishes for more shippers to use the SSAC model to expedite and simplify the rate regulation process, the Board should strive to keep the model simple and user-friendly.

IV. IMPACT OF THE PROPOSED CHANGES IN EP 715 ON THE THREE BENCHMARK (“3BM”) MAXIMUM RATE PROCEDURES

The Board’s proposal to raise the \$1 million cap on relief available under 3BM to \$2 million is a step in the right direction but falls short. Because SSAC relief will by definition be higher than 3BM relief, the complaining shipper should be allowed to weight the costs of bringing each type of case versus the expected relief under the various approaches and select its best course of action based on the merits, not on some artificial cap.

Just as relief available under SSAC will by default be less than under Full SAC, relief available under 3BM will by default be less than under SSAC because the rate floor is substantially higher in the 3BM model than it is under SAC and SSAC. The 3BM model evaluates only potentially captive traffic, not all traffic as in SAC and SSAC models. In addition, the 3BM model adjusts comparable potentially captive traffic movement revenue to reflect Revenue Shortfall Allocation Methodology (“RSAM”) revenue requirements that are not necessarily earned by the incumbent on the studied traffic in the real world, unlike in SAC and SSAC analysis. The RSAM acts to ensure that the prescribed rate under the 3BM model will reflect monopoly pricing, whether or not the market will actually bear it.

The 3BM model does not compare total revenues to total revenue need as in the SSAC and Full-SAC analyses. Rather, it simply measures the extent to which the defendant railroad exerts its market power where it can. Thus, the consideration of rates paid only by potentially captive traffic in the 3BM approach influences the prescribed rate in an upward direction (it only evaluates the segment of the market paying monopoly rates).

The 3BM market stratification and rate adjustment process act as a natural cap on relief (i.e., under 3BM the best a result a complainant can hope for is a monopoly rate, regardless of the incumbent’s costs or operations.) Therefore, no artificial limit is required. The Board should

remove the 5-year relief period under 3BM and bring 3BM in line with Full SAC on the relief time period.

Under the Board's original ruling in *EP 646*, it decided to cap aggregate relief under the 3BM approach at \$1 million, before indexing. The Board chose this value ostensibly because it was the estimated costs to develop a Simplified SAC presentation.⁵⁰ Because the Board is now considering changing the SSAC approach to use more expensive detailed engineering estimates of RPI in lieu of average RPI from prior Full SAC cases, it is also considering increasing the rate relief under the 3BM approach to \$2 million. This additional available relief supposedly reflects the additional costs (i.e., \$1 million) to develop a SSAC case under the Board's proposal as indicated on page 15 of *EP 715*.

However, the cost to develop a Simplified SAC case could be much higher than the \$2 million assumed by the STB, particularly if the case involved shipments over multiple lanes spanning a large portion of the incumbent's system. For several reasons, the cost to develop SAC evidence generally, and to develop the RPI component in particular, is not uniform for all SARR systems. The data required to complete the analyses are not kept in the same format by the defendant railroads in the normal course of business. Furthermore, the railroads, like all big businesses, are continually upgrading and improving their data and information systems. As a result, new and unfamiliar data must be incorporated in the development of SAC evidence in most cases. As data systems become more sophisticated and data volumes expand exponentially, ever more sophisticated and expensive analytical and modeling techniques are required to process and analyze the provided data.

⁵⁰ The limit is based on the Board's estimate of the litigation cost to pursue relief under the next more complicated, and more precise method. By placing limits on the relief available, the Board hoped to encourage shippers with larger disputes to pursue relief under the more appropriate methodology without the Board itself trying to determine the likely value of a case. See, *EP 646*, p. 28.

Due to the nature of the analyses required, development of RPI evidence varies directly with the size and complexity of the system. This is most obviously due to the fact that every mile of track must be evaluated in terms of engineering, land acquisition, grading, construction, operation, and maintenance requirements to develop the RPI estimates. Based on our recent experience, developing RPI estimates for Full SAC cases has accounted for roughly 25 to 40 percent (about a third on average) of the total cost incurred by the group of required experts to develop opening evidence, depending on the system size and complexity of the SARR. For larger, more complex SARR systems, RPI development costs can be well in excess of \$1 million over the course of an entire rate case (development of opening evidence through briefs).

The primary reason shippers had not used the Simplified SAC approach after it was implemented by the STB in 2007 was that the costs to bring the case were much higher than assumed by the STB, and this was under the model where RPI costs were to be developed using the Board's simplified procedures. If detailed engineering estimates are used, based on recent experience in developing evidence in full SAC cases, these figures would more than double for SSAC cases. This would place the expert witness total costs for a SSAC case under the new rules well above the \$2 million assumed by the STB. Conservatively we assume legal fees would equal consulting fees and the total cost to bring a case inclusive of the Board's new proposed changes before the Board could easily exceed \$4 million.

STATEMENT OF QUALIFICATIONS

My name is Thomas D. Crowley. I am an economist and President of the economic consulting firm of L. E. Peabody & Associates, Inc. The firm's offices are located at 1501 Duke Street, Suite 200, Alexandria, Virginia 22314, 760 E. Pusch View Lane, Suite 150, Tucson, Arizona 85737, and 21 Founders Way, Queensbury, New York 12804.

I am a graduate of the University of Maine from which I obtained a Bachelor of Science degree in Economics. I have also taken graduate courses in transportation at George Washington University in Washington, D.C. I spent three years in the United States Army and since February 1971 have been employed by L. E. Peabody & Associates, Inc.

I am a member of the American Economic Association, the Transportation Research Forum, and the American Railway Engineering and Maintenance-of-Way Association.

The firm of L. E. Peabody & Associates, Inc. specializes in analyzing matters related to the rail transportation of all commodities. As a result of my extensive economic consulting practice since 1971 and my participation in maximum-rate, rail merger, service disputes and rule-making proceedings before various government and private governing bodies, I have become thoroughly familiar with all rail carriers in the United States. This familiarity extends to subjects of railroad service, costs and profitability, cost of capital, railroad capacity, railroad traffic prioritization and the structure and operation of the various contracts and tariffs that historically have governed the movement of traffic by rail.

STATEMENT OF QUALIFICATIONS

As an economic consultant, I have organized and directed economic studies and prepared reports for railroads, freight forwarders and other carriers, for shippers, for associations and for state governments and other public bodies dealing with transportation and related economic problems. Examples of studies I have participated in include organizing and directing traffic, operational and cost analyses in connection with multiple car movements, unit train operations for coal and other commodities, freight forwarder facilities, TOFC/COFC rail facilities, divisions of through rail rates, operating commuter passenger service, and other studies dealing with markets and the transportation by different modes of various commodities from both eastern and western origins to various destinations in the United States. The nature of these studies enabled me to become familiar with the operating practices and accounting procedures utilized by railroads in the normal course of business.

Additionally, I have inspected and studied both railroad terminal and line-haul facilities used in handling various commodities, including unit train coal movements from coal mine origins in the Powder River Basin and in Colorado to various utility destinations in the eastern, mid-western and western portions of the United States and from the Eastern coal fields to various destinations in the Mid-Atlantic, northeastern, southeastern and mid-western portions of the United States. These operational reviews and studies were used as a basis for the determination of the traffic and operating characteristics for specific movements of numerous commodities handled by rail.

STATEMENT OF QUALIFICATIONS

I have frequently been called upon to develop and coordinate economic and operational studies relative to the rail transportation of various commodities. My responsibilities in these undertakings included the analyses of rail routes, rail operations and an assessment of the relative efficiency and costs of railroad operations over those routes. I have also analyzed and made recommendations regarding the acquisition of railcars according to the specific needs of various shippers. The results of these analyses have been employed in order to assist shippers in the development and negotiation of rail transportation contracts which optimize operational efficiency and cost effectiveness.

I have developed property and business valuations of privately held freight and passenger railroads for use in regulatory, litigation and commercial settings. These valuation assignments required me to develop company and/or industry specific costs of debt, preferred equity and common equity, as well as target and actual capital structures. I am also well acquainted with and have used the commonly accepted models for determining a company's cost of common equity, including the Discounted Cash Flow Model ("DCF"), Capital Asset Pricing Model ("CAPM"), and the Farma-French Three Factor Model.

Moreover, I have developed numerous variable cost calculations utilizing the various formulas employed by the Interstate Commerce Commission ("ICC") and the Surface Transportation Board ("STB") for the development of variable costs for common carriers,

STATEMENT OF QUALIFICATIONS

with particular emphasis on the basis and use of the Uniform Railroad Costing System ("URCS") and its predecessor, Rail Form A. I have utilized URCS/Rail form A costing principles since the beginning of my career with L. E. Peabody & Associates Inc. in 1971.

I have frequently presented both oral and written testimony before the ICC, STB, Federal Energy Regulatory Commission, Railroad Accounting Principles Board, Postal Rate Commission and numerous state regulatory commissions, federal courts and state courts. This testimony was generally related to the development of variable cost of service calculations, rail traffic and operating patterns, fuel supply economics, contract interpretations, economic principles concerning the maximum level of rates, implementation of maximum rate principles, and calculation of reparations or damages, including interest. I presented testimony before the Congress of the United States, Committee on Transportation and Infrastructure on the status of rail competition in the western United States. I have also presented expert testimony in a number of court and arbitration proceedings concerning the level of rates, rate adjustment procedures, service, capacity, costing, rail operating procedures and other economic components of specific contracts.

Since the implementation of the Staggers Rail Act of 1980, which clarified that rail carriers could enter into transportation contracts with shippers, I have been actively

STATEMENT OF QUALIFICATIONS

involved in negotiating transportation contracts on behalf of shippers. Specifically, I have advised shippers concerning transportation rates based on market conditions and carrier competition, movement specific service commitments, specific cost-based rate adjustment provisions, contract reopeners that recognize changes in productivity and cost-based ancillary charges.

I have been actively engaged in negotiating coal supply contracts for various users throughout the United States. In addition, I have analyzed the economic impact of buying out, brokering, and modifying existing coal supply agreements. My coal supply assignments have encompassed analyzing alternative coals to determine the impact on the delivered price of operating and maintenance costs, unloading costs, shrinkage factor and by-product savings.

I have developed different economic analyses regarding rail transportation matters for over sixty (60) electric utility companies located in all parts of the United States, and for major associations, including American Paper Institute, American Petroleum Institute, Chemical Manufacturers Association, Coal Exporters Association, Edison Electric Institute, Mail Order Association of America, National Coal Association, National Industrial Transportation League, North America Freight Car Association, the Fertilizer Institute and Western Coal Traffic League. In addition, I have assisted numerous government agencies, major industries and major railroad companies in solving various transportation-related problems.

STATEMENT OF QUALIFICATIONS

In the two Western rail mergers that resulted in the creation of the present BNSF Railway Company and Union Pacific Railroad Company and in the acquisition of Conrail by Norfolk Southern Railway Company and CSX Transportation, Inc., I reviewed the railroads' applications including their supporting traffic, cost and operating data and provided detailed evidence supporting requests for conditions designed to maintain the competitive rail environment that existed before the proposed mergers and acquisition. In these proceedings, I represented shipper interests, including plastic, chemical, coal, paper and steel shippers.

I have participated in various proceedings involved with the division of through rail rates. For example, I participated in ICC Docket No. 35585, Akron, Canton & Youngstown Railroad Company, et al. v. Aberdeen and Rockfish Railroad Company, et al. which was a complaint filed by the northern and mid-western rail lines to change the primary north-south divisions. I was personally involved in all traffic, operating and cost aspects of this proceeding on behalf of the northern and mid-western rail lines. I was the lead witness on behalf of the Long Island Rail Road in ICC Docket No. 36874, Notice of Intent to File Division Complaint by the Long Island Rail Road Company.

STATEMENT OF QUALIFICATIONS

My name is Robert D. Mulholland. I am an economist and a Vice President of the economic consulting firm of L. E. Peabody & Associates, Inc. The firm's offices are located at 1501 Duke Street, Suite 200, Alexandria, Virginia 22314, 760 E. Pusch View Lane, Suite 150, Tucson, Arizona 85737, and 21 Founders Way, Queensbury, New York 12804.

I am a graduate of George Mason University's School of Public Policy from which I obtained a Master's degree in Transportation Policy, Operations & Logistics and Bowdoin College from which I obtained a Bachelor of Arts degree in Government and Legal Studies. I have been employed by L. E. Peabody & Associates, Inc since 2008 and from 1995-2004. From 2004-2006, I was the staff economist for the Office of Freight Management and Operations of the Federal Highway Administration ("FHWA") of the United States Department of Transportation ("USDOT"). From 2006-2008, I worked for ICF International as a consultant in the transportation group.

The firm of L. E. Peabody & Associates, Inc. specializes in analyzing matters related to the rail transportation of all commodities. As a result of my extensive economic consulting experience since 1995 and my participation in and support of maximum-rate, rail merger, service dispute, reasonable practices, and rule-making proceedings before various government bodies, I have become thoroughly familiar with the major rail carriers in the United States. This familiarity extends to subjects of railroad service, costs and revenues, capacity, traffic prioritization, operations, and contracts and tariff terms that historically have governed the movement of commodities by rail.

STATEMENT OF QUALIFICATIONS

As an economic consultant, I have directed and conducted economic studies and prepared reports for freight carriers, shippers, federal agencies, the U.S. Congress, associations, and other public bodies dealing with transportation and related economic issues. Examples of studies I have participated in include organizing and directing traffic operations and cost analyses in connection with single and multiple car movements and unit train operations for various commodities, rail facilities analyses, rate and revenue division analyses, and other studies dealing with freight transportation markets for many commodities over various surface modes throughout the United States. Through conduct of these studies I have become familiar with the operating practices and accounting procedures utilized by railroads in the normal course of business.

I have inspected and studied railroad terminal facilities used in handling various commodities to collect data that were used as a basis for the determination of traffic and operating characteristics for specific movements handled by rail.

I have developed economic and operational studies relative to the rail transportation of coal on behalf of electric utility companies, including analyses of the relative efficiency and costs of railroad operations over multiple routes. The results of these analyses have been used to assist shippers in the development and negotiation of rail transportation contracts that optimize operational efficiency and cost effectiveness.

I have developed numerous variable cost calculations utilizing the various formulas employed by the Surface Transportation Board ("STB") for the development of variable

STATEMENT OF QUALIFICATIONS

costs for common carriers, with particular emphasis on the basis and use of the Uniform Railroad Costing System ("URCS"). I have utilized URCS costing principles since the beginning of my career with L. E. Peabody & Associates Inc. in 1995.

I have presented written testimony before the STB. This testimony has been related to the development of evidence including rail traffic volume and revenue forecasts, cross-over traffic revenue divisions, and train operations in several maximum reasonable rate proceedings on behalf of coal and chemicals shippers, and the development of evidence including rail fuel consumption and cost determinations in an unreasonable practice proceeding.

I have supported the negotiation of transportation contracts between shippers and railroads. Specifically, I have conducted studies concerning transportation rates based on market conditions and carrier competition, movement specific service commitments, and specific cost-based rate adjustment provisions.

I have conducted different economic analyses regarding rail transportation matters for dozens of electric utility companies located in all parts of the United States, and for major associations, including the Chlorine Institute, the American Chemistry Council, the Chemical Manufacturers Association, the National Industrial Transportation League, and the Western Coal Traffic League. In addition, I have assisted numerous government agencies in analyzing and solving various transportation-related problems.

STATEMENT OF QUALIFICATIONS

In the Western rail merger that resulted in the creation of the present Union Pacific Railroad Company, I reviewed the railroads' applications including their supporting traffic, cost and operating data and developed detailed evidence supporting requests for conditions designed to maintain the competitive rail environment that existed before the proposed merger.

While employed at FHWA, I was a member of the USDOT inter-agency working group that drafted the National Freight Policy. In addition, I served on the USDOT Freight Gateway Team, a group headed by the Undersecretary for Policy and composed of one representative from each of the surface modal agencies.

While employed at ICF International, I directed and conducted numerous analyses of the rail and trucking industries for federal transportation agencies including the Federal Railroad Administration ("FRA"), the Federal Motor Carrier Safety Administration ("FMCSA"), and the FHWA, including analyses of the current rail and trucking industries and forecasts of future trends in both industries.

Sample Movements, Variable Costs

Item (1)	Source (2)	Chlorine			Corn			Coal			Intermodal (Ramp-to-Ramp)		
		Seg.1 (3)	Seg.2 (4)	Seg.3 (5)	Seg.1 (6)	Seg.2 (7)	Seg.3 (8)	Seg.1 (9)	Seg.2 (10)	Seg.3 (11)	Seg.1 (12)	Seg.2 (13)	Seg.3 (14)
22. RR	Assumed	US West	US West	US West	US West	US West							
23. Loaded Miles	Assumed	300	300	300	300	300	300	300	300	300	300	300	300
24. Ship Type	Assumed	OD	RD	RT	OD	RD	RT	OD	RD	RT	OD	RD	RT
25. Number of Cars	Assumed	1	1	1	25	25	25	100	100	100	100	100	1
26. Tons per Car	Assumed	100	100	100	100	100	100	115	115	115	80	80	80
27. Commodity	Assumed	281	281	281	0113	0113	0113	11	11	11	46	46	46
28. Move Type	Assumed	SC	SC	SC	MC	MC	MC	UT	UT	UT	SC	SC	SC
29. Car Owner	Assumed	P	P	P	P	P	P	P	P	P	P	P	P
30. Car Type	Assumed	Tank > 22	Tank > 22	Tank > 22	Cov Hopper	Cov Hopper	Cov Hopper	OT Hopper	OT Hopper	OT Hopper	Flat (TOFC)	Flat (TOFC)	Flat (TOFC)
Variable Costs Per Ton by Category, WEST (2010)													
31. Line-haul Costs	Sum of URCS Phase III Output Lines 2/ 601-622	\$6.26	\$6.05	\$6.26	\$5.51	\$5.34	\$5.51	\$3.56	\$3.47	\$3.56	\$8.58	\$8.38	\$8.58
32. Terminal Costs	URCS Phase III Output Line 311 x (315+317+319)	\$0.97	\$0.00	\$0.97	\$0.48	\$0.00	\$0.48	\$0.21	\$0.00	\$0.21	\$0.77	\$0.00	\$0.77
33. Interchange Costs	URCS Phase III Output Line 312 x (315+317+319)	N/A	N/A	N/A	N/A	N/A							
34. I&I Switching Costs	URCS Phase III Output Line 313 x (315+317+319)	\$0.45	\$0.45	\$0.45	\$0.42	\$0.42	\$0.42	\$0.00	\$0.00	\$0.00	\$0.02	\$0.02	\$0.02
35. Freight Car and Special Service Costs	Sum of URCS Phase III Output Lines 632-695	\$0.13	\$0.13	\$0.13	\$0.23	\$0.23	\$0.23	\$0.00	\$0.00	\$0.00	\$5.34	\$1.12	\$5.34
36. Loss and Damage	URCS Phase III Output Line 699	\$0.00	\$0.00	\$0.00	\$0.01	\$0.01	\$0.01	\$0.00	\$0.00	\$0.00	\$0.03	\$0.03	\$0.03
37. Make-Whole Adjustment	URCS Phase III Output Line 587	\$0.93	\$0.17	\$0.93	\$0.16	\$0.16	\$0.16	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
38. Segment Variable Costs	Sum of Lines 31-37	\$8.74	\$6.80	\$8.74	\$6.83	\$6.17	\$6.83	\$3.78	\$3.47	\$3.78	\$14.74	\$9.54	\$14.74
39. Segment Percent of Total VC	Segment VC / Total VC	36.0%	28.0%	36.0%	34.4%	31.1%	34.4%	34.3%	31.5%	34.3%	37.8%	24.4%	37.8%
40. Segment Variable Costs Less I&I Costs	Line 38 - Line 34	\$8.29	\$6.35	\$8.29	\$6.40	\$5.75	\$6.40	\$3.78	\$3.47	\$3.78	\$14.72	\$9.52	\$14.72
41. Segment Percent of Total VC Less I&I Cost	Segment VC Less Segment I&I VC / Total VC Less Total I&I VC	36.2%	27.7%	36.2%	34.5%	31.0%	34.5%	34.3%	31.5%	34.3%	37.8%	24.4%	37.8%
42. Impact of I&I Costs on Variable Cost Division	Line 39 - Line 41	-0.2%	0.3%	-0.2%	-0.1%	0.2%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: "URCS Matrix v3.xlsx" Level "Per Ton Summary"
 1/ For Intermodal Moves, the Tons are associated with the flat car consist (4.57 units per car in the East and 5.36 units per car in the West).
 2/ Includes GTM, LUM, car-mile, and train-mile costs.
 3/ Costs for hypothetical interchanges between segments are not included in ATC variable cost calculations because segment variable costs reflect incumbent costs actually incurred.
 4/ Allocated on a per-mile basis assuming an I&I switching event occurs every 200 miles for all non-unit train traffic.

Summary of Western SAC Case Road Property Investment ("RPI") Costs

Case	Road Property Investment as Stated in STB Decision				RPI in 2009 Dollars				Rolling Average				
	Total RPI (\$ Millions)	Track Miles	Cost Per Track Mile	Year	Source	Inflation Index 5/	Total RPI (\$ Millions) 6/	Cost Per Track Mile 7/	% Difference From Average 8/	All Since Otter Tail 9/	Percent Change 10/	Five Most Recent 11/	Percent Change 12/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Cases Included in Simplified Standards													
1. Otter Tail	\$2,865	1,563	\$1,883,146	2005	1/	1.0730	\$3,074	\$1,966,823	-7.2%	xxx	xxx	xxx	xxx
2. Xcel	\$1,396	678	\$2,058,877	2005	1/	1.0730	\$1,498	\$2,209,304	4.3%	xxx	xxx	xxx	xxx
3. TMPA	\$4,850	2,403	\$2,018,220	2005	1/	1.0730	\$5,204	\$2,165,647	2.2%	xxx	xxx	xxx	xxx
4. PPL	\$618	296	\$2,086,374	2005	1/	1.0730	\$663	\$2,240,250	5.7%	xxx	xxx	xxx	xxx
5. WPL	\$3,713	1,765	\$2,103,695	2005	1/	1.0730	\$3,984	\$2,257,252	6.5%	\$2,167,855	xxx	\$2,167,855	xxx
Cases added by the STB in 2009													
6. AEP Texas	\$2,874	1,664	\$1,727,271	2000	2/	1.1651	\$3,349	\$2,012,444	-5.0%	\$2,141,953	-1%	\$2,176,979	0%
7. WFA	\$881	444	\$1,986,654	2004	3/	1.0864	\$957	\$2,158,301	1.9%	\$2,144,289	0%	\$2,166,779	0%
Cases decided since 2009													
8. AEPCO	\$6,979	3,599	\$1,939,508	2009	4/	1.0000	\$6,979	\$1,939,508	-8.5%	\$2,118,691	-1%	\$2,121,551	-2%
9. Average	xxx	xxx	xxx	xxx	xxx	xxx	xxx	\$2,118,691	xxx	xxx	xxx	xxx	xxx

SOURCE: "Summary of RPI in STB Decided Cases v2.xlsx" level "Data Update"

1/ EP 646, Simplified Standards, Sep. 4, 2007, Table A-1, p. 38

2/ Column (2): AEP Texas Decision, 9/10/07, Table D-1, p. 75, Column (3): AEP Texas Decision, 9/10/07, Appendix A, p. 27, Column (4): Column (2) ÷ Column (3) x 1,000,000

3/ Column (2): WFA Basin Decision, 2/17/09, Table C-1, p. 45, Column (3): WFA Basin 3rd Supp. Rebuttal, 8/15/08, p. III-B-3, Column (4): Column (2) ÷ Column (3) x 1,000,000

4/ Column (2): AEPCO Decision, 11/22/11, Table B-1, p. 81, Column (3): AEPCO Decision, 11/22/11, Table 2, p. 32, Column (4): Column (2) ÷ Column (3) x 1,000,000

5/ Index from Applicable year in Column (5) to 2009. Inflation Index based off of the Gross Domestic Product Deflator Inflation Calculator, Source: <http://cost.jsc.nasa.gov/inflateGDP.html>

6/ Column (2) x Column (7)

7/ Column (8) ÷ Column (3) x 1,000,000

8/ (Column (9) ÷ Column (9), Line 9) - 1

9/ Average of Column (9) values from Line 1 through current case

10/ (Column (11) ÷ Column (11), previous Line) - 1

11/ Average of Column (9) values for the 5 most recent cases, including the current case

12/ (Column (13) ÷ Column (13), previous Line) - 1

